Descriptions, Negation, and Focus*

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One of the mainstays of the theory of definite descriptions since Russell (1905) has been their interaction with negation. In particular, Russellians, who advocate the view that definite descriptions are a kind of quantifier, point to these interactions as evidence in favor of the their view. The argument runs roughly as follows:[1]

(1) a. Definite descriptions show a number of important interactions with negation (as well as with other quantifiers, with intensional contexts, etc.).

b. These interactions are best analyzed as *scope interactions*.

c. Such scope interactions are clearly and easily predicted if we treat definite descriptions as quantifiers. They are not predicted at all, or only by roundabout means, if we do not treat definite descriptions as quantifiers.

d. Hence, we have evidence in favor of the quantificational treatment of definite descriptions.

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[1]For instance, Neale (1990, p. 49) writes, "Since descriptions are treated as quantifiers ... all sorts of interesting scope interactions are predicted; not just with negation and other quantified noun phrases, but also with various types of nonextensional operators (Chapter 4)."

This is a powerful argument, and potentially far-reaching. Even so, focusing entirely on the case of negation, I shall argue in this paper that it is not sound. Premise (1a) is certainly true, and an observation of great importance. It is primarily premise (1b) that I shall challenge here, for the special case of negation. I shall argue that the interactions we see in this case are not scope interactions. With this, of course, premise (1c) and the conclusion become equivocal, at best. If the interactions we see are not scope interactions, then a theory that explains them as scope interactions finds no great support.

The main goal of this paper is thus to take a fresh look at some long-standing data. This data, I shall argue, gives us no evidence of scope interaction when it comes to definite descriptions and negation. The interactions we see are the result of a number of factors I shall explore here: factors which can generate an *illusion* of scope. Understanding how this illusion arises, and why it is not really a genuine observation of scope, will help us to better sort out the data before us. The main source of the illusion is the phenomenon of *focus* (corresponding, roughly, to where stress falls in a sentence). Focus can lead us to think sentences display scope ambiguities they do not, and more generally, focus can lead to illusions of scope. Careful attention to the role of focus, and a number of related semantic and pragmatic factors, will give us a better understanding of the data before us. With it, we will see that the evidence from negation gives us no indication of scope for definite descriptions. Thus, in the case of negation, the argument in the form of (1) does not succeed.

I have been careful to put my conclusion in terms of what a certain body of evidence indicates. I have not proposed to argue that definite descriptions do not take scope. Though I shall argue that a certain rather narrow body of evidence is compatible with this strong conclusion, this evidence does not preclude the quantificational analysis, which treats definite descriptions as on par with canonical scope-taking operators. There are a number of reasons for approaching the stronger conclusions cautiously. Scope is an issue that relates to a huge range of linguistic phenomena, including some very general ones about the nature of human languages. Thus, no limited range of data should lead us to jump to conclusions. Furthermore, scope is as much a *theoretical* issue as a descriptive one. What takes scope, and when and why, interacts with a great many theoretical aspects of linguistic theory. Deciding what takes scope can require deciding some high-level issues in linguistic theory as much as deciding what a range of data shows. The points I shall make here about negation show another way in which questions about scope

can be difficult. Because of the possibility of illusions of scope, we must be careful about the data itself, before we get to the wider theoretical questions.

I shall begin this paper with an overview of the data on descriptions and negation in section I. I shall then present some background on the interpretation of definite descriptions, and related issues about presupposition, in section II. In section III, I shall return to the data. I shall argue there that cases of proper definite descriptions do not reveal any scope interactions with negation. I shall also show there how focus can create an illusion of scope in cases like these, which might lead us to think we see scope interactions between descriptions and negation where there are none. I shall extend this argument to cases of improper definite descriptions in section IV, and to negative quantifiers in section V. I shall close with a brief concluding section VI.

I Initial Observations

Our starting point is the observation that sentences like the following show a scope ambiguity:

(2) Every politician is not corrupt.

This sentence can mean either that every politician fails to have the property of corruptness, or that it is not the case that all politicians have this property. To bring out the difference, note that if in fact half the politicians are corrupt and half not, the claim is false on the first reading, and true on the second.

I am taking it for granted that we have good evidence that (2) really is ambiguous. At least, speakers can see the two readings, with the corresponding truth-value judgments (or be induced to see them with only 'harmless' prompting). As we will discuss certain sorts of evidence at length, it should be noted that the evidence here is indirect. We do not have direct evidence of ambiguity, so much as a hypothesis which explains a range of data. That the ambiguity hypothesis is right has been challenged; but nonetheless, I shall take it as our starting point here.[2]

[2]Though they do not dwell on this particular kind of sentence, representative argument against scope ambiguity hypotheses include Kempson and Cormack (1981), Reinhart (1979, 1983), and Wilson (1978). A defense of standard ambiguity claims can be found in Chierchia and McConnell-Ginet (1990), while more recent criticism is offered by Pietroski and Hornstein (2002). Of course, if you do not accept that (2) is ambiguous, then you

I shall take it as given that the ambiguity in (2) is a scope ambiguity. Its two readings are:

(3) Every politician is not corrupt.
   a. $\forall x(P(x) \longrightarrow \neg C(x)) \qquad (\forall > \neg)$
   b. $\neg[\forall x(P(x) \longrightarrow C(x))] \qquad (\neg > \forall)$

The two glosses in (3) capture the truth conditions of the two readings. It is, of course, a much more substantial theoretical claim that the sentence is in fact structurally ambiguous, and it corresponds to two distinct logical forms, showing scope relations between the quantifier and negation along the lines of (3). Indeed, it is even a substantial claim that this is what a scope ambiguity is. I shall generally assume scope ambiguities are structural ambiguities, and that scopally ambiguous sentences are associated with distinct logical forms. But it should be noted that we have already crossed the line between data and very substantial theory.[3]

Niceties of what counts as theory aside, quantifiers are among our primary examples of scope-taking operators, and examples like (2) show that they enter into non-trivial scope interactions with other operators. Judgments supporting ambiguity are our main source of data on scope interaction. With canonical quantifiers, like the universal quantifiers *every* or *all*, judgments supporting scope ambiguity with negation are widespread. However, when we come to definite descriptions, they are not. In particular, we do not see such judgments with:

(4) The president of the United States is not corrupt.

This does not appear to be ambiguous. In particular, the kinds of judgments supporting ambiguity for (2) are not to be found for (4). When speakers

are not likely to see ambiguities with definite descriptions either, and so you may take the main claim of this paper as a given.

[3]For our purposes here, we may assume that the logical forms in question will mark scope differences in something like the way they are marked in (3). For discussion of how this may be implemented in syntactic theory, see Heim and Kratzer (1998), May (1985), or my survey (2006). It is a point of debate whether or not scope ambiguities in natural language really are syntactic ambiguities; see Jacobson (2002) for a critical discussion. Among those who do take them to be mainly syntactic, it is a point of contention whether the syntax of logical form completely suffices to disambiguate scope. May (1985) argues it does not. For detailed discussion of sentences like (2), see Acquaviva (1993) or Büring (1997), among places.

come to see (2) as ambiguous, sometimes after being offered a range of scenarios and having truth-value judgments elicited, they still do not see (4) as ambiguous.

The lack of ambiguity for definite descriptions and negation is quite general. We see it just as much in:

(5) John did not read the book.

