Noun Phrases:
The nature of reference
and
ambiguity.

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Abstract

The aim of this thesis is to argue for a ‘unified’ stance on noun phrase classification; whereby, given a common-sense syntactic category like demonstrative or description, if one member of the category belongs to a given semantic kind, then all do. The thesis begins by drawing a parallel between two debates which are not always brought together: the issue of whether all or only some definite descriptions are quantified noun phrases and whether all or only some complex demonstratives are referring terms. I suggest that we should prefer a common methodology for questions such as these, looking more generally at what features lead us to ascribe an expression any particular semantic analysis. I consider three options: intuited behaviour across contexts; syntactic categories; and syntactic properties which may cross-cut syntactic classes. The second option is then explored via an in-depth examination of complex demonstratives and is seen to be the most appealing.

However, unification is open to two serious objections: first, that it fails to account properly for certain recalcitrant noun phrases in natural language; second, that it is in tension with a (substantial) conception of reference and what it is to be a referring term. I dismiss both these arguments: rejecting the first through a recognition of the kinds of features natural language speakers use in practice for assigning syntactic category, and through an adoption of the Gricean distinction between semantic and pragmatic meaning. I reject the second by showing that the syntax-independent conception of reference the argument depends on does not fit ordinary language users actual conception of reference; rather we should embrace a syntax-dependent conception, which lends credence to the mirroring of semantics in syntax. Thus I conclude there is no bar to our pursuit of unification.
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Providing a Methodology

It is indeed a generally harmless and salutary thing to say that to know the meaning of a sentence is to know under what conditions one who utters it says something true.


The aim of this thesis is to show that certain kinds of syntactic categories, as revealed by the surface features of expressions, provide the key for ascriptions of semantic allegiance for (at least some) noun phrases.¹ I will label this position the ‘unified’ stance and it will be contrasted with, and defended against, an opposing ‘ambiguity’ approach. The structure of the thesis is as follows: in this chapter and the next we will set up the background necessary to discuss the unified stance properly. This will involve, in this chapter, looking at what a noun phrase is and what kind of syntactic categories we are interested in (the tasks of §1); and explaining what a semantic category amounts to (in §2). The methodological framework adopted throughout this thesis will be that of a compositional, truth conditional semantic theory;² thus much of this chapter will be devoted to exploring the motivation and means for such an approach. The reasons for preferring such an approach to, say, any rival communication, or intention, based approach will be touched upon below, but limitations of space will prevent us exploring the debate in depth. Thus the idea that some form of truth conditional approach provides the most successful account of natural language may be thought of as something which is assumed, rather than established, by this thesis.³

¹ Limitations of space will mean that I cannot aim to show this hypothesis holds good for all noun phrases; the most glaring omission in what follows will be the class of plural noun phrases, which will remain almost entirely unexplored.
² In Strawson’s (1970) terminology we will be pursuing the route of the ‘formal semanticist’, as opposed to the ‘communication theoretic’ approach.
³ For a fuller defence of the truth theoretic framework see Davidson’s (1984) collection of essays, or for a comprehensive contemporary version of the approach, see Larson and Segal (1995). For a clear comparison between the truth theoretic approach and communication-based accounts, see Strawson (1970) or Rumfitt (1995).
Having sketched the form of our semantic theory, the task of Chapter 2 will then be to explain how we can accommodate noun phrases within this framework. The aim will be to survey the current state of play in this area, however, not to provide a complete account of all aspects of the semantic analysis of noun phrases. Once these semantic mechanisms are in place, we can then, in Chapter 3, begin to tackle the real work of the thesis: establishing the unified and ambiguity approaches clearly and looking at the motivations for each. Chapter 4 will help to clarify the positive proposal of this thesis, by examining what the unified stance might predict for a particular case, viz. ‘complex demonstratives’; and this position will then be defended against what I take to be the best objections available to the ambiguity theorist, in Chapters 5 to 7. Before all this, however, let us start at the very beginning by looking at the kind of expressions we want to explore.

