

A Century Later

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This is the introductory essay to a collection commemorating the 100th anniversary of the publication in *Mind* of Bertrand Russell's paper 'On Denoting'.

1905 will forever be remembered as Albert's Einstein's *annus mirabilis*, the year in which he submitted his dissertation and published seminal papers on the photoelectric effect, special relativity, and Brownian motion. Philosophers remember 1905 for an additional reason: in that year, Bertrand Russell wrote, and published in this journal, what he regarded as his finest philosophical essay, 'On Denoting'. The present issue of *Mind* commemorates the centenary of that extraordinary work and its most important doctrine, the Theory of Descriptions.² Remarkably, the virtues and vices of this little theory, now a hundred years old, are debated more vigorously today than ever, not only by philosophers but also by theoretical linguists. The articles in this commemorative issue go a long way towards explaining why.³

'On Denoting' appeared in the October 1905 issue, over the initial objections of the editor, G. F. Stout: 'The doctrine struck the then editor as so preposterous,' Russell recalled, 'that he begged me to reconsider it and not demand its publication as it stood. I, however, was persuaded of its soundness and refused to give way.'⁴ Russell was famous for changing his mind, but the Theory of Descriptions was something he never abandoned. Indeed he could be found defending it in the pages of this journal as late as 1957—when he was eighty-five years old. Russell had been moved to respond by the reception of P. F.

¹ I am grateful to Thomas Baldwin, Berit Brogaard, Gilbert Harman, Daniel Rothschild, Stephen Schiffer and especially Gary Ostertag for helpful comments and corrections, and to Rachel Carter and David Harris for their exemplary work on every article in this issue of *Mind*.

² This year also marks the 50th anniversary of the Russell–Einstein Manifesto, a public warning to humanity about the consequences of nuclear war, signed by Russell, Einstein and nine other eminent scientists, as well as the 50th anniversary of Einstein's death.

³ So do the articles in a recent six-hundred page collection called *Descriptions and Beyond*, edited by Anne Bezuidenhout and Marga Reimer (2004).

⁴ Russell (1959), p. 63.

Strawson's 'On Referring', published in this journal in 1950. Strawson's assault on the Theory of Descriptions did not impress Russell:

As I find that some philosophers whom I respect consider that [Strawson's article] has achieved its purpose successfully, I have come to the conclusion that a polemical reply is called for. I may say, to begin with, that I am totally unable to see any validity whatever in any of Mr Strawson's arguments. Whether this inability is due to senility on my part or to some other cause, I must leave readers to judge.⁵

And judge they did, for what appeared to be at stake were two rather different ways of doing philosophy, both of which placed great emphasis on language.⁶ Although Russell and Strawson are sometimes at cross purposes, on certain issues Russell was unquestionably right.⁷ On others, he allowed philosophical prejudice to get the better of him. Importantly, both men made wonderfully instructive mistakes, and analyses of the mistakes and their origins have proved a great boon to our understanding of the structure and use of natural language, and to some extent the nature of thought.⁸ Such is the nature of philosophy.

Whatever Russell's aims were when he hit upon the Theory of Descriptions, and however much is unearthed about how he was led to

⁵ 'Mr Strawson On Referring', p. 385. This piece is incorporated into Russell's 1959 book *My Philosophical Development* (pp. 175–80), which is, I believe, Russell's last published word on descriptions. I believe Strawson's last word on the topic is Strawson (1986) which is reprinted in Strawson (2003). Strawson felt he should not contribute to the present issue of *Mind* on the grounds that he had nothing to add to what he had said in his 1986 paper.

⁶ Strawson concluded 'On Referring' with the following words: 'Neither Aristotelian nor Russellian rules give the exact logic of any expression of ordinary language; for ordinary language has no exact logic' (1950, p. 344). (Bar-Hillel (1954, p. 376) notes that Strawson's use of 'the exact logic ...' with 'no exact logic' conflicts with the position he is defending on non-denoting descriptions!) Two years later Strawson published *Introduction to Logical Theory*, in which he took on the specifics not just of Russell's Theory of Descriptions but also of the entire doctrine governing the use of \wedge , \vee , \supset , $(\forall x)$, $(\exists x)$, and $(\neg x)$ in explicating the actual or improved meanings of the natural language expressions 'and', 'or', 'if', 'every', 'a', and 'the'. To the best of my knowledge, 'On Referring' contained the first full-scale attack on the specifics of Theory of Descriptions. Important discussions of the theory prior to 1950 include Hilbert and Bernays (1934), Quine (1940), Gödel (1944), Moore (1944), Carnap (1947) and Smullyan (1948).

⁷ Contrary to Russell (and Frege), Strawson takes referring (and, with it, meaning, saying, stating, asserting and so on) to be things *people* do with words, making clear-cut battle lines with Russell (or Frege) difficult to draw.

⁸ This and related matters are debated in *Definite Descriptions: A Reader* (Ostertag (ed.) 1998) and in *Descriptions and Beyond: An Interdisciplinary Reader* (Bezuidenhout and Reimer (eds) 2004). My own appraisal of the debate between Russell and Strawson can be found in chapter two of *Descriptions* (Neale 1990/2006) and in my contribution to *Descriptions and Beyond* (Neale 2004).

it or about its relation to the theory of denoting he had put forward two years earlier in *The Principles of Mathematics*, it is undeniable that the theory's impact later in the century and the principal reasons it is still such a lively and fertile topic of philosophical (rather than historical) debate lie in the philosophy of language.⁹ The recurring questions here concern (i) whether the Theory of Descriptions should form part of a theory of meaning for natural language, (ii) if so, how best to capture its essence and state it in such a way that it slots neatly into place, and (iii) if not, what to do about it, given the theory's explanatory power and utility. But interest in the theory is not limited to the semantics of descriptions themselves. For the standard objections to the theory and the standard responses, both of which are still being honed in philosophy and linguistics journals, have raised to great prominence some very general and debilitating problems about the roles of context and syntactic structure in linguistic interpretation.

The philosophers contributing to the present volume range from those who have retired from teaching to those at the beginnings of their philosophical careers; from devoted friends of Russell's Theory of Descriptions to outright foes; from those whose papers have gone through numerous drafts over the last few years, to those whose contributions were prepared from tapes of lectures given only this year. Readers will find rich scholarship, profound insights, radical and original proposals, powerful arguments, formal dexterity, and flashes of sheer philosophical brilliance in the contributions. Their unity lies in the depth of the understanding they display of the philosophical and logical aspects of the Theory of Descriptions, of the role it played in the development of analytic philosophy in the twentieth century, and of its repercussions for the twenty-first. Reading and editing these papers has made this year a most rewarding (and vexing) one (no names, no pack drill), and I am honoured to have participated in putting this commemorative issue together. I had planned to write a very brief introduction to the contributions, but re-reading them in page proof led to several expansions particularly in connection with pressing issues

⁹ It is here that the theory is most often *used*, rather than mentioned, or discussed as an historical entity. As has been argued by, for example, Makin (2000), the pressures that led Russell to the theory were firmly rooted in logic and mathematics, in particular, in the logicist concern to reduce the truths of mathematics to truths of pure logic. (See the preface to the first edition of *The Principles of Mathematics*.) It would be a gross exaggeration, however, to claim that a failure to appreciate how, as a matter of historical fact, Russell was *led* to the Theory of Descriptions is a barrier to understanding and using it (or even a barrier to understanding how the theory's *originator* understood and used it once he had hit upon it). One can learn a great deal from examining the origins of a theory, but providing a revisionary view of the genesis of a theory or of the pressures that opened the door to it is a far cry from providing a revisionary view of the theory itself.

involving descriptions today, one or two of which, I am certain, will be new to most philosophers. To maintain a steady flow and avoid many scores of parenthetical references to the contributors' papers (and to other works) all pointers and citations are contained in appropriately placed footnotes. More technical matters are also confined to footnotes.¹⁰

1. 'On Denoting'

'On Denoting' is a difficult piece, even for those today steeped in the analytic tradition it helped inaugurate. In 1905, readers of *Mind* must have found much of the article incomprehensible, and it is doubtful that many readers outside Russell's immediate circle could have learned much from it. Misunderstandings persist to this day; and outright errors about the Theory of Descriptions or its applications can be found in some of the most famous papers in twentieth century philosophy.¹¹ Despite its complexity, 'On Denoting' is required reading for students today because the distinctions and concepts Russell introduced are so integral to contemporary philosophy and linguistics. Compassionate teachers may also assign one of Russell's later discussions, but nothing quite captures the freshness of 'On Denoting' or the logical urgency of Russell's tone.¹² Besides, a shift in Russell's conception of what sorts of things one can be acquainted with corresponds in these later works to an explicit extension of the Theory of Descriptions to ordinary proper names, which is no part of the explicit doctrine of 'On Denoting'.¹³

¹⁰ Henceforth, the following abbreviations will be assumed for the works of Russell being discussed: *PoM* (*The Principles of Mathematics*, 1903); *OD* ('On Denoting', 1905); *PM* (*Principia Mathematica* 1910/1925), *KAKD* ('Knowledge by Acquaintance and Knowledge by Description', 1910/1912); *PLA* ('The Philosophy of Logical Atomism', 1918); *IMP* (*Introduction to Mathematical Philosophy*, 1919), *RC* ('Replies to Criticisms', 1944), *IMT* (*Inquiry into Meaning and Truth*, 1948), 'MSR' ('Mr Strawson on Referring', 1957); and *MPD* (*My Philosophical Development*, 1959).

¹¹ For discussion, see the contributions by Cartwright, Kaplan, Kripke, and Salmon (this volume). See also Kaplan (1972), Kripke (1977), Makin (2000) and Neale (1990/2006).

¹² The most popular later discussions are in *KAKD* (1910, 1912), Lecture VI of *PLA* (1918), and Ch. 17 of *IMP* (1919). Those seeking a proper formal statement must consult the relevant parts of *PM*, which are reproduced by Ostertag (1998).

¹³ See Cartwright, Kaplan, and Kripke (this volume). I was careful to say 'explicit doctrine' rather than, say, 'commitments' because (a) Russell gives on p. 487 of 'On Denoting' (and again on p. 67 of *Principia Mathematica*) an argument which seems to commit him to treating ordinary names as descriptions, and (b) in the penultimate paragraph of 'On Denoting', Russell is already closing in on the idea that names of other minds and material particles are disguised descriptions. (See below.)

‘On Denoting’ opens with a characterization of the phrases of interest:

By a “denoting phrase” I mean a phrase such as any one of the following: a man, some man, any man, every man, all men, the present King of England, the present King of France, the centre of mass of the solar system at the first instant of the twentieth century, the revolution of the earth round the sun, the revolution of the sun round the earth. Thus a phrase is denoting solely in virtue of its *form*.¹⁴

For many years, linguists called denoting phrases *noun phrases*, or *NPs*. In recent years, a good number have begun to call them *determiner phrases*, or *DPs*, to reflect the idea that the determiners (not only ‘a’, ‘some’, ‘any’, ‘every’, ‘all’, ‘no’ (which Russell brings in later) and ‘the’, but also ‘most’, ‘many’, ‘few’, ‘two’ etc.) are the *heads* of such phrases in a sense that is fundamental to syntactic theory.¹⁵ As often remarked, the ‘D’ in ‘DP’ can be tacitly and conveniently understood as ‘determiner’ or ‘denoting’ as mood dictates.¹⁶

According to Russell, definite descriptions—to a first approximation, DPs headed by ‘the’—are ‘by far the most interesting and difficult

¹⁴ OD, p. 479.

¹⁵ The main impetus comes from Abney (1989).

¹⁶ I do not mean to suggest that Russell and current linguistics are in complete harmony or that the convenience I am exploiting can never lead to exegetical trouble. The word ‘that’ is a determiner, at least when it occurs in DPs such as ‘that man’, and although some semanticists regard it as quantificational, others do not, seeing it as derived from a purported demonstrative pronoun ‘that’. It is an empirical question whether or not the purported pronouns we hear as ‘that’ and ‘he’ themselves function as determiners and also, at the next level up the syntactic tree, complete DPs formed by merging those determiners with aphonetic or dummy nominals; and whether or not what we hear as ordinary proper names themselves function as special nominals and also, at the next level up the tree, DPs formed by merging aphonetic or dummy determiners with those nominals. For discussion, see Elbourne (2001, 2005) and Neale (2005).

Smiley (2004) says that certain ‘neo-Russellians’ have been ‘over-influenced by the similarities between the “the *N Fs*” and the quantified sentences “every *N Fs*”, “some *N Fs*”, “no *N Fs*” etc.’ (p. 153). Presumably such a criticism applies equally to Russell himself, given the list of denoting phrases he gives in the first paragraph of OD and his emphasis (in the final sentence of that paragraph) on a phrase being a DP ‘solely in virtue of its *form*’. I used the common syntactic shape of denoting phrases to motivate a common semantical category of quantifier phrases in *Descriptions* (and quoted the first paragraph of OD, including Russell’s ‘solely in virtue of its *form*’), but for reasons that now seem to me less than compelling, I stopped short of treating ‘that *N*’ as a quantifier phrase. I did not say explicitly that Russell himself was motivated by common syntactic shape, and Kripke (this volume) takes this to mean I believed Russell was *not* so-motivated. Whatever I may or may not have believed back then, I agree with Kripke *now* that it *was* part of Russell’s motivation, and (as Kripke points out) I say as much in a later work (Neale, 1993, p. 130, n. 17). Considerations of common syntactic shape were hardly original with OD, it should be noted, witness the following passage from chapter five of *PoM*:

“All men” and “all numbers” have in common the fact that they both have a certain relation to a class concept, namely *man* and *number* respectively. But it is very difficult to isolate any further element of *allness* which both share, unless we take as this element the mere fact that both are concepts of classes. It would seem, then, that “all *u*’s” is not validly analyzable into *all* and *u*, and

of denoting phrases'.¹⁷ Although much of 'On Denoting' is devoted to singular definite descriptions ('the king of France', 'the author of *Waverley*', etc.) Russell offers a theory of denoting phrases in general.¹⁸ The theory is quite different from (and in large part a response to) the theory of denoting Russell put forward two years earlier in chapter five of *The Principles of Mathematics*.¹⁹ Russell mentions his earlier theory in the first footnote of OD, saying that, 'The theory advocated there is very nearly the same as Frege's'²⁰ which distinguishes the *sense* and the *denotation* of a description.²¹ Of course their accounts of *propositions* are very different (see below). In *PoM*, the meaning of a description 'the ϕ ', or any other denoting phrase '*det* ϕ ' ('*det*' for 'determiner') is a *denoting concept*. And this meaning, this denoting concept—rather than its denotation—is the distinctive contribution '*det* ϕ ' makes to the proposition expressed by a sentence '*C*(*det* ϕ)'.²² In OD, denoting concepts are ostentatiously cast aside, and with them the 'very paradoxical objects' Russell had taken them to denote in *PoM*.²³ So too are

language, in this case as in some others, is a misleading guide. The same remark will apply to *every, any, some, a, and the*. (pp. 72–3.)

According to Kaplan (this volume) there is an important difference between *PoM* and OD here: In *PoM*, the notion of a denoting phrase appears to be, in part, a semantic one; but in OD it appears to be a purely syntactic one, witness the end of the final sentence of the first paragraph again: 'a phrase is denoting *solely* [my italics, SN] in virtue of its *form* [Russell's italics, SN]'.¹⁷

¹⁷ OD, p. 481. Denoting phrases headed by 'a' (or 'an') are *indefinite* descriptions.

¹⁸ See Kaplan and Kripke (this volume). Definite descriptions turn out to be indefinite descriptions with a uniqueness condition that the Theory of Descriptions makes precise.

¹⁹ See Kaplan and Salmon (this volume). See also Makin (2000) and Urquhart (1994).

²⁰ OD, p. 480, n. 1.

²¹ I follow Russell here in talking about an expression's *denotation* rather than its referent or signification. (Russell uses 'referent' for a quite different notion.)

²² What was I referring to with 'its' in my sentence? The denoting phrase or the denoting concept? It doesn't actually matter. Russell talked of denoting *concepts* denoting their denotations as well as of the denoting phrases expressing those denoting concepts doing so, and the latter is usually understood as parasitic on the former. (My verb phrase anaphora preserves the ambiguity! I intend the so-called sloppy reading of 'doing so': the explicit occurrence of 'their' is bound by 'denoting concepts', the ellipted occurrence is bound by 'the denoting phrases expressing those denoting concepts'.)

²³ Sweeping away denoting concepts was the *purpose* of OD, Kaplan (this volume) believes. The 'very paradoxical objects' were actually arrangements of objects—the disjunction of all men, for example, which was the denotation of 'some man'. As Kaplan notes, the DP for which the postulation of a very paradoxical object is *not* needed is 'the ϕ '.

fictional objects, which Russell had admitted in *PoM* to serve as the denotations of names such as ‘Apollo’ and ‘Hamlet’.²⁴

In OD, there is no distinctive entity that a denoting phrase ‘*det* ϕ ’ contributes to the proposition expressed by ‘*C*(*det* ϕ)’—it does not have a *meaning* in Russell’s sense. The *meaning* of an expression in OD is simply that entity for which it stands (if it stands for anything); every expression that means something (in this sense) stands for something real.²⁵ The meaning of a genuine name *n* is identified with the particular object that is *n*’s bearer; and *n*’s bearer is *n*’s contribution to the proposition expressed by (a tokening of) any sentence *C*(*n*) containing it. Russell’s propositions are language-independent entities; they have structure and contain objects, relations, and complexes thereof as constituents.²⁶ They are what sentences express, the objects of thought, and

²⁴ It is sometimes said that Russell’s ontology in *PoM* was ‘unrestrained’, that he had also admitted non-existent objects in *PoM* to serve as the denotations of empty *descriptions* like ‘the king of France’ and the ‘round square’, and that the new theory of denoting in OD was ‘provoked by the impossibility of Meinong’s impossibles’ (Quine 1966) and by the desire to produce a theory of descriptions that guaranteed meaning to sentences containing empty descriptions (Strawson, 1950). But empty descriptions are not even mentioned in *PoM*! Moreover, as Kaplan (this volume) stresses, on the account of descriptions given in *PoM* every description has a meaning, even if it is empty, so their emptiness does not deprive sentences containing them of meanings. Independently of textual evidence one way or the other, the claims of Quine and Strawson should seem doubtful given what Russell says in OD about the theories of descriptions proposed by Frege and Meinong. First, Russell dismisses his old theory on the grounds that it is ‘very nearly the same as Frege’s’, which seeks to explain the utility of empty descriptions by distinguishing the sense and the denotation of such an expression. (For the power of Russell’s own counterexamples to Frege’s theory (and, pre-emptively, to the theories of Hilbert and Bernays, and Strawson!), see Kripke (this volume). Kripke also provides a rather nice one of his own.) Second, if Russell had admitted such objects, surely he would have drawn attention to a similarity between his old theory and *Meinong’s*, which admitted such objects. (For discussion, see Kaplan and Salmon (this volume).) Similarly, there is no mention of any such affinity when he launches into Meinong fourteen years later in *IMP*:

In such theories, it seems to me, there is a failure of that feeling for reality which ought to be preserved even in the most abstract studies. Logic, I should maintain, should no more admit a unicorn than zoology can; for logic is concerned with the real world just as truly as zoology, though with its more abstract and general features A robust sense of reality is very necessary in framing a correct analysis of propositions about unicorns, golden mountains, round squares and other such pseudo-objects. (1919, pp. 169–70)

At the same time, it is important not to go too far in the other direction. If, as seems correct, it was not in attempting to answer questions about empty descriptions, but in attempting, in 1904, to solve a problem in logic and the philosophy of mathematics that Russell came across the Theory of Descriptions (see Makin 2000), it is none the less true that he immediately recognized its power and seized the opportunity to purify his ontology. Denoting concepts were the first to go, of course, but the fictional objects associated with fictional names were not far behind. Indeed, the speed with which Russell gave up fictional entities—in a 1904 review, he had lodged no criticism of any part of Meinong’s ontology—suggests he had never been entirely comfortable with them, and to that extent I suppose Quine and Strawson are not quite as far off-target as some maintain.