We likewise see no ambiguity in most cases involving definite descriptions and negative quantifiers like *no one*. We observe none in any of:

(6) a. The president of the United States likes no one.
b. No one likes the president of the United States.

In contrast, replacing the definite description with a quantifier can reinstate ambiguity in some cases, such as:

(7) No one likes two great American novels.

The general pattern seems to be that with quantifiers and negation we get at least some judgments of ambiguity, while for similar cases with definite descriptions, we do not. As I mentioned, I shall take the evidence of ambiguity in these cases to be evidence of scope ambiguity. We thus have evidence of scope ambiguity for quantifiers/negation interactions, while our initial glance at the data shows us none for definite description/negation interactions.

Why then has the idea that there are such scope ambiguities with definite descriptions and negation become so widespread? Because of the king of France, of course. Since Russell's seminal work (e.g. Russell, 1905, 1919; Whitehead and Russell, 1927), it has often been argued that we see scope ambiguities when we have improper definite descriptions. Hence, notoriously, Russellians see a scope ambiguity in:

(8) The king of France is not bald.

(An improper definite description is one for which there is no unique object answering to the description. The only improper definite descriptions I shall be concerned with here are those for which no object answering to the description exists at all; I shall not be concerned with failures of uniqueness.) To Russellians, as is well-known, this sentence is ambiguous between a true reading, in which the description takes narrow scope with respect to negation, and a false reading, in which the description takes wide scope with respect to negation.

It has been common to put this in terms of the argument I sketched in (1). It is argued both that the judgment of ambiguity for (8) shows us an interaction between negation and definite descriptions (premise 1a), and that it is a scope ambiguity (premise 1b).[4] Whether or not such an argument should be attributed to Russell himself is less clear. Russell does indeed claim that a definite description can take one of two scopes (which he calls 'primary' and 'secondary' occurrences). Initially, in Russell (1905, p. 53), he simply says that the distinction allows us to "deal with the question of whether the present King of France is bald or not bald, and generally with the logical status of denoting phrases that denote nothing." He later says specifically that the sentence is ambiguous (Russell, 1919; Whitehead and Russell, 1927). Interpreting Russell on this matter is not entirely straightforward, as Russell seems more concerned with the syncategorematic structure of the proposition derived from a definite description, and the way it allows certain metaphysical and epistemological puzzles to be addressed, than he is with the analysis of natural language. Indeed, he distances himself from an analysis of natural language in Russell (1957).

Whether or not it is due to Russell, appeals to sentences like (8) to support the kind of argument I sketched in (1) have become standard. I shall attempt to show they are mistaken. We have already noted that until we encounter difficult cases like (8), we do not see any evidence of scope ambiguity with negation and definite descriptions. We do certainly see something important in the cases of improper definite descriptions. I shall argue that it is not scope, and it is cases like these which will bring out how an illusion of scope can be created.

II Approaches to Definite Descriptions

Before pressing on to the main arguments, it will be helpful to stop and review some ideas about definite descriptions. In particular, I shall review two common theories of definite descriptions. The data under examination is often offered as favoring one over the other, so it will be useful in looking at the data to have these theories clearly in mind. I shall also review some ideas

[4] I believe this kind of argument is in Neale (1990, chapter 4). Neale does phrase things cautiously, saying that it is "at least arguable" that sentences like these have the readings Russellians claim, and that "presumably" they will be captured by the scope behavior of the definite description.

about the presuppositions of definite descriptions, which will be important to some of the data we will consider.

II.1 Interpreting *The*

Our starting point, which really does go back to to Russell, is with the truth conditions of sentences with definite descriptions. Compare:

(9) a. The F is G.
b. $\exists x(F(x) \wedge \forall y(F(y) \longrightarrow x = y) \wedge G(x))$

Russell argued that the truth conditions of (9a) are given by (9b). When it comes to *proper* definite descriptions, for which there is a unique F, this is widely accepted, and I shall not challenge it.

The theory of descriptions as Russell presents it makes definite descriptions syncategorematic: there is no constituent in the logical form of a sentence corresponding to the definite article.[5] Modern neo-Russellian theories of descriptions generally do not accept this conclusion. For instance, Neale (1990) proposes that though (9b) does give the truth conditions of (9a), the logical form is given by a construction involving a *restricted quantifier*:

(10) $[\textit{the } x\textit{: } F(x)]\ G(x)$

The truth conditions of this form are still as they are given in (9).[6]

On neo-Russellian views like Neale's, there is a constituent in logical form $[\textit{the } x\textit{: } F(x)]$ corresponding to *the* F. But following the core Russellian idea, this is interpreted as a *quantifier*. This means that *the* F is not interpreted as an individual, any more than $\forall$ or $\exists$ are. There are a number of formal devices for interpreting structures like (10). In generalized quantifier theory, for instance, the restricted quantifier $[\textit{the } x\textit{: } F(x)]$ is interpreted as essentially a set of sets: $\{X \mid |F| = 1 \wedge |F \setminus X| = 0\}$. The full details of generalized quantifiers will not be of concern to us here.[7] What will be important about

[5] In Russell (1905, 1919), he describes the theory as giving a way of associating the surface form of a sentence with a logical form, though that form does not contain any constituent directly corresponding to the definite article. In Whitehead and Russell (1927), descriptions are directly introduced as defined symbols of a formal language. (I am indebted to Fara (2001) for clarifying some of these points.)

[6] Other authors who endorse similar proposals include Sainsbury (1979) and Sharvey (1969).

[7] The idea that quantifiers are to be interpreted as sets of sets goes back to Frege (e.g. Frege, 1879, 1891). Contemporary development of the idea begins with Montague (1973),

this kind of analysis is that definite descriptions are interpreted as quantifiers, which take scope in much the same ways as canonical quantifiers do, and that as such, they are not interpreted as individuals. Let us refer to the family of views of definite descriptions which follow this neo-Russellian route as the *quantificational approach*.

The quantificational approach has become something of an orthodoxy in philosophy of language. Like all orthodoxies, it has not gone unchallenged, for instance, by Fara (2001). It is much less of an orthodoxy in the linguistics literature, which contains a number of alternative analyses of definite descriptions, none of which seems to have achieved the status of a received view. One important class of competitors to the quantificational approach is that of dynamic theories, which interpret definites more or less as variables (in a setting which makes important modifications to the standard treatment of variables and binding from first-order logic).[8] Another important alternative treats definite descriptions as semantically structured expressions which pick out individuals.

This latter sort of approach will facilitate comparison with the quantificational approach, and motivate some further assumptions about the behavior of definite descriptions, so I shall sketch it in some more detail, and refer back to it as our discussion progresses. I should stress, though, that I choose it as our non-quantificational alternative only because it facilitates these comparisons. I shall not argue one way or the other whether it or any of its competitors are superior in the end.

The non-quantificational view I have in mind treats *the F* as a semantically structured phrase, whose nominal F is interpreted as a predicate in the usual way. But unlike the quantificational approach, this view interprets the entire definite description as picking out an individual:

(11)
$$[\![\textit{the } F]\!] = \begin{cases} \text{the unique element of } F & \text{if } |F| = 1 \\ \text{undefined} & \text{otherwise} \end{cases}$$

and then Barwise and Cooper (1981), Higginbotham and May (1981), and Keenan and Stavi (1986). The subsequent literature is huge, and the view of quantifiers they pioneered has become a mainstay of modern semantics. A survey targeted at philosophers is given in my (2006).