1. **Noun Phrases:**

Noun phrases are those expressions in natural language which are conventionally used for picking out entities in the world around us; they are the ‘object-words’ of our language, like names and demonstratives, which form such a crucial part of any linguistic system. The category ‘noun phrase’ is a syntactic category, meaning that we are able to group expressions together as noun phrases simply due to the formal features of those expressions, like their sentential position and their potential interaction with other expressions. Indeed, categorisations like ‘noun phrase’ and ‘verb phrase’ form a key part of our best theory of syntax to date, viz. Chomsky’s ‘Principles and Parameters’ grammatical theory. In this account, the syntactic unit of a noun phrase is viewed as composed out of smaller syntactic items, like nouns and determiners;

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4 This claim of importance for noun phrases is perhaps reinforced by recent work in developmental psychology showing that object words form by far the largest percentage of words acquired by the infant in the early stages of language use, both before and during the greatest period of new word acquisition (the ‘vocabulary spurt’). Cf. Goldfield and Reznick (1990).

5 E.g. Chomsky (1965).
and as combining together to form larger syntactic units, like sentences.\(^6\) However, alongside the divisions recognised within a syntactic theory such as Chomsky's, ordinary language speakers recognise a further class of categories; categories which appear to cut more finely than the broad label of 'noun phrase'.

Within the category of object-words are thought to be such expression-types as proper names, demonstratives, indexicals and definite descriptions (phrases formed by concatenating the definite article 'the' with one or more common nouns). Furthermore, it is these common-sense syntactic categories which have, to a large extent, preoccupied philosophers in this area; with well-known debates including questions such as 'is the meaning of a proper name its bearer?' and 'what is the correct semantic analysis of a definite description?' Although such categorisations are not utilised within Chomsky's account, they still seem to deserve the epithet 'syntactic' or 'formal', since \textit{prima facie} the criterion for something's being a definite description, etc., seems to be the form of words of the expression or similar formal properties.\(^7\) For instance, traditionally, it seems that it is sufficient for an expression to count as a definite description that it be of the form of words 'the'\(^ {\wedge} \text{'F'}\) (where 'F' stands for any common noun and '\(^ {\wedge} \)' indicates the concatenation relation); while it is often suggested that the words 'this' and 'that' are good examples of demonstratives in English. So, in what follows, I will often talk of these classes (the syntactic categories \textit{within} the class of noun phrases) as 'common-sense syntactic categories', for they can be recognised by theorists and speakers alike on the basis of quite superficial formal properties (such as the orthographic or phonetic form) of the expression.

\(^6\) A 'determiner' is an expression like 'the' or 'all' which combines with a common noun to form an NP (or noun phrase); we will be examining the Chomskian theory in more detail in Chapter 3.

\(^7\) As I hope will become clear below, what is required of characterisations like 'definite description' \textit{et al} is that they be accessible \textit{independently} of any semantic evaluation; yet it does seem that such classes have traditionally been thought to be specifiable without appeal to semantic evaluation. Thus, even should it ultimately be denied that these classes are properly syntactic (perhaps as syntactic classes are thought to be exhausted by those appearing within a Chomskian account), my overall project would be unaffected \textit{unless} such a claim was meant to deny their autonomy from semantics.
The kinds of expressions we are interested in are, then, in the first place, the noun phrases, or object-words, of our language; and within this broad church I will take it that we can recognise such things as proper names, definite descriptions and demonstratives. The issue for this thesis is ‘how should we construe the relation between these categories within the class of noun phrases and semantic categories?’ To begin to consider this issue we need to start by reflecting on how we might generalise across the class of noun phrases itself, considering whether it is possible to provide a single kind of analysis for the meaning of all token noun phrases in natural language. However, I believe that even a cursory consideration of the wide range of these expressions suffices to make us doubt the possibility of providing a single, universal analysis for the meaning of all noun phrases. For it seems, prima facie, that the meaning of a proper name like ‘Mary’, and the relation it stands in to its bearer, is quite different from the meaning of an expression such as ‘some girl’ and the way in which it secures an object.

The difference seems to lie in the way in which the object is secured in each case; for some noun phrases seem to arrive at an object by describing it, whilst others seem to attach in some more direct, non-descriptive manner. To begin with then, as a working hypothesis, I should like to assume that the linguistic category of noun phrase contains (at least) two distinct types: those which arrive at an object via its satisfaction of predicative content and those that do not. Furthermore, I should like to assume that this distinction marks a semantic division between what we will call ‘quantified noun phrases’ (for reasons that will become clear in the next chapter) and ‘singular’ or ‘referring’ terms. What it means to claim the distinction as a ‘semantic’ one will be something we need to discuss further, when we come to look at what a semantic theory actually is (in §2). For now however, let us begin by considering the prima facie evidence for drawing any kind of distinction within the class of noun phrases. Although we will not be in a position to appreciate all the evidence until Chapter 3 (when we come to consider the evidence for any token expression’s
semantic category) we might still rehearse the pre-theoretical evidence for such a split.

The intuitive evidence for the descriptive class of noun phrases, which we are calling ‘quantified noun phrases’, seems clear: some expressions simply do appear to select objects only through those objects’ satisfaction of certain predicates. The expressions themselves introduce a descriptive ‘profile’ or ‘template’ which objects in the world can be ‘matched against’, with the object (or objects) which satisfies that predicative complex becoming the ‘denotation’ of the expression (to borrow Russell’s terminology). In what follows the term ‘denotation’ will be used exclusively for objects selected by description; thus it will be used in contrast to the term ‘referent’ which will name only the object selected by a singular term. (It will also, however, be useful to have a more general term, covering the objects selected by both quantified noun phrases and singular terms; thus I will stipulate that the term ‘extension’ will be used in this thesis to talk about the object selected by a noun phrase, which is agnostic about the semantic status of that noun phrase.) Expressions settling on objects via the properties they possess seem to have little or no regard for the particular identity of their denotation; thus we might expect an utterance such as ‘a boy is happy’ to be true if John or Peter (or any other boy in the domain) is happy, for the identity of which boy is happy is irrelevant. Intuitively, then, some noun phrases in natural language do seem to arrive at objects via those objects’ satisfaction of certain predicative material, and this is enough to warrant at least a tentative assumption as to the existence of quantified noun phrases.

The second proposed category of noun phrase is ‘singular’ or ‘referring’ terms: these are expressions which are supposed to stand in some more immediate, non-descriptive relation to an object. I would suggest that a prima facie motivation for this category comes from a recognition of the usefulness of having such an immediate way to pick out an object; for instance, where that object is of such significance that it deserves a proper name, as Strawson notes:

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8 Russell (1905).
[I]t is convenient to have in circulation in [such] groups a tag, a designation, which does not depend for its referential or identifying force upon any particular such position or relation, which preserves the same referential force through its objects' changes of position or relation and has the same referential force for communicators who know the object in different connections and for whom quite different descriptions would be uppermost. It is convenient, in fact, to have personal names.\(^9\)

What underlies the usefulness of proper names and other apparently referential expressions is that they provide us with a way of keeping track of objects regardless of the properties they come to instantiate; by being concerned with the actual identity of their referent, rather than simply the properties of a denotation, they give us a direct way to make and maintain contact with an object. As Føllesdal notes, this reflects an important aspect of our interaction with the world:

In our practical life [therefore] it is often important to keep track of [these] objects, through the changes they undergo, through our further exploration of them, and through our changing opinions about them and correcting our mistaken beliefs about them. We should expect that in our language there ought to be a reflection of the important role that objects play in our lives. And I think there are such reflections...namely, singular terms....Without such terms in the language we would have a problem talking about changes, about mistaken beliefs and so on.\(^10\)

As we will come to see later (in Chapter 3), the idea that natural language does contain a semantically distinct class of expressions which are especially tailored for direