Quantifiers and Referential Use*

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The referential uses of descriptions (both definite and indefinite) have received a great deal of scholarly attention. As a result, our knowledge of the linguistic data relevant to the study of such uses, as well as our grasp of the range of theories that may account for them, can be said to be fairly extensive. Referential uses of other quantified determiner phrases, by contrast, have certainly not been extensively considered by any means. This paper is a brief essay on referential uses of quantified determiner phrases in general. A number of mistaken beliefs seem to surround these uses in the literature that does consider them, including some misconceptions of the basic properties they exhibit. In particular, the currently received view appears to be that at most only referential uses of definite (and possibly indefinite) descriptions are frequent and standard, not requiring *recherché* contextual scenarios. The paper's first aim, pursued in section 1, is to develop with minimal detail the observation that, contrary to the received view, for all typical kinds of quantified determiner phrases (quantifier phrases, for short), referential uses are frequent and can be perfectly standard, arising in run-of-the-mill contextual scenarios.

A second aim of the paper, pursued in section 2, is to offer a preliminary, necessarily sketchy discussion of how these data constrain the feasible extensions of theories of descriptions to cover the referential uses of quantifier phrases in general. The received view that referential uses of quantifier phrases other than descriptions are different from referential uses of descriptions in the way just mentioned has lately provided great stimulus to views on which these latter uses, and especially those of definite descriptions, ought to receive a thoroughly semantic explanation. There are two reasons for this. First, if the two kinds of uses are substantively different in the mentioned way, the road is open for the suggestion that, even if the semantics of other quantifiers is strictly non-referential, the frequency and standardness of the referential uses of the definite (and possibly the indefinite) article reflect an appropriate semantic convention. Second, the purported differences suggest that while a standard pragmatic explanation of referential uses of quantifier phrases other than descriptions is required,

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such an explanation is unavailable in the case of referential uses of descriptions. My own view, motivated to a great extent by the observations of section 1, is that the data appear to be more complex than usually thought, and are far from unequivocally supporting a semantic explanation of referential uses of descriptions. Another motivation is my impression that fully pragmatic theories have at their disposal a simple apparatus of rarely heeded concepts and distinctions that can reasonably account for the standard, non-*recherché* character of many referential uses of quantifier phrases in general (including descriptions). In particular, a suggestion that emerges from the discussion in section 2 is that pragmatic theories might plausibly explain these uses as involving a genus of particularized conversational implicatures in which no conversational maxims are "flouted" or even violated, rather than generalized implicatures or particularized implicatures of Grice's "exploitative" type.

In the final section 3 I offer some brief comments on the question of whether or to what extent the preceding considerations favor any particular kind of theory of the referential uses of quantifier phrases over the others. I emphasize that I don't take the dispute between semantic and pragmatic theories of referential use to have been satisfactorily resolved as a result of the preceding discussion.

1. The referential uses of quantifier phrases

It is widely agreed that definite descriptions have both what Keith Donnellan (1966) called "referential" uses and what he called "attributive" uses. There is less than wide agreement as to what would be an exact, counterexample-free, theoretical characterization of the distinction. The rough idea, not intended to be free from counterexamples, is that with a referential use of a definite description *the F* a speaker intends to communicate, and typically successfully manages to communicate, a content that in some distinctive sense *involves* some *particular* object (or objects, in plural descriptions) that the speaker means to be the F; with an attributive use of *the F*, by contrast, a speaker intends to communicate, and typically successfully manages to communicate, a *general* content not involving (in the same distinctive sense) any particular object meant to be the F. Note that on this understanding the content of an utterance containing a description *the F* used attributively may in some cases be a not *purely* general content, i.e. may be a content involving some particular objects or others, and in fact even the object that turns out to be the denotation of *the F*. For example, suppose that, in an utterance of

The man among those over there who will get here first will get 10 dollars,

made by someone while pointing at three men she is looking at in plain view, those three men in the domain of quantification come to be involved in the content expressed, as seems reasonable to expect on standard assumptions about demonstratives. Then that content, though general, will not be a *purely* general content. On a Russellian account, e.g., this will be the not purely general content that (say) among *a*, *b* and *c* there is exactly one man who will get here first and will get 10 dollars. Still, this content will not be the content relevant to a referential use of the description "the man among those over there who will get here first", a content which must involve in the desired way the particular man who will get here first (imagine a use in which the speaker is thinking of one of the men in particular because she for some reason knows that he will get here first) and predicate of *him* that he will get 10 dollars.[1]

Vague and hard to pin down as the idea is, most would agree that they know a referential use when they see it. One of Donnellan's examples illustrates the distinction well. Consider the sentence

(1) The murderer of Smith is insane.

First think of (1) as uttered by police detective Jones as she comes upon the horribly mutilated dead body of Smith. Jones has no idea of who has murdered Smith, and as she makes her utterance she is not thinking of any particular person (other than Smith; but Jones is not thinking of Smith as his own murderer); she just wants to let it be known that she thinks that whoever killed Smith must be insane. Now suppose Jones and her colleagues arrest Peters and charge him with Smith's murder. Suppose further that

[1] When talking of the "attributive" use of descriptions, Donnellan had predominantly in mind cases in which the intuitive domain of quantification is highly unrestricted (such as the attributive use of (1) mentioned below in the main text), not cases where (as in the example just discussed) this domain is highly restricted or even restricted to a few objects in plain view. When I speak of attributive or non-referential uses, by contrast, I mean explicitly not to exclude such cases; to insist, the mark of attributivity of a use of *the F* in the sense relevant to the present discussion is merely that the speaker wishes to express a general content and is not thinking of a particular object as being the F.

Peters is in fact the murderer.[2] And finally suppose that he is standing trial and he frantically moves in the dock. Jones is in the courtroom and makes a new utterance of (1) while looking at Peters, wishing to let it be known that she thinks that *Peters* is insane. Jones' utterance of (1) in the murder scene contains an attributive, non-referential use of "the murderer of Smith"; her utterance of (1) in the courtroom contains a referential use of that same description.

Indefinite descriptions also give rise both to referential and attributive uses (on the obvious extended understanding of these expressions). Consider the sentence

(2) A man wearing big boots is stealing our lemons.

First think of (2) as uttered by me in the presence of my wife as we see our lemon tree thoroughly plundered and the footprints of big boots on the ground by the tree. I have no idea of who is stealing our lemons, and as I make my utterance I am not thinking of any particular person; I just want to let it be known that I think that someone or other who is wearing big boots is stealing our lemons. Now suppose someone else and her husband are watching as someone wearing big boots makes some suspicious moves around the garden where someone has been stealing their lemons. She then makes an utterance of (2) while looking at the man, wishing to let it be known that she thinks that *he* is stealing their lemons. My utterance of (2) contains an attributive use of "a man wearing big boots"; the woman's utterance of (2) contains a referential use of that same description.

It is also widely agreed that other quantifier phrases have both referential as well as attributive uses (on an obvious extended understanding of these expressions). It is

[2] Donnellan's original discussion relied heavily on cases of referential use of sentences of the form *The F is G* in which *F* is not (uniquely) satisfied by the object the speaker has in mind—cases of *misdescription*. In such cases, Donnellan appears to think that the relevant utterance of *The F is G* can still semantically express a true content, against a Russellian theory on which it would express a false content (and against a Fregean-Strawsonian theory on which it would fail to express a content with a truth value). In most of the recent literature, however, and in fact even in the literature more sympathetic to Donnellan, there seems to be an agreement that this aspect of Donnellan's view is to be rejected: *The F is G* does not semantically express a true content if *F* is not (uniquely) satisfied (possibly in some appropriately restricted domain), regardless of whether the use of *the F* is referential. In line with this tendency, I will take it for granted that *The F is G* never semantically expresses a true content unless *F* is (uniquely) satisfied, and that cases of misdescription are not relevant to the resolution of the debates I will be considering.

common to cite here some examples from Stephen Neale (1990) (adapted in turn from examples by Mark Sainsbury 1979 and Martin Davies 1981). The first example concerns “everyone”:

> Suppose it is common knowledge that Smith is the only person taking Jones’ seminar. One evening, Jones throws a party and Smith is the only person who turns up. A despondent Jones, when asked the next morning whether his party was well attended, says,
>
> [(3)] Well, everyone taking my seminar turned up
>
> fully intending to inform me that only Smith attended. (pp. 87-8)

Here Jones’ utterance of (3) contains a referential use of “everyone taking my seminar”, whereby Jones intends to communicate that *Smith* (and he alone) attended his party. (By contrast, imagine that Jones had uttered (3) in a different situation in which his seminar—a *web* seminar, as it happens—had been attended by many people he doesn’t really know, and he had thrown an end-of-term party for them that all of them attended, but that neither Jones nor his audience managed to attend; this utterance of (3) would contain an attributive use of “everyone taking my seminar”.) The second example concerns the quantifier “most”:

> Suppose that Scott Soames, David Lewis, and I are the only three people in Lewis’s office. Soames has never played cricket and knows that I know this. In addition, Soames wants to know whether Lewis and I have ever played cricket, so I say
>
> [(4)] Most people in this room have played cricket
>
> fully intending to communicate to Soames that Lewis and I have both played cricket. (p. 88)

Here Neale’s utterance of (4) contains a referential use of “most people in this room”, by means of which he intends to communicate to Soames that *Neale* and *Lewis* have played cricket before. (By contrast, imagine that Neale had uttered (4) in a situation in which he had just been given the results of a poll on cricket-playing habits conducted among the numerous occupants of a large room he hasn’t even seen; this utterance of (4) would contain an attributive use of “most people in this room”.)

It is a common observation, made e.g. by Marga Reimer (1998, 96, 99 n.24), Kent Bach (2004, 226), Michael Devitt (2004, 283), Neale (2004, 173), and Peter Ludlow and Neale (2006, 304), that these examples of referential uses of quantifier phrases other than descriptions are substantively different from usual examples of referential uses of definite (and for some authors, also indefinite) descriptions. Those examples (unlike, say, the example of referential use of (1) above) seem to have an air of *abnormality* or *nonstandardness*. The point is also put in a perhaps more risky way from an empirical point of view, saying that referential uses of quantifier phrases other than descriptions (which are assumed to be relevantly similar to the examples involving (3) and (4)) would seem to be comparatively *infrequent* in real communication (unlike referential uses of descriptions, which are assumed to be predominantly relevantly similar to the example involving (1)).

These observations seem correct, and there are natural reasons why they should be correct. First, the relevant utterances of (3) and (4), unlike the relevant utterance of (1), are able to communicate the intended contents only in virtue of their being embedded in contextual setups where certain assumptions must be common to speaker and audience which will not be straightforwardly recoverable from the physical setup of the conversation, and which will in fact be rather special. Second, in these examples the speaker makes a deliberately quirky utterance given the direction and purposes of the conversation, and in fact an utterance which requires from the audience the actual performance of a slightly sophisticated inference. Thus, in the case of the utterance of (3), it must be common knowledge that Smith is the only person taking Jones' seminar, but this is certainly a rather special piece of information that Jones could not straightforwardly assume to be possessed by a typical interlocutor who joins the conversational setup; in the case of (4), Neale must know that Soames knows that Neale knows that Soames has never played cricket, which is again hardly a piece of information Neale could straightforwardly assume to be possessed by a typical interlocutor who joins the conversation (perhaps from outside Lewis's office). Further, it would seem that if Jones' audience recognizes Jones' intent, this will be because they as a matter of fact carry out the moderately sophisticated inference that the relevant content involving Smith follows from the content of Jones' initially odd utterance (odd, that is, given that he had been asked how many people attended his party) and from the piece of common knowledge about Smith being the only person taking the seminar; similarly, Soames must actually do a moderate bit of inferring from (the content of) Neale's quirky utterance and from his knowledge of Neale's beliefs about him.[3]

[3] As Neale puts it, "The natural thing to say is that given his background beliefs and given the quantificational proposition expressed by my utterance in the context in question, Soames was able to infer the truth of a particular object-dependent proposition" (1990, 88).

From the mentioned observations concerning the common examples of referential uses of quantifier phrases other than descriptions, the mentioned authors invariably conclude the stronger claim that referential uses of quantifier phrases other than descriptions are not frequent and at any rate are abnormal or nonstandard. But I think this conclusion is wrong.

Let's go back to Smith's murder case, but let's imagine that the police investigation developed somewhat differently. Now we are to imagine that Jones and her colleagues arrested seven people, Adams, Barnes, Crane, Daniels, Evans, Foster and Green, and charged all of them with Smith's murder; according to the police, they all acted together and played comparable roles in the brutal slaying, and we can suppose that the police are right. Imagine further that Adams, Barnes, Crane, Daniels, Evans, Foster and Green are now standing trial at the dock, and that Jones is again present in the courtroom. Consider the following sentences:

(5) (a) Every murderer of Smith is insane.
(b) Every guy at the dock is insane.
(6) (a) Most murderers of Smith are insane.
(b) Most guys at the dock are insane
(7) (a) Many murderers of Smith are insane.
(b) Many guys at the dock are insane.
(8) (a) Several murderers of Smith are insane.
(b) Several guys at the dock are insane.
(9) (a) Some murderers of Smith are insane.
(b) Some guys at the dock are insane.
(10) (a) A few murderers of Smith are insane.
(b) A few guys at the dock are insane.

It is of course easy to imagine utterances of (5)-(10) by which an utterer would not be attempting to communicate contents about any particular persons. But I think it's also easy (and I would say *easier*) to see how, if some of the detainees at the dock behave in suitable ways, Jones can use the quantifier phrases in all of these sentences of the form [Q_x: *x is a murderer of Smith*] *x is insane*[4] intending to communicate, and successfully

[4] In order to make some general claims about referential uses of quantifier phrases here and in what follows, we can assume that the relevant sentences have this or some similar formal representation at some deep level of linguistic structure. Having introduced this notation will also help when we discuss some views of referential uses in section 2. As usual, the notation [Q_x: F] symbolizes Q as a restricted quantifier (restricted to F, that is) which combines with a formula G to form a quantified formula [Q_x: F] G in which all occurrences of x are bound. The satisfaction conditions for such formulas with respect to sequences are analogous for the different quantifiers. For example, a sequence s satisfies

communicating, a variety of contents involving some particular detainees, meaning in each case that those particular detainees are or provide [Q_x: *x is a murderer of Smith*]; and hence it is mandatory to view the corresponding utterances as containing referential uses of the corresponding quantifier phrases.

Imagine first that all the detainees are moving frantically in the dock. Jones may then make an utterance of either (5a) or (5b) intending to communicate, and successfully managing to communicate to an interlocutor sitting next to her in the courtroom, that *Adams, Barnes, Crane, Daniels, Evans, Foster* and *Green* are insane. Jones' utterance of (5a) thus contains a referential use of "every murderer of Smith" and her utterance of (5b) contains a referential use of "every guy at the dock". Second, imagine that Adams, Barnes, Crane, Daniels and Evans are moving frantically in the dock, while Foster and Green are calmly seated. If Jones then makes an utterance of either (6a), (6b), (7a), (7b), (8a) or (8b) intending to communicate that *Adams, Barnes, Crane, Daniels* and *Evans* are insane, she will successfully manage to communicate precisely that to an interlocutor sitting next to her in the courtroom. Jones' utterances of (6a), (6b), (7a), (7b), (8a) or (8b) contain referential uses of "most murderers of Smith", "most guys at the dock", "many murderers of Smith", "many guys at the dock", "several murderers of Smith" and "several guys at the dock", respectively. Finally, imagine that it is Evans, Foster and Green who move frantically in the dock while Adams, Barnes, Crane and Daniels are calmly seated. Jones may make an utterance of either (9a), (9b), (10a) or (10b) intending to communicate, and successfully managing to communicate to an interlocutor sitting next to her in the courtroom, that *Evans, Foster* and *Green* are insane. Jones' utterances of (9a), (9b), (10a) and (10b) contain referential uses of "some murderers of Smith", "some guys at the dock", "a few murderers of Smith" and "a few guys at the dock", respectively.

However, I think it is clear that these referential uses of the quantifier phrases in (5)-(10) are not of an infrequent kind; or at any rate, they are not of any relevant kind less frequent than any relevant kind to which the referential use of "the murderer of Smith" in the relevant utterance of (1) above belongs. Nor are they abnormal or nonstandard; or at any rate, they are not abnormal or nonstandard in any sense in which

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[the_x: F] G iff the sequence satisfying F and differing from s at most at "x" also satisfies G (or, on a Russellian view, iff there is exactly one sequence satisfying F and differing from s at most at "x" which also satisfies G). A sequence s satisfies [$many_x$: F] G iff many sequences satisfying F and differing from s at most at "x" also satisfy G. And so on.

the referential use of “the murderer of Smith” in the relevant utterance of (1) above would not be similarly abnormal or nonstandard. If these impressions are correct—and even if (to my surprise) they weren’t—there are good reasons why they should be. For those utterances do not seem to be able to communicate the intended contents only in virtue of their being embedded in special contextual setups or in virtue of the audience’s ability to navigate inferentially from a quirky utterance on the part of the speaker; or, at any rate, they do not seem to be able to communicate the intended contents in virtue of any feature of context and audience differing substantively from corresponding features of the context and audience in the case of the referential use of “the murderer of Smith” in the relevant utterance of (1) above. I think these claims are evident even already, but let me develop them briefly.

Arguably, there is nothing special about the contextual setups of the relevant utterances of (5)-(10). In particular, there is no semi-occult piece of information that must be common knowledge between Jones and her audience in order for the communication of suitable contents involving particular individuals to occur successfully. There are certainly many bits of information that must be common knowledge, as in any successful communicative event, but these would not seem to be substantively different from the fairly obvious bits of information that are required to be common knowledge in the case of the relevant utterance of (1): faced with an utterance of one of the sentences of the form [Q_x: *x is a murderer of Smith*] *x is insane* above, both Jones and her audience must know or be able to easily work out that the particular persons involved in the relevant communicated content are or provide, or are believed to be or provide, [Q_x: *x is a murderer of Smith*], just as in the earlier case both Jones and her audience must know or be able to easily work out that the person at the dock (Peters) is, or is believed to be, the unique murderer; and of course in all cases both Jones and her audience must assume that moving frantically in such a situation is a probable sign of insanity. But hardly more than this would seem to be required as common knowledge.

Presumably in part because of the rather non-special nature of the contextual setups of the imagined utterances of (5)-(10), a typical interlocutor of Jones will not need to exercise any inferential ability in order to grasp the contents involving particular persons that Jones intends to communicate; or, at any rate, such an interlocutor will not need to exercise any kind of inferential ability in the case of these utterances that he did not exercise in the case of the relevant utterance of (1). For example, as he hears Jones’ utterance of (5a) and sees the people at the dock moving frantically, he will non-inferentially grasp that Jones intends to communicate to him that those people are insane, just as in the case of an utterance of (1) in the setup above he will non-inferentially grasp that Jones intends to communicate to him that Peters is insane. There would seem to be little if any role for inference also in the grasp by such an interlocutor of the intended contents of the imagined utterances of (5b) and (6)-(10).

The non-special character of the contextual setups for the imagined utterances of (5)-(10) and the ready accessibility of the communicated content to a typical interlocutor in the setups surely play a part in the impression that they are perfectly normal, standard utterances, lacking the air of quirkiness of the imagined utterances of (3) and (4). (At any rate, as noted above, it's hard to see in what way they would be less normal or standard than the relevant utterance of (1).) Presumably these characteristics of the setups and of what is required of the audience explain also to a large extent the impression that the imagined utterances of (5)-(10) are more frequent in kind than utterances relevantly similar to the imagined utterances of (3) and (4). (But perhaps only a large empirical study could fully confirm that cases of referential use involving special setups and requiring the exercise of moderately sophisticated inferential abilities on the part of the audience are in fact less frequent than uses such as those in the imagined utterances of (5)-(10), much as the former uses have an intuitive air of abnormality.)

It is worth noting that referential uses of descriptions may be of the presumably infrequent, nonstandard kind. Let's go back to the first Neale scenario and suppose Jones had instead uttered

(3') Well, the people taking my seminar turned up.

Surely with this utterance Jones could have fully intended to communicate to Neale that Smith (and only Smith) attended the party, but the utterance surely sounds odd given the setup. In fact, in this setup communication of the content involving Smith, while surely feasible, clearly requires the performance of an inference, however modest, on Neale's part—one allowing him to grasp that what Jones means is that Smith (and only Smith) attended the party. Or suppose Soames and Neale are having a conversation in Princeton in the late 1980's and Soames wants to know who among his acquaintances has played cricket; suppose further that at the time of Soames's and Neale's conversation Lewis is the only Princeton philosopher lecturing abroad, and this is vaguely remembered by Princeton philosophers; imagine Neale utters

(4’) The Princeton philosopher who is now lecturing abroad has played cricket,

fully intending to communicate to Soames that Lewis has played cricket before. The utterance sounds pretty quirky again, and communicative success, while surely feasible, clearly requires the performance of an inference, however modest, on Soames’s part—one allowing him to grasp that what Neale means is that Lewis has played cricket.

The claim that referential uses of quantifier phrases other than descriptions are frequent, can be perfectly standard and don’t require special scenarios, can be further bolstered with the help of many other examples. Let me give another three batches, just to give a sense of how easy it is to generate such examples.

Let’s first move to the other favorite Donnellanian scenario, a party where champagne and cocktails are offered. In an example of Kripke’s inspired by a similar one of Donnellan’s, we are to suppose that one of the men in a bunch of people at the party is drinking champagne,[5] and he looks happy; then a watcher can intend to communicate to a companion that *that man* is happy by uttering *The man drinking champagne over there is happy*, and easily do so. Let’s consider the following variations on Kripke’s example:

(11) Every man drinking champagne over there is happy.
(12) Most men drinking champagne over there are happy.
(13) Many men drinking champagne over there are happy.
(14) Several men drinking champagne over there are happy.
(15) Some men drinking champagne over there are happy.
(16) A few men drinking champagne over there are happy.

Now think of the watcher and a companion of hers looking amusedly at a small bunch of men, *a, b, c, d* and *e,* all drinking champagne. First, imagine that all of the champagne drinking men give evident signs of happiness, and the watcher then makes an utterance of (11). The watcher may intend to communicate, and will at any rate successfully manage to communicate to her interlocutor, that *a, b, c, d* and *e* are happy. This utterance contains a referential use of “every man drinking champagne over there”. Next imagine that it’s *a, b, c* and *d* that look happy, but *e* conspicuously doesn’t, and the watcher makes an utterance of either (12), (13) or (14) intending to communicate, and

[5] As recalled above, Donnellan’s discussion emphasizes the possibility, now widely thought to be irrelevant, that the man is not really drinking what the watchers think he is drinking (a martini, in Donnellan’s example).

successfully managing to communicate to her interlocutor, that *a, b, c* and *d* are happy. These utterances contain referential uses of “most men drinking champagne over there”, “many men drinking champagne over there” and “several men drinking champagne over there”, respectively. Finally, imagine that it’s only *a* and *b* that look conspicuously happy, and the watcher makes an utterance of either (15) or (16) intending to communicate, and successfully managing to communicate to her interlocutor, that *a* and *b* are happy. These utterances contain referential uses of “some men drinking champagne over there” and “a few men drinking champagne over there”, respectively. Again I think it will seem fairly clear that the setup doesn’t require special common assumptions or the performance of even moderately sophisticated inferences on the part of the audience, nor do the utterances have any air of nonstandardness or of being of an infrequent kind.

Let’s now turn to an even more undistinguished context than the ones considered so far, the local supermarket. Imagine that my wife and I are have just opened for inspection a carton of half-a-dozen eggs we intend to buy, and consider these sentences:

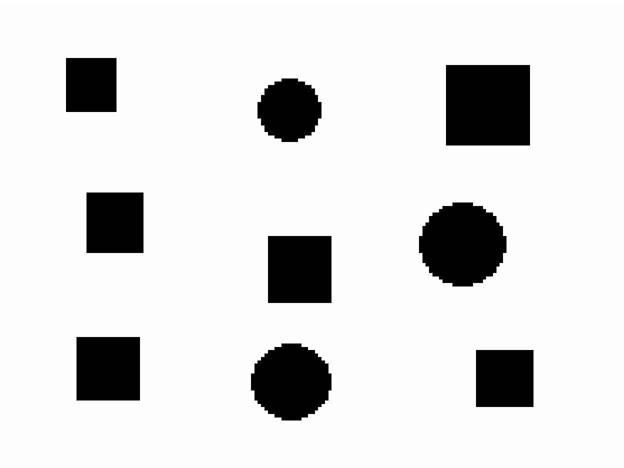
(17) Every egg is broken.
(18) Most eggs are broken.
(19) Many eggs are broken.
(20) Several eggs are broken.
(21) Some eggs are broken.
(22) A few eggs are broken.

Suppose first that every egg in the carton we are looking at is evidently broken. If I then make an utterance of (17) intending to communicate to my wife that the eggs e1, e2, e3, e4, e5 and e6 (as we may call them) are broken, I will surely be successful in doing so. This utterance contains a referential use of “every egg”. Suppose now that e1, e2, e3 and e4 are evidently broken. My wife may make an utterance of either (18), (19) or (20) intending to communicate, and successfully managing to communicate to me, that e1, e2, e3 and e4 are broken. These utterances contain referential uses of “most eggs”, “many eggs” and “several eggs”, respectively. Finally, if only e1 and e2 are broken, I may make an utterance of either (21) or (22) intending to communicate, and successfully managing to communicate to my wife, that e1 and e2 are broken. These utterances contain referential uses of “some eggs” and “a few eggs”, respectively. Once more it seems clear that the setup is not particularly special or requires the exercise of even moderately sophisticated abilities on the part of the interlocutors, and the utterances do not have any appearance of nonstandardness or of being infrequent in kind.[6]

Here is a final bunch of examples involving a non-special setup and lacking an appearance of nonstandardness or infrequency in kind. Consider the following sentences:

(23) Every figure is black.
(24) Most figures are squares.
(25) Many figures are squares.
(26) Several figures are circles.
(27) Some figures are circles.
(28) A few figures are circles.

Now think of two people contemplating the following drawing as they calmly describe what they see. (As in the vast majority of Donnellan's original examples, we need not suppose that the interlocutors are engaging in anything more ambitious than calling each other's attention to aspects of what they see.) Call the figures, from left to right and from top to bottom, A, B, C, D, E, F, G, H and I.



One of the interlocutors may make an utterance of (23) intending to communicate, and successfully managing to communicate to his interlocutor, that *A, B, C, D, E, F, G,*

[6] Given that several authors already take indefinite descriptions to have frequent and standard referential uses, I have not emphasized this fact again with new examples. But note, e.g., that in the murderers' setup, if only Adams is moving frantically, Jones can utter *A murderer of Smith is insane* and successfully communicate that Adams is insane; that in the party setup, if only *a* looks happy, the watcher can utter *A man drinking champagne over there is happy* and successfully communicate that *a* is happy; and that in the supermarket setup, if only e1 is broken, I can utter *An egg is broken* and successfully communicate that e1 is broken. All these are perfectly standard referential uses.

H and *I* are black. This utterance contains a referential use of “every figure”. One of the interlocutors may make an utterance of either (24) or (25) intending to communicate, and successfully managing to communicate to his interlocutor, that *A*, *C*, *D*, *E*, *G* and *I* are squares. These utterances contain referential uses of “most figures” and “many figures”, respectively. Finally, one of the interlocutors may make an utterance of either (26), (27) or (28) intending to communicate, and successfully managing to communicate to his interlocutor, that *B*, *F* and *H* are circles. These utterances contain referential uses of “several figures”, “some figures”, and “a few figures”, respectively.

It is tempting to conjecture that a sufficient condition for a referential use of a quantifier phrase $[Q_x: Fx]$ in an utterance of a sentence $[Q_x: Fx]\ Gx$ to be of the frequent, standard kind is that the particular object or objects about which the speaker intends to communicate that they are *Gs* and of which the speaker means that they are or provide $[Q_x: Fx]$ are objects in plain view of speaker and audience, that the fact that those objects are or provide $[Q_x: Fx]$ is non-inferentially clear to speaker and audience, and that the fact that they are *Gs* is non-inferentially clear to speaker and audience. The question of what might be jointly necessary and sufficient conditions for a referential use of a quantifier phrase to be standard and of the frequent kind is bound to be harder to ascertain.

2. Constraining theories of referential uses

There are broadly three kinds of theories of referential uses of descriptions, which we might call *ambiguity* theories, *contextualist* theories and *pragmatic* theories. Ambiguity and contextualist theories postulate that the contents involving particular objects which are characteristically communicated in referential uses are literally or semantically expressed by the relevant utterances. Pragmatic theories postulate that these contents are not semantically expressed in these uses (or at least in the vast majority of them[7]), and are conveyed via some pragmatic mechanism from the literally expressed contents, which do not involve particular objects in the relevant way. The common view that referential uses of quantifier phrases other than descriptions are different from referential uses of descriptions in the way recalled in section 1 has recently given much impetus to ambiguity and contextualist theories of referential uses of descriptions. One reason, discussed in subsection 2.1 below, is that, while the semantics of other

[7] On the reason for this parenthetical qualification see subsection 2.2 below.

quantifier phrases has generally always been thought to be strictly non-referential, the phenomena of standardness and frequency of their referential uses suggest that definite (and possibly indefinite) descriptions might exemplify different semantic conventions. A second reason, discussed in subsection 2.2, is that the alleged differences between the referential uses of descriptions and those of other quantifier phrases suggest that a pragmatic explanation of referential uses of descriptions is not possible, even if it is feasible or even compulsory for referential uses of other quantifier phrases. In this section I will question the adequacy of these reasons, and suggest that the situation is less clear-cut than has lately been thought. Much of this discussion appeals to the data from section 1 in order to state a number of constraints on the extensions of theories of descriptions to cover the referential uses of quantifier phrases in general.

2. 1. Ambiguity and contextualist theories

Ambiguity theories of referential uses of definite descriptions postulate that the definite article “the” is lexically ambiguous as between an attributive meaning and a referential meaning (*mutatis mutandis* for indefinite descriptions, here and in what follows). When a speaker uses a definite description, she typically uses it either with an intention to use it attributively or with an intention to use it referentially, and the audience must disambiguate occurrences of “the” as a part of the process of communication involving utterances containing it, just as one must disambiguate occurrences of “bank” in communicative utterances containing it. At least for a good many years, ambiguity theories of definite descriptions were often thought to face a big problem in the existence of referential uses of other quantifier phrases of the kind illustrated by the examples involving (3) and (4): if the phenomenon of referential use takes place across the whole range of quantifier phrases, then it’s reasonable to expect that a common explanation for all quantifiers would be needed; but the postulation of a whole range of ambiguities involving many quantifiers would then seem methodologically unattractive and in need of substantive additional motivation, at least if some full pragmatic explanation of the same common phenomenon is available. And for a good many years, it was often thought that such a pragmatic explanation was available (see subsection 2.2 below).

However, in recent times the methodological problem of ambiguity theories has been thought by many to be only apparent. As noted in section 1, referential uses of quantifier phrases other than descriptions have been thought by many recent authors to be instances of a phenomenon significantly different from the phenomenon of referential uses of descriptions. In particular, it has been thought that referential uses of quantifier phrases other than descriptions are nonstandard and of an infrequent kind. Referential uses of descriptions, being frequent and standard, would then seem to be more plausibly explainable as relying on, or perhaps just being part of the conformation of, a distinctive referential meaning for the definite article without counterparts in other quantifiers (except possibly the indefinite article). This view is embraced by Reimer (1998) and Devitt (2004, 2007), and is considered the most likely account (in view of these authors' arguments) in the recent textbook by Barbara Abbott (2010). Furthermore, the observation that referential uses of descriptions are frequent and standard at any rate strongly suggests that these uses cannot have the pragmatic explanation that the infrequent nonstandard referential uses of other quantifier phrases is bound to have (see subsection 2.2 below). So it now appears somewhat common to think that the former use is simply not amenable to a pragmatic account.[8]

But the data reviewed in section 1 suggest that, as far as frequency and standardness are concerned, the phenomenon of referential uses of quantifier phrases other than descriptions is not significantly different from the phenomenon of referential uses of definite descriptions, after all: all usual quantifiers give rise both to referential uses of a standard, presumably frequent kind, and to referential uses of a nonstandard, presumably infrequent kind. Consequently I think that, at least provided that some common pragmatic explanation can be given of the referential use of quantifier phrases in general, the situation will in fact be what it was generally thought to be for many

[8] In this connection both Devitt (2004, 2007) and Reimer (1998) give another influential consideration, based on the existence of "dead metaphors". To use Reimer's example, the verb "to incense" originally meant and still means to perfume by burning incense, but now has an additional meaning, "to make angry", derived from the standardization of the "incendiary" metaphor. The initially metaphorical meaning can surely be pragmatically worked out by a person competent with the original meaning, even if he is unfamiliar with the fact that the metaphor is now dead and the metaphorical meaning is now a literal meaning. But this pragmatic derivability of the initially metaphorical meaning surely does not imply that it is still purely metaphorical. Similarly, Devitt and Reimer claim, even if someone can pragmatically work out a referential use of a description from its attributive meaning, this would not mean that the referential use is not literal. According to Devitt and Reimer, this places a heavy burden on pragmatic explanations of referential use: they must show that pragmatic explanations are not merely possible, but somehow necessary—a burden that according to Devitt and Reimer has not been lifted. See a later note for a remark on these claims.

years. This does not imply by itself that, even if the proviso about the existence of a pragmatic explanation can be met, ambiguity theories must be wrong, or even that they face an insuperable difficulty. But it does imply the constraint that ambiguity theories of definite descriptions must be extended via the postulation of similar ambiguities across the whole range of usual quantifiers. This postulation would thus appear to face the same problems of methodological motivation that it was for many years thought to face, at least if some full pragmatic explanation of the same common phenomenon is indeed available.[9] And I myself think that there is in principle no obstacle to such a pragmatic explanation, as I will explain below (in subsection 2.2).

Some slightly more specific worries suggested by the similarities across the whole range of quantifiers affect particular ambiguity theories. Perhaps the best recent ambiguity theory is Devitt's (2004, 2007). On this theory, the definite article has a meaning on which it works essentially as a demonstrative, and definite descriptions used referentially are essentially complex demonstratives. A description *the F* used with its referential meaning has an associated conventional rule that fixes the reference of an utterance of it in a context as the unique F that the utterance is "causally grounded in by perception" (2004, 292);[10] then (in felicitous uses) the object itself comes to be involved in the literally expressed content, but the quantificational aspect that appears at the reference-fixing level does not make it into the literally expressed content. (By contrast,

[9] There are several other somewhat indirect considerations against ambiguity theories. For example, as emphasized, e.g., by Kripke (1977) and Bach (2004), if the definite article were ambiguous, one would expect the ambiguity to be reflected in the existence in other languages of pairs of different words corresponding to its two meanings in English, but there is at best only flimsy evidence for this.

[10] Recall that definite descriptions have referential uses of the infrequent, nonstandard kind, as pointed out in the discussion of examples (3') and (4'). Note that in these examples a definite description is being used referentially, and yet the audience can only work this out not by grasping how the utterance hints at some object that it (the utterance) is "causally grounded in by perception", but via a process apparently similar to that for working out particularized conversational implicatures of the "exploitative" type (see subsection 2.2 below). The definite description is certainly not used here as a demonstrative. Thus it is not the case that referential uses of descriptions group together into the frequent and standard kind, and therefore if the definite article is to be held to be ambiguous as between a referential and a non-referential meaning, it must be held also that not all referential uses of definite descriptions fall under the referential meaning of the definite article. This seems a bit odd, for one might have expected to be enough for a speaker to use the definite article with its referential meaning that she should use it with the intention to use it referentially. Theories like Devitt's must hold that use of the article with its referential meaning requires more than a referential intention.

if *the F* is used attributively, the expressed content is quantificational, and does not involve a particular object in the relevant way.) One worry is then that in order to account for the presumably frequent and perfectly standard use of phrases of the form *every F* or *most Fs* to communicate contents about particular objects (meant to provide every F or most Fs), such a theory ought to postulate meanings for “every” and “most” on which phrases of the form *every F* or *most Fs* work essentially as demonstratives, with suitable associated conventional rules fixing the reference in context of *every F* and *most Fs*. However, such a proposal, even if it turned out to be ultimately correct, would at this point appear to lack an independent motivation coming from semantic studies of the quantifiers.[11]

Contextualist theories postulate that the definite article is not ambiguous, having the same abstract meaning in all its uses. However, they postulate that this meaning must be supplemented by some concrete aspect of the context of utterance (in a very broad understanding of “context”), as a function of which the utterance of a definite description *the F* will literally express either a content involving some particular object or objects (that the speaker means to be the F) or a general content not involving particular objects (meant by the speaker to be the F). These theories differ substantively from ambiguity theories in that they always postulate that an utterance of a definite description *the F* must express a distinctively quantificational component which is (part of) its minimal meaning; in non-referential uses this quantificational meaning is more or less left to stand alone and in referential uses it is somehow supplemented by a relevant object or objects (meant to be the F) or at least some “*de re* mode of presentation” of such object or objects.

The aspects as a function of which the utterance of a definite description will literally express either a general content or a content also involving some particular object or objects (meant to satisfy the description), as well as the details of the mechanism by which the supplementation proceeds in each case, vary somewhat with the different theories of this kind. In François Recanati (1989, 1993) the relevant aspect appears to be simply an intention on the part of the utterer, namely the intention whether to use the relevant description referentially or attributively. In Anne Bezuidenhout

[11] By contrast, I am sympathetic to the idea that some quantifiers, such as “most”, “many” and “all” (but not “every” or “the”), have bare pronominal uses with many characteristics of demonstratives, including aspects of reference fixing and modal profile. See Gómez-Torrente (2008) for some brief remarks on this question.

(1997) and George Powell (2001), the relevant aspect seems to be a more complex cluster of things, which includes speaker intentions that the audience grasp the relevance to utterance interpretation of some favored “mode of presentation” or “individual concept”; this may be quite general and inspecific (in attributive uses) or quite particular and specific (in referential uses).

A typical complaint against these contextualist theories is that they don’t make it quite clear how a content involving particular objects is generated from the basic quantificational meaning in referential uses. The mystery is compounded when one notes that in all uses there must be at least a nucleus of quantificational meaning involved and literally expressed; how is this possible in referential cases, where the literally expressed content is supposed to involve some particular object or objects? (The typical ambiguity theorist doesn’t have this problem, for he is free to postulate that the contents expressed in attributive uses and those expressed in referential uses are of thoroughly different kinds, the latter ones not needing to involve any quantificational component.)

Neale (2004, 171ff.; see also Ludlow and Neale 2006, 303) proposes a contextualist theory designed in part to avoid this complaint (similar theories are embraced or viewed with sympathy by Paul Elbourne 2005 and John Hawthorne and David Manley 2012). The idea is that the content literally expressed depends on the presence (in referential uses) or the absence (in non-referential uses) of an intended, largely non-descriptive, referential *completion* that effects a domain restriction of the description’s matrix to a single individual (or designated group of individuals, in plural uses). Thus, for example, in the relevant referential use of (1) above, Neale says that a formal representation of the content literally expressed would look like this:

[the_x: *x is a murderer of Smith* & $x{=}a$] *x is insane*,

where *a* is some kind of representation that refers in some fairly non-descriptive way to the particular person at the dock. The completion “& $x{=}a$” would once more be provided by the speaker’s intentions.

One quite general source of methodological dissatisfaction with contextualist theories of descriptions, analogous to the methodological source of dissatisfaction with ambiguity theories, is that contextualist theories must postulate fairly more sophisticated meanings or “semantic potentials” for the definite article than pragmatic theories. (In ambiguity theories, the dissatisfaction is that they postulate *more* meanings than pragmatic theories.) On a pragmatic theory, the definite article merely has the potential to generate a semantically expressed content of the quantificational kind (possibly involving some standard determinant of quantifier domain restriction); on a contextualist theory, the definite article must have a separate potential to generate a semantically expressed content of the kind that involves particular objects in the desired way (and if it does this via domain restriction, it must be via a rather special intended restriction to a single object[12]). However, for the same reasons as in the case of ambiguity theories, in recent times this methodological dissatisfaction has been thought by many to be only apparent. If referential uses of quantifier phrases other than descriptions are instances of a phenomenon significantly different from the phenomenon of referential use of definite descriptions, then it would not appear to be so objectionable methodologically to propose that the meaning or "semantic potential" of the definite article should be in a sophisticated class of its own (or perhaps one including only the indefinite article also). If referential uses of quantifier phrases other than descriptions are nonstandard and of an infrequent kind, the frequent and standard referential uses of descriptions are more plausibly explainable as relying on a distinctive referential "semantic potential" of the definite article without counterparts in other quantifiers (except perhaps the indefinite article). But once again, since the data reviewed in section 1 are suggestive of fairly strict similarities between definite descriptions and other quantifier phrases, I think the methodological worry stands. (Again, modulo the supposition, vindicated in subsection 2.2 below, that some fully pragmatic explanation of the same common phenomenon is indeed available.)

The contextualist literature barely considers the general quantifier case (unlike the initial polemical literature between ambiguity theorists and pragmatic theorists). But

[12] An intended restriction to a single object does seem rather special particularly in cases (of referential use of the frequent, standard kind) where the speaker's intended domain restriction is explicitly not one to a single object. Thus, if in the party scenario one of the champagne-drinking men is wearing a pink suit and looks conspicuously drunk, and the watcher makes an utterance of

The man wearing a pink suit among those over there is drunk,

it would seem that it is unmotivated to postulate that the speaker somehow intends a further restriction via the property of being identical to that man, let alone one that the meaning of the definite article somehow forces her to provide given her intentions. Thus in such cases there are even clearer problems of motivation for postulating that the intuitively conveyed content involving that man (as wearing a pink suit and being drunk) is literally expressed by the watcher's utterance.

given that referential uses of quantifier phrases in general appear to be essentially analogous to referential uses of descriptions, a reasonable constraint on contextualist proposals about descriptions must be that they are to be extended to analogous accounts of referential uses of quantifier phrases in general. This suggests a more substantive worry for what seem to be the best kind of proposals of this type, those in the spirit of Neale's suggestion. The worry is that, while the device of domain-restricting referential completions of the quantifier matrix appears to yield the intuitively correct referential truth conditions in the case of utterances containing definite descriptions, it is dubious that it can do so for all quantifiers susceptible of (frequent and standard) referential uses.

Thus, consider the relevant referential utterance of (6a). The matrix completions that immediately suggest themselves,

> [$most_x$: *x is a murderer of Smith* & (*x*=*Adams* v *x*=*Barnes* v *x*=*Crane* v *x*=*Daniels* v *x*=*Evans* v *x*=*Foster* v *x*=*Green*)] *x is insane*

and

> [$most_x$: *x is a murderer of Smith* & (*x*=*Adams* v *x*=*Barnes* v *x*=*Crane* v *x*=*Daniels* v *x*=*Evans*)] *x is insane*,

don't have the intuitively desired truth conditions; neither expresses a condition sufficient for Adams, Barnes, Crane, Daniels *and* Evans to be insane. The examples (7)-(10) give rise to similar problems.[13] In general, in many of these examples it just does not appear to be the case that the communication of the relevant content involving particular objects in the desired way is a matter of domain restriction, let alone one of "referential" domain restriction. Of course, the content that the particular individuals we are interested in in each case are insane can be added outside the quantifier matrix. But resorting to this would appear to deprive the proposal for quantifiers in general of the motivation it has for the definite article, which is to indicate how the quantificational, "general" aspect of the meaning of the article interacts in a systematic, non-vacuous

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[13] By contrast, "every" seems amenable to the completion treatment:

> [$every_x$: *x is a murderer of Smith* & (*x*=*Adams* v *x*=*Barnes* v *x*=*Crane* v *x*=*Daniels* v *x*=*Evans* v *x*=*Foster* v *x*=*Green*)] *x is insane*

seems to have the intuitive truth conditions of the intended content communicated by a referential use of (5a).

way with the “particular” aspect of content in the truth conditions of referentially used utterances of sentences containing descriptions. Surely contents involving particular objects must appear somehow in the theoretical picture, but to postulate that they just pop up without significant interaction with the quantifiers ought to seem non-explanatory from within the contextualist frame of mind.

2. 2. Pragmatic theories

Pragmatic theories of the referential uses of definite descriptions propose that these are not ambiguous and are not sensitive to a contextual aspect as a function of which they come to literally express particular or general contents. (But they are compatible with the possibility that they may be context-sensitive in some more standard way, e.g. that they may be sensitive to some contextual determinant restricting the domain of quantification.) Instead, pragmatic theories propose that an utterance containing a definite description used referentially will in the vast majority of cases literally express a content that is not the communicated content involving in the desired way the relevant particular object(s), but that the audience typically can and do grasp this content via some pragmatic mechanism.

Note that this characterization is deliberately compatible both with the possibility that on a pragmatic theory the content of an utterance containing a referentially used description may be a not purely general content (even a content that somehow involves the object denoted by the description), and with the possibility that a pragmatic theory may accept that in some (presumably rare) cases the communicated content involving a particular object is the same as the semantically expressed content. As for the first possibility, simply recall our example from section 1 involving the description “the man among those over there who will get here first”. As for the second possibility, think of a similar example, in which there is in fact just one man in plain view that the speaker is looking at, and she now makes an (arch) utterance of

The man identical to that man will get 10 dollars, It is open to the pragmatic theorist, as understood here, to accept that a content involving in the desired way that particular man, which is presumably communicated by this utterance, is also semantically expressed by it.[14]

The data in section 1 again suggest that pragmatic theories must work under the constraint that referential uses of descriptions and of other quantifier phrases ought to be explained by a similar mechanism or mechanisms. The data make it unlikely that substantively different mechanisms should be involved in accounting for referential uses of quantifier phrases containing different quantifiers. But this poses a considerable problem to pragmatic theories, as these have typically covered only what we have called the infrequent, nonstandard referential uses of quantifier phrases (including descriptions). In fact, some original proponents of pragmatic theories, like Neale (2004, 171ff.; see also Ludlow and Neale 2006, 303), have deserted the pragmatic camp apparently to a great extent because only the infrequent, nonstandard referential uses of quantifier phrases in general seem susceptible of receiving a straightforward pragmatic explanation.[15]

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[14] Similarly, a pragmatic theory of quantifier phrases in general may accept that in some (presumably rare) cases the communicated content involving some particular object(s) is the same as the content semantically expressed by an utterance of a sentence containing a quantifier. Think again of the three men example, and of an (arch) utterance by the speaker of

Every man identical either to this man, that man or that other man will get 10 dollars.

A pragmatic theorist as understood here can accept that a content involving in the desired way those particular men, which is presumably communicated by this utterance, is also semantically expressed by it.

[15] Devitt (2004, 2007) has argued on very general grounds that no pragmatic explanation can work. His idea is that in cases where *the F* is incomplete and the speaker has "beliefs about x [the object the speaker has in mind] that are too inadequate—ignorance—or too wrong—error—to enable her to supply the completion demanded by the explicit approach [to quantifier domain restriction] or to delimit the domain of quantification as demanded by the implicit approach" (2007, 18), she will still successfully use *the F* to convey a thought about x. Devitt continues:

> Where 'the F' is obviously incomplete, as it very often is, the speaker clearly does not believe or mean to say that there is an object that is uniquely F and is G; for example, that there is one and only one table in the world and it is covered with books. And the arguments from ignorance and error show that she is often not in a position to modify that general proposition, by completing 'the F' or delimiting its domain, into one that she might plausibly believe and mean. (2007, 19)

I find this unpersuasive. In referential uses speakers will typically be able to restrict the domain of quantification to, e.g., "table here", "eggs among these" or "figures over there"; Devitt's use of "often"

Let's begin by recalling what this straightforward pragmatic explanation is. It involves the mechanism of communication of particularized implicatures via a "flouting" of the maxims of conversation, the mechanism Grice called "exploitation". In such cases, as we may recall, an audience might in principle reason in this way when facing a quirky utterance with the literal content that *p*—even if as a matter of fact no one reasons in this way outside the confines of a philosophy classroom or a philosopher's study: "In saying that *p* the speaker appears to be in some affected way infringing the plausible maxims regulatory of conversation identified by Grice; however, we presume that she is nevertheless attempting to follow the maxims; assuming that she is not really seeking to infringe the maxims, we must suppose that she is attempting to communicate a certain content *q* different from *p*, and to be doing so precisely because she must know that we can see or infer this". Neale (1990, 88-9) suggests an explanation of this form for the cases that concern us, and in fact for all referential uses of quantifier phrases, when he gives a fleshed out Gricean derivation for a case similar in all relevant respects to the ones involving (3') and (4') above, saying also that this is the same kind of explanation required by the first cricket example, the one involving (4) above. Specifically, Neale suggests that the crucial sub-reasoning in which the hypothesis that the speaker attempts to communicate a certain content *q* involving a particular object is worked out will appeal to the Gricean maxims of Relation and of Quality; more specifically still, Quality is crucially involved in that, according to Neale, when reasoning that the speaker must have adequate grounds for what she attempts to communicate, the (ideal, reasoning) audience will realize that she cannot plausibly be supposed to have purely general grounds for the general content *p*, and therefore must have the particular grounds *q*.

Here is Neale's fleshed out derivation:

(a) *S* [the speaker] has expressed the proposition that [the *x*: *Fx*](*Gx*).
(b) There is no reason to suppose that *S* is not observing the CP [Grice's Cooperative Principle] and maxims.

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in the next-to-last sentence quoted is baffling. It is especially baffling given Devitt's later claim that "often the speaker could have used a name, a simple demonstrative, or pronoun. So, when a definite is used referentially, there are nearly always other devices available" (2007, 20); surely the same devices could be used to effect suitable domain restrictions. Also, I fail to see why, in those presumably rare cases in which the speaker is wrong that the restriction she is able to provide helps pick the right object, it is not nevertheless the case that the speaker believes and means a general proposition; surely this is no problem for a pragmatic account.

(c) *S* could not be doing this unless he thought that *Gb* (where '*b*' is a name). Gloss: On the assumption that *S* is observing the Maxim of Relation, he must be attempting to convey something beyond the general proposition that whoever is uniquely *F* is *G*. On the assumption that *S* is adhering to the Maxim of Quality, he must have adequate evidence for thinking that the *F* is *G*. I know *S* knows that *b* is the *F*, therefore *S* thinks that *Gb*.
(d) *S* knows (and knows that I know that he knows) that I know that *b* is the *F*, that I know that *S* knows that *b* is the *F*, and that I can see that *S* thinks the supposition that he thinks that *Gb* is required.
(e) *S* has done nothing to stop me thinking that *Gb*.
(f) *S* intends me to think, or is at least willing to allow me to think, that *Gb*.
(g) And so, *S* has implicated that *Gb*. (1990, 89)

Of course, Gricean derivations are never carried out by anyone outside the confines of a philosophy classroom or a philosopher's study, but it is nevertheless the case, as noted in section 1 above, that in the setup of the relevant utterance of (4'), communication of the content involving Lewis requires Soames to perform a modest inference allowing him to grasp that what Neale means is that Lewis has played cricket before. This is presumably due to the fact that Neale makes an intuitively quirky utterance and sets Soames's mind working to reach (easily) the idea that he after all means that Lewis has played cricket before. So there is a connection between the fact that what Grice's theory requires in these cases is a certain kind of derivation and the fact that actual audiences in these cases will perform inferences and will not immediately detect the communicated content. Grice gives an explanation of the quirkiness with his idea that, as he puts it, the speaker "flouts" (or appears to flout) the implicit Gricean conversational maxims; and in cases of maxim flouting, cases of "exploitative" particularized implicatures, not only will a certain kind of reasoning be required in ideally rational Gricean derivations of the implicated content, but a certain amount of inference will be required of a flesh-and-blood audience as well.

Although this looks like a correct explanation of the nonstandard referential uses in question, the authors who have called attention to the frequency and standardness of the referential uses of descriptions have made it clear that the uses they have in mind are not explainable in this way. In these latter uses it seems clear that there is no inference involved, presumably in part because there is no quirkiness that could set it in motion. However, those authors have gone on to see this as the basis for embracing ambiguity or contextualist theories. The data of section 1 suggest that this reaction, even if it need not be ultimately wrong, is certainly premature.[16] However, the conclusion to be drawn

[16] As noted above, this reaction has been bolstered by Devitt's and Reimer's consideration involving "dead metaphors", which suggests to them that pragmatic theories must take on the burden of showing

from these data is definitely not that things are back where they stood for the pragmatic theorist. The reasonable upshot is that, even if nonstandard referential uses of quantifier phrases in general are explainable by the mechanism of communication of exploitative particularized implicatures, the standard uses of the frequent kind cannot. Given this strict constraint, are there any alternatives open to the pragmatic theorist?

The standard, frequent kind of referential uses of quantifier phrases do not seem explainable by the mechanism of communication of generalized conversational implicatures either. Generalized implicatures are supposed to arise *normally* when an utterance of a given sentence is made, to arise in a default way as a function of the sentence alone, failing to arise only when the context incorporates some special feature or other (Grice 1975, 37). But in utterances of a sentence containing a quantifier phrase, the kind of content communicated in referential uses is not communicated as a norm. Surely, e.g., the intended (kind of) content communicated by the referential utterance of (1) is not communicated as a norm by utterances of (1). It does not arise in a default way by any means, and in fact it obviously is communicated only as a function of special details of the context in each case. (Recall the two kinds of context for the utterances of (1) above.)[17]

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that a pragmatic explanation of referential use is not merely possible but necessary. As we saw, they think this because in dead metaphors a pragmatic explanation is possible (at least for some speakers) but clearly not necessary because incorrect. But I don't think this is right. The consideration of dead metaphors merely shows that the pragmatic theorist must indicate *some respect* in which the case of referential uses of quantifier phrases is *relevantly different* from the case of "dead metaphor" meanings. And he surely can. For example, as noted by Bach (2004, 226), clearly many speakers are competent with the "dead metaphor" meaning of a word but not with its original meaning; however, it does not appear to be the case that any speaker who competently grasps referential uses of quantifier phrases fails to grasp their non-referential uses. Also, as recalled in an earlier note, while the dichotomy between attributive and referential uses of the same quantifier is thoroughly cross-linguistic, dead metaphors are hardly ever cross-linguistic. Such differences immediately license the consideration of general explanations of referential uses lacking the evidently specific character of the ambiguity explanations appropriate for dead metaphor cases. In fact, to some the differences may even immediately suggest the inadequacy of ambiguity explanations of referential uses.

[17] Bach (2004, 227) sees standard referential uses of descriptions as explainable by the mechanism of generalized conversational implicatures. Neale (2004, 173) says in passing that his account in (1990) (of the nonstandard uses) is "a generalized conversational implicature story". As just noted, I don't think this would be the correct explanation of standard referential uses. But in fact, as noted above, it is quite clear that Neale's (1990) account, which is designed for what with hindsight we can see as

The data thus suggest that, if explainable within a Gricean framework at all, the standard, frequent kind of referential uses of quantifier phrases must be explained as cases in which particularized implicatures are communicated, though not via "exploitation" (the "flouting" of maxims). In the Gricean framework these cases may be of two kinds. The first kind are the particularized conversational implicatures that Grice (1975, 32) characterizes as "examples in which no maxim is violated, or at least in which it is not clear that any maxim is violated", and which Levinson (1983, 104) has called "standard" particularized implicatures; while Levinson's use is revelatory of one right sort of connection with the slightly theoretical use of "standard" that we have made in this paper, to avoid confusion let's call these implicatures "non-violatory". These are implicatures where the communicated content is an amplification of what has been said that will typically be evident to a typical audience given the details of the context. By contrast with exploitative particularized conversational implicatures, non-violatory implicatures will often be intuitively obvious to the (typical) audience, without need of the exercise of any inferential ability. And yet, they don't need to arise normally or by default when an utterance of the relevant sentence is made, but only due to the special features of the context. Grice's paradigm example, let's recall, is that of a conversation in which a stranded motorist tells a passer-by that he is out of gas, and she replies with an utterance of *There is a garage round the corner*. (Part of) the implicated content, that will be obvious to the stranded motorist, is that the garage is open or believed to be open. Note that an utterance by a concerned passer-by of *There is a garage round the corner* would intuitively carry the same non-violatory implicature even if it were not prompted by any utterance of the stranded motorist.

That non-violatory implicatures are particularized of course doesn't mean that groups of them cannot be included in sets all of whose members share important properties. For example, the type of amplification invited by the speaker may be of a common type instantiated in many other cases. It is reasonable to suppose that one such common type of amplification will be that of *evident grounds* for the literally expressed content. For example, think of a conversation in which two people are contemplating the countryside and as he looks at the dark clouds in the horizon, one of them makes an

nonstandard uses, is, quite appropriately, an "(exploitative) particularized conversational implicature story". Besides the remarks above, note that his Gricean derivations exploit the maxim of Relation; I agree with Stephen Levinson (1983, 127) that it is clear that all implicatures that arise from observing this maxim must be particularized.

utterance of *It's going to rain a lot*, intending to communicate also that there are dark clouds in the horizon. He will easily manage to communicate this content, as it provides (part of) the evident grounds in the context for the literally expressed content. This is clearly a non-violatory implicature, for surely the speaker is violating no maxim when he says that it's going to rain a lot. Note also that it's clearly not a generalized implicature, as utterances of *It's going to rain a lot* do not carry it by default (not nowadays, anyway, when we have all sorts of long-term weather forecasts).

The second kind of particularized non-exploitative implicatures are the implicatures that Grice (1975, 32) characterizes as "examples in which a maxim is violated, but its violation is to be explained by the supposition of a clash with another maxim". Let's call these "violatory non-exploitative" implicatures. Grice's example is a conversation in which two friends are planning a trip to France, and one of them would like to take the opportunity to visit a friend who lives in that country provided she lives somewhere close to the itinerary they have planned; when he asks his traveling companion where the friend lives, the companion utters *(She lives) somewhere in the South of France*. Grice suggests that the companion violates the maxim of Quantity (though he doesn't "flout" it), and if he does so it's because he doesn't want to violate the maxim of Quality ("Don't say what you lack adequate evidence for"); (part of) the implicated content is that the companion doesn't know in which town the friend lives. Again, by contrast with exploitative implicatures, violatory non-exploitative implicatures may well be intuitively obvious to the (typical) audience, without need of the exercise of any inferential ability. And again they don't need to arise by default when an utterance of the relevant sentence is made. Furthermore, that violatory non-exploitative implicatures are particularized again doesn't mean that they cannot group into sets all of whose members share important properties.

Might the standard referential uses of quantifier phrases involve non-violatory implicatures or violatory non-exploitative implicatures? Take this last possibility first, and suppose that Jones when making a referential use of, say, (5a) or (5b), implicates that Adams, Barnes, Crane, Daniels, Evans, Foster and Green are insane. Now it might perhaps be suggested that she may be interpreted as violating the maxim of Quantity which directs her to provide as much information as is required, and at the same time she may be supposed to do this so as not to violate the maxim of Manner which directs her to be brief, avoiding unnecessary prolixity. If this is correct, then the prolixity of saying that Adams, Barnes, Crane, Daniels, Evans, Foster and Green are insane will indeed be unnecessary, as the implicated content will be evident anyway as an obvious amplification of what she says, an amplification constituted in fact by (part of) the evident particular grounds for what she says. But I don't think this would be a correct explanation, for it is unclear that in the context of Jones' utterances of (5a) and (5b) there is a pre-existing expectation that she should provide more information than she provides with her utterances (under the assumption that their literal content is in a relevant way less informative than a related content involving Adams, Barnes, Crane, Daniels, Evans, Foster and Green). So it is dubious that she can be charged with violating in any clear way the maxim of Quantity. Similar remarks apply to the relevant uses of (1) and (6)-(10), and indeed to the relevant uses of (11)-(28).

Whether an analysis in terms of violatory non-exploitative implicatures is possible or not, an analysis in terms of non-violatory implicatures seems more feasible. On this alternative, Jones, when uttering (5a) or (5b) in the setup above, would not be violating, or at any rate *clearly* violating, any maxim, and instead should be interpreted as attempting to communicate also that Adams, Barnes, Crane, Daniels, Evans, Foster and Green are insane by uttering (5a) or (5b), just because she realizes that in the context this is an evident amplification of what she in fact says that the audience cannot fail to grasp. And indeed, the audience will intuitively grasp that Jones could not be uttering (5a) or (5b) unless she thought that Adams, Barnes, Crane, Daniels, Evans, Foster and Green are insane, for this is (part of) the evident grounds for what she says. Note that the relevant uses of (1) and (6)-(10), and indeed the relevant uses of (11)-(28), appear to be amenable to this treatment without significant variations.[18] Note also that the implicatures in these cases, if they are indeed such, don't arise normally or by default when utterances of the relevant sentences are made, even if referential uses are standard and frequent in kind. Finally, note that if the relevant contents are indeed communicated

[18] I say that the relevant content involving particular objects must be "part of" the evident grounds for the literally expressed content, because there must be other grounds as well. Specifically, in the case involving (5a), besides the belief that Adams, Barnes, etc. are insane there must be a belief (common to speaker and hearer) that Adams, Barnes, etc. are all the murderers of Smith; in the example with (1), besides the belief that Peters is insane there must be a belief (common to speaker and hearer) that Peters murdered Smith by himself; etc. (For a more general remark concerning this kind of grounds see the last paragraph of this section in the main text.) Note also that the pragmatic explanation considered in the text is not committed to the clearly false claim that the existence of evident grounds involving particular objects is *sufficient* for a use of a given quantifier phrase to be referential; surely there are attributive uses made on grounds involving particular objects.

as implicatures of this kind, these implicatures probably belong together in several sets all of whose members share important properties, e.g. the set of non-violatory implicatures where the implicated content constitutes in context (part of the) evident grounds for the literally expressed content, the set of non-violatory implicatures where the implicated content constitutes in context (part of the) evident grounds for a quantificational part of the literally expressed content, etc.[19]

Like any other conversational implicature, non-violatory implicatures must be able to be derived in the Gricean fashion, even if as a matter of fact no speaker conducts these derivations in the normal business of language use. Here is a possible Gricean derivation of the implicature of the relevant utterances of (5a) and (5b) as a non-violatory implicature:

> We presume the speaker to be following the plausible maxims regulatory of conversation identified by Grice when she literally expresses the content that [*every*$_x$: *x is a murderer of Smith*] *x is insane*.
>
> But we must suppose that he is aware of or thinks that *Adams, Barnes, Crane, Daniels, Evans, Foster and Green are insane* if we are to hold on to this presumption. (For she must be observing the maxim of Quality directing her to say only things for which she has adequate evidence, and the fact that Adams, Barnes, Crane, Daniels, Evans, Foster and Green are insane is (part of) the manifest evidence she has for what she said.)
>
> And surely she thinks that we can see this, so she thinks that we can see that she thinks that Adams, Barnes, Crane, Daniels, Evans, Foster and Green are insane.
>
> So she has conversationally implicated that Adams, Barnes, Crane, Daniels, Evans, Foster and Green are insane.

[19] Another of the considerations recently developed by Devitt against pragmatic theories of the referential use of definite descriptions is based on the claim that such theories must presuppose that the non-referential use preceded in time the referential use. They must presuppose this, according to Devitt, because the convention establishing the possibility of non-referential use “features in pragmatic explanations of referential use” (2007, 19). However, argues Devitt, we have no evidence that non-referential uses preceded referential uses, and perhaps both uses arose together. I think that Devitt’s consideration does no harm to an analysis in terms of non-violatory implicatures. Note that one doesn’t need to suppose that the uses of *It’s going to rain a lot* that don’t carry the implicature of its evident grounds must in any substantive temporal sense precede their uses to communicate that it’s cloudy. There didn’t have to be a single use that didn’t carry this implicature before there could be uses that did.

Mutatis mutandis for the conjectured non-violatory implicatures of the relevant utterances of (1) and (6)-(28).[20]

An explanation of this form is certainly a general explanation promising to encompass the frequent and standard kind of referential uses of usual quantifiers. More specifically, on close inspection the explanation can be seen to rely on a common aspect of the semantics of quantifiers, one which immediately creates a potentiality for a certain kind of contents to be pragmatically communicated in standard ways, in non-*recherché* contextual setups, through utterances of quantificational sentences. Recall that the standard satisfaction conditions for the (conjectured literally expressed content of) formulas of the form $[Q_x: F]\ G$ with respect to sequences are analogous for the different quantifiers: in general, a sequence s satisfies a formula $[Q_x: F]\ G$ iff Q sequences satisfying F and differing from s at most at "x" also satisfy G. In the cases of standard referential uses of a sentence of the form $[Q_x: Fx]\ Gx$ that we have considered, this amounts to the truth condition of $[Q_x: Fx]\ Gx$ being that some objects are or provide $[Q_x: Fx]$ which at the same time are *Gs*. In our cases, furthermore, it is non-inferentially clear to speaker and audience that certain particular objects are or provide $[Q_x: Fx]$ and also that those same objects are *Gs*. This constitutes essentially the evident grounds for the relevant utterance of $[Q_x: Fx]\ Gx$ in context. Thus, that the relevant particular objects are *Gs* is a part of the contextually evident grounds for the utterance, and consequently is a content that is easily available for communication through the

[20] The explanation in terms of non-violatory implicatures has an additional "exegetical" virtue: it helps to make Gricean sense of some of Kripke's (1977, 262ff.) appeals to his distinction between "semantic reference" and "speaker's reference". Kripke clearly intends at least some of these appeals to fall under an explanation in terms of Gricean conversational implicatures, and indeed in terms of particularized conversational implicatures, but he gives no details. Take the famous case of Jones raking the leaves: "Two people see Smith in the distance and mistake him for Jones. They have a brief colloquy: 'What is Jones doing?' 'Raking the leaves'." (Kripke 1977, 263) When the second person utters *(Jones is) raking the leaves*, the literally expressed content is surely that Jones is raking the leaves, and yet he also intends to communicate the content that that man over there is raking the leaves. This content is plausibly communicated as a non-violatory particularized conversational implicature in the context, and in fact one that constitutes part of the contextually evident grounds for the speaker's utterance (another part being her false belief that Jones is that man over there). (Kripke's main example to illustrate Grice's distinction between literal meaning and speaker's meaning is also clearly an example of a non-violatory implicature: a burglar says to another *The police are around the corner*, implicating that they must split, in this case an evident relevant consequence in the context of the literally expressed content.)

utterance—under the implicit assumption that the speaker has adequate grounds for what she says and says what she says in part because of this. Clearly, this kind of conjectured implicated content is so closely related epistemically to the conjectured literally expressed quantificational content, that it is plausible to suppose that it is easily communicated in the form of non-violatory implicatures in the whole range of cases that have been concerning us. It is in this sense that the pragmatic explanation in terms of non-violatory implicatures sketched above appeals to a general aspect of the semantics of the quantifiers.

3. Concluding remarks

Let me finish with some brief remarks on the question of whether or to what extent the preceding considerations favor any particular kind of theory of the referential use of quantifier phrases over the others. My calling attention to the feasibility of a certain pragmatic (indeed, classical Gricean) explanation of the frequent and standard referential uses of quantifier phrases may suggest that I embrace this explanation in particular, perhaps on methodological grounds. It is therefore worth stressing that while I suspect that this explanation is correct, I nevertheless see the question of what is the right account of referential uses as fairly open.

I do take the data assembled in section 1 and the discussion in section 2 to prove that the theoretical situation regarding referential uses of quantifier phrases in general is more complex than usually thought of late, and in particular to prove that there is no series of data or theoretical considerations in the recent literature I am aware of suggesting unequivocally the need for an ambiguity or contextualist theory. Thus, I take the data assembled in section 1 and the discussion in section 2 to suggest that the situation is not too different from what I take was the situation for many years: semantic theories of referential use (either ambiguity or contextualist) seem empirically feasible, but pragmatic theories seem empirically feasible as well, and essentially only methodological considerations of theoretical economy and the like would seem to favor clearly a pragmatic explanation.

While to some sympathizers of pragmatic theories this may seem enough to tip the balance in favor of a pragmatic account, to me it signals, at best, that there is more work to be done, or, at worst, that the data and our best theoretical considerations might well be compatible with a situation of theoretical indeterminacy. At best, there is more work to be done, for I don't think that considerations of economy should be taken as more than minimally reliable grounds for choosing one theory over another; if that's all we have to go by, we must keep trying to find direct evidence that may adjudicate the issue between semantic and pragmatic theories. At worst, the situation may be one in which the apparatuses of classical semantics and pragmatics are just too coarse-grained to extricate what's really going on in an illuminating way; if the data underdetermine all theories we can come up with using those apparatuses, that would be bad news for typical theorists of referential use, for it would suggest that a fully different apparatus is needed to account for it. Let's hope that time will throw light on the confusing aspects of our present situation.

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