[8]These theories originate with Heim (1982) and Kamp (1984), and then Groenendijk and Stokhof (1991). For more recent surveys, see van Eijck and Kamp (1997) and Kadmon (2001).

($[\![\alpha]\!]$ is the interpretation, or semantic value, of α.) It is important to stress that for proper definite descriptions, where there is exactly one F, (11) gives exactly the same truth conditions to *the F is G* as we saw in (9). But it does so in a different way. On the neo-Russellian quantificational approach, (9a) has a logical form like (10), with the definite description interpreted as a quantifier, binding a variable. On the treatment of (11), *the F* simply contributes an individual to the truth conditions. It is not interpreted as a quantifier, nor do we need a separate quantifier and variable in the logical form. It is customary to trace this sort of definition back to Frege (1893), so let us call this the *Fregean* approach to definite descriptions.[9]

Though according to this treatment, definite descriptions contribute individuals to computations of truth conditions, it is important to stress that they do so in a way very different from names or pronouns (the sorts of expressions for which direct reference theories are an option). First of all, definite descriptions on the Fregean approach are semantically structured, with the nominal F playing a significant role. Because of this, definite descriptions on this view are not rigid. Though they contribute an individual (unlike a quantifier), they can contribute different individuals in different worlds. Moreover, it is possible to bind variables in the nominal F, e.g. in:

(12) Every man respects the woman he marries.

Thus, the description can contribute different individuals not just in different possible worlds, but relative to different assignments of values to variables.

The quantificational approach builds in the idea that definite descriptions take scope in many environments (as canonical quantifiers do). It thus predicts a range of scope ambiguities for sentences with definite descriptions, though in many cases, there may be no truth-conditional differences between the readings of these scopally ambiguous sentences. As we discussed with respect to argument (1), finding evidence of scope ambiguity thus speaks in favor of the quantificational approach. The Fregean approach, on the

[9]Fregean treatments of the definite article like (11) are given in Heim (1991) and Heim and Kratzer (1998). An extended defense is given in Elbourne (2005).

The label 'Fregean' is in some ways unfortunate, and might tend to mislead. Most importantly, it has nothing to do with the dispute between Fregeans and direct reference theorists in the theory of reference. In other work (forthcoming), I have opted to call it the '*e*-type approach', to emphasize that its main feature is interpreting definite descriptions as picking out individuals, and thus interpreting them differently from quantifiers. I avoid that terminology here, as the apparatus of types is not relevant to this discussion. Regardless, the label 'Fregean' has more or less become standard.

other hand, predicts that there will never be truth-conditionally distinguished scope ambiguities generated by definite descriptions. Not finding evidence of scope ambiguity thus supports the Fregean approach, or more carefully, it undercuts one line of argument in favor of the quantificational over the Fregean approach. It is compatible with the Fregean approach that definite descriptions never take scope. If supplemented with the right ideas about logical form, it is compatible with the Fregean view that descriptions take scope much as the quantificational approach has it, or even that descriptions always take fixed scope (e.g. narrow scope), but that these scope assignments never matter truth-conditionally. For this sort of reason, as I mentioned, deciding issues of scope can be a highly theoretical matter. But still, we see, evidence of scope ambiguity, or lack of it, can be significant to choosing between the quantificational and Fregean options.

II.2 Presupposition

The Fregean analysis of descriptions I gave in (11) makes the semantic value of *the F* undefined if there is no unique F. This assumes that definite descriptions carry a *presupposition* of existence and uniqueness. Whether definite descriptions carry presuppositions, and if so what they are, is highly controversial. So, several comments about this assumption are in order.

The Fregean analysis invites the sort of semantic presupposition reflected in (11), and provides an easy way to implement it, while the quantificational approach does not. But in fact, the issues of presupposition and of whether Fregean or quantificational approaches are preferable are largely independent of each other. It is possible to avoid the presuppositions of (11) on a Fregean approach, by fixing that *the F is G* is *false* if the description is improper.[10] Likewise, it is possible to write semantic presuppositions into the interpretations of quantifiers, including one which otherwise functions like we see in (10). Technically, for both the quantificational and Fregean approaches, we

[10]There are some technical complications for doing this. One way to do it is to introduce a kind of 'default object' of which no simple predicate holds. Other options including type shifting, or departures from classical logic. Some of these possibilities have been explored in the literature on choice functions (which is generally more concerned with indefinite than definite descriptions), notably by Reinhart (1997) and Winter (1997). Though it works in the setting of dynamic semantics, the comparisons of presuppositional and non-presuppositional treatments of descriptions in van Eijck (1993) is also noteworthy.

can either have presuppositional or non-presuppositional meanings for *the*.[11]

Though no doubt the issue is still hotly controversial, I take it that in some cases, we do get fairly strong judgments of *infelicity* for sentences with improper definite descriptions. For old standbys like *The king of France is bald*, many speakers see an infelicity. Finding absolutely reliable tests for infelicity is not a simple matter. Sometimes, as Strawson (1950) suggested, it will go with refusal to give truth-value judgments. Sometimes, as von Fintel (2004) suggests, it will go with a response like *Hey wait a minute, France does not have a king*. Sometimes, as I proposed in my (2005b), it will go with an unwillingness to make certain kinds of assessments or indirect speech reports without initiating a *repair*. Regardless of which tests we choose, I think that in some simple cases, we have fairly firm evidence of presupposition.[12]

A presuppositional account of definite descriptions captures this data nicely. It also faces some well-known difficulties. For one, it is not easy to state entirely accurately what the presuppositions of definite descriptions

[11] As Heim and Kratzer (1998) note, there are some quantifiers which fairly clearly seem to carry presuppositions, including *both* and *neither*. There remains a lively dispute about whether all quantifiers carry a presupposition of non-empty domain. The idea that they do goes back to Strawson (1952), and has essentially been defended by Diesing (1992). Alternatively, it has been argued that some sub-classes of quantifiers carry such a presupposition, e.g. by Barwise and Cooper (1981). The view that it is exactly the so-called strong determiners that do so is developed by de Jong and Verkuyl (1985). The position that quantifiers do not generally carry presuppositions is defended by Lappin and Reinhart (1988).

[12] Abbot (2004, p. 127) goes so far as to say, "Since the publication of Strawson's paper, there has been fairly unanimous support for the intuitions he expressed, but less agreement on how best to give an account of these facts." I suspect a number of critics of Strawson, from Sellars (1954) to Neale (1990), might well have taken their points to cut deeper than that.

Definition (11) not only gives definite descriptions presuppositions, it makes these presuppositions conventional in nature, triggered by the semantics of the definite article. I think this is right, but I hasten to add that I do not think all of the presuppositions that have been discussed in the literature are this way. (For a recent survey of some ways presuppositions can be triggered, see Kadmon (2001). These issues are also discussed in my (2005b).) On the other extreme, there has been a long tradition of seeking to explain away presupposition as a combination of implicature and entailment. A survey especially sympathetic to this reductionist approach is given by Levinson (1983). Though I am not a proponent of the reductionist approach, the issue is not really one that is of importance here. An alternative semantics for definite descriptions, together with a different account of the source of their presuppositions, could serve the argument I shall give here equally well.

are. Though the existence presupposition is relatively straightforward, the uniqueness presupposition is not. The right account of uniqueness has been the subject of intensive investigation over the years. However, our concerns with negation will relate only to existence presuppositions, so we may put the matter of uniqueness presuppositions aside.[13]

There are some commonly voiced objections to the presuppositional account of definite descriptions that I believe are really no more than reminders that a full theory of presupposition needs to include an account of presupposition projection: how presuppositions are inherited by larger sentences from their parts. (Indeed, facts about projection form the core around which modern theories of presupposition are built.) For instance, one sometimes sees cases like the following offered as objections to a presuppositional treatment of definite descriptions:

(13) a. If Burkina Faso has a king, then the king of Burkina Faso is very likely worried about the situation in Niger.

b. Ponce de Leon thought the fountain of youth was in Florida.

(Examples like these are found in Soames (1987). Example (13b) is from Neale (1990).) Neither of these sentences has a presuppositional reading. But this is just one of many data points that good theories of presupposition projection explain. It would take us too far afield to delve into the details of presupposition projection, and we will not be concerned with these sorts of examples in what follows. So I note these only to put them aside.[14]

One notoriously difficult issue that we will not be able to put aside for this discussion is a family of examples such as:

(14) a. This pen [demonstrating a pen] is owned by the king of France.

b. What royalty attended the gallery opening?
The king of France attended the gallery opening.

Examples of these sorts have been observed since Strawson (1964). Unlike the clear infelicity judgments in simple cases like *The king of France is bald*, at

[13]The literature on the uniqueness of definites is huge. Some snapshots are to be found in Abbot (2004), Heim (1982), Kadmon (1990, 2001), and Roberts (2003), among many places.

[14]For surveys of some important ideas about presupposition projection, see Beaver (2001) and Kadmon (2001). Recent work especially concerned with examples like (13a) includes van der Sandt (1992), recent work especially concerned with examples like (13b) includes Heim (1992).

least some speakers judge these to be false. These judgments are notoriously weak, and vary with speakers. They may simply point to more facts about presupposition projection, but unlike the cases in (13), there is no consensus the matter. We will return to this issue in section IV.

Though some have taken examples like (14) and even (13) to be straightforward objections to any presuppositional account of definite descriptions (e.g. Neale, 1990), this strikes me as unwarranted, given the clarity of presuppositional judgments in simple cases, and the delicacy of the judgments in (14) (as has been observed since Donnellan 1981). The more promising approach, I believe, seeks to offer a good explanation of what is happening in these cases, without giving up on the basic presuppositional analysis of definite descriptions. At least, I shall rely on ideas about presupposition as we proceed.

III Negation and Focus

The initial observations we made in section I indicated a lack of evidence of ambiguity in many cases of definite descriptions and negation. If this pattern of lack of evidence stands, as we have seen, it undercuts an argument for the quantificational approach, and lends at least some support to the Fregean approach. The main reason to doubt the pattern really does stand comes from cases of improper definite descriptions such as (8). Before turning in section IV to whether these in fact provide evidence of scope ambiguity, we should pause to look more closely at cases of proper definite descriptions.

Our initial observation was that though we see scope ambiguity in the interaction of a quantifier and negation in (2), we do not see it with a definite description in (4). In spite of this initial impression, it is tempting to say that there might really be a scope interaction between descriptions and negation, which informants are just not noticing. Furthermore, it might be suggested, we can bring out the scope differences with the following:

(15) a. The president of the United States is not CORRUPT.
b. The PRESIDENT OF THE UNITED STATES is not corrupt.
c. The president of the United States is NOT corrupt.

Here the capital letters indicate 'stress' (more on this in a moment). The placement of stress certainly affects how we understand the sentence, and it might very well seem like it is indicating scope. Very roughly, we have

an impression as if the stressed element is somehow taking wide scope. For instance, (15a) seems to say something like *of corruption, the president of the United states does not have it*, whereas (15b) says *of the president of the United States, he does not have the property of being corrupt*, and (15c) says that *the situation does not obtain of the president of the United States being corrupt*. (These paraphrases will be substantially modified in a moment, but they will do for a first pass.) As my paraphrases indicate, each sentence seems to have the stressed element doing something that looks like taking wide scope. Of course, there are no truth-conditional differences between these sentences, but it might appear that there is still a scope difference. We can certainly get informants to note this difference, by showing them the sentences in (15) with stresses in place. Thus, perhaps there is evidence to be had of a scope ambiguity.

If there is a scope ambiguity, what does stressing certain expressions have to do with it? The natural idea is that the placement of stress helps to disambiguate the sentence, and that disambiguating it multiple ways makes clear that the sentence is in fact ambiguous to begin with.

We might bolster this idea by looking at sentences which, unlike (4), clearly display scope ambiguity. When we do, there is a strong impression that stress does indeed *disambiguate* the sentences. For instance, when we add stress marking to sentences like (2), they cease to appear ambiguous, as has been discussed in detail by Büring (1997). Thus, we see only the reading with negation taking wide scope in:

(16) All politicians are NOT corrupt.

We see the same thing in:

(17) He does not hate MOST of the songs.

As discussed at length by Kadmon and Roberts (1986), without stress (17) appears to be ambiguous. But with the stress as marked, only the reading with *most of the songs* taking wide scope over negation seems to be available.

Stress, it may seem from examples like (16) and (17), leads to wide scope. Stressing the definite description or negation in (15b) and (15c) seems, intuitively, to have a similar effect, which looks like fixing scope relations between the description and negation. So, it is tempting to conclude that there really is a scope ambiguity in (4), and that there really are scope interactions between descriptions and negation, which can be brought out by stress. They do not make a truth-conditional difference (when the definite description is

proper, at least), but, it might be argued, stress helps us to see that the scope interactions are there.

This argument, I shall argue, is wrong in a number of ways. It is wrong about what stress does, and it is wrong about what our intuition about the readings in (15) really say. It is a tempting line of thought, but it is mistaken.

III.1 Background on Focus

To show this we need to begin by exploring, if only in a cursory way, what role stress, as we see in sentences like (15), (16), and (17), is playing in semantics and pragmatics. In these examples, what I have called 'stress' marks what linguists call *focus*.[15]

There are a number of semantic and pragmatic aspects to focus—more than can be quickly surveyed here. To better understand its relation to scope, let me mention a few. Focus indicates a kind of *contrast*. Take a simple example, like:

(18) a. John likes JANE.
b. JOHN likes Jane.

Though the truth conditions of (18a) and (18b) are the same, (18a) indicates that John likes Jane, as opposed to John liking Sue or Mary or Yolanda. Likewise, (18b) indicates that John likes Jane, as opposed to Bill or Steve or Ted liking Jane.

Focus also enters into question-answer congruence: the felicity of an answer to a question. We see:

(19) Who likes Jane?
a. JOHN likes Jane.
b. # John likes JANE.

[15]Reading the capitals with 'emphatic stress' will mark focus. However, most thinking about the phonology of focus these days suggests that it is not the stress that marks the focus, but the intonational prominence that goes with it. In fact, many theorists hold that only a particular intonation contour (a particular pitch accent) marks focus. The right intonation is the one you hear in an appropriate answer to a question, as in (19). See Kadmon (2001) for a survey of some phonology relevant to focus, or the more extensive Ladd (1996). For our purposes here, I shall not worry about the phonological details, and continue to talk about 'stress'. I am assuming that the phonology realizes an underlying focus feature, F, in logical form, so that the LF of a sentence like (18a) will look like *John likes* $[Jane]_{\mathrm{F}}$.

('#' indicates infelicity.) With the focus in the right place, the answer is felicitous in context, with the focus in the wrong place, it is not.[16]

One approach to these and other focus-phenomena is through what is called the *alternative semantics* for focus. Sentences are assigned, in addition to their usual semantic values, an *alternative set*. For a sentence like *John likes JANE* (18a), this is essentially $\{[\![\textit{John likes } x]\!] \mid x \text{ an individual}\}$. More generally, the alternative set for a sentence is the set of semantic values resulting from replacing the focused element with arbitrary values of the right type. It was a fundamental observation of Rooth (1985) that one can develop a compositional theory of these values, though we will not need the details here.

One of the pragmatic aspects of focus is that for a sentence to be felicitous, its alternative set must be, in the appropriate way, active in the discourse. We see this with question-answer congruence, for instance. Associated with a question is a set of propositions that are (partial) answers to it. On some views (e.g. Hamblin, 1973), this is the semantic value of a question.[17] A every rough first approximation of what is happening in question-answer congruence is that the focused answer is felicitous when the alternative set of the answer is the same as the set of answers to the question (the semantic value of the question). The focused sentence requires the alternative set to be somehow available in the discourse, which asking the right question can bring about.

One of the important effects of focus, which will be especially relevant to considerations of scope, is that it induces a kind of *semantic partition*. Intuitively, we can gloss the effects of focus in (18) as something like:

(20) a. John likes JANE.
= John likes someone, and that person is Jane.
b. JOHN likes Jane.
= Someone likes Jane, and that person is John.

There are a number of different approaches to this effect, but one makes use of the apparatus of alternative sets.

[16]For a more thorough, philosophically friendly discussion of focus, see my (2005a). Other surveys include Kadmon (2001), Kratzer (1991), Rooth (1996), and von Stechow (1991).

[17]Hamblin's idea is modified and developed further by Karttunen (1977). An important alternative is presented in Groenendijk and Stokhof (1984).

Traditionally, this effect is often described in terms of a *focal presupposition*. When a sentence like (20a) is felicitous, it is at least under discussion that John likes someone. Getting an exact characterization of this requirement has been controversial, but a very rough characterization is that it must be presupposed that at least one element of the alternative set of the sentence is true. This amounts to existentially quantifying out the focus position. So, for our simple sentence (20a), we have:

(21) a. John likes JANE.

b. Focal presupposition: John likes someone, i.e. $\exists x$(John likes x).

As I said, this is a rough approximation of the effect, and there are some well-known ways it might be inadequate. But it will suffice for our purposes here.[18]

It should be clear that the focal presupposition is not part of the asserted content of a sentence with focus. The asserted content of (20a) does not include existential quantification. Rather, it is an effect triggered by discourse, and, according to the theory we are pursuing here, the semantics of focus represented by alternative sets. What kind of effect? I called it a presupposition. This is common terminology, and I shall follow it. It is reasonable, as the focal presupposition corresponds to a felicity condition (as we see, for instance, with question-answer congruence). But I am not really concerned here with exactly how the effect is generated. Though I think the presuppositional account is plausible, it would not affect what we are doing here if it

[18]I am inclined to follow a number of authors, including Jackendoff (1972) and Rooth (1999), in holding that focal presupposition is too strong. For instance, Rooth offers the following example:

(i) Did anyone win the football pool this week?
Probably not, because it is unlikely that MARY won it, and she is the only person who ever wins.

In this discourse, it is not presupposed that someone won the pool, but the focus is still felicitous. What seems to be required here is only that the set of alternatives for who won the pool has to be in the right way active in the discourse. As Jackendoff put it, these alternatives have to be "under discussion" (p. 246). Of course, this view is highly controversial. Defenses of existential focal presupposition can be found in Geurts and van der Sandt (2004) and Herburger (2000). However, the issues that are at stake in this debate do not seem to be relevant to our discussion here, and it will simplify matters to talk about focal presupposition. So, even though I am inclined to the opposing view, I shall talk about focal presupposition for purposes of this discussion.

turned out to be an implicature, or some other sort of discourse effect.[19]

III.2 Focus, Scope, and Negation

Now, with this background in hand, let us return to the issue of focus and scope. It has from time to time been suggested that foci are simply assigned wide scope by a syntactic mechanism (indeed, a syntactic mechanism similar to one that is often proposed to account for quantifier scope).[20] But the fact seems to be that focus does not genuinely fix scope. I shall review two arguments for this conclusion from the literature, before turning to the main issue of definite descriptions.

First, Kadmon and Roberts (1986) argue that (17) is in fact ambiguous, and the appearance that the focused quantifier must take wide scope is a pragmatic effect. Focus makes contexts in which we hear the reading with *most* taking narrow scope very remote, but such contexts can be found, they argue. Here is their example:

(22) Nirit: He likes 'Smooth Operator', but MOST of the 'Top 40' things he HATES, right?

Craige: No.

Nirit: What do you mean 'no'? He always has some disparaging remark to make about them.

Craige: OK, so he hates MANY of the songs. All I said was he does not hate MOST of the songs.

This dialog sets up an unusual context, in which we still have focus on *most* and the salient reading is the one where *most of the songs* takes narrow scope with respect to negation.

Second, in examining (16), Büring (1997) notes that the appearance of fixing scope relations is highly specific to the universal quantifiers *all* or *every*. We see no effect of disambiguation in:

(23) Two thirds of the politicians are NOT corrupt.

[19] Just what the discourse effect of focus is, and how it is generated, are explored by Roberts (1996) and Rooth (1992). Other approaches to the kind of semantic partition induced by focus include those that introduce structured propositions (e.g. Krifka, 1991; von Stechow, 1991), and those that partition a Davidsonian event decomposition (Herburger, 2000).

[20] An idea along these lines is considered by Chomsky (1976). Direct arguments against movement-based approaches to focus are given by Rooth (1985).

Again, focus does not appear sufficient to fix scope. It may, in some contexts, help to disambiguate scope ambiguities; but it does so by making one reading more salient, not by fixing scope relations in a sentence directly.

What is happening in cases like these? A rough approximation is as follows. First of all, there is a discourse effect, related to focus. Contexts in which both a focus is felicitous and the reading is available on which the focus takes narrow scope are often very remote, as we see in Kadmon and Roberts' example. Hence, we might simply over-generalize and assume focus must fix scope.

Furthermore, there is often an *illusion of scope* created by focal presupposition. The semantic patterning we explained in terms of alternative sets and focal presupposition can look like scope. In a case like (21b), focus triggers the presupposition that John likes someone (or something close to that). This presupposition will be in the background to the felicitous assertion. Hence, the new information added is that the person doing so is Jane, i.e. Jane is such that she fits the presupposition. The effect, roughly, is to 'pull' the focused material out of the rest of the sentence. This can look very much like scope, as any effect of separating off an element from the environment in which it is embedded can. But it is an illusion. We know it must be an illusion, as we have seen how different scope assignments are compatible with the same focus (not to mention the obvious fact that focus affects a wide range of elements we do not think take scope). We can begin to explain how the illusion arises, once we see that the discourse effect of focal presupposition structures the information in an assertion. Much more may be said about how this illusion works, but I think we have enough to be armed against the illusion when we come to look at negation.[21]

I have argued that focus creates an illusion of scope, but does not fix scope. This is not to say that focus has no effect on negation. In some way or another, negation is sensitive to the kind of semantic partitioning that focus induces. We see this in (15) above, where our judgments about what a negated sentence says are influenced by the placement of focus.

How does negation interact with focus? In a typical case, we have:

(24) JOHN is not corrupt.

[21] For instance, Büring (1997) offers a very detailed analysis of (16). I should note that his analysis takes into account other aspects of the way information is marked phonologically and packaged in discourse than focus. His theory is fascinating and subtle, but we will have to make do with a much rougher-hewn explanation for the moment.

Alternative set: $\{[\![x \textit{ is corrupt}]\!] \mid x \text{ an individual}\}$

Focal presupposition: Someone is corrupt. (At least one element of the alternative set is true.)

Effect of assertion: Someone is corrupt, but among the corrupt people is not John.

Jackendoff (1972) suggested that this arrangement is written into the semantics of negation, which winds up saying that the focused element does not produce a true proposition. However, much of the more recent literature has argued that the effect here is not generated by the semantics of negation. Rather, the presence of the focal presupposition helps to determine what new information we get out of an assertion of (24), as we see in (24, effect of assertion). This is compatible with negation taking its normal semantics.

In many cases, negation does not affect alternative sets. That is how I represented the alternative set in (24). But there is good reason to think that whether or not it does is a context-dependent matter. Kadmon and Roberts (1986) argue that in their example (22), the alternative set must be negative, corresponding to the question *He hates many of the songs, but how many of the songs does he not hate?*. (This is determined in part by the intonation required for *does not*, though I shall not explore that subtlety.) Another example is:

(25) We are playing the game of confessing to having not read famous works (thanks to David Lodge). John did not read Plato's Republic. Bill did not read Hume's Treatise or Inquiry. Jane did not read most of Aristotle. What about Fred? What did he not read?
Fred did not read ALL OF KANT.

On the most salient reading in this context, the alternative set for the last sentence is the set of propositions of the form $[\![\textit{Fred did not read } X]\!]$. The last sentence is ambiguous between negation wide and narrow readings, though in this context, the negation wide reading appears to be the more salient.[22]

[22]See Herburger (2000) for an extensive discussion of the kinds of readings that can be generated by interactions between negation and focus. One attempt to work out an account of how focus and negation interact based on the semantics of negation is given by Kratzer (1989).

III.3 Descriptions and Focus

We have now seen how focus can create an illusion of scope where there is none. We have also seen some of how negation and focus interact, and particularly, how focus can affect the readings of negated sentences. With this in mind, let us look back at our cases of definite descriptions and negation. I suggested above that it might seem like focus reveals scope interactions between descriptions and negation. But we can now safely conclude that it is yet another case of an illusion of scope, created by focus. What is really going on in examples like (15) is:

(26) a. The president of the United States is not CORRUPT.
   Alternative set: {⟦*the president of the United States is F*⟧ | F a property}
   Focal presupposition: The president of the United States has some property.
   Effect of assertion: The property is not corruption.

b. The PRESIDENT OF THE UNITED STATES is not corrupt.
   Alternative set: {⟦x *is corrupt*⟧ | x an individual}
   Focal presupposition: Someone is corrupt.
   Effect of assertion: That person is not the president of the United States.

c. The president of the United States is NOT corrupt.
   Alternative set: {⟦*the president of the United States is corrupt*⟧, ⟦*the president of the United States is not corrupt*⟧}
   Focal presupposition: The president of the United States is or is not corrupt (i.e. we are addressing the question *Is the president of the United States corrupt?*).
   Effect of assertion: The answer is that he is not.

For (26a) and (26b) I have given the reading in which negation does not affect alternatives (which is the more salient reading 'out of the blue'). But within the focus semantics of cases like these, we do have a further ambiguity, depending on how the negation and alternative set interact. We have two readings, with alternative sets (27a) and (27b):

(27) The president of the United States is not CORRUPT.
   a. {⟦*the president of the United States is F*⟧ | F a property}

b. $\{[\![$*the president of the United States is* not $F]\!] \mid F$ a property$\}$

Depending on where the focus falls, and further depending on how focus an negation interact, we have different readings. These are genuine differences. Even if they are not truth-conditional, they are differences in focal presupposition, which lead to different effects of assertion. But none of these is a difference in the scope of the description.

We have thus seen some real differences among the sentences in (15). They are differences that involve negation, and how negation and the definite description interact. But, I have argued, they are not scope differences. They can look like scope, as we have seen. They can, because focus triggers a combination of a semantic partition and a discourse effect, which creates an illusion of scope. In cases involving negation, which can 'associate' with focus, that effect can be important to interpretation. This may lead us to think that what we see in cases of descriptions and negation is a scope relation. But more careful consideration shows us that it is a separate phenomenon. No scopes are fixed by focus, but focus does help us to explain away an illusion of scope in cases of descriptions and negation.

Where does this leave the interpretation of definite descriptions? If there is no need to assign the definite description scope with respect to negation, then the data we have looked at so far gives us no reason to prefer the quantificational approach to the Fregean one. The analysis I gave in (26) and (27) is entirely compatible with the Fregean approach. Neither the semantics of focus, nor the semantics of negation, gives us any reason to treat descriptions as quantifiers. Of course, as I have been cautious to note all along, it gives us no definitive reason to reject the quantificational approach, either. But a careful look at the initial data about negation lends no support to the kind of argument for the quantificational view I sketched in (1), just as it appeared on our cursory look in section I.

IV Improper Descriptions and Negation

So far, I have suggested that a certain range of data gives us no evidence of scope ambiguities between definite descriptions and negation. I paused to look at that data closely, and suggested that at best, we can find in it illusions of scope created by focus effects. But so far, we have not confronted the cases which Russellians typically highlight: those of improper definite descriptions like (8). Even if there is no evidence for scope interaction with

negation when we look at proper definite descriptions, do the improper ones tell a different story?

The Russellian's argument that they do proceeds along the lines of argument (1). There are, according to Russellians, two readings of a sentence like (8): one on which it is judged to be true, and one on which it is judged to be false (cf. step 1a of argument 1). The best way to explain this, Russellians claim, is to see the description as a quantifier. The reading on which the sentence is true is the one in which the description takes narrow scope with respect to negation. The reading on which it is false is the one in which the description takes wide scope (cf. steps 1b and 1c). Even if we do not see evidence of scope in other examples, the Russellian might hold, this is enough evidence that there is scope interaction with negation. As such, it is evidence in favor of the quantificational approach to definite descriptions (cf. step 1d).

Are there really such judgments as the Russellian claims? As I discussed in section II.2, many speakers have Strawsonsian judgments about the particular case of (8), holding it to be a presupposition failure. Needless to say, this sort of judgment undercuts the Russellian argument, as it is a uniform judgment of infelicity, which does not support two (truth-conditionally distinct) readings of the sentence. I myself share Strawson's intuitions, and I find when I teach this material that a large number of my students do as well. Nonetheless, Russellian judgments are also well-documented. At best, I think we can say, the state of the judgments is unclear.

There are some ways that the judgments supporting the Russellian argument can be made more firm. In particular, judgments that (8) is *true* can be induced by care about some details of the sentence and its presentation. For instance, even speakers who normally get only the presupposition failure reading can be induced to see a reading on which the sentence is true by a combination of unusual intonation and a further gloss:

(28) The king of France is NOT bald—there is no king of France.

Such configurations have been studied in detail, especially by Horn (1989). They are instances of what Horn calls *metalinguistic negation*.

Very roughly, by Horn's lights, what we have here is a configuration which signals that something is wrong with an *utterance* of a sentence (hence, metalinguistic). He observes that any number of features of an utterance can be rejected by such a configuration. For instance, a manner implicature can be rejected:

(29) That is NOT Slick Willy—it is the president of the United States.

Likewise, aspects of the phonology can be called inappropriate:

(30) He did NOT call the pólice—he called the políce.

Metalinguistic negation can be done with other configurations as well, but this is a very typical one.[23]

Horn lists a number of tests for metalinguistic negation. For instance, metalinguistic negation is marked by being unavailable with incorporated negation, as in *unhappy*. Another test involves what are called positive polarity items: words including *already* which are only acceptable in non-negated environments. Metalinguistic negation allows positive polarity items. Both diagnostics work for (28). We see:

(31) a. # The king of France is unhappy—there is no king of France.
b. The king of France is NOT already bald—there is no king of France.

I think it is safe to hold that (28) is a case of metalinguistic negation.[24]

In cases of metalinguistic negation, judgments of truth cannot support any claim of scope ambiguity. It is clear that there is no scope involved in (29) or (30). When it comes to (28), the metalinguistic negation analysis puts it exactly on par with these two. We simply have a form that rejects the pre-

[23]In configurations like this, it might be that the negation is in focus (though when we look at the details of which pitch accents mark focus, this is not at all clear). It is more clear that material in the scope of the metalinguistic negation gets a special phonology: a kind of 'quotation intonation'. In other configurations for metalinguistic negation, pitch accent on negation does not seem to be necessary, but the quotation marking does seem to be required. This has not, to my knowledge, been discussed at much length in the literature, but see Potts (2005). For a somewhat different take on the phenomena at issue here, see Geurts (1998).

[24]The characterization of positive polarity items as only being able to occur in non-negated environments is well-known to be very rough, and the empirical situation is in fact somewhat more subtle. For a survey of some of the issues involved, see Ladusaw (1996). Some recent discussions paying attention to positive polarity items include Progovac (1994), Szabolcsi (2004), and van der Wouden (1997). As an anonymous referee pointed out, this can make the application of the positive polarity item test difficult, as it requires sorting out whether we are seeing a metalinguistic negation, or one of the other constructions which makes the generalization about negative environments subtle. Nonetheless, it does appear that the combined force of the tests, run on the particular construction in question, strongly indicates we have metalinguistic negation.

supposition of a definite description, which does not involve the description taking scope with respect to negation.

So, one possible explanation of what is happening with (8) is that we have the coincidence of two distinct phenomena. On the one hand, we have the focus-related behavior of negation discussed in section III.2, and on the other hand, we have the availability of a metalinguistic negation reading. The latter explains the truth-value judgment to which Russellians appeal, while the former explains why we might have been inclined to attribute the judgment to scope interaction. We have already seen that the appearance of scope induced by focus is an illusion, and the truth-value judgment induced by metalinguistic negation is likewise not based on scope. We can thus explain why Russellians might have thought there was a scope ambiguity, and also why that is a mistake.

It may be that this is all we need. Insofar as the real force of the Russellian argument rests on the judgment of truth for (8), and insofar as this judgment is due to metalinguistic negation, it is. But when it comes to the very murky judgments surrounding these cases, there is one other way to elicit Russellian judgments that we need to consider.

This brings us to the difficult cases discussed in section II.2, which seem to undermine the presuppositional readings of definites. We can get a little bit firmer judgments of truth value than we get for (8) 'out of the blue' by putting the definite description in the kinds of environments I mentioned in (14):

(32) a. This pen [demonstrating a pen] is not owned by the KING OF FRANCE.

b. What royalty attend the gallery opening?
The KING OF FRANCE did not attend the gallery opening.

Though as I have mentioned, judgments about these cases are often very weak, at least some speakers find these acceptable, and judge them to be *true*. Moreover, some speakers who get presupposition failure in (8) find these better, and are at least willing to give truth-value judgments.[25]

As I mentioned in section II.2, there is little consensus about what is happening in cases like these. The phenomenon is often-noted, but not well-understood. It is not even agreed just what the phenomenon is, e.g. whether

[25]For some discussion of the range of judgments seen for some related cases, see Reinhart (1995).

these are cases of non-presuppositional readings, or whether there is still a presupposition failure, but one which somehow does not interfere with truth-value judgments. For our purposes here, it will be enough to note that the phenomenon is there. Rather than try to explain it, I shall give it a name. To give it one which I hope is somewhat neutral, let us call these cases of *presupposition obviation*.[26]

I marked foci in (32) where they seem natural. Where the focus should fall is clear for the question-answer pair in (32b), while (32a) is very natural in response to a question like *What about the writing instruments around here? Are any of them related to royalty?* It is a common idea that focus (or related notions) is involved in cases of presupposition obviation. I do not want to take a stand on that here. But regardless of what the right analysis is, focus can help to bring out the presupposition-obviating readings.[27]

Though I shall not try to sort out what is really behind the phenomenon of presupposition obviation, I shall show that it is not anything to do with scope with negation, and hence, examples like (32) do not give us any evidence that definite descriptions enter into scope relations with negation. The reason for this is really quite simple: presupposition obviation arises without negation. We saw this in example (14) of section II.2, repeated here, with foci marked:

(33) a. This pen [demonstrating a pen] is owned by the KING OF FRANCE.

b. What royalty attended the gallery opening?
The KING OF FRANCE attended the gallery opening.

We get the same sorts of judgments for these cases as we do for (32). Some speakers find them acceptable, and in this case, *false*. As with (32), these judgments are often weak, but we still see at least some speakers finding these

[26]I did try to explain some aspects of presupposition obviation, based on the way context is set by discourse, in my (2002). Early work on the problem includes Strawson's own paper (1964) and Fodor (1979). The idea that there is still presupposition failure in cases of presupposition obviation, but that speakers are able to reach truth-value judgments regardless, is explored by von Fintel (2004) and Lasersohn (1993). Both of the latter, and my own contribution, offer ways we can make sense of presupposition obviation even for the kind of semantically coded presupposition that is built into (11).

[27]In (32a), the subject *this pen* will typically have a distinct intonation contour (a distinct pitch accent), which is often taken to mark a contrastive *topic*. The idea that focus, or more often the related notion of topic, is fundamental to presupposition obviation has been proposed by a number of authors, including Gundel (1974), Horn (1986), Kadmon (2001), Reinhart (1981, 1995), and the original Strawson (1964).

better than canonical cases of presupposition failure for definites like (8). We thus have more cases of presupposition obviation. Yet the examples in (33) do not involve negation. There is no negation for the description take scope with, even if it were to be analyzed as scope-taking. Hence, we need an analysis of presupposition obviation that does not rely on scope with negation. Once we find one, we can apply it to cases like (32) directly. However this will be done, it appears entirely compatible with the Fregean approach. Once again, we find nothing in the data which supports the quantificational approach to the exclusion of the Fregean. We find no evidence of genuine scope interaction between definite descriptions and negation.

We have now seen two different sorts of ways that we might induce Russellian judgments for improper definite descriptions. They might be understood as cases of metalinguistic negation, or as cases of presupposition obviation. I have argued that neither phenomenon is based on scope interactions with negation. Hence, I suggest, the right explanation of the judgments to which Russell appealed in his discussion of (8) is not scope with negation. I have already noted that the illusion that these judgments are derived from scope may be made all the stronger by the interaction with focus. Focus creates an illusion of scope, and focus can indicate presupposition obviation, and can go together with metalinguistic negation as well. I thus come to the same conclusion about (8) as I did about (15). There is no evidence of scope interaction between definite descriptions and negation, though a range of factors, semantic and pragmatic, can lead us to think there is. The factors that create the illusion may be stronger in cases of presupposition obviation, but it is an illusion nonetheless.

V Negative Quantifiers

Another category of cases that have been argued to show more clear scope interactions with descriptions are those of negative environments other than the one generated by *not*. Neale (1990) notes the effects of negative (i.e. *monotone decreasing*) quantifiers:

(34) a. Nobody has kissed the king of France.
b. Few Frenchmen have seen the king of France.

Neale is careful to say that it is "at least arguable" (p. 120) that these have readings which come out true. According to the Russellian, they come

out true in virtue of the description taking narrow scope with respect to a negative element; in this case, a quantifier rather than negation itself.

Now, the first thing to say is that, as with some of the cases we just discussed in section IV, these judgments are rather weak. Like the cases we just reviewed, when and whether we get presuppositional judgments in cases like these seems to depend on many factors, and to vary with speakers. (I find all the judgments marginal, and (34b) is markedly worse than (34a).) Again, focus, together with the right discourse settings, can help bring out the non-presuppositional readings. For instance, compare:

(35) a. We are a group of royalty-chasers, who play a game of trying to kiss various monarchs. Mary has kissed the prince of Monaco, John has kissed the queen of England, Jane has kissed the king of Norway, but
#NOBODY has kissed the king of France.

b. We were at a wild party. All sorts of crazy things were going on, and lots of my friends kissed strange people, but at least,
?Nobody has kissed the KING OF FRANCE.

In contexts, (35a) appears to be a presupposition failure, while (35b) appears at least marginally acceptable. At least (and perhaps more neutrally), there is marked contrast between the two, with (35b) significantly better than (35a). One the reasons we seem to find cases like (34) acceptable (if and when we do) is that we naturally read them with focus in the right places, as if they were in the right contexts.

What we see here, I suggest, is simply the same phenomenon of presupposition obviation we saw in section IV. I tried to be cautious there about just what this phenomenon is, but the role of focus and context gives us some evidence that it is at work, as does the rather delicate nature of the judgments. If it is right that what we have is presupposition obviation for the definite description, then we no longer have any reason to appeal to scope interactions between the definite description and the negative quantifier. The sentences in (34) are not ambiguous with respect to scope. There is one reading for each, when it comes to scope, but in some settings, there is also a phenomenon of presupposition obviation, which can affect the truth-value judgments associated with the sentences. Again, we have an illusion that the definite description might take scope, induced by focus, and a truth-value judgment supported by presupposition obviation.

We can get some further evidence that scope is not at work here by looking at cases where there are non-trivial scope interactions with monotone decreasing quantifiers. The scopal properties of these quantifiers is actually a somewhat difficult area, but we can find examples where a monotone decreasing quantifier takes *narrow* scope with respect to another quantifier. For instance:

(36) a. SOME MONARCH trusts nobody.
b. MOST MONARCHS trust nobody.
c. EVERY MONARCH trusts nobody.

In all these cases, the reading where the subject takes scope over the object is the salient one. The foci correspond to answering a question like *Who trusts nobody?* I have marked the foci, as we will want to make a comparison with a focused definite description. But in fact, the readings with *nobody* taking wide scope do not seem to be available, regardless of focus. It may very well be that there are no such readings.[28]

When we consider improper definite descriptions in this configuration, we can encounter whatever phenomenon is at work in (35b):

(37) What royalty trust anybody?
?THE KING OF FRANCE trusts nobody.

Again, the judgment here is delicate, but this appears to be as good as (32b), and I think, about as good as (35b). For those who find it acceptable, scope between the description and *nobody* will not explain it. Those who find this acceptable get the judgment that it is *true*. But treating the definite description as scope-taking does not predict this. The pattern in (36) gives us good reason to suppose that the quantifier *nobody* would take narrow scope here, if there were any scope to take. But in that case, the definite description would have to take wide scope. The result would be that the sentence, on the quantificational reading, would imply that the king of France exists, and so would be false. Thus, the scope-taking treatment of this case gets the wrong answer. Insofar as we have a truth-value judgment to work with here,

[28]The syntax literature offers some explanations of these sorts of effects, which might predict that we cannot get inverse scope readings in (36). It is commonly observed, for instance, that objects tend not to take wide scope in negative environments. See for instance, Aoun and Li (1993), for one approach to this issue. The division of quantifiers into types in Beghelli and Stowell (1997) predicts that monotone decreasing quantifiers in object position will generally not take wide scope.

the scope-taking account gets the wrong truth value. Insofar as we have a presupposition failure, the scope-taking treatment fails to predict it.

To stress, I find the judgments here somewhat dubious, and certainly too delicate to place much weight on. My point is that insofar as we find cases of negative quantifiers like (35b) or (37) acceptable, we should not account for them via scope interactions. If they are acceptable, then scope interaction gets the wrong answer for (37). More generally, we already have good reason to see these as cases of presupposition obviation, which indeed goes naturally with the delicate judgments at work. I already argued that presupposition obviation is not a scope phenomenon. The point that scope-based treatments get the wrong answers in some cases reinforces this conclusion. Negative quantifiers give no independent evidence of scope with definite descriptions, and again, no reason to prefer the quantificational over the Fregean approach.

VI Conclusion

A close look at negation has shown that the initial observations of section I bear up well under scrutiny. We saw there, with examples like (4), that we do not generally have data to indicate scope ambiguities involving definite descriptions and negation. I have argued in the rest of this paper that those observations are correct. Furthermore, I have tried to explain away the appearance of scope interactions between definite descriptions and negation in some cases as an illusion, due to focus. I have also shown that judgments surrounding improper definite descriptions are best explained by something other than scope interaction. In some cases, it is metalinguistic negation that leads to these judgments, in others (perhaps), it is presupposition obviation. Neither of these is a scope phenomenon, though each interacts with focus in ways that reinforce the illusion of scope. I thus conclude, we do not have evidence of scope interaction when it comes to definite descriptions and negation.

I have suggested that this conclusion undercuts a familiar Russellian argument for the quantificational approach, of the sort I sketched in (1). To some extent, it offers comfort to the Fregean approach as well. The Fregean approach predicts that there are no truth-conditional scope ambiguities produced by definite descriptions, and at least in the case of negation, we find none.[29] This is not enough to establish the correctness of the Fregean ap-

[29]I reach similar conclusions for cases of interaction between definite descriptions and

proach, or to decide if definite descriptions really do take scope, but it leaves the Fregean approach viable. Perhaps to an even greater extent, my conclusion underscores the note of caution I sounded at the beginning of this paper. Scope itself is a highly theoretical matter, whose relations to our basic data can be complex. We have seen here another way in which the data can be complex, as we have to distinguish illusions of scope from data really supporting scope hypotheses.

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quantifiers in my (forthcoming) . Other kinds of cases, notably interactions with modals, have been discussed by Elbourne (2005) and Heim (1991), but sill raise a number of important issues.

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