²⁵ See Cartwright, Kaplan, and Salmon (this volume). See also Sainsbury (1979).

²⁶ See Kaplan (this volume). See also Kaplan (1978). Mont Blanc with, and in spite of, all its snow fields, Russell wrote to Frege, is a constituent of the proposition that Mont Blanc is over 1000 metres high.

the bearers of logical relations.²⁷ These propositions are finer in grain than propositions construed as truth conditions or sets of possible worlds (as they are by some philosophers today); but they are coarser in grain than propositions construed as Fregean thoughts, the constituents of which are *senses*.²⁸ If ‘Phosphorus’ and ‘Hesperus’ are both genuine names, then on Russell’s construal the proposition that $C(\text{Phosphorus})$ is the proposition that $C(\text{Hesperus})$; not so on the Fregean construal.²⁹ So whereas Frege seems to have machinery with which to at least address the seeming difference in ‘cognitive significance’ of $a=a$ and $a=b$, where a and b are names of the same thing—the sentences express different propositions—Russell seems not to.³⁰

So why do denoting phrases lack meanings? Here is how Russell characterizes the new theory of denoting in OD:

This is the principle of the theory of denoting I wish to advocate: that denoting phrases never have any meaning in themselves, but that every proposition in whose verbal expression they occur has a meaning.³¹

Obviously a denoting phrase ‘*det* ϕ ’ is ‘meaningful’ in an intuitive sense because it bears on propositional content, that is, on the identity of the proposition expressed by ‘ $C(\text{det } \phi)$ ’. What Russell means by saying that ‘*det* ϕ ’ has no meaning (in itself) is the proposition expressed by ‘ $C(\text{det } \phi)$ ’ contains no constituent corresponding directly to ‘*det* ϕ ’.³² This is no less the case for ‘ $C(\text{the } \phi)$ ’ than it is for ‘ $C(\text{every } \phi)$ ’ or ‘ $C(\text{no } \phi)$ ’. Descriptions do not have meanings.³³ Russell takes his new

²⁷ See Kaplan (this volume).

²⁸ For an altogether different conception of proposition, see Schiffer (this volume).

²⁹ See Kaplan, Salmon, and Schiffer (this volume).

³⁰ On the fundamental differences between Frege and Russell, see Kaplan (this volume). Unless (as actually seems plausible) Russell held ‘ $a=b$ ’ to be as trivial as ‘ $a=a$ ’ when a and b are both genuine names, he did not actually possess the means even to address Frege’s problems constructively using just the Theory of Descriptions until he analysed ordinary proper names as descriptions. (On the use of ‘trivial’ here, see the discussion of p. 67 of *PM* below.) If names are not disguised descriptions, there is a world of difference between explaining the difference between (i) ‘Hesperus = Hesperus’ and (ii) ‘Hesperus = the second planet from the sun’, and explaining the difference between (i) and (iii) ‘Hesperus = Phosphorus’. See Cartwright, Kaplan, and Kripke (this volume).

³¹ OD, p. 480.

³² As Kaplan (this volume) puts it, these ‘meanings in themselves’ (or ‘meanings in isolation’) that are said not to exist are precisely the *denoting concepts* of *PoM*.

³³ At least one of his arguments against descriptions having meanings (or, at the very least, against them having *denoting concepts* as their meanings), the so-called Gray’s Elegy argument, brims with complexities that scholars have been unable to resist, providing their own detailed reconstructions and evaluations. I refer the reader to Salmon (this volume), the latest in a distinguished line of meticulous analyses. (Kaplan plans to expand upon the analysis he presented in Kaplan (1986) in a sequel to his contribution.)

theory of how descriptions bear on propositional content (see below) to provide solutions to a number of problems overlapping those Frege and Meinong were addressing, and to do so without appealing to a distinction between *sense* and *denotation* (Frege), a bivalence-securing but ‘plainly artificial’ denotation (zero, or the null set) for empty descriptions (Frege), unreal entities as the denotations of certain descriptions (Meinong) or ‘paradoxical entities’ as the denotations of DPs (the Russell of *PoM*).³⁴ (Although potentially confusing, Russell talks of what we have become accustomed to calling the *sense–reference* or *sense–denotation* distinction in Frege as the *meaning–denotation* distinction, presumably because Fregean ‘meanings’ are the constituents of Frege’s propositions, just as Russell’s ‘meanings’ are the constituents of Russell’s.)

So how, exactly, do descriptions work? It is hard to make the question more precise and at the same time avoid certain problems of formulation. The following will have to suffice here: How does a description ‘the ϕ ’ contribute to (i.e. affect) the proposition expressed by ‘ $C(\text{the } \phi)$ ’? What is the relation between ‘the ϕ ’ and the identity of the proposition that $C(\text{the } \phi)$? Or as Russell himself would later put it in *PM*, what is ‘the import of propositions in which it occurs’?³⁵ F. P. Ramsey provides a characteristically insightful summary: ‘the king of France is

³⁴ As Kaplan (this volume) observes, with definite descriptions, the ‘paradoxical’ denotation of *PoM* is actually the one case that is completely straightforward.

³⁵ Here we must not identify contributing (or making a contribution) with contributing an object, or any other single entity (simple or complex) to the proposition expressed. As Kaplan puts it, as far as propositional contributions are concerned, nothing stands to a description as a named object (bearer) stands to a name, a seemingly odd idea given the very similar roles names and descriptions play in language, and their almost identical syntactic distributions.

Before we even get to the details of Russell’s positive proposal, there is a serious issue about how to *describe* what it is Russell is going to give us. Suppose Russell provides a perfectly good description that uniquely specifies the contribution ‘the ϕ ’ makes to the proposition expressed by ‘ $C(\text{the } \phi)$ ’, the following, for example:

(i) the contribution ‘the ϕ ’ makes to the proposition expressed by ‘ $C(\text{the } \phi)$ ’.

Suppose we name whatever it is that (i) describes ‘ m ’. If a name’s meaning is just its bearer, then whatever it is that (i) describes, namely, m , is the meaning of ‘ m ’, and thereby the contribution ‘ m ’ makes to the proposition expressed by ‘ $C(m)$ ’. So now ‘ $C(m)$ ’ and ‘ $C(\text{the } \phi)$ ’ seem to express the same proposition, for surely C ’s contribution is constant! Russell refuted before we even get to the details of his proposal! One issue that comes up here is the introduction of ‘ m ’. Might it not be a disguised description? Or have we learned from Kripke (1980) that a name introduced by description is never *equivalent* to a description? But the real problem must flow from the idea of there being a single entity (simple or complex) that constitutes the propositional contribution of ‘the ϕ ’ in the same way that there is meant to be a single entity (simple or complex) that constitutes the propositional contribution of a name. Perhaps all the ‘refutation’ shows is that we cannot, contrary to one of our initial assumptions, *name* whatever it is that (i) seems to *describe*, because there is, in fact, no single entity (simple or complex) that (i) describes. But why should our use of descriptions (and our own powers of description) be so curtailed, given that Russell aims to show us *the way* ‘the ϕ ’

wise' expresses 'a possibly complex multiple relation between kingship, France, and wisdom', and 'Mr Russell's theory explains exactly what relation it is'.³⁶ On Russell's account, 'the ϕ ' is a denoting phrase along with 'every ϕ ', 'a ϕ ', 'no ϕ ' etc. The way a denoting phrase '*det* ϕ ' impinges upon the identity of the proposition expressed by a sentence '*C*(*det* ϕ)' is certainly systematic; but it can be discerned only by taking into account the *structure* of '*C*(*det* ϕ)', including the structure of '*det* ϕ ' itself, and the meanings of those parts of '*det* ϕ ' that have meanings.³⁷ As Russell likes to put it, 'the ϕ ' has 'no meaning in isolation'. (As he would go on to put it in *PM*, 'the ϕ ' is an 'incomplete symbol'.) He does not mean by this that 'the ϕ ' acquires a meaning once it is slotted into a sentence '*C*(the ϕ)'. He means that only in the context of the whole sentence is it possible to explain the way 'the ϕ ' contributes to the proposition expressed. (Only in this context can the relation between 'the ϕ ' and the identity of the proposition that *C*(the ϕ) be explained.³⁸)

According to OD, The proposition expressed by '*C*(the ϕ)' is *general*. Avoiding, for a moment, a complication involved in a fully general specification, a simple sentence 'the ϕ is ψ ' expresses the proposition that exactly one thing is ϕ , and that one thing is ψ (more perspicuously, the conjunctive proposition that (i) there exists exactly one ϕ and (ii) every ϕ is ψ).³⁹ In short, Russell gives us an *analysis*. For certain purposes, it may be convenient to talk of what 'the ϕ ' *denotes* when ϕ is true of exactly one thing, x let us suppose ('we may then say that the entity x is the denotation'⁴⁰) but the concept of denoting plays no role in the theory of denoting proper, which is not actually a theory *about*

bears on propositional content?—don't the italicized words before the dash constitute a definite description? Ditto '*how "the ϕ " bears on propositional content*', '*the relation between "the ϕ " and the identity of the proposition expressed by "*C*(the ϕ)"*', and even '*how "the ϕ " works*'. There seems to me to be a genuine puzzle here, not unrelated to the one Russell is discussing in the Gray's Elegy passages.

³⁶ Ramsey (1927), pp. 44. See also Salmon (this volume).

³⁷ See Kaplan and Schiffer (this volume).

³⁸ If at all. See n. 36.

³⁹ In OD, Russell uses propositional functions of the form ϕx in his statement of the theory. See Cartwright (this volume). Cleaned up, the idea seems to be that 'the ϕ is ψ ' is to be analysed as 'it is sometimes true of x that ϕx , that ψx , and that it is always true of y that if ϕy then $y=x$ '. In *PM* the theory becomes lucid and its simplicity revealed. On the matter of the precise moment Russell hit on the original analysis, see Cartwright (1987) and Makin (2000).

⁴⁰ OD, p. 488.

denoting at all.⁴¹ Even if ‘the ϕ ’ has a denotation in this extra-theoretical sense, it still has no *meaning* in Russell’s sense: there is no entity for which ‘the ϕ ’ stands that constitutes its contribution to the proposition expressed by ‘C(the ϕ)’.⁴²

If the opening sentences of OD are taken at face value, then, the Theory of Descriptions is motivated in part by formal or syntactic considerations. From a syntactic perspective, ‘the author of *Waverley*’ is closer to ‘every reader of *Waverley*’ than it is to ‘Scott’ (or ‘Sir Walter Scott’). It *looks* more like a quantified expression than a name: syntactically, the determiner ‘the’ appears to be on a par with quantificational determiners such as ‘every’, ‘some’, ‘no’, etc., combining with a nominal expression to form a DP.

In Russell’s mind this syntactic similarity appears tied to a semantic one. If n is a genuine name, then the proposition expressed by ‘C(n)’ depends for its existence upon the existence of an object that n refers to. But the existence of the proposition expressed by ‘C(the ϕ)’ is not analogously dependent upon the existence of some object ‘the ϕ ’ stands for. Even if there is no ϕ , a perfectly good proposition is expressed by ‘C(the ϕ)’, just as perfectly good propositions are expressed by ‘C(every ϕ)’ and ‘C(some ϕ)’. And even if there *is* a unique ϕ , the proposition expressed by ‘C(the ϕ)’ does not contain this thing as a constituent;⁴³ it contains, rather, constituents expressed by the words making up the denoting phrase.⁴⁴ Relatedly, whereas understanding ‘C(n)’ requires knowing who or what c stands for, understanding ‘C(every ϕ)’, ‘C(some ϕ)’, or ‘C(the ϕ)’ does not require knowing who or what is ϕ (uniquely or otherwise). These two points, although not strictly congruent, are usually rolled up into the slogan that whereas the proposition expressed by ‘C(n)’ is *object-*

⁴¹ Kaplan (this volume) calls this a ‘very thin’ conception of denoting, ‘isolated from the body of the logical and semantic theory’. I concur, but only in so far as I take Russell’s comment to have an extra-theoretical character. It is a *façon de parler* that plays no part of the theory of denoting proper. (It may still play a role in the accompanying *epistemology*, as Kaplan suggests.) If there is one thing the theory of denoting is *not* about, it is *denoting* (except in so far as it involves banishing the notion except as an extra-theoretical convenience). One might be forgiven for quipping that the title of Russell’s article could be the product of a typographer’s error, a transposition involving the first two letters.

⁴² See Cartwright, Kaplan, and Schiffer (this volume). Of course, for some sentences ‘C(the ϕ)’, the thing satisfying ϕ will be a constituent of the proposition expressed but contributed by *another* expression. ‘Scott is the author of *Waverley*’ is an example. Furthermore, there may be an entity for which *part* of a description stands that serves as that *part*’s contribution to the proposition expressed. The underlined parts of ‘the king of France’ and ‘the author of *Waverley*’, for example.

⁴³ As Salmon puts it, the proposition is *about* that thing only in an attenuated sense.

⁴⁴ OD, p. 492.

dependent (or *singular*), the propositions expressed by ‘ $C(\text{every } \phi)$ ’, ‘ $C(\text{some } \phi)$ ’, and ‘ $C(\text{the } \phi)$ ’ are *object-independent* (or *general*).⁴⁵

The general principle underlying the epistemic point is usually called the Principle of Acquaintance, which emerges in the penultimate paragraph of ‘On Denoting’:

One interesting result of the above theory of denoting is this: when there is anything with which we do not have immediate acquaintance, but only by definition by denoting phrases, then the propositions in which this thing is introduced by means of a denoting phrase do not really contain this thing as a constituent, but contain instead the constituents expressed by the several words of the denoting phrase. Thus in every proposition that we can apprehend (i.e. not only in those in whose truth or falsehood we can judge of, but in all that we can think about), all the constituents are really entities with which we have immediate acquaintance.⁴⁶

Why Russell should think the Principle of Acquaintance is a *result* of the theory of denoting itself is a mystery.⁴⁷ Nonetheless he has now arrived at the intuitive distinction he mentioned in the second paragraph of the article when stressing the importance of the subject of denoting to the theory of knowledge: the distinction between things known to us by acquaintance and things known to us by description, or as he puts it on that first page, ‘things we have presentations of’ and ‘things we reach only by means of denoting phrases.’⁴⁸

The question of what sorts of things we can and cannot be acquainted with is not taken up in earnest in OD, although we do find in the penultimate paragraph an expansion of something said in the second paragraph—‘we have acquaintance with the objects of perception’ but not ‘with other people’s minds, seeing that these are not directly perceived’—that seems to reveal the direction Russell is likely to go in:⁴⁹

Now such things as matter (in the sense in which matter occurs in physics) and the minds of other people are known to us only by denoting phrases, i.e. we are

⁴⁵ See Buchanan and Ostertag, Kaplan, Schiffer, and Szabó (this volume). See also Neale (1990) and especially Kaplan (1978, 1989), the impetus behind much recent work.

⁴⁶ OD, p. 492.

⁴⁷ See Cartwright (this volume).

⁴⁸ OD, p. 479. Russell picks an example of something we can know *only* by description (the centre of mass of the Solar System at the first instant of the twentieth century), hence the appearance of the word ‘only’ in the second phrase. He does not mean to be denying that there can be things we know by description and fail to realize we also know by acquaintance. See Kaplan (this volume).

⁴⁹ The question *is* taken up in earnest in KAKD. See Kaplan (this volume).

not acquainted with them What we know is “So-and-so has a mind which has such and such properties” but we do not know “A has such and such properties,” where *A* is the mind in question. In such a case, we know the properties of a thing itself without having acquaintance with the thing itself, and without, consequently, knowing any single proposition of which the thing itself is a constituent.⁵⁰

Neither the thesis that the only particulars with which we are acquainted are sense data nor the allied thesis that ordinary proper names are disguised descriptions is explicitly stated in OD, but it is not difficult to see why people sense their presence there: (i) names of fictional characters are treated as disguised descriptions; (ii) names of other minds (other people?) must be disguised descriptions; and (iii) whatever Russell may have intended, in OD he committed himself, as we shall see, to the position that at least one of two purported names *a* and *b* is a disguised description if a true statement $a=b$ is not ‘trivial’.

2. *Principia Mathematica*

The specific quantificational semantics Russell assigns to descriptive phrases in OD was informally clear, but its most formal statement there was a messy affair involving propositional functions.⁵¹ It was improved upon dramatically in 1910 with the publication of the first volume of *PM*. As Russell later put it, ‘the whole of my theory of descriptions is contained in the definitions at the beginning of *14 ... the two definitions which embody the theory of descriptions (*14.01.02).’⁵² With *14.01.02, the theory’s precise quantificational character became more transparent, and (consequently) so did the way it was meant to explain ambiguities of scope such as those arising when descriptions interact with intensional and even truth-functional operators.⁵³

Descriptions are added to Russell’s system in *14 as quasi-singular terms by way of what he calls *contextual definition*.⁵⁴ Where $(\lambda x)(\phi x)$ does duty for ‘the ϕ ’, the first of the two definitions is this:

⁵⁰ OD, p. 493.

⁵¹ See Cartwright, Kaplan, Kripke, and Schiffer (this volume).

⁵² RC, pp. 690–1.

⁵³ See Kripke (this volume). The ambiguities in intensional contexts that Russell considers involve propositional attitudes. (‘Propositional attitude’, ‘scope’ and ‘transparent’ are Russell’s labels.) Russell himself did not consider ambiguities in modal, temporal or causal contexts such as those discussed later by (e.g.) Smullyan (1948), Prior (1963), and Føllesdal (1965).

⁵⁴ Russell is explicit (*PM*, p. 11) that the *definienda* in such definitions are ‘mere typographical conveniences’ serving a practical but no theoretical purpose: ‘If we introduced no definitions, our

$$*14.01 \quad [(\lambda x)(\phi x)]\psi(\lambda x)(\phi x) =_{\text{df}} \exists x(\forall y(\phi y \equiv y=x) \wedge \psi x).$$

The *scope* of an expression is the smallest sentence containing it; and the square-bracketed copy of $(\lambda x)(\phi x)$ in *14.01 is a scope-marker, placed at the beginning of a sentence (open or closed) to indicate the description's scope, making it possible to distinguish say, $\sim[(\lambda x)(\phi x)]\psi(\lambda x)(\phi x)$ and $[(\lambda x)(\phi x)]\sim\psi(\lambda x)(\phi x)$.⁵⁵ As stated, the ana-

formulae would very soon become so lengthy as to be unmanageable, but theoretically all definitions are superfluous' (*PM*, p. 11). (On Russell's contextual definitions, see Gödel (1944), Kaplan (1972), Neale (2001), and Ostertag (1998).) Nonetheless, sometimes a definition 'contains an analysis of a common idea, and may therefore express a notable advance In such cases, a definition is a "making definite": it gives definiteness to an idea which had previously been more or less vague'. (*PM*, p. 12). Russell gives Cantor's definition of the continuum as an illustration; it is an interesting question whether he viewed *14.01.02 in the same way, and an answer would seem to bear on the matter of the extent to which Russell construed the Theory of Descriptions as relevant to what we call the semantics of natural language. See Buchanan and Ostertag, Kripke, and Szabó (this volume).

⁵⁵ As is customary, I have used the conjunction sign \wedge where Russell can get away with his ghastly dots. In OD, Russell talked about *primary* and *secondary* occurrences of descriptions. (See Kaplan and Kripke (this volume).) In *PM*, he talked about *scope*. It should be stressed that scope ambiguities were hardly Russell's principal concern: for his mathematical purposes he (and following him Quine) was interested in descriptions with small scope (often quantified into), so it comes as no surprise that when the scope-indicating conventions are introduced in *PM*, the dropping of the square-bracketed copy of the *iota*-compound is for *small* scope. (It is no doubt the focus on mathematics that led several prominent logicians, including Church, Quine, and Hintikka, to see the scope ambiguities predicted by the Theory of Descriptions as a *defect!* (See Kripke (this volume).) Those with a keener interest in natural language see it as a virtue. See Kripke, Szabó (this volume), and Neale (1990, 2002).

According to Szabó, the *particular* truth conditions Russell advances in *14.01 do 'no explanatory work in Russell's writings', all the work is done by descriptions being 'scope-bearing elements' (and not being referring expressions, of course), and, as a result, the uniqueness implication can be dropped, leaving an analysis that is still 'Russellian'. Considerations of scope were certainly not the impetus for the Theory of Descriptions. (The discovery that certain genuine ambiguities involving definite descriptions might be explained in terms of scope surely *was* a discovery once the theory was almost completely before Russell's mind, and to this extent it should surely be regarded as the piece that finalized the theory.) So Szabó's claim will founder unless 'explanatory work in Russell's writings' is restricted to explanatory work in solving the specific puzzles about denoting given in OD, for the uniqueness implication was crucial to Russell's philosophy of mathematics, given his aversion to many-valued functions. (See Oliver and Smiley (this volume), and also Makin 2000 and Smiley 2004.) Russell was concerned with the semantics of descriptions in *PoM*, before his discovery of scope ambiguities involving them (see Kaplan (this volume), Ostertag 1998, and Makin 2000), and obviously the original concern continued in *PM*. The importance to Russell of descriptions did not suddenly change in OD when ambiguities of scope came to light under the new analysis. As far as Russell's philosophy of mathematics is concerned—in particular, the attempted logicist reduction—the descriptions of interest are those that logicians often construe as standing for functions, i.e. those seemingly composed of descriptive functors such as 'the successor of ()', 'the *sin* of ()', and 'the sum of () and ()'. (Though even these are further contextually defined in *30 of *PM*; see next footnote.) Hence Russell's genuine concern with *uniqueness* and his adaptation of Peano's *iota* notation. It is not surprising, then, as Oliver and Smiley (this volume) point out, that Russell's favourite natural language examples involve what seem to be descriptive functors: 'the king of', 'the author of', and 'the father of'. See also Smiley (2004).

lysis is not yet in truly primitive notation because \exists , \equiv , \wedge , and even $=$ (*13.01) are defined symbols in *PM*: \forall is the sole quantifier (though not in this form), and \sim and \vee the sole connectives.⁵⁶ In the Introduction to the second edition, Russell suggests replacing \sim and \vee by Scheffer's incompatibility stroke: $\phi|\psi$ is equivalent to $\sim\phi \vee \sim\psi$.⁵⁷ I have never actually seen 'the ϕ is ψ ' in the suggested primitive notation—nor would I care to; remember, for Russell identity is defined too!⁵⁸

On Russell's account, an expression is not a referring expression unless it has a meaning (in his sense), so he needs no existence predicate letter in the language of *PM*. But the English sentences 'n exists' and 'the ϕ exists' appear to express propositions. Russell has a story about the latter: it is just making explicit the existential quantification implicit in definite descriptions. He introduces an abbreviatory symbol $E!$ that may combine with a description $(\iota x)(\phi x)$ to form a quasi-formula $E!(\iota x)(\phi x)$, understood as 'the ϕ exists', and provides the obvious contextual definition:

$$*14.02 \quad E!(\iota x)(\phi x) =_{\text{df}} \exists x \forall y (\phi y \equiv y = x).$$

The promise of the Theory of Descriptions is that any well-formed formula containing $(\iota x)(\phi x)$, regardless of the complexity of ϕ , can be replaced by an equivalent formula that is description-free.⁵⁹

⁵⁶ The analysand is not the end of the line either as Russell abbreviates further. The *iota*-notation is a half-way house 'being chiefly required to lead up to another notation' (*PM*, p. 31), namely the inverted comma *of*-notation of *30: $R'z$ is used as shorthand for 'the object that bears R to z ' and is introduced by a further definition (*not* stated in terms of whole sentences): $R'z =_{\text{df}} (\iota x)(Rxz)$. (If R stands for the father relation, $R'z$ is understood as 'the father of z '.) $R'z$ expresses a function of z , which Russell calls a *descriptive function*. (If R expresses a relation, $R'z$ expresses the associated descriptive function.) All the ordinary functions of mathematics (e.g. $\sin z$, $\log z$) are said to be of this kind. (See previous footnote.) Subsequent logicians did not adopt the inverted comma notation, but Russell's adaptation of Peano's *iota* notation caught on, and many logicians have used it in their logical systems, some construing the description operator as primitive, others as defined contextually in Russell's or some other way. (See e.g. Hilbert and Bernays 1934, Quine 1940, Carnap 1947, Grandy 1972, Lambert 1972, and a host of free logicians.)

⁵⁷ See Kripke (this volume).

⁵⁸ Kripke (this volume) points out that where we have only one occurrence of each of ϕ and ψ in the analysis in *14.01 as it is actually stated in *PM*, in Russell's primitive notation there will be very many $|\psi$ is the sole connective. (Something as seemingly simple as the $\sim\phi$ now becomes $\phi|\phi$.) The consequences of this are explored in his paper (and in more detail in a promised sequel).

⁵⁹ See Kripke (this volume). It is common, following Russell, to talk of 'elimination' in connection with contextual definition. But we must separate *linguistic* and *ontological* elimination here. Russell managed to confuse Gödel (1944) and Quine (1966) about this. I get the impression Quine's general position on the role of the Theory of Descriptions in ontological elimination and commitment has been absorbed by many as logico-philosophical fact, so I want to expand upon a point I have made elsewhere. (Neale 2001, 2002. See also Oliver and Smiley (this volume), who

In *PM*, Russell presents what he undoubtedly saw at the time as his most important demonstration that descriptions have ‘no meaning in isolation’, that they are ‘incomplete symbols’. A version of the argument first appeared in OD, and its simplicity is striking. Here is the *PM* version, which I shall call the Triviality Argument:

It can easily be shown that $(\lambda x)(\phi x)$ is *always* an incomplete symbol. Take for example, the following proposition: “Scott is the author of *Waverley*.” [Here “the author of *Waverley*” is “ $(\lambda x)(x \text{ wrote } Waverley)$ ”.] This proposition expresses an identity; thus if “the author of *Waverley*” could be taken as a proper name, and supposed to stand for some object c , the proposition would be “Scott = c .” But if c is anyone except Scott, this proposition is false; while if c is Scott, the proposition is “Scott is Scott,” which is trivial, and plainly different from “Scott is the author of *Waverley*.” Generalizing, we see that the proposition

$$a = (\lambda x)(\phi x)$$

is one which may be true or may be false, but is never merely trivial, like $a = a$; whereas if $(\lambda x)(\phi x)$ were a proper name, $a = (\lambda x)(\phi x)$ would necessarily be either false or the same as the trivial proposition $a = a$. We may express this by saying that $a = (\lambda x)(\phi x)$ is not a value of the propositional function $a = y$, from which it follows that $(\lambda x)(\phi x)$ is not a value of y . But since y may be anything, it follows that $(\lambda x)(\phi x)$ is nothing. Hence, since in use it has a meaning, it must be an incomplete symbol.⁶⁰

press the point hard and rightly stress that Russell himself is responsible for much of the confusion.) Contextual definitions concern *expressions*, and what Russell contextually defines in *14 and *20 are, respectively, singular descriptions (expressions that purport to pick out individuals) and class abstracts (expressions that purport to pick out classes). The latter definition makes it possible for Russell to eliminate reference to *classes* themselves (so to speak); so, in effect, he defines away a whole *category* of entities. By contrast, contextually defining definite descriptions did not give him a way of defining away *objects* themselves (there is no *categorial* elimination): In the complex quantifications that result from the contextual elimination of descriptions—which, as Kripke points out, is constrained by notation and the choice of primitive symbols—apparent singular terms are replaced by a scattered but systematic arrangement of variables, quantifiers, connectives, and the identity sign, and there is no categorial elimination because the entities the variables range over belong to the same category as the entities that are the meanings of genuine singular terms. (There is, of course, an important *theory-internal* categorial elimination that comes with the Theory of Descriptions: denoting concepts are swept away.) The Theory of Descriptions did not give Russell a way of avoiding commitments to objects *per se*, but it did give him a new way of avoiding commitment to an object here or there (as it were) whose existence may have seemed problematic, or at least more problematic than it had once seemed. At the same time, although it is true that Russell wanted to avoid postulating a winged horse, a round square, a king of France, and so on, this does not appear to be what led him to give up the theory of denoting from *PoM*. In summary, the contextual elimination of an expression may facilitate an attempt to dispense with some ontological category or other, or it may merely facilitate an attempt to dispense with specific entities belonging to an otherwise acceptable category. In *20 we find the former, in *14 at most the latter.

⁶⁰ *PM*, 2nd edn, p. 67. The penultimate and antepenultimate sentences contain material and formal mode shifts, but their import is clear. Russell is frequently accused of use-mention confusions,

A great deal of work is being done here by the word ‘trivial’, and we have to look back to the OD version of the argument to see exactly what Russell means:

The proposition “Scott was the author of *Waverley*” has a property not possessed by “Scott was Scott,” namely the property that George IV wished to know whether it was true. Thus the two are not identical propositions.⁶¹

Two things seem clear. First, since Russell takes the argument to show that ‘the author of *Waverley*’ is not a name, he must be assuming that ‘ $a=b$ ’ is as trivial as ‘ $a=a$ ’ when a and b are both genuine names. Second, it was Russell’s view, as it was Frege’s, that if one can believe that p whilst not believing that q , the proposition that p is not identical to the proposition that q . But, surely one can believe that $a=a$ without believing that $a=b$? Frege certainly thought so. There would appear to be only one way out for Russell: if this situation arises, at least one of a and b is not a name after all. In short, whatever Russell actually thought about ordinary proper names when he was writing OD, the presence in the article of the argument above virtually committed him to treating them as disguised descriptions. To that extent, philosophers who cite OD in connection with descriptive accounts of ordinary, proper names are not quite as wide of the mark as some commentators claim.⁶²

and whilst he does sometimes slip up, I do not think the problem is as widespread as is sometimes made out. For example, since the only way Russell had to specify propositions was using sentences of natural language, it seemed natural to him to switch between formal and material mode, and so use linguistic terminology for non-linguistic entities. Thus he might talk of the denoting phrase ‘the king of France’ being the subject of the *sentence* ‘the king of France is bald’ in one place, and of ‘the king of France’ not being the subject of the *proposition* ‘the king of France is bald’ in another. It can be irritating trying to establish how Russell is using, say, ‘subject’ or ‘verb’ on a given occasion, but often enough it is clear upon reflection what he means. On Russell’s use of propositional functions, see Cartwright (this volume).

⁶¹ OD, p. 487.

⁶² The idea that ordinary proper names are disguised descriptions is not original with Russell. Whether or not it is in Plato’s *Cratylus*, it crops up periodically in the Stoics, and what is often called the cluster theory seems to find full expression in the work of Basil of Caesarea (c. 330–79), who says, for example, that,

A name is not actually a signifier of a substance, but of the distinctive properties which characterize the individual. So when we hear ‘Peter’, we do not from the name think of his substance (by ‘substance’ I mean now the material substrate, which the name in no way signifies), but we are imprinted with the notion of the distinctive properties which are observed concerning him. For immediately from this utterance we think of Jonah’s offspring, the man from Bethsaida, the brother of Andrew, the man called forth from the fishermen into the service of the Apostolate, the man pre-eminent through faith who received upon himself the edifice of the church; none of these properties is substance, which is conceived of hypostasis. So the name

If Russell had thought about anaphora he would surely have thought he could provide an ancillary argument to the same conclusion by taking into account the fact that the meanings of *parts* of descriptions may sometimes be ‘passed on’ to serve as the meanings of other expressions.⁶³ There are surely readings of the following sentences, for example, upon which recognizing the anaphoric links between ‘it’ and ‘*Waverley*’, and ‘there’ and ‘Greece’ is crucial to comprehension (imagine (2) uttered during the King’s exile in World War II):

- (1) the author of *Waverley* was unhappy with it
- (2) the king of Greece doesn’t live there at present.

Since Russell sees the propositions expressed by ‘Scott is Scott’ and ‘Scott is the author of *Waverley*’ as distinct, and their distinctness evidence that ‘the author of *Waverley*’ does not have a meaning (in his sense), he would have seen the contrasts between (1) and (1’), and (2) and (2’) as adding grist to his mill:

- (1’) Scott was unhappy with it
- (2’) He [pointing] doesn’t live there any more.

The proposition expressed by (2) would contain Greece (no doubt with, and in spite of, all its islands) as a constituent, perhaps twice over. The proposition expressed by (2’) would be lucky to have it in there once!⁶⁴

3. Today

It is sometimes said that Russell had no interest in what we today call the semantics of natural language, and that the Theory of Descriptions was not meant to apply to uses of descriptions in natural language, or was meant to apply only when such phrases are being used in some special strict way.⁶⁵ *Russell* certainly thought natural language defective

marks out for us the character of Peter, but in no way stands for the substance itself. (*Against Eunomius* 2.4.1–26. Translation adapted from Sorabji (2004), pp 227–8.)

Of course, in Basil the names as descriptions thesis is intimately connected to a separation of a person and his material substance, the former construed as the entity satisfying the cluster of descriptions. For discussion of Basil’s theory of names, see Kalligas (2002).

⁶³ See Geach (1961).

⁶⁴ The contrasts above are, I believe, reflexes of a deep fact about the grammar of anaphora in natural language. See below.

⁶⁵ The former claim is made by Quine, the latter by Szabó.

from a logician's perspective, but it is difficult to make sense of either Strawson's criticism of Russell in 'On Referring' (and elsewhere) or certain passages of Russell's own response in MSR if either of the aforementioned claims is true.⁶⁶ Moreover, there is no great pressure to construe Russell's wish to focus on reality itself (in PLA, for example) coupled with his worries about the imperfections and nuances of natural language obscuring or distorting his view of it, as indicating a lack of interest in natural language semantics. Whatever Russell's intentions, it is beyond doubt that interest in the Theory of Descriptions today does not revolve around the logicist reduction or any doctrine about acquaintance.⁶⁷ It centres on the theory construed as (a) a contribution to natural language semantics (made more viable by advances in logic and generative grammar), and (b) a handy philosophical tool that can be used to reveal the logical forms of sentences and expose or avoid fallacies of scope and substitution in arguments whose statements involve various sorts of epistemic, modal, temporal, or deontic expressions. The theory's role as (b) is surely only as good as its role as (a): to the extent the theory ascribes to descriptions in natural language properties they do not possess or misses certain properties they *do* possess, its role as a philosophical tool is diminished.⁶⁸

Debates about the Theory of Descriptions have raised some very general issues that have made philosophers and linguists acutely aware of the role of 'context' and 'pragmatic factors' in utterance interpretation. Much of the scene was set in the 1950s by Strawson's original paper and the reaction to it, including Russell's (in MSR), which drew on his own earlier discussion of indexical ('egocentric') words (in *IMT*).⁶⁹ But subsequent work on indexicality,⁷⁰ the saying–meaning distinction,⁷¹

⁶⁶ See Kripke (this volume), who rejects the claim made by Quine (and other 'friends' of Russell) that Russell was 'merely proposing an artificial symbolic convention' as unfaithful to the text of 'On Denoting' and to Russell's true contribution. Equally, Kripke rejects the occasional, suggestive remarks to this effect Russell himself made in MSR. Szabó takes the opposite view, seeing in these remarks (and in Russell's use of 'strict' and 'strictly' in OD) compelling evidence of Russell's original intentions.

⁶⁷ See Szabó and Kaplan (this volume).

⁶⁸ Neale (2001, 2002). There is an onus on anyone who wishes to appeal to the theory in explicating the logical forms of statements of English to be explicit about its place within a systematic semantics for English.

⁶⁹ Strawson (1950, 1954), Bar-Hillel (1954), Sellars (1954), Russell (1948, 1957). For discussion, see Neale (2004, 2006).

⁷⁰ See e.g. Kaplan (1978, 1989).

⁷¹ See e.g. Grice (1989), Sperber and Wilson (1986).

and referential uses of descriptions,⁷² has sharpened further issues about context and speakers' intentions, whilst developments in mathematical logic and generative linguistics have raised and sharpened issues about quantification, logical form, and anaphora.⁷³ The net result of all this is a raft of difficult, unresolved, and often horribly intertwined debates about context, object-dependence, possession, uniqueness, plurality, existence, quantification, scope, logical form, and anaphora. Most of these debates are well represented in the papers that follow.⁷⁴ Those that are more clearly within the province of generative linguistics are not; so I shall attempt to develop towards the end of this final section certain points which are more familiar to linguists than they are to philosophers, points that are important because of the ways they illustrate the necessary intrusion of theoretical linguistics in any serious attempt to get clear about the semantics of descriptions (and, indeed, the semantics of many other expressions that have long attracted the attention of philosophers). As philosophers who regularly find themselves working in linguistics can attest, smoothing and condensing ideas in linguistic theory for broad philosophical consumption is quite a challenge. More often than not, it fails. But it will have been worth it here, if it encourages philosophers to be less complacent about their semantic analyses.

3.1 Plurality

The theory of descriptions presented in OD and in *14 of *PM* is a theory of *singular* descriptions, of course, and Russell nowhere claimed that it was meant to apply to plurals or that it could be reworked so as to encompass all forms of descriptions in a uniform way.⁷⁵ A theory of plural descriptions comes later in *30 of *PM*.⁷⁶ Once purged of its apparent reliance on classes, its connection to the theory of singular descriptions is transparent: talk of exactly one ϕ is replaced by talk of more than one ϕ .⁷⁷ But subsequent work, especially on the difference between distributive and collective predication, has demonstrated the severe limitations of this theory and, quite possibly, the need to return

⁷² See e.g. Donnellan (1966), Kaplan (1978), Kripke (1977).

⁷³ See e.g. Barwise and Cooper (1981), Chomsky (1977, 1981), Evans (1977), Heim (1988), Higginbotham and May (1981), May (1985).

⁷⁴ See also the papers in Bezuidenhout and Reimer (2004).

⁷⁵ Back in *PoM*, Russell makes 'every ϕ ' do duty for 'the ϕ ' in distributive contexts, and 'all ϕ ' do this in collective contexts. See Oliver and Smiley (this volume).

⁷⁶ See also *IMP* Ch. 17.

⁷⁷ See Chomsky (1975), Evans (1982), Neale (1990).

to a doctrine in *PoM*: a term may stand for more than one thing.⁷⁸ Mass descriptions ('the water') and the existence of generic readings ('the whale is a mammal') raise further problems.⁷⁹

3.2 Object-dependence

The object-dependence issue principally concerns the semantic significance of so-called referential uses of descriptions.⁸⁰ Once we take into account distinct utterances of the same sentence 'C(the ϕ)' produced at different times, by different people, with different communicative intentions, aren't we led inexorably to the conclusion that descriptions *sometimes* function as referring expressions? Even the most hardened Russellian must concede that getting the hearer to fasten on the right object is the speaker's main aim in very many cases in which 'the ϕ ' is used. The Russellian needs to explain referential uses, which seem very similar to uses of demonstratives.⁸¹ If he cannot, then Russell's semantics provides at most half the story, the other half supplied by the referentialist thesis that, on some occasions, 'C(the ϕ)' is used to express an object-dependent proposition. Distinctions between semantic reference and speaker's reference, primary and secondary speech acts, and propositions expressed and propositions non-deductively inferred, have been marshalled in defence of a unitary Russellian analysis.⁸² Ingenious arguments and counterarguments abound, and there is certainly nothing like consensus on the matter after forty years of discussion.⁸³ The issues here are complex, and there would seem to be no hope of resolution without first resolving some very general issues about sentences, utterances, contexts, quantification, anaphora, ellipsis, uniqueness, communicative intentions, and inference. The matter raises and intersects with so very many other

⁷⁸ See Oliver and Smiley (this volume), who argue that within the framework of OD, an adequate treatment of plural descriptions would seem to require an account of plural terms. Oliver and Smiley would like a theory that makes sense of ' $\sqrt{4}$ '. Unlike Frege and Russell, they embrace many-valued functions and see ' $\sqrt{4}$ ' as a plural term denoting both 2 and -2 , better rendered in ordinary English as 'the square roots of 4' than as 'the square root of 4'.

⁷⁹ See Oliver and Smiley (this volume).

⁸⁰ See Buchanan and Ostertag, and Schiffer (this volume). The label 'referential use' comes from Donnellan (1966).

⁸¹ See Schiffer (this volume). See also Kaplan (1978), Wettstein (1981), and Devitt (2004).

⁸² For discussion, see Buchanan and Ostertag, and Schiffer (this volume). The distinctions mentioned are appealed to by, respectively, Kripke (1977), Searle (1979), and Neale (1990).

⁸³ See Buchanan and Ostertag, Schiffer (this volume), and also many of the papers in Ostertag (1998), and Bezuidenhout and Reimer (2004).

issues in the philosophy of language and mind, that it is hardly surprising it has attracted so much attention.

3.3 Scope and logical form

The reductionist urge is no longer what it was in philosophy, and on the matter of logical form, surely no-one today feels compelled to take Russell's own formalism as the last word about the underlying structure of natural language sentences containing denoting phrases. Work on quantification has opened up the way to more perspicuous formalisms that bear a much closer resemblance to the grammatical structures of the natural language sentences they are meant to illuminate, and it is now common to think of 'the' as a quantifier in its own right (just as it is common to think of 'and' as a connective in its own right). This is reflected in common formalisms. Where Russell used $\psi(\iota x)(x)$, we are now inclined to use $[\iota x: \phi x]\psi x$ or $[the\ x: \phi x]\psi x$, construed as formulae of a language containing restricted quantifiers.⁸⁴ No special scope conventions are needed in this language; the ambiguities in 'George IV wondered whether Scott was the author of *Waverley*', 'the king of France is not bald', 'the first man on the moon might have been Russian', 'the president used to be a democrat', and 'the bride should decide that issue' are captured by distinct sentence pairs, abstractly $\textcircled{3} [the\ x: \phi x]\psi x$ and $[the\ x: \phi x]\textcircled{3}\psi x$.⁸⁵

⁸⁴ Barwise and Cooper (1981), Higginbotham and May (1981), Neale (1990). (Alternatively, we use $[the\ x](\phi x; \psi x)$ or $[\iota x](\phi x; \psi x)$, construed as formulae of a language containing binary quantifiers. See Evans 1977, 1982 and Wiggins 1980.) Evans (1982, p. 59) claims the binary approach is forced upon us by the anaphoric link in donkey sentences such as 'the only man who owns a donkey beats it'. This claim is false; see Neale (1990, 1993). For certain purposes, Russell's formalism is actually more useful, for example when doing proofs or examining collapsing arguments such as the one Gödel (1944) alluded to in his discussion of the relation between Russell's Theory of Descriptions and his Theory of Facts.

⁸⁵ Discussion of ambiguities where descriptions and modal operators come together arose naturally in Smullyan's (1948) response to Quine's (1943, 1947) objections to quantification into modal contexts. Though Quine endorsed the Theory of Descriptions in many places, in his discussions of modal contexts he appears not to have fully grasped its core idea, namely, that descriptions are simply not singular terms and so not covered by the substitutivity of identity but only by derived rules such as *14.15,16, which Whitehead and Russell proved for truth-functional contexts. Famously, co-denoting descriptions cannot be substituted for one another *salva veritate* in non-extensional contexts, i.e. *within the scopes* of non-extensional connectives (as Quine himself pointed out as early as his 1943 paper). Yet Quine (1953) simply assumes (for purposes of reductio) in his slingshot argument against non-extensional sentence connectives (a) that descriptions are singular terms, and (b) that the semantics of these alleged singular terms guarantees the logical equivalence of ϕ and $a = (\iota x)(x = a \wedge \phi)$. (Davidson makes the same assumptions in his slingshot arguments.) Certain complexities aside, it should be intuitively clear that the only way to draw any conclusions from slingshot arguments involving embedding is to recast them with special substitution principles for co-denoting descriptions occurring within the scopes of the relevant connectives, i.e. for co-denoting descriptions that take *small scope*, for otherwise such

On Russell's account, the scope of a connective or quantifier is just the smallest formula containing it. This definition mirrors syntactic composition and is the standard, workaday definition we use when explaining the languages of the propositional and predicate calculi (and extensions containing modal operators). This is perfectly adequate for a language in which the smallest non-atomic expression is a whole sentence (open or closed); but it is a mistake to think the workaday definition gets to the heart of the *concept* of scope. Developments in grammatical theory have made it possible to see clearly the general concept that spawns the workaday definition for simple formal languages. Native speakers spot the ambiguity in 'small children and pets are not permitted' without any theoretical training; and armed with a smidgen of grammatical vocabulary they will say the ambiguity arises because the adjective 'small' might apply to 'children' or to 'children and pets'. When they say this, they are talking about the adjective's *scope*. (Similarly, they will talk about the scope of the complex 'under four years old' in 'pets and children under four years old are not permitted'.)

The general idea about scope is this (putting aside, for a moment, scope ambiguities involving quantifiers): The scope of an expression—any expression—is the smallest expression properly containing it. Equivalently, for expressions α and β , if α merges with β to create $[\alpha\beta]$, then $[\alpha\beta]$ is both α 's scope and β 's scope. (Given the empirical facts about which categories of expression merge with which others, there is no interpretive worry about α and β being in one another's scopes. We never get a situation, for example, in which occurrences of 'and' and 'or' are found within one another's scopes; or a situation, in which two DPs, or a DP and a sentence connective occur within one another's scopes. The reasons for this will soon become clear.) On this general definition of scope, the direct object of a sentence is within the scope of the subject, but not vice versa. In the sentence [_S George [_{VP} respects

arguments (on at least their connective versions) are easily dispelled, as Kripke (this volume) recognizes. This is precisely what I did in *Facing Facts* (Neale, 2001, pp. 178–9). When Gödel's (1944) version of the slingshot is recast in this way, modest but precise conclusions about non-extensional connectives and facts do, in fact, follow, but they are intuitively acceptable to anyone working with any of the non-extensional logics of which I am familiar, and very likely also acceptable to a good number of fact theorists, though certainly not all. (See Neale 2001, Chs 9–11 and also the postscript to the paperback edition.) As I stress throughout *Facing Facts*, anyone who works with a Russellian conception of facts (according to which such entities have objects and properties as constituents) and Russell's Theory of Descriptions is immediately off the hook. Gödel realized this, but Davidson did not. That said, Gödel was suspicious of this way of avoiding the slingshot because he was suspicious about eliminating descriptions in Russell's fashion. This suspicion was, I believe, partly the result of confusing linguistic and ontological elimination (see below) and partly the result of not having investigated the possibility of generalized quantifiers.

[Scott]]], for example, the scope of ‘George’ is the whole sentence and so includes ‘Scott’; but the scope of ‘Scott’ is just the VP ‘respects Scott’ and so does not include ‘George’ — ‘respects’ and ‘Scott’ are within each other’s scopes, but this creates no problem. Quite generally, then, the subject DP of a sentence S is not within the scope of any other DP in S.

A more interesting example is (3):

- (3) [_{DP} the [_{NP} man drinking [_{DP} a [_{NP} martini]]]]
 [_{VP} hasn’t paid for it].

The description in subject position merges with the VP to form the whole sentence. So the whole sentence is the description’s scope. The description itself has the structure [_{DP}[_D the] [_{NP} ϕ]]. That is, the determiner ‘the’ merges with the NP ‘man drinking a martini’ to form a DP. So the scope of ‘the’ is the whole DP, which contains another DP, ‘a martini’ as a constituent. (Thus ‘the’ and ‘the ϕ ’ have different scopes.) More interestingly, the pronoun ‘it’ is within the scope of the DP ‘the man drinking a martini’ but not within the scope of the DP ‘a martini’, which one would like to be able to treat as the pronoun’s antecedent. This is important, as we shall see later.

A Chomskyan distinction between two levels of grammatical description is required in order properly to see scope (thus construed) at work in quantified sentences of natural language, to see how, for example, superficial ambiguities of the sort we characterize abstractly with a pair of logical forms $\exists [the\ x: \phi x] \psi x$ and $[the\ x: \phi x] \exists \psi x$ can be explained in terms of their underlying parsings. But we can already explain scope ambiguities *within* descriptions, such as the one turning on the scope of the word ‘former’ in ‘my former colleague and friend, Jones’, which is just like the one in ‘small children and pets.’ It will pay to spell it out in order to make a follow-up point. The ambiguity is attributable to two different parsings:

- (4a) [_{DP} my [_{NP} [_{NP} former [_{NP} colleague]] and [_{NP} friend]]]
 (b) [_{DP} my [_{NP} former [_{NP} [_{NP} colleague] and [_{NP} friend]]]]].

In (4a) the scope of ‘former’ is small, namely, [_{NP} former [_{NP} colleague]], and the scope of ‘and’ is large, namely, [_{NP} [_{NP} former [_{NP} colleague]] and [_{NP} friend]]. In parsing (4b) the scope of ‘former’ is large, namely, [_{NP} former [_{NP} [_{NP} colleague] and [_{NP} friend]]], and the scope of ‘and’ is small, namely, [_{NP} [_{NP} colleague] and [_{NP} friend]]. A scope, then, is something every occurrence of an expression has; and the more complex the syntax the greater the possibility of scope distinc-

tions that are truth-conditionally significant. With the predicate calculus, one needs to monitor only the scopes of sentence operators (connectives and quantifiers). But in natural language there is much more to monitor. In the calculus, \wedge is used only to conjoin two whole sentences to form a larger sentence. In English, however, 'and' is used to conjoin two phrases of the same syntactic category more generally (S, DP, NP, VP, etc.) to form a phrase of that same category. (In (4a) and (4b), for example, it conjoins two NPs.) Linguists sometimes state the generalization using a schematic phrase structure rule:

$$XP \rightarrow [_{XP} XP \text{ and } XP].^{86}$$

This fact will be important later.

Those who maintain that descriptions are singular terms sometimes suggest we mimic Russellian distinctions of scope using predicate abstraction. Where the neo-Russellian distinguishes $\mathfrak{S}[the\ x: \phi x]\psi x$ and $[the\ x: \phi x]\mathfrak{S}\psi x$, the singular term theorist might distinguish $\mathfrak{S}\psi(the\ \phi)$ and $(\lambda x\mathfrak{S}\psi x)(the\ \phi)$.⁸⁷ The distinction between these sentences is still one that crucially involves scope, of course. In $\mathfrak{S}\psi(the\ \phi)$, the description occurs within the scope of \mathfrak{S} ; in $(\lambda x\mathfrak{S}\psi x)(the\ \phi)$, by contrast, \mathfrak{S} occurs within the scope of the description.⁸⁸

3.4 Syntax

Many linguists (and a growing number of philosophers) today hold that the grammatical structure of a sentence needs to be factored into two tightly connected representations, one relevant to interpretation, the other relevant to pronunciation, often called the sentence's LF (or

⁸⁶ Quantified sentences falsify the claim that every English sentence containing 'and' is semantically equivalent to (and, perhaps, syntactically derived from) a sentence in which 'and' conjoins sentences: 'some man loves Mary and Jane' is not equivalent to 'some man loves Mary and some man loves Jane', for example. If one permits predicate abstraction, however, one might posit a level of semantic analysis at which sentential conjunction is doing the work, the predicate $\lambda x(x\ \text{loves}\ \text{Mary} \wedge x\ \text{loves}\ \text{Jane})$ emerging from rules of composition (which would have to be supplied). For discussion of a generalized notion of conjunction, see Partee and Rooth (1983).

⁸⁷ See e.g., Smiley (2004).

⁸⁸ Smiley (2004) is prepared to say the difference involves the scopes of \mathfrak{S} and 'predicate formation', but adds that 'there is absolutely no need to invoke a notion of scope' for the description (p. 155). I am not sure if Smiley is claiming (as some have) that singular terms are the wrong *sorts* of expressions even to *have* scopes. But certainly that confused claim, and the confused claim that *predicates* are also the wrong sorts of expressions to *have* scopes can be found in recent journal articles. ('People, Kripke and Dummett for two, freely ascribe *scopes* to singular terms, which is incoherent since only operators have scopes' (Patton, 1997, p. 251). 'Intuitively, predicates, unlike quantifier phrases, are not the kinds of expressions that *have* scope' (Graff, 2001, p. 14).) There is nothing at all incoherent about a singular term or a predicate (or a determiner or any other expression) having scope, as Dummett and Kripke realize, and as Smiley recognizes for *predicates* at least. Identifying the scope of the predicate 'small' in 'small children and pets prohibited' is crucial

‘Logical Form’) and PF (or ‘Phonetic Form’), respectively.⁸⁹ On such accounts (the details are unimportant here), if descriptions are quantifier phrases (5) and (5′) might be used to characterize the PF and LF of a single sentence:

(5) [_S George [_{VP} respects the author of *Waverley*]]

(5′) [the author of *Waverley*]_x [_S George respects *x*].

(5) and (5′) are related by a syntactic operation of *quantifier movement* (lowering or raising, depending upon one’s point of departure, which will depend upon the general shape of the proposed grammar). The main point is that the restricted quantifier in (5′) binds a variable, *x*, serving as the direct object of the verb (cf. ‘the author of *Waverley* is such that George respects him’.) An important problem of semantic composition is solved by this Chomsky-factorization, as we might call it, the problem of the interpretation of quantifier phrases in object position. Suppose one rejected the factorization and insisted that the surface form of a sentence (more or less what we just called a PF) is the object of compositional semantic interpretation. Explaining the interpretation of (6) in Frege-style function-argument fashion would be easy:

(6) [_S George [_{VP} respects Scott]].

Working down from the top down: (i) The sentence as a whole stands for a truth-value (let us suppose); (ii) the name ‘George’ stands for an individual, George; (iii) the VP ‘respects Scott’ stands for a (first-level) function from individuals to truth-values; (iv) the name ‘Scott’ stands for an individual, Scott; (v) the transitive verb ‘respects’ stands for a (first-level) function from individuals to (first-level) functions from

—are pet elephants allowed? Similarly for the description (a singular term for Smiley) in the ‘the president used to be a democrat’ (which Smiley can read as $\exists x\psi(\text{the } \phi)$ or as $(\lambda x\exists x\psi)(\text{the } \phi)$.) To claim that only operators have scopes, or to claim that predicates or singular terms do not have scopes, is to misunderstand the geometric aspect of the concept, to possess a frozen conception based on the limited syntax of the first-order predicate calculus, where the smallest non-atomic expression is a whole formula. Once λx is added to the calculus this changes, of course, and a reason for caring about the scopes of predicates is immediately revealed (as Smiley recognizes). But once the concept of scope is clear there is no need to play the game of eternal, incremental catch-up in the face of increasingly more complex languages. The linguist can lead the logician from the cave here so he may see quite generally what scope is, rather than allowing him to rest content gazing at the wall of formulae to which he is accustomed, objects that are pale imitations of the forms of natural language sentences.

⁸⁹ See e.g. Chomsky (2001). Below I skate over the fact that for Chomsky himself syntactic labels have fallen away in a full-fledged PF. Because I have retained labels in what I am calling PFs here, they might be closer to what some linguists call *surface structures*, or to what others call *S-Structures*. None of this matters here.

individuals to truth-values. Now replace the subject expression in (6) by a quantifier phrase such as ‘every poet’ or (assuming descriptions are quantifier phrases) ‘the king of England’:

(7) [_S the king of England [_{VP} respects Scott]].

Since ‘the king of England’ is not a singular term and does not stand for an individual, the compositional machinery grinds to a halt with (7) until we say how quantifiers work. The Fregean answer—though, of course, Frege himself doesn’t treat descriptions as quantifier phrases—is that quantifiers are second-level predicates: they stand for second-level functions. (The general idea comes quickly into focus if one thinks of ‘every ϕ ψ ’ as predicating of ψ that it is true of every ϕ .) Whereas in (6) the (first-level) function that the VP stands for operates on the individual that ‘George’ stands for, in (7) that (first-level) function is itself the operand of the (second-level) function that ‘the king of England’ stands for. That is, ‘the ϕ ’ (and also ‘every ϕ ’, ‘some ϕ ’ etc.) stands for a (second-level) function from (first-level) functions from individuals to truth values, to truth-values.⁹⁰

But when we turn our attention back to (5), where the quantifier is in direct object position, famously we reach an impasse. We have already taken the transitive verb ‘respects’ to stand for a (first-level) function from individuals to functions from individuals to truth-values. This is fine if the direct object is a name as in (6) and (7), but useless if it is a quantifier as in (5).

Three ways of getting things moving again can be found in the literature (perhaps there are others). (a) Standardize everything by treating names as quantifiers (perhaps as Russellian descriptions);⁹¹ (b) Allow for what linguists call *type-shifting* by permitting the semantic type to

⁹⁰ As Smiley (2004) points out, viewing Russell’s Theory of Descriptions through the lens of Frege’s account of quantifiers as second-level predicates goes back to at least Geach (1952, p. 51), who notes that ‘the ϕ ’ will stand for a second-order concept ‘within which a concept falls if and only if there falls under it’ a ϕ and apart from which nothing else is a ϕ . The question might arise whether, in such a system, descriptions are still incomplete symbols (though contrary to what Geach suggests, there is no connection between Russell’s talk of incomplete symbols and Frege’s talk of incomplete (i.e. unsaturated) expressions). (i) Salmon (this volume) says that Russell himself was concerned with refuting only the view that descriptions stand for their denotations and not the view that there is no possible semantic framework within which denoting phrases taken entities of some sort (but not their denotations) as their meanings (I am inclined to agree with Salmon); (ii) whether or not a quantifier (restricted or otherwise) is an incomplete symbol does not turn on notation (see Neale 2002); (iii) restricted quantifiers may be treated in a Tarskian rather than Fregean way, and on such a treatment they are still incomplete symbols (see Neale 1993, 2002).

⁹¹ For a version of this, see Montague (1973), where DPs are uniformly of type $\langle\langle e, t \rangle, t \rangle$. Notice this gives Montague the means to interpret co-ordinations like ‘Dr Jones and every student in

which a quantifier belongs to shift systematically with its structural position (subject, object, etc.) (or permitting the semantic type to which a transitive verb belongs to shift systematically according as its object is a singular term or a quantifier);⁹² (c) Factorize in the Chomskyan way, running interpretation on the LF (5') where the direct object of the verb is a variable, and hence a *bona fide* singular term, just as it is in (6) and (7). (This is the solution I have always assumed in my own work, but not for any reason I find overwhelmingly compelling.)

Syntactic theory itself has revealed important structural facts about descriptions. It is common for logicians to construe strings of word such as 'the square of' and 'the father of' as functors, as syntactic and semantic units. (i) They construe them as genuine expressions (i.e. *constituents* or *syntactic units* of English sentences) which operate syntactically on other expressions to form larger expressions ('the square of two', 'the father of Charles II', etc.). (ii) They construe the semantic values of these larger expressions as determined in function-argument fashion from the semantic values of the purported functor ('the square of', 'the father of') and its argument ('two', 'Charles II')⁹³. But there is strong evidence from linguistic theory that the driving syntactic assumption is false as a matter of empirical fact. (Similarly the analo-

the class,' where two expressions of the same type are co-ordinated. The two other solutions have the same property, for we are really dealing with a unitary phenomenon, the uniform merging of constituents.

⁹² See e.g. Montague (1973) and Partee (1986). (We saw the syntactic side of type-shifting earlier in connection with 'and'. The semantic side is fraught with notorious difficulties, and more machinery is required to bring one close to the general idea that in a structure [_{XP} XP and XP], 'and' stands for a function from pairs of whatever things XPs stand for to things that XPs stand for. On this matter, see Partee and Rooth (1983).) Partee (1986) distinguishes three ways in which a DP may be interpreted: (i) *referentially* (as type *e*), (ii) *predicatively* (as type $\langle e, t \rangle$), and (iii) *quantificationally* (as type $\langle \langle e, t \rangle, t \rangle$). On her account, all DPs have $\langle \langle e, t \rangle, t \rangle$ interpretations, but only some have *e* and $\langle e, t \rangle$ interpretations. Definite descriptions have all three. On this matter see 3.9, including note 149.

⁹³ I suspect these ideas have been inherited from Frege, 'Function and Concept' (1891), pp. 31–2. Frege talks of splitting 'the capital of the German Empire' into the parts 'the capital of' and 'the German Empire'. The former is the expression of a function: 'If we take the German Empire as the argument, we get Berlin as the value of the function' (p. 32). (On this account, 'the capital of' is of type $\langle e, e \rangle$.) Interestingly, in 'On Sense and Reference' (1892), Frege suggests a different parsing, essentially the one arrived at much later by generative linguistics on the basis of empirical considerations (one of which I am about to discuss). Of the expression 'the negative square root of 4', Frege says it is 'a compound proper name constructed from the expression for a concept with the help of the singular definite article' (p. 71). (Jason Stanley informs me that the same parsing is to be found in *Grundgesetze* (1893).) This later parsing is compatible with treating 'the' as of type $\langle \langle e, t \rangle, \langle \langle e, t \rangle, t \rangle \rangle$ (in a 'Russellian' vein) or as of type $\langle \langle e, t \rangle, e \rangle$ (which seems to be Frege's idea in the remark just quoted from 'On Sense and Reference', and also (Jason Stanley informs me) in *Grundgesetze*. Many logicians appear to work with the earlier 'Function and Concept' parsing. See also n. 94.

gous assumptions about the first three words of ‘no multiple of two’ and ‘some relative of Charles II’ etc.) One standard test for constituent structure is coordination. As noted earlier, syntactic constituents of the same category may be coordinated using ‘and’ to form constituents belonging to the same category. By this test, the grammaticality of (8c) below shows that ‘king of France’ is a constituent of ‘the king of France’, and the ungrammaticality of (8d) below (indicated with ‘*’) shows that ‘the king of’ is not:

- (8a) [_{DP}[_{DP} the king of France] and [_{DP} the queen of France]] are here
- (b) the [_{NP}[_{NP} king] and [_{NP} queen]] of France are here
- (c) the [_{NP}[_{NP} king of France] and [_{NP} queen of Spain]] are here
- (d) * [_{?P} [_{?P} the king of] and [_{?P} the queen of]] France are here.⁹⁴

It seems, then, that we must abandon the idea that the apparent functors ‘the king of’ and ‘the successor of’ are constituents of English sentences. And unless we give up the assumption that it is syntactic units that compose semantically in function-argument fashion, it would seem the semantic value of ‘the king of France’ (whatever it is) is not obtained by function-argument application involving the semantic values of ‘the king of’ and ‘France’ because ‘the king of France’ is the syntactic result of combining ‘the’ with ‘king of France’.⁹⁵

⁹⁴ These results are readily replicated with ‘the square of two and the cube of two’, ‘every relative of Charles and every friend of Charles’, ‘no brother of Charles or sister of Charles’, etc. Let one think there is wiggle room here, compare (8e) and (8f) as possible parsings of the string ‘the king and the queen of France are here’:

- (8e) [[_{DP}[_{DP} the king] and [_{DP} the queen of France]] are here.
- (8f) * [[_{?P}[_{?P} the king] and [_{?P} the queen]] of France] are here.

The unavailability of the reading that would be associated with (8f)—i.e. the reading we associate with both (8a) and (8b) above, available here only as a *performance patch*—reveals that (8f) is not a genuine parsing of the string, which in turn reveals that ‘the queen’ is not a constituent of *any* parsing of the string and scotches any hope of blaming the ungrammaticality of (8d) on distributional facts about semantically vacuous prepositions occurring in PPs (prepositional phrases) forming constituents of DPs.

⁹⁵ This would seem to undermine Smiley’s (2004) nested description argument against Russellian analyses of descriptions—the Argument from Functors, as I call it—and also Smiley’s own theory, which assumes ‘the father of’ is a syntactic and semantic unit. Oliver and Smiley (this volume) note that Smiley objects to Russell’s account of singular descriptions on the grounds that ‘its elimination of functional terms makes even the simplest mathematical manipulations (e.g. solving a quadratic equation) humanly impossible’. I am unaware of any empirical results underpinning this claim, so I pass over it and turn to the morals that can be teased out of Smiley’s explicit argument against Evans’s (1982) ‘neo-Russellian’ theory. According to Evans, ‘the ϕ ’ (like ‘some ϕ ’ and ‘every ϕ ’) is a quantifier phrase, construed as a second-level predicate. (Smiley, 2004, p. 136.) (Scholars

(Of course, there is nothing to prevent a logician inventing an artifi-

of Evans will recognize that, strictly speaking, this is *not* Evans's theory but a theory he explicitly rejects a single page after mentioning it on the basis of spurious considerations involving donkey anaphora. (See Neale, 1993.) It may well have been the position Evans *wanted* to hold, but his error involving donkey sentences led him to believe and claim that 'the' could not be a 'unary quantifier former' (a device that combines with a predicate to form a quantifier phrase (which itself combines with a predicate to form a sentence)), but must instead be a binary quantifier (a device that combines directly with two predicates to form a sentence). Since there was no reason for Evans to give up the theory Smiley attributes to him, let us harmlessly call it 'Evans's theory'. According to Smiley, Evans's theory crumbles under the weight of nested descriptions such as (i):

- (i) the father of the father of Charles II.

In the categorial grammar Evans works with, the name 'Charles II' belongs to the category N of genuine singular terms (corresponding to Montague's type *e*), and VPs belong to the derived category S/N (corresponding to type $\langle e, t \rangle$) where S is the category of sentences (corresponding to type *t*). Descriptions are second-level predicates for (Smiley's) Evans, belonging to the category S/(S/N) (corresponding to $\langle \langle e, t \rangle, t \rangle$). Smiley objects that this makes it 'impossible for "the father of" to be fitted consistently into any category' (2004, p. 136). Why? Because the second occurrence of 'the father of' in (i) combines with a name ('Charles II') to form a second-level predicate, which requires it to belong to the category (S/(S/N))/N; whereas the first occurrence combines with a second-level predicate ('the father of Charles II') to form a second-level predicate, which requires it to belong to the category (S/(S/N))/(S/(S/N)). It is 'torn', says Smiley, between belonging to (S/(S/N))/N and belonging to (S/(S/N))/(S/(S/N)) (p. 136, n. 8). Smiley's medicine: (a) accept that descriptions are singular terms after all, and (b) treat 'the father of' as a functor that uniformly combines with a singular term to form another singular term, i.e. as uniformly of the category N/N. (Smiley rejects an alternative medicine: (a') accept that names are disguised Russellian descriptions after all (or, in the fashion of Montague, some other type of quantifier phrase), and (b') treat the 'the father of' as a functor that uniformly combines with a second-level predicate to form another second-level predicate, i.e. as uniformly of the category (S/(S/N))/(S/(S/N)).)

(1) A crucial premiss in Smiley's Argument from Functors is that 'the father of' constitutes a genuine constituent belonging to some particular category, and this we have already rejected on good empirical grounds. (That is, Smiley assumes Frege's (1891) parsing of descriptions (which is only partial as it does not, as stated, explain how 'the', 'father' and 'of' combine). On Frege's (1892, 1893) parsing, which comports with current syntactic theory (see note 93), 'the' will be of the category N/(S/N) and 'the ϕ ' of category N.) Doubtless Evans was familiar with the standard tests for constituent structure (given his pioneering work on grammatical constraints on anaphora); but either way, Evans's theory does not assume the rejected syntactic structure, and so is untouched by the Argument from Functors as presented.

(2) Suppose Evans *had* assumed the rejected syntactic structure. Would anything of special interest about descriptions have followed? No; but a well-known fact about different approaches to quantification, discussed earlier in connection with object-position quantifier phrases, would have been displayed nicely. Reflection on examples (ii)–(v) makes it clear that whatever Smiley's argument would demonstrate about descriptions it would demonstrate about all quantifier phrases:

- (ii) every enemy of every enemy of Nixon
 (iii) some denigrator of some denigrator of Nixon
 (iv) the mayor of every former capital of Germany
 (v) every former lover of some former lover of Casanova.

We would not be inclined to conclude from the existence of, say, (ii), that 'every enemy of Nixon' cannot be a second-level predicate, that it is in fact a singular term; but these are precisely the con-

cial language containing functors stipulated to be constituents of its formulae (for example, a language containing $s(o)$, $s(s(o))$, $s(s(s(o)))$ etc.), but that is not the issue at hand.)

3.5 Anaphora

It was noted earlier in connection with (1) and (2) that Russell might have seen support for his theory in the fact that descriptions may contain the antecedents of exterior pronouns. This raises a question for the referentialist. Consider an utterance of (3) in which the subject description is being used referentially and the pronoun 'it' is anaphoric on 'a martini':

- (3) $[_{DP} \text{ the } [_{NP} \text{ man drinking } [_{DP} \text{ a } [_{NP} \text{ martini}]]]]$
 $[_{VP} \text{ hasn't paid for it}].$

On this use, recognizing the anaphoric link is crucial to comprehension. If the man drinking a martini (or at least the man the referentialist takes to be the description's referent) is Scott, then treating the description as a device that simply refers to Scott would make (3) equivalent to 'Scott hasn't paid for it.' The contrast between these sentences illustrates where there is work to be done by the referentialist. If, for example, a referring expression n contributes just an object to the proposition expressed,⁹⁶ then there will be no constituent of the proposition corresponding to 'a martini' (no martini, no property of being a martini)

clusions Smiley's overall argument would encourage us to draw! (Similarly, 'and' may conjoin two singular terms, two quantifiers, or one of each ('John and the woman he loves', 'Dr Jones and every student in the class'); yet we would not be inclined to conclude from this that that 'every student in the class' cannot be a second-level predicate, that it is in fact a singular term; but these are precisely the conclusions an argument parallel to Smiley's would encourage us to draw!) So the Argument from Functors 'proves' too much to be worrying. And once we get the parsing right, we can see the real issue, which has nothing especially to do with descriptions, but with something dealt with earlier. A preposition such as 'of' may combine with either a singular term or a quantifier phrase to form a PP. And a nominal such as 'father' or 'enemy' may combine with a PP ('of Nixon' or 'of every man') to form an NP—let us agree to put aside differences between argument and adjuncts for present purposes.

We are now in familiar territory, covered earlier in connection with the interpretation of quantifier phrases in object position. The name 'Mary' (category N) may combine with the VP 'respects Nixon' (category S/N) to form the sentence 'Mary respects Nixon' (category S). The VP is the functor, and 'Mary' is its argument. When we replace the singular term in *subject* position by a quantifier phrase, we are replacing an expression of category N with one of category S/(S/N), and *this* is the functor with the VP as its argument. The problem arises when we replace the *direct object* by a quantifier phrase. To what category does the verb 'respects' belong? Is it 'torn' between belonging to (S/N)/N and (S/N)/(S/(S/N))? Three common solutions to this familiar problem, which is what Smiley's objection to Evans's theory reduces to (but with quantifier phrases as the objects of *prepositions* rather than of verbs) have already been discussed.

⁹⁶ This view, inspired by Kaplan (1978, 1989), is widely held.

‘already’ in the proposition to be ‘passed along’ in a way that helps fix the propositional contribution of ‘it’. Equally, if the propositional contribution of ‘it’ is determined without recourse to anything contributed by ‘a martini’, there will be nothing in the proposition for the propositional contribution of ‘it’ to be hooked up to.

Variable binding, as standardly understood, is not really the issue here. For while (3), on the intended reading, may be paraphrased as (3’):

(3’) [there is a martini]_x such that the man drinking it_x hasn’t paid for it_x

with ‘it’ bound by an existentially quantified expression with large scope, it might equally well be paraphrased by interpreting ‘it’ as a (loosely) disguised definite description, as in (3’):

(3’’) [the man drinking a martini]_y hasn’t paid for *the martini he_y is drinking*.

Here ‘he’ is bound by ‘the man drinking a martini’.⁹⁷ What is so important about that? Isn’t it well known that third-person pronouns are often replaceable by definite descriptions? Indeed, it is; but that seemingly innocent observation has led some linguists and philosophers to explore the idea of a deep theoretical connection. The most general thesis, first explored in linguistics in the 1960s, drawing upon syntactico-semantic considerations, is that *all* third-person pronouns are, in fact, truncated or incomplete descriptions.⁹⁸ A more limited thesis, explored by both linguists and philosophers, is that a pronoun anaphorically dependent upon, yet outside the scope of (and hence not bound by), a quantified expression requires a *D-type* analysis: it is understood exactly as if it were an utterance of a Russellian definite description constructible from linguistic (and perhaps conversational) context.⁹⁹ An ultimately, more complex, and less Russellian thesis holds that such a pronoun is, in fact, a referring expression and requires an *E-type* anal-

⁹⁷ Russell’s theory straightforwardly predicts the existence of descriptions that are quantified into.

⁹⁸ Postal (1969). The thesis has made a resurgence of late: see Elbourne (2005) and Neale (2005). The idea that certain ‘minimum’ definite descriptions—e.g. ‘the man’, ‘the woman’, and ‘the thing’—might function like the pronouns ‘he’, ‘she’ and ‘it’ is entertained by Quine (1960, pp. 102–3, 112–3). I doubt he was the first to point this out.

⁹⁹ See e.g. Cooper (1979), Davies (1981), Elbourne (2001, 2005), Ludlow and Neale (1991), Neale (1990/2006).

ysis: it has its reference fixed rigidly by the same constructible description.¹⁰⁰ After uttering (9),

(9) A man stepped on my foot

I might continue with any of the following, perhaps in descending order of likelihood:

- (a) He said nothing.
- (b) The man said nothing.
- (c) The man in question said nothing.
- (d) The man who stepped on my foot said nothing.¹⁰¹

Sometimes, a description is required to avoid ambiguity:

- (10) Scott owns a yacht. It cost £25,000.
- (11) ? Scott owns a yacht and a motorbike. It cost £25,000.

All of this has led naturally to the idea that the subject expressions ‘he’, ‘the man’, and ‘the man in question’ in (a)–(c) are (in the imagined scenario) understood as if they were elliptical (in a sense that needs to be explained) for the description ‘the man who stepped on my foot’.¹⁰²

A pronoun situated where ‘it’ is situated in (3) in relation to its antecedent—a so-called ‘donkey position’—is predicted to require a descriptive rather than a bound analysis as it does not occur within the

¹⁰⁰ See e.g. Evans (1985), who regards such pronouns as forming a special semantic class with names whose references are fixed rigidly by description. (‘Let’s call whoever invented the zip *Julius*. Julius didn’t have to invent the zip.’)

¹⁰¹ Similarly where we have plurals: ‘The men stood on my foot.’ ‘They said nothing.’ ‘The men said nothing,’ etc.

¹⁰² The battle lines over whether the E-type or the D-type analysis is correct will mirror those in the debate over whether descriptions are referring expressions. Kripke’s (1980) arguments against the thesis that names are disguised descriptions ought to shed some light here; and whereas ambiguities of scope might provide evidence for the D-type analysis, their absence, and the possibility of pronominal contradiction (‘A man walked in—actually he didn’t walk, he *ran*’) might provide evidence the other way. See Davies (1981), Neale (1990). Given the lengths Kripke goes to to distinguish clearly the thesis that an expression is a disguised description from the thesis that the expressions has its reference fixed by description, it is rather surprising that many linguists do not separate D-type and E-type analyses. (Elbourne (2005) is a notable exception.) Whichever way is chosen, however, it is clear such pronouns can be quantified into (see example (12)). This might incline some philosophers against treating them as referring expressions. There is no *formal* problem with open singular terms (even when directly referential, as Salmon (this volume) stresses), and it is easy enough to introduce them into formal languages. Nonetheless it is an empirical question whether natural languages actually contain open singular terms, directly referential or otherwise.

scope of its antecedent.¹⁰³ That the pronoun is not bound by ‘the man drinking a martini’ in a general theory of data of this type becomes clear once we consider parallel examples involving determiners other than ‘the’. Treating ‘it’ as bound by an existentially quantified expression with large scope in (12), for example, yields (12’):

(12) every man drinking a martini paid for it.

(12’) [there is a martini]_x such that every man drinking it_x paid for it_x.

Whether or not (12’) is a genuine reading of (12), it is not the reading we are after, namely, the one that results from interpreting ‘it’ as the relevant description:¹⁰⁴

(12’’) [every man drinking a martini]_y paid for the martini he_y is drinking.

As in (3’), ‘he’ is bound by the subject quantifier. Uniqueness is relative to choice of man drinking a martini, exactly as Russell’s theory predicts.¹⁰⁵

3.6 Existence

Strawson took issue with the existence implication of Russell’s analysis. Existence is merely *presupposed* according to Strawson: the truth or falsity of ‘C(the ϕ)’ presupposes the existence of a ϕ (perhaps a uniquely relevant ϕ); if that presupposition is false, then ‘C(the ϕ)’ lacks a truth-value.¹⁰⁶ In principle, that idea might be cashed out by saying no proposition is expressed or by saying that a proposition that is neither true nor false is expressed. Despite an occasional passage that might suggest otherwise, Strawson’s view is that when the existence implication fails

¹⁰³ See e.g. Evans (1985), Neale (1990).

¹⁰⁴ Languages which distinguish possessives and genitives — the labels must be taken with a pinch of salt — provide a useful diagnostic here. In Icelandic, for example, different translations are needed for ‘his’ (*sína* or *hans*) in ‘every man who has a son loves his wife’ according as it is functioning as a variable bound by ‘every man who has a son’ (*sína*) or is merely anaphoric on the embedded quantifier-phrase ‘a son’ (*hans*) in the sense in which ‘it’ is anaphoric on ‘a martini’ in (4) and (10). For details, see Neale (2005).

¹⁰⁵ It is not all plain sailing here. In ‘every man who owns a donkey vaccinates it’ the meaning of the rest of the sentence suggests a number-neutral interpretation of the pronoun (‘the donkey or donkeys he owns’); in ‘every man who owns a horse should ride it here at dawn’ (imagine putting together a posse) it suggests an indefinite interpretation (‘one of the horse or horses he owns’). See Heim (1990) and Neale (1990).

¹⁰⁶ Strawson did not use the label ‘presupposition’ in ‘On Referring’; it first appears in his *Introduction to Logical Theory* (1952).

no proposition is expressed, as he makes clear in later work.¹⁰⁷ It has seemed clear to many philosophers (including, finally, Strawson himself) that in many cases clear and robust judgements of truth or falsity *are* forthcoming in connection with uses of non-denoting descriptions.¹⁰⁸ Despite Strawson's philosophical outlook, and his evident hos-

¹⁰⁷ Strawson (1974). For a bold twist on this idea, see Buchanan and Ostertag (this volume). Strawson's positive proposals underwent considerable modification over the quarter of a century between 'On Referring' and *Subject and Predicate in Logic and Grammar*. I reported in *Descriptions* that Strawson had informed me the 'no proposition' picture was the one he had in mind at the time of 'On Referring'. (Kripke reports being told the same in his contribution. In conversation, Paul Grice, Stuart Hampshire, and Colin McGinn have reported the same.) The 'occasional passages' of possible dissent mentioned above are in Strawson (1952, 1954). In those works, Strawson holds that presupposing is a *logical* relation between propositions (rather than a pragmatic relation between, say, speakers and propositions). It may well have been this that lured him into contemplating propositions lacking a (standard) truth-value. Grice thought so and raised a problem he thought had pushed Strawson in that direction. Suppose (a) no proposition is expressed by 'C(the ϕ)' because of the falsity of what is presupposed ('there is a ϕ '), and (b) presupposing is a logical relation between propositions. *What is it*, Grice asks, in the case of 'C(the ϕ)' that presupposes the truth of 'there is a ϕ '. Not the proposition that C(the ϕ) since, by hypothesis (a), there is no such proposition—'C(the ϕ)' expresses no proposition. Strawson (1952, 1954) avoids Grice's problem by allowing an utterance of 'C(the ϕ)' to express a proposition that is neither true nor false (a position Grice himself thought untenable); later, Strawson (1964) appears to want to avoid Grice's problem by dropping the line that presupposition is a logical relation between propositions. Non-denoting descriptions do not themselves seem to provide much of a reason to give up bivalence (there may be better reasons). Strawson (1974) appears to concur and makes it clear his position is that no proposition is expressed when the presupposition fails. But by that time he had already conceded there were counterexamples to the general position. (See next footnote.)

¹⁰⁸ See Kripke (this volume) for Russell's own examples. In *Descriptions* I gave (i) as an example containing an empty description but nonetheless expressing something incontrovertibly false (1990, p. 27):

- (i) This morning my father had breakfast with the king of France.

The following were used to undermine the view that clear judgements depend upon such things as subject-object asymmetry, passive voice, and non-empty expressions elsewhere in sentences:

- (ii) The king of France was interviewed on *the Tonight Show* last night
- (iii) The king of France shot my cat last night
- (iv) The king of France shot himself last night.

Notice (iv) makes the point whether 'himself' is meant to inherit its reference from its antecedent or whether it is bound by it.

Smiley (2004) has argued that whilst clear-cut judgements of *falsity* are easy to come by, clear-cut judgements of *truth* are more elusive. Truth will require defeating the existence assumption with negation or some other defeating operator, modal, temporal, attitudinal, for example. Examples are not hard to find:

- (v) the round square does not exist
- (vi) the king of France used to live in Versailles
- (vii) the king of France was not interviewed on the *Today* show last night
- (viii) John thinks the largest prime number is 97 [construct the relevant scenario].

tility to much of formal semantics, quite a few linguists have explored adaptations of his positive proposals for use within their own formal semantics.¹⁰⁹

3.7 Possessives and Context

In OD, Russell treats possessives such as ‘my son’ and ‘Scott’s horse’ as definite descriptions. He says nothing about the possessive relation itself but remarks that people use possessives when the descriptive condition applies to more than one thing.¹¹⁰

Attempting to explain the propositional contributions of the possessive marker on particular occasions of use highlights a crucial fact bearing on the matter of uniqueness implications. Whilst *ownership* may be the marker’s contribution in many cases, it is easy enough to find cases in which it is not. I may use ‘Scott’s horse’, ‘his horse’, and ‘my horse’, to describe the horses Scott and I were riding this afternoon, the horses we have to shoe tonight, or the horses we have staked money on in the Cheltenham Gold Cup; and it would be far-fetched to say that such uses are non-literal. The truth of the matter is that the relation the speaker intends with the possessive marker on a given occasion of use—the relation that contributes to the proposition expressed and impinges upon truth conditions—must always be *inferred* pragmatically on the basis of such things as contextual and background knowledge.¹¹¹

It might be suggested that the possessive marker makes no specific contribution to the proposition expressed, that no particular relation impinges upon truth conditions on a given occasion of use. This view amounts to either truth-conditional *existentialism* or truth-conditional

¹⁰⁹ See e.g. von Stechow (2004). Strawsonian *sensibilities* are widespread in the philosophy of language, even among those who see little virtue in Strawson’s positive proposals concerning descriptions.

¹¹⁰ He seems to view this as some sort of defect of ordinary usage which should not be tolerated in scientific or other formal studies. See Szabó (this volume).

¹¹¹ See Sperber and Wilson (1986). It is sometimes claimed (for example, by Barker (1995) in an excellent full-length study of possessive descriptions) that certain nominals fix a unique relation. But this is surely incorrect. The relation the speaker intended may well be the one inherent in the meaning of the noun (‘wife’, ‘mother’, ‘murderer’, ‘teacher’, and ‘mayor’, for example), but this is not always so. At a school sports day, John and I may decide to bet on the outcome of the teachers’ three-legged race or the mothers’ egg and spoon race; at a prison sports day we might bet on the outcome of the cat burglars’ high jump or the murderers’ 100 metres. In recounting the day’s results I may use ‘John’s murderer’, ‘my murderer’, ‘his mother’, ‘my teacher’, and so on perfectly felicitously to talk about the contestants we have bet on. (Such uses are no more non-literal than those involving ‘my horse’ and ‘Scott’s horse’.) Does this mean I can use the sentence ‘my mother is not my mother’ to say something true? Probably, in the right circumstances. Someone whose birth mother is not his familial mother or legal mother could also do this. Of course we might be asked to expand on our respective remarks, and this leads us straight into the matter of uniqueness.

nihilism.¹¹² On its existentialist construal, the doctrine at hand has it that the proposition expressed when I token 'my cup is empty' is an existential proposition whose truth conditions are given by '($\exists R$)(the cup bearing *R* to me is empty)'. But this proposition is true whenever there is at least one empty cup in the world, since every cup bears *some* relation or other to me, and this flies in the face of our intuitive grasp of the conditions of truth or falsity of specific tokenings of the sentence.¹¹³ On its nihilist construal, the doctrine has it that the proposition expressed is that my cup is empty *punkt*. If, as we are assuming, propositions *per se* are things that are true or false, the nihilist doctrine is hopeless. The proposition that the cup currently nearest to me is empty has a truth-value (false, as it happens). So does the existentialist's proposition (true, presumably). But the nihilist's proposition that my cup is empty *punkt*? Is this true or false? The reason we don't answer 'true' or 'false' is that the only way we can construe the question as worthy of one of these answers is if we construe it not as a *punkt* question at all, but as a question about the truth-value of a proposition whose identity turns on a particular relation (or restricted class of relations).¹¹⁴ Existentialism is false; nihilism isn't yet a theory. Turning nihilism into a theory requires taking truth or falsity to be properties not of propositions *per se*, but of propositions relative to parameters that need to be supplied and explained.¹¹⁵

3.8 Uniqueness and Context

Like the issues involving anaphora, those involving uniqueness illustrate how much overlap there is today between the philosophy of language and generative linguistics. There are three sorts of uniqueness issues to take up.

(a) *Act and Attitude Issues*. It is usually a good idea to test a theory that works well for assertions by considering other speech acts, questions and orders for example. Correspondingly, it is usually a good idea to test a theory that works well for sentences ascribing beliefs by considering sentences ascribing other attitudes, desires and hopes for example. Suppose George IV does not know who wrote *Waverley*. And

¹¹²The labels are from Neale (forthcoming), where they are used to separate analogous positions on weather statements such as 'It's raining'.

¹¹³Perhaps existentialism can be rescued by calling upon domain restrictions on quantifiers in the manner of what is called the *hybrid* approach to incomplete descriptions below.

¹¹⁴Similarly for the nihilist's proposition that it is raining *punkt*, and the proposition that I am ready *punkt* (ask yourself, are you ready?).

¹¹⁵See the discussion of the implicit approach to incompleteness below.

suppose he wonders whether the author of *Waverley* is present (at a dinner party). Suppose he expresses himself thus: ‘Is the author *Waverley* present?’ There is an interesting issue here that the Russellian needs to address, but it is not the one many people think it is. Let us put aside the reading of ‘George IV wonders whether the author of *Waverley* is present’ upon which the description has large scope. (It is not relevant to the point at hand.) The following objection to Russell’s theory (which one hears with alarming frequency) involves a logical mistake: On Russell’s account, ‘the author of *Waverley* is present’ is equivalent to ‘exactly one thing authored *Waverley* and that person is present’; so if George IV wonders (and asks) whether the author of *Waverley* was present, he wonders (and asks) whether exactly one person authored *Waverley* and that person is present’; but (the objection goes), the analysis is incorrect because George IV is not wondering (or asking) whether exactly one person authored *Waverley*! The mistake is this: ‘George IV wonders whether *p* and *q*’ does *not* entail ‘George IV wonders whether *p*’. Obviously, Russell recognized this, which is why he felt free to say explicitly that ‘when we say “George IV wished to know whether Scott was the author of *Waverley*,” we normally mean “George IV wished to know whether one and only one person authored *Waverley* and Scott was that man”’¹¹⁶ The real issue for the Russellian is this: if

¹¹⁶OD, p. 489. Kripke (this volume) seems to make the logical mistake I am talking about. Prior (1968), Grice (1989), and Kaplan (this volume) recognize that it is, indeed, a mistake. (As Kaplan points out in his discussion of Russell’s example, ‘Diogenes wished to know whether there were honest men. This does not imply that he wished to know whether there were men.’) In an interesting twist, where Kripke sees a problem with Russell’s analysis because it implies that George IV wished to know whether there was exactly one author of *Waverley*, Kaplan sees an epistemic problem with Russell’s analysis in the context Russell describes because it does *not* have this implication. (Prior’s discussion (to which I was alerted by Christopher Peacocke) concerns an indefinite description: An FBI agent would like to catch a communist, though there is no particular communist he would like to catch. The Russellian will say that, on the intended understanding, the agent would like it to be the case that there is a communist whom he catches, and this does *not* imply that he would like it to be the case that there are communists.) Kripke is not alone in making this mistake (which I have encountered many times orally). It is made (in an excellent, recent book) by Elbourne (2005), who attributes the objection (and hence, I suppose, the error upon which it is based) to Heim (1991), a paper in German that I have not read. The same form of bad objection is sometimes made in connection with examples such as the following (from Grice, 1989):

- (i) Give your wife flowers.
- (ii) Is your wife here?
- (iii) Have you checked to see if the roof is leaking?

The logical mistake mentioned in the text (which Grice does not make) is being made by anyone claiming that on Russell’s theory someone uttering (i) is instructing a man to ensure he is non-bigamously married; that someone uttering (ii) is inquiring whether the person he is addressing is non-bigamously married; that someone uttering (iii) is asking if you have checked to see if you have exactly one roof.

p is the proposition that exactly one man authored *Waverley*, and q is the proposition that every author of *Waverley* is present, why is it that someone being asked ‘Is the author of *Waverley* present?’ will normally be confident that once the speaker knows whether q he will no longer wonder whether p and q ?¹¹⁷ It seems to me there is much work to be done on descriptions occurring in sentences ascribing attitudes other than belief and in sentences used to do things other than assert.¹¹⁸

(b) *Incompleteness Issues*. How can the Russellian explain the fact that no implication of uniqueness of precisely the sort Russell’s theory predicts seems to attach to many uses of many descriptions, for example, to uses of the so-called incomplete descriptions ‘the man’ and ‘the table’?¹¹⁹ The uniqueness implication in Russell’s analysis drew Strawson’s fire, and it has been seized upon by referentialists who point out, quite correctly, that incomplete descriptions are regularly used to draw attention to a unique object without themselves specifying a unique condition.¹²⁰

Historically, there have been two broad approaches to the problem of incomplete descriptions that Russellians have pursued, the *explicit* approach and the *implicit* approach; but recently a third, *hybrid* approach has emerged. On all three approaches the uniqueness implication is treated as genuine and accommodated by paying attention to the practicalities of language use.¹²¹ According to the explicit approach, (also known as the *ellipsis* approach), the nominal attaching to a quantificational determiner is often understood as replaceable by a longer nominal the speaker could have used or would be prepared to fall back on if pressed to be more explicit, hence the label.¹²² If asked to elaborate on utterances of ‘everyone left at midnight’ or ‘the king left at midnight’, a speaker might come out with ‘everyone who came to my party last night left at midnight’ and ‘the king of Norway left at midnight’. The connection between possessive descriptions and incomplete descriptions is clear: just as the hearer has to infer which relation a speaker intended by the possessive marker in order to identify the prop-

¹¹⁷ See Grice (1989). More convoluted versions of the issue arise for the examples in the previous footnote involving questions and commands.

¹¹⁸ Some light has been shed here by Grice (1989) and Graff (2003).

¹¹⁹ The question (and an answer) goes back at least to Quine (1940) and Sellars (1954).

¹²⁰ See Buchanan and Ostertag, Jónsson and Schiffer (this volume). See also Devitt (2004) and Wettstein (1981).

¹²¹ See Buchanan and Ostertag, Schiffer and Szabó (this volume). See also the papers in Ostertag (1998) and Bezuidenhout and Reimer (2004).

¹²² Notice the modals: ‘replaceable’, ‘could’, ‘would’. See Neale (2004).

osition expressed, so the hearer has to infer a satisfactory completion to identify the proposition expressed when an incomplete description is used. The difference must not be played down, however: with the possessive description there is an explicit item in morpho-syntax signalling the inferential requirement; with the incomplete description the cue comes from contextual considerations.¹²³

As Russell himself noted in his reply to Strawson, there may be incomplete possessive descriptions, indeed overtly indexical, incomplete, possessive descriptions: ‘my son’, uttered by a man with two sons (assuming the relation implicit in ‘son’ is the one intended here by the possessive marker). The existence of such descriptions underscores just how important inference is in identifying the proposition expressed on a given occasion. In connection with the description alone, identifying the proposition expressed on a given occasion by ‘Scott is riding his horse’ requires (i) identifying the referent of the pronoun;¹²⁴ (ii) identifying the relation intended by the possessive marker; and (iii) providing

¹²³ If, as Stanley (2000) and Stanley and Szabó (2000) maintain, a nominal carries with it (or includes) an aphonic expression that is assigned an interpretation in context and intersects with the interpretation of (the overt part of) the nominal, and if this intersection is all that completion consists in, then the difference diminishes. Various sorts of examples cast doubt on the simple intersection story. One, due to Geoffrey Nunberg, concerns a waiter who says to another,

- (i) the hamburger on table six wants her coffee.

In this context, the description appears to be understood as something like ‘the customer who ordered a hamburger on table six’ (Neale 2004). Notice the use of the anaphoric pronoun ‘her’, and contrast the example with ‘the hamburger on table six wants it rare.’ Another nice example is provided by Jónsson (this volume), who discusses

- (ii) Lotta was reminded of the bike and got angry.

The context is one in which Lotta wished for but did not receive a bike for her fifth birthday, and is later angered when she sees her old tricycle. Jónsson runs through the options for explaining the use of the incomplete description ‘the bike’ (including treating it the way I treat Nunberg’s hamburger example) and finds each lacking. The moral I draw from examples such as those produced by Jónsson and Nunberg is one to which I suspect they are sympathetic: the gap between what is said and what is given by word meaning and syntax is far, far greater than many philosophers and linguists think, and only a linguistic *pragmatism* can hope to make sense of our intuitive ascriptions of truth and falsity. In Jónsson’s example, ‘the bike’ seems to be interpreted as something like ‘the fact that she had wanted a bike for her birthday and didn’t get one’—an interpretation that can be inferred only by someone familiar with the facts of the story. If this is right, the example is closer to the hamburger example than Jónsson thinks. Nonetheless, the example is a powerful one and underscores the severity of pragmatic intrusion in identifying what is said. The problem goes well beyond the interpretation of descriptions, of course.

¹²⁴ Actually, identifying whether the pronoun is bound or referential will be required. Some languages cut the workload here (whilst increasing it elsewhere). In Icelandic, for example, *sínum* would be used to signal the bound reading (Scott is an x such that x is riding x ’s horse) and *hans* would be used to signal the unbound/referential reading (Scott is an x such that x is riding y ’s horse (for some value of y to be inferred)). See Neale (2005).

a suitable completion (at least in the case where identifying the intended relation does not secure uniqueness).

The explicit approach still needs to explain how incomplete descriptions are used to draw attention to a unique object without themselves specifying a uniquely satisfied condition. A simple—perhaps *worryingly* simple—answer is this: Where descriptions are used in a demonstrative-referential way, a *standardized* form of demonstrative completion is taken for granted: ‘the man’ is understood just as ‘the man identical to *him*’ would be understood in the same scenario (with ‘him’ understood as a demonstrative referring expression). On such an account, ‘the ϕ ’ used referentially would (perhaps as a matter of implicit convention) amount to a Gödelian description $(\lambda x)(\phi x \wedge x=a)$.¹²⁵ If this is a plausible story, then the debate between the Russellian and the ambiguity theorist grinds to a compromise: when ‘the ϕ ’ is used referentially, ‘ $C(\text{the } \phi)$ ’ is used to express a proposition that is both Russellian *and* object-dependent in the relevant way.¹²⁶ (As Russell might put it, the denotation of ‘the ϕ ’ gets into the proposition expressed as part of its meaning!)

The implicit approach to incompleteness involves a radical change in perspective: truth and falsity are not properties of propositions *per se* but of propositions relative to quantifier domains (or situations).¹²⁷ In our two examples above, the restriction might be to persons at my party last night. In order to mimic what the explicit approach is able to capture when it treats an utterance of, say, ‘the Russian voted for the Russian’ as if it were an utterance of ‘the Russian judge voted for the Russian boxer’, the implicit approach would have to permit a quantifier domain (or situation) to change as the speaker is talking, indeed before he finishes a single clause!¹²⁸

¹²⁵ Gödelian because Gödel (1944) alludes to descriptions of this form in connection with a suggested proof that if descriptions are not incomplete symbols, all facts would collapse into one. See Neale (2001) for discussion.

¹²⁶ Buchanan and Ostertag, and Schiffer (this volume) criticize the version of this idea found in Neale (2002, 2004). We have seen several times that descriptions may be quantified into. Gödelian descriptions are no exception. Drawing on hitherto unpublished work of Kripke, I tried to motivate the idea that those descriptions some philosophers, e.g., Wilson (1991), have argued are understood as bound variables, are, in fact, understood as Gödelian descriptions that are bound-into, i.e. understood as descriptions of the form $(\lambda x)(\phi x \wedge x=y)$ with y bound by a higher quantifier. As Kripke notes, ‘ $x=y$ ’ here functions rather like ‘in question’ in English.

¹²⁷ See Barwise and Perry (1983) and Recanati (2004). For an extension of this idea into other realms, and a novel twist on the notion of a circumstance of evaluation, see MacFarlane (2004).

¹²⁸ See e.g. Westerståhl (1985), Soames (1986), Stanley and Williamson (1997), Neale (2004). If domains are replaced by situations, then the situations with respect to which utterances are evaluated for truth or falsity will have to shift as we speak too, even within clauses. Whilst it may be poss-

The *hybrid* approach follows the implicit approach in appealing to quantifier domains; but it follows the explicit approach in taking propositions themselves to be true or false, and in taking the proposition expressed by ‘the Russian voted for the Russian’ on a particular occasion to be more complex than surface form would suggest.¹²⁹ Assuming that surface syntax and LF are the levels of syntactic representation relevant to sound and meaning, respectively, the idea is that every nominal in a sentence co-occurs with a variable, visible at LF but not in surface syntax (a ‘hidden indexical’ as it is sometimes put). Invisibility in surface syntax means being aphonetic (whereas invisibility at LF amounts to being asemanitic, like ‘it’ in ‘it’s raining’). The aphonetic variable co-occurring with a nominal is contextually assigned a domain of quantification, or perhaps a property of such a domain. The hybrid approach avoids collapsing into a syntactically implemented version of the explicit approach as long as these aphonetics are not understood as surrogates for strings of words the speaker could have used, but as genuine expressions of a (broadly) indexical nature. This may turn out to be harder than imagined, as hybrid approach analyses are always stated using the sorts of completions the explicit approach postulates.¹³⁰

Unlike the implicit approach, the explicit and hybrid approaches posit a richer compositional structure than can be gleaned from surface syntax. This opens both up to charges that specific analyses ascribe precise contents to the psychological states of speakers that there is every reason to doubt.¹³¹ Clearly there is a great deal of work to do in connection with all three approaches, some of which will involve linguists and psychologists.

(b) *Contrast Issues*. What about dropping the idea of a truth-conditional uniqueness implication altogether, construing definite descriptions as existentially quantified devices, and seeking a discourse-theoretic explanation of the difference between definite and indefinite descriptions, perhaps even in a way that resurrects some notion of pre-

ible to produce situation-theoretic machinery capable of getting the intuitively correct results, a feeling that semantics has lost contact with the realities of actual utterance interpretation is the price. Parallel complications will arise for applications of the same basic idea such as those suggested by MacFarlane (2005)

¹²⁹ See Stanley (2000) and Stanley and Szabó (2000).

¹³⁰ Some see this sort of appeal to domain restrictions in a theory of utterance interpretation as either an inappropriate application of an idea in mathematical logic or else a needlessly formal way of mirroring what the explicit approach captures rather naturally. (See Neale 2004.) This complaint now seems to me misguided in certain respects, but not entirely without force.

¹³¹ See Buchanan and Ostertag, Schiffer (this volume), and Wettstein (1981).

supposition?¹³² The existential proposal would retain one Russellian characteristic: definite descriptions would still be scope-bearing devices of quantification rather than singular terms.¹³³ But it would be decidedly non-Russellian in another: for even if dropping the uniqueness implication turns out to have certain benefits in connection with natural language semantics, it would not be acceptable to Russell given his purposes.¹³⁴

On a simple application of Russell's theory, it seems that if I sincerely assert,

(13) the man who denounced Catiline in the Senate was Cicero

I commit myself to there being exactly one man who denounced Catiline in the Senate, perhaps in some period of time the explicit, implicit or hybrid approach can explain (63 BC, for example). But if 'the' automatically carries a uniqueness implication, why is there no whiff of redundancy in (13')?

(13') the *only* man who denounced Catiline in the Senate was Cicero.¹³⁵

The apparent absence of redundancy in (13') might be thought to support the existential analysis of 'the', the uniqueness implication being carried by 'only'. (Similarly, 'unique', 'sole', 'solitary', and 'one'.) But now the existential analysis must explain why replacing 'the' in (13') by 'some' or 'an' (or indeed any other simple determiner) produces an unacceptable string—'some only man', 'an only man', 'no only man', etc., are all bad.¹³⁶ This might be thought to tell against the existential analysis, Russell's uniqueness implication licensing 'only' in (13'). Furthermore, both parties need to explain the difference between (13') and (13''):

(13'') the only man who *ever* denounced Catiline in the Senate was Cicero.

¹³² See Szabó (this volume). See also Heim (1982) and Ludlow and Segal (2004), and Szabó (2000). For objections, see Abbott (2003).

¹³³ See Szabó (this volume).

¹³⁴ See n. 56. See also Cartwright, Kaplan (this volume), and Makin (2000).

¹³⁵ Descriptions of this form are used routinely by Russell, Geach, and Evans.

¹³⁶ Is 'an only child' an exception? No. As Gary Ostertag has observed, 'only' has a different use in 'only child', which is an idiom of some sort. Cf. 'the only only child I know is my cousin Henry' and 'no only child goes hungry'.

And both need to explain why removing ‘only’ from (13'') produces a sentence that can be improved considerably by then removing ‘ever’. Clearly ‘only’ and ‘ever’ are connected in some way.¹³⁷

In the context of a discussion of the Catiline conspiracy of 63 BC, (13'') might be used after (13') to undo the contextual restriction on the time frame. Does (13') stand to (13) in some similar relation? That would be the hope of the Russellian, perhaps.¹³⁸ But even if this is right, it does not explain why dropping ‘only’ in (13'') produces a sentence that sounds odd. It would seem that it is the presence of ‘only’ (‘unique’, etc.) that licenses ‘ever’ in (13''). And notice that no oddness results if ‘only’ in (13'') is replaced by a superlative, such as ‘first’, or ‘most rhetorically gifted’.¹³⁹ By their nature, superlatives express uniqueness. Another point in favour of the existential analysis, it would seem. And yet, this analysis does not explain why we cannot use ‘some only’ and ‘an only’. The plot thickens when we consider infinitivals. Why is (14) better than (14')?

(14) the only (first, etc.) man to denounce Catiline in the Senate was Cicero

(14') ? the man to denounce Catiline in the Senate was Cicero.

It should now be clear that philosophers will need to talk to linguists if they are to fully understand the semantics of descriptions. That point is reinforced as soon as one begins looking at languages other than English.¹⁴⁰ In some there is no lexical distinction between definite and indefinite articles. Indeed some lack one or both altogether (at least if surface syntax is any guide).

I shall conclude with a quick appraisal of issues that linguists have drawn upon in dealing with puzzles related to those involving (13), (13'), and (13''). To avoid distracting side issues involving identity (covered in 3.9), let us replace ‘was Cicero’ by ‘orated well’. The main contrast to be explained is between (15) and (15'), in both singular and plural forms:

(15) the only (first) man (men) who *ever* denounced Catiline orated well

(15') ? the man (men) who *ever* denounced Catiline orated well.

¹³⁷ See Rothschild (forthcoming).

¹³⁸ This idea is due to Gary Ostertag.

¹³⁹ See Rothschild (forthcoming).

¹⁴⁰ See Szabó (this volume).

Linguists call the word ‘ever’ a negative polarity item (*npi*). And they often suggest that *npi*’s can appear only in \downarrow (‘decreasing’) environments, citing the stark contrast between (16) and (16’):¹⁴¹

(16) no man (men) who *ever* denounced Catiline orated well

(16’) ? some man (men) who *ever* denounced Catiline orated well.

A determiner *D* is \downarrow on the nominal phrase ϕ with which it merges (to form a DP ‘*D* ϕ ’) if, and only if, replacing ϕ by an expression that is semantically less inclusive preserves truth.¹⁴² So *D* is \downarrow on ϕ if, and only if, (17) entails (17’), for example:

(17) *D* animal(s) snored $\quad (\downarrow)$

(17’) *D* dog(s) snored $\quad (\uparrow)$

By contrast, *D* is \uparrow (‘increasing’) on its nominal phrase ϕ if, and only if, replacing ϕ by an expression that is semantically more inclusive preserves truth, i.e. if, and only if, (17’) entails (17). We might extend our terminology: let us say that if *D* is \downarrow (or \uparrow) then *D* itself governs (and creates) a \downarrow (or \uparrow) context. Thus, contexts governed by ‘no’ and ‘every’ are \downarrow , whereas those governed by ‘some’ are \uparrow . Russell’s theories of singular and plural descriptions entail that contexts governed by ‘the’ are \nrightarrow (‘non-increasing’) but not actually \downarrow (they are \nrightarrow (‘non-monotonic’)); so the generalization about \downarrow contexts predicts the purported infelicity of (15’) if Russell’s accounts are assumed.¹⁴³

Is this a problem for the existential analysis? If definite descriptions are existential but do not themselves give rise to uniqueness implications, then shouldn’t contexts be governed by ‘the’ be \uparrow and pattern with ‘some’ and ‘a’? Shouldn’t (17’) entail (17) when *D* is ‘the’? The advocate of the existential analysis has room to manoeuvre. The basic idea is not that there is *no* semantic difference between ‘the’ and ‘a’, that they are mere stylistic variants; it is, rather, that they differ in some

¹⁴¹ The suggestion is made by Ladusaw (1981) for example. The properties of quantifiers discussed here are from Barwise and Cooper (1981).

¹⁴² For immediate purposes we are concerned with the $\uparrow \downarrow$ properties only of contexts *inside* descriptions and other denoting phrases. Talk of contexts ‘governed by’ or ‘under’ determiners is to be understood as talk of contexts within the scope of those determiners, not talk of contexts within the scope of the restricted quantifiers they head. More precisely, we are concerned with the $\uparrow \downarrow$ properties of the *first* position of quantifications, i.e. of the formula ϕ a determiner *D* combines with to form a restricted quantifier [*D**x*: ϕ], and not with the formula ψ the restricted quantifier combines with to form a formula [*D**x*: ϕ] ψ . So my use of, say, ‘ \downarrow ’ is here shorthand for ‘ $\downarrow 1$ ’ rather than ‘ $\downarrow 2$ ’. The particular style of arrow notation used here is found in Neale (2000a, 2004) and Westerståhl (2001).

¹⁴³ See Neale (2000a, 2004).

non-truth-conditional, discourse-theoretic fashion, perhaps by way of a presupposition of uniqueness or familiarity (or, perhaps, some other notion). This could have a subtle bearing on how we would have to think of entailment relations between (17) and (17') when D is 'the'.¹⁴⁴

There is another issue here. (15') does not grate quite as much as (16'), particularly in its plural form.¹⁴⁵ Perhaps the slight contrast between (15') and (16') is due to a switch from a \ddagger ('non-decreasing') context to a full-fledged \uparrow context. In deference to that idea, it has been suggested that *npi*'s may occur in a slightly broader class of environments, namely, those that are \ddagger ('non-increasing'); a move that predicts the acceptability of (19) and (20), as 'exactly *n*' and 'most' are both \ddagger .¹⁴⁶

(19) exactly three men who ever denounced Catiline were Roman

(20) most men who ever denounced Catiline were Roman.

On this account, being \ddagger would be the semantically basic property of contexts in terms of which others might be defined (using \sim and \vee , for example). Whether there is other evidence for the primacy of the concept is something empirical investigation will have to pronounce on.

¹⁴⁴ See Szabó (this volume). If *p* is the uniqueness presupposition attaching to a use of (17), perhaps some advocates of the existential analysis would take the conjunction ($p \wedge (17')$) to entail (17).

¹⁴⁵ See May (1985), Neale (2000a). It is possible that issues about partitives impinge here. English partitives make use of the definite article, and one might think an adequate theory of plural descriptions should explain the relation between 'the ϕ s' and 'all of the ϕ s', 'some of the ϕ s', 'none of the ϕ s', 'most of the ϕ s', 'exactly *n* of the ϕ s' etc. Partitives may also appear with mass nouns, e.g. 'all of the water', reinforcing the point that the semantic of mass noun descriptions also needs explaining. See Oliver and Smiley (this volume).

¹⁴⁶ Kempson (1985), Neale (2000a, 2004). This hypothesis forms the core of an interesting recent paper by Rothschild (forthcoming) already mentioned. Rothschild calls \ddagger environments 'domain-sensitive' to reflect their characteristic semantic feature, and he provides an elegant explanation of why \ddagger environments (and only \ddagger environments) should permit *npi*'s (and of why single-specifier words such as 'only', 'unique', 'one', 'sole', 'single', and 'solitary' and superlatives create such environments). He agrees that negative polarity items may occur under 'most', but finds their presence under *singular* 'the' (used non-generically) as unacceptable as their presence under 'some'. (I myself am less certain about this; context can sometimes play a softening role with singular 'the' (used non-generically) that it cannot play with 'some' or 'a'.) This leads Rothschild to reject the thesis that contexts under singular 'the' are \ddagger . In my original discussion, I expressed discomfort at the idea of any theory according to which singular and plural 'the' have different $\uparrow \downarrow$ properties, noting that no such divergence affects singular and plural 'no' or 'some'. Rothschild's rejection of the thesis that contexts under singular 'the' are \ddagger leads to his rejection of Russell's account of *singular* 'the'. And this enables him to tackle the contrast between (15) and (15'): it is to be explained (as it will be explained by the advocate of the existential analysis) by appealing to the semantic properties of 'only' ('unique', etc.), and 'first' ('tallest', etc.). Perhaps an explanation of the contrast between (14) and (14') will also flow from these considerations. On Rothschild's account, as on the existential analysis, contexts under singular 'the' must be as \uparrow as those governed by 'some' and 'a' since they do not permit *npi*'s.

3.9 Identity and predication

Just as there are philosophers who argue that descriptions are devices of reference, so there are those who argue they are devices of predication. If taken as fully general, these positions conflict with one another and also with Russell's quantificational position. But it is no news that arguments have been presented for theories that posit what might be called ambiguities. Descriptions might admit of Russellian and referential readings.¹⁴⁷ Or they might admit of Russellian and predicational readings.¹⁴⁸ Or they might admit of Russellian, referential, and predicational readings.¹⁴⁹ Of course, Russell's theory is a predicational theory of sorts. When implemented using a Fregean account of quantification, descriptions are *second*-level predicates. And more generally, in saying that the ϕ is ψ one is surely predicating at the first-level with ϕ just as one is predicating at that level with ψ . But might some uses of 'the ϕ ' be treated *as first*-level predicates themselves.¹⁵⁰

On Russell's account of indefinite descriptions, 'I met an actor' is analysed as $(\exists x)(man\ x \wedge I\ met\ x)$ —or as we might put it today, $[an\ x: actor\ x](I\ met\ x)$. Is it plausible to suppose that this quantificational analysis is correct across the board? When translating sentences of English into predicate logic it is common to treat VPs of the form of (21)

$$(21) \ [VP\ is\ [DP\ a\ [NP\ \Phi]]]$$

as simple one-place predicates. (22), for example,

$$(22) \ \text{Scott is an actor}$$

will be rendered as the simple subject-predicate sentence As , where s is an individual constant and A is a one-place predicate true of those things that act, or at least those things that are actors.¹⁵¹ Paying lip-serv-

¹⁴⁷ Schiffer (this volume), Devitt (2004), Donnellan (1966), Kaplan (1978), and Wettstein (1981), for example.

¹⁴⁸ Geach (1962), and Wiggins (1965), for example, but with caveats.

¹⁴⁹ Linsky (1963), Partee (1986), and Wilson (1978), for example. Partee (as noted earlier) does not posit a special ambiguity but sees the three readings as related by a form of DP type-shifting. Not all DPs have all three interpretations, on Partee's account, but definite descriptions do: *Referential*: $(\lambda x)(\phi x)$, corresponding to type e (construed as an expression that refers to α if α and nothing else satisfies ϕ , and to nothing otherwise); *Predicational*: (ii) $\lambda x(\phi x \wedge \forall y(\phi y \supset y=x))$, corresponding to type $\langle e, t \rangle$; *Quantificational*: $\lambda P(\exists x(\forall y(\phi y \supset y=x) \wedge Px))$, corresponding to type $\langle \langle e, t \rangle, t \rangle$.

¹⁵⁰ To the list of people mentioned in the last three footnotes we can now add Graff (2001), who has argued for a *unitary* predicational analysis.

¹⁵¹ It is arguable that there is a world of difference between acting and being an actor, writing and being a writer, smoking and being a smoker, governing and being a governor, etc. This is not something I can go into here, so for convenience let us assume that X acts (is or acting) at time t if

ice to this translational behaviour, let us say that we have a *predicative* use of ‘a ϕ ’ whenever we have a VP of the form (21), and that ‘a ϕ ’ occurs in such a structure in *predicative position*.¹⁵²

According to Russell, the copula in (22) is the ‘is’ of identity, and the indefinite ‘an actor’ is handled exactly as it would be if the copula were replaced by ‘met’ or any other transitive verb: the logical form of (22) is $\exists x(Ax \wedge x=s)$ —or, as we put it say today, $[an\ x: Ax](x=s)$.¹⁵³ Russell is not claiming that (22) is an *identity statement*. An identity statement, for him, is a statement of the form $a=b$ where a and b both singular terms. (22) is not of this form; but when its logical form is revealed, we do find it has as a *proper part* an open sentence expressing an identity, namely, $x=s$.

As far as truth-conditions are concerned, the Russellian analysis seems unobjectionable.¹⁵⁴ But it is longwinded in comparison with *As*, and (for whatever it’s worth) the copula in ‘Scott is an actor’ doesn’t *seem* like the ‘is’ of identity. Furthermore, although formal constraints on the relations that hold between PFs and LFs constitute constraints on scope possibilities (interpretively understood in terms of LF representations), one might *expect* to see scope ambiguities in the following if ‘an actor’ were really a quantifier phrase (i.e. one might expect to find two LFs for each of the following PFs):

- (23a) Scott is not an actor
- (b) Scott used to be an actor
- (c) George IV wonders whether Scott is an actor.

And yet the readings upon which the purported quantifier phrase ‘an actor’ has large scope are either non-existent or else very strained.

A common response to all of this is to say that the translational practice that gives the predicative use of indefinites its name should form the basis of the semantics of VPs of form (21), whatever the semantics of indefinites in *other* linguistic positions (for example, in $[_S\ I\ [_{VP}\ met\ [_{DP}\ an\ actor]]]$). In effect, the suggestion is that (21) con-

and only if X is (or is being) an actor at time t (and vice versa) etc. There are all sorts of complexities here given the way we actually use verb tenses, participles, and nominals.

¹⁵² The former label may be a little misleading, the word ‘use’ perhaps suggesting a possible choice between *ways* of using, as it does when we talk of referential and attributive *uses* of descriptions, for example, or deictic and bound *uses* of ‘his’ in ‘every man love his mother’. Both labels can be found in the literature, however, so I shall use both freely.

¹⁵³ See *IMP*, p. 171ff.

¹⁵⁴ Though see n. 148.

tains the ‘is’ of predication and the indefinite description behaves rather like an adjective.¹⁵⁵

Definite descriptions may also appear after the copula, in VPs of the form (24):

(24) $[_{VP} \text{ is } [_{DP} \text{ the } [_{NP} \phi]]]$.

Russell gives plenty of examples including, of course,

(25) Scott is the author of *Waverley*.

Extending the terminology from the discussion of indefinites, let us say that we have a *predicative* use of ‘the ϕ ’, that ‘the ϕ ’ occurs in a *predicative position*, whenever we have a VP of the form of (24). This *syntactic* notion must be distinguished from the *interpretive* notion of a predicational reading. The question we are addressing is whether predicative uses require predicational readings.¹⁵⁶ Russell assumes that the predicative use requires no special treatment. Indeed, he regards the *virtues* of his theory as manifestly displayed in his analysis of the predicative use in (25). (i) The copula is the ‘is’ of identity, and the description ‘the author of *Waverley*’ is still a quantifier phrase, handled exactly as it would be if the copula were replaced by ‘respects’ or any other transitive verb. So the sentence’s logical form is $\exists x(\forall y(Ayw \equiv y=x) \wedge x=s)$ —or, as we might put it today, [*the x: Axw*]($x=s$).¹⁵⁷

Russell is no more claiming that (25) is an *identity statement* than he is claiming (22) is one. When the logical form of (25) is exposed, we find it contains as *proper parts* open sentences expressing identities, $y=x$ and $x=s$, the latter playing the same role it plays in (22). The principle of substitutivity may be used in connection with these open sentences, and this gives Russell an account of the validity of inferences involving the ‘verbal substitution’ of a description for a name, or a description for a description, in truth-functional contexts.¹⁵⁸

A good number of philosophers and logicians have followed Russell here in treating predicative uses of descriptions no differently from standard subject and object uses. This is seen in their discussions of (24) and, most famously in discussions of ‘9 is the number of planets’

¹⁵⁵ See (e.g.) Geach (1962), Linsky (1963), Heim (1988), Partee (1986), and Wilson (1978). Graff (2001) suggests *verb* rather than adjective. See n. 156.

¹⁵⁶ In *Descriptions*, I claimed that the predicative use (exemplified by ‘John Smith is the man who threw Strawberry ice cream at the Pope’) posed no problem for the Russellian, i.e. that it did not require a special predicational interpretation (Neale, 1990, p. 116, n. 55).

¹⁵⁷ See *IMP*, p. 171ff.

¹⁵⁸ *14.15.16.

when investigating the validity of modal arguments involving substitutivity.¹⁵⁹ But others have resisted Russell here, moved by remarks at the beginning of ‘On Referring’, where Strawson says he will be discussing the ‘uniquely referring use’ of descriptions, exemplified most straightforwardly by those occurring in subject position.¹⁶⁰ Concerning a predicative use such as the one in (24), Strawson says, ‘I should be using “Scott” to mention a certain individual, but I should not be using the phrase “the author of *Waverley*” to mention an individual, but to say something about an individual I had already mentioned.’¹⁶¹ As in the

¹⁵⁹ See e.g. Quine (1943, 1947), Carnap (1947), Smullyan (1948), Føllesdal (1966), Kripke (1971, 1980), Neale (1990). Like Russell, most of these people do not bother to say explicitly that they assume Russell’s theory works fine for the predicative use, as they simply construe the copula as the ‘is’ of identity, as expressing a two-place relation just like any transitive verb. Under these assumptions, the predicative use amounts to nothing special. In *Descriptions* I thought it worthwhile to say explicitly that the predicative use does not threaten the Russellian position (Neale, 1990, p. 116, n. 55) before beginning my discussions of substitutivity in connection with ‘Scott is the author of *Waverley*’ and ‘9 is the number of planets’. Concerning me and structures of the form [_{VP} is [_{DP} the [_{NP} ϕ]]], Graff (2001) makes the preposterous claim that ‘nowhere in *Descriptions* does he discuss the constructions in question’ (2001, p. 35, n. 9). This claim must be based on overlooking precisely the twenty or so pages that assume precisely the view she is attacking! Throughout the book, I explicitly followed Russell, Quine, Smullyan and Kripke in analysing such constructions in terms of identity (precisely the view Graff is opposing). Specifically: (1) At the end of chapter three, I explicitly labelled the use of a definite description in such a structure predicative, giving as an example ‘John Smith is the man who threw Strawberry ice cream at the Pope’ (1990, p. 116, n. 55). (2) In chapter four, I discussed at considerable length some famous sentences of precisely the form in question, including ‘Scott is the author of *Waverley*’, ‘9 is the number of planets’, and ‘Richard Nixon is the 37th president’ (Neale, 1990, pp. 133–50). I followed Russell (and Quine and Smullyan) like a lamb (to slaughter?) here in explicitly treating these examples as involving the ‘is’ of identity, explicitly using the identity sign to display the (Russell-Quine-Smullyan) interpretation of the predicative use I was assuming—it would have been hard to engage with Quine and Smullyan on substitutivity without this interpretation! Of course, it might well be a colossal mistake to treat the predicative use in the Russellian way I do; but if it is a mistake it is certainly not the mistake of not discussing it at all!

¹⁶⁰ Strawson (1950), p. 320. See e.g. Geach (1962), Linsky (1963), Wiggins (1965), Donnellan (1966), McCawley (1981), Partee (1986), Wilson (1978), Graff (2001, 2003). For discussion, see Kripke (this volume).

¹⁶¹ Strawson (1950), p. 320. Strawson’s example was ‘Napoleon was the greatest French soldier’. I have changed it for the sake of continuity. Of course, an individual does not always have to be mentioned before the description appears in every case (‘Who is the author of *Waverley*?’, ‘The author of *Waverley*? Scott, I think’). The predicational character of Russell’s theory is simply not appreciated by Strawson, nor indeed by many people working today. (The lingering error in the work of Quine and others that one can talk sensibly of descriptions as singular terms within Russell’s analysis is one consequence of this.) As Kripke (this volume) notes, Russell recognized in OD that his theory explained why ‘Scott is the author of *Waverley*’ predicates something of Scott. The point is worth amplifying as it exposes the hollowness of certain claims to be providing non-Russellian, predicational theories. Russell, as Kripke observes, says ‘Scott is the author of *Waverley*’ can be paraphrased, on his theory, as what amounts to ‘Scott and only Scott authored *Waverley*’. (Russell’s precise words are, ‘Scott wrote *Waverley*, and it is always true of y that if y wrote *Waverley*, y is

case of indefinites, the suggestion seems to be that the description behaves semantically rather like an adjective, given the equivalence of $\exists x(\phi!x$ and $x=s)$ and $\phi!s$ (where $\phi!x$ is shorthand for ‘ x is uniquely ϕ ’).¹⁶²

identical with Scott’ (OD, p. 55). See also (i) Russell’s remark on p. 68 of *PM* that (as we would put it) ‘Scott is the author of *Waverley*’ is equivalent to ‘ x wrote *Waverley*’ when, and only when, Scott is the value of x ; and (ii) his remark that “‘ a is the so-and-so” means that a has the property so-and-so and nothing else does” (KAKD, p. 206.) The concept of *identity* is crucially involved in such paraphrases. Indeed, once we put them into a form that respects the fact that ‘Scott’ is the grammatical and logical subject of ‘Scott is the author of *Waverley*’, the predication itself transparently involves identity: ‘Scott uniquely authored *Waverley*’ or ‘Scott authored *Waverley* uniquely’. (The analyses of Partee (1986) and (Graff (2001) simply mimic this with λ -abstraction on a position in an identity statement.) It is for this reason that Kripke and others have used formulae such as $\exists x(\phi!x \wedge \psi x)$ to characterize the truth conditions of ‘the ϕ is ψ ’, where $\phi!$ explicitly stands for ‘is uniquely ϕ ’, which very obviously involves identity. (Equally, identity must be involved in any plausible analysis of Kripke’s examples, ‘Scott and the author of *Waverley* are one’ and ‘Scott and the author of *Waverley* are one and the same person.’) The antepenultimate paragraph of OD and a passage in *PM* are important here:

The usefulness of *identity* is explained by the above theory. No one outside a logic book ever wishes to say “ x is x ”, and yet assertions of identity are often made in such forms as “Scott was the author of *Waverley*” or “thou art the man”. The meaning of such propositions cannot be stated without the notion of identity, although they are not simply statements that Scott is identical with another term, the author of *Waverley*, or that thou art identical with another man, the man. The shortest statement of “Scott is the author of *Waverley*” seems to be “Scott wrote *Waverley*; and it is always true of y that if y wrote *Waverley*, y is identical with Scott.” It is in this way that identity enters into “Scott is the author of *Waverley*”; and it is owing to such uses that identity is worth affirming. (OD, p. 55)

It is clear from this passage that Russell takes the proposition expressed by ‘Scott is the author of *Waverley*’ to involve identity crucially, but to be quite different from the proposition expressed by, say, ‘Scott is Sir Walter’, in which the identity sign is flanked by two names. The matter concerning identity and predication becomes clearer if we look at *PM* (the paragraph immediately following the argument discussed earlier that descriptions are always incomplete symbols):

It might be suggested that “Scott is the author of *Waverley*” asserts that “Scott” and “the author of *Waverley*” are two names for the same object. But a little reflection will show that this would be a mistake. For if that were the meaning of “Scott is the author of *Waverley*”, what would be required for its truth would be that Scott should have been *called* the author of *Waverley*: if he had been so called, the proposition would be true, even if someone else had written *Waverley*; while if no one called him so, the proposition would be false, even if he had written *Waverley*. But in fact he was the author of *Waverley* at a time when no one called him so, and he would not have been the author if everyone had called him so but someone else had written *Waverley*. Thus the proposition “Scott is the author of *Waverley*” is not a proposition about names, like “Napoleon is Bonaparte”; and this illustrates the sense in which “the author of *Waverley*” differs from a true proper name. (*PM*, p. 67).

Russell is again stressing the predicational character of his analysis. $a = (\lambda x)(\phi x)$ is not a genuine identity statement, which is why Russell has to prove the equivalence of $a = (\lambda x)(\phi x)$ and $(\lambda x)(\phi x) = a$ (*14.13), why he does not take it as an immediate consequence of the equivalence of $x = y$ and $y = x$ (*13.16). What Russell’s theory captures so beautifully is the complex functioning of descriptions as devices whose behaviour crucially trades on that of both singular terms and predicates.

¹⁶² Again, the co-ordination of like phrases may help us. (i) and (ii) are perfectly grammatical, and (iii) and (iv) don’t seem too bad:

But surely the mere fact that an expression may appear in a predicative position does not prove it is a predicate, witness the following:

- (26a) Scott is Sir Walter
 (b) Tully is Cicero.

Nor does the mere fact that an expression may appear in a predicative position prove it is not a quantifier:

- (27a) Scott is no author
 (b) Scott is someone I admire greatly
 (c) Scott is one pilot, Jones is the other
 (d) Scott is every pilot we can spare today
 (e) Scott is many ministers in the new cabinet.

So perhaps we should at least *look* for a common account of structure (28):

- (28) $[_{VP} \text{ is } [_{DP} \text{ det } [_{NP} \psi]]]$

-
- (i) Scott is [[liberal] and [jovial]]
 (ii) Scott is [[a liberal] and [the author of *Waverley*]]
 (iii) Scott is [[liberal] and [the author of *Waverley*]]
 (iv) Scott is [[the author of *Waverley*] and [liberal]].

(Curiously, in discussions of coordination of the type given in (iii), authors tend to reach for idioms. ('He is brilliant and the bane of my existence'; 'He is tall, handsome, and the love of my life.' See e.g. Graff, 2001, p. 10). If (iii) and (iv) are deemed perfectly grammatical, the Russellian owes us an account of their syntax. If the Russellian analysis is correct, (v) and (vi) should be perfectly grammatical:

- (v) Hesperus is [[Phosphorus] and [the second planet from the sun]]
 (vi) Hesperus is [[the second planet from the sun] and [Phosphorus]].
 (vii) Hesperus is [[Phosphorus] and [Venus]].

The analogy between the predicative use of a description and an adjective seems to me better than Graff's (2001) analogy with intransitive verbs. ('The description is not the argument of a predicate, but, like the verb in "John smokes", a predicate itself: the description occurs as a predicate in the sentence' (Graff, 2001, p. 3). The verb analogy seems wrong to me as it ignores the role of the copula in 'is the ϕ '. Of course the whole VP $[_{VP} \text{ is } [_{DP} \text{ the } [_{NP} \phi]]]$ behaves like the whole VP $[_{VP}[_{V} \text{ smokes}]]$, which is lexically exhausted by the verb 'smokes'. But to say that is just to say that a VP is behaving like a VP. If there is a good analogy here, it is that a definite description in the structure (24) behaves like an adjective in combining with the copula to form a VP.

where *det* is (at least) ‘a’, ‘the’, ‘no’, ‘one’, ‘every’, and ‘many’. After all, it would be rash to conclude at this point we have to give up the idea that ‘a ϕ ’, ‘the ϕ ’, ‘no ϕ ’, ‘one ϕ ’, ‘every ϕ ’, and ‘someone’ are uniformly quantifier phrases.¹⁶³

The purported absence or strain of readings upon which the purported quantifier has large scope is sometimes conceived as a problem for the Russellian analysis and as supporting a predicational semantics.¹⁶⁴ The descriptions in (29a) and (29b) appear to demand small scope:

(29a) Scott is not the author of *Waverley*

(b) Scott used to be the most famous author in Scotland.¹⁶⁵

But (29c) and (29d) are genuinely ambiguous in respect of scope (or so we have been led to believe for a hundred years):

(29c) George IV wonders whether Scott is the author of *Waverley*

(d) 9 is necessarily the number of planets.

So although there are things the Russellian needs to explain here, the challenge is not quite what it may at first seem.

There are several intersecting questions that need addressing. What differences are there in the scope constraints on ‘the ϕ ’, ‘a ϕ ’, ‘every ϕ ’, and ‘some ϕ ’, and why? What does the seeming absence of readings of (29a) and (29b) upon which the descriptions have large scope really demonstrate? Should it be explained in pragmatic or syntactico-semantic terms? Should the fact of the existence of the large scope readings of (29c) and (29d) push us towards a pragmatic explanation? Is there something else going on in structures of the general form (28) that we need to be aware of? How are we to explain the fact that the quantifier in the following cannot take large scope?

¹⁶³ Partee (1986) uses examples similar to those in (26) and (27) to motivate the idea that many DPs other than definite and indefinite descriptions have predicational interpretations. The contrast with those that do not can be seen in a shortened version of her example: ‘Mary considers that an island / two islands / many islands / the prettiest island / the harbour / *every island / *most islands / *this island’. Partee claims that whether or not a DP has a predicational interpretation is predictable from model-theoretic properties of its interpretation in a system of generalized quantifiers. But notice her ‘every island’ versus my ‘every pilot we can spare today’. More plausible, it seems to me, is a pragmatic explanation, case by case, those involving singularity needing no special scene-setting because of their model-theoretic properties. I cannot go into this here.

¹⁶⁴ See Graff (2001).

¹⁶⁵ However, Christopher Peacocke has pointed out to me that in some cases it is possible to hear the description with scope over the negation, just as Russell predicts, for example in ‘David Lewis is not the philosopher who argued that this is the best of all possible worlds’.

(30) Scott is not someone I admire greatly.

Should we posit a disjunctive theory of descriptions, one part for the predicative use, another for the subjective and objective uses, as we might call them? We have already touched on the idea—without endorsement—that the semantic role of a DP shifts when it occurs in object position (or in more broadly non-subject positions perhaps).¹⁶⁶ If that idea were pursued, would it open up the possibility of a second systematic shift, depending upon the verb of which the DP is the object for certain verbs V^* , to be specified? Would V^* be exhausted by ‘be’?¹⁶⁷ Would this force us to rethink the semantics of names and other singular terms occurring after the copula?

(31a) Hesperus is Phosphorus

(b) Necessarily, Hesperus is Phosphorus

Is it possible to construct a unitary predicational theory, one that treats descriptions as predicates whatever their syntactic position, so that both descriptions in (32) are predicational?¹⁶⁸

(32) the author of *Waverley* is the most famous Scottish author.

Or would this amount to a *second*-level predicate analysis in disguise?

There is clearly a great deal of work to be done on predication, identity, and scope in connection with descriptions, and if some current research is on the right track, this may have quite a bearing on the interpretation of generic, plural, and mass terms.¹⁶⁹

¹⁶⁶ This idea is explored by Partee (1986), in terms of type-shifting rules for moving between quantificational predicational, and also referential interpretations of descriptions.

¹⁶⁷ Do we need to think about verbs other than ‘be’ as values of V^* triggering predicational interpretations? Sentences (ii)–(ix) might suggest so:

- (i) John is the pilot
- (ii) John became the pilot (last year)
- (iii) John will remain the pilot until he retires
- (iv) John [[is] and [will remain]] the pilot
- (v) John hopes to be the pilot next year
- (vi) John [[is] and [hopes to remain]] the pilot
- (vii) John has excelled as the pilot
- (viii) John is considered the best pilot
- (ix) John works as the pilot at weekends.

However, all of these sentences seem to involve the idea of *being* a pilot, so perhaps the verbs all involve ‘be’, or at least the idea of *being*, at some level of analysis.

¹⁶⁸ For just such an attempt, see Graff (2001).

¹⁶⁹ See Graff (2001) and Smiley (2004).

Some say descriptions are singular terms, others say they are predicates of some level. I said these views conflict with one another and with the position of the Russellian if taken to be fully general. Yet there is a sense in which Russell's view is itself a resolution. At its simplest, the use of language involves the acts of *referring* and *predicating*, which conspire in some way in acts of *saying*. The proprietary devices of reference are referring expressions such as names; the proprietary devices of predication are (first-level) predicates, verb phrases containing such things as verbs and adjectives. Where do acts of *describing* and *identifying* fit in? Perhaps the real beauty of Russell's theory is that it explains why acts of *describing* and *identifying* are like acts of *referring* in some respects, and like acts of *predicating* in others. The proprietary devices of description and identification—definite descriptions—seem to share some properties of devices of reference, and other properties of devices of predication. And it is *this*, perhaps, which leads some philosophers to object to Russell's theory on the grounds that descriptions must be *referring expressions*, and others to object on the grounds that they must be *predicates*. Perhaps descriptions are just devices of (surprise) *description* and *identification*, making them not quite referring expressions and not quite (first-level) predicates, a hybrid that current frameworks can best explicate by construing them as quantifiers of a special sort. This may not have been what was driving Russell, but it might be the way to understand the appeal of his theory and its continued dominance.

Of course, one does not need to delve into technical issues in linguistics to see where and why the Theory of Descriptions has made such a mark. But we have come a long way since 1905. We have a much better grasp of syntactic structure and anaphoric relations; our formalisms are clearer and cleaner; and we know how to define truth for quantified languages, even when they contain modal operators. Our grasp of the pragmatics of language use is also much improved, partly because of Strawson's critique of OD and all that it heralded. Most philosophers have rejected the sense-datum epistemology associated with Russell's treatment of ordinary names as disguised descriptions, and we are all steeped in powerful Kripkean arguments which appear to show that treating names in this way or as having their references fixed by descriptions (or conditions set by Fregean senses) is fatally flawed.

The twentieth century was a good one for philosophy, and it is difficult to say how things would have turned out if Russell had never reached the positions he put forward in OD. We will be extremely lucky if we can find anything from the first few years of the twenty-first cen-

ture that creates such a stir for such a long time. You are now invited to mine the rich contributions to this commemorative issue. Even if definitive on this or that point, these articles will certainly not be the last words on denoting.¹⁷⁰

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¹⁷⁰ Kaplan and Kripke are already threatening sequels for this journal! And a paper by Grice on the debate between Russell and Strawson might be put into a format suitable for publication quite soon.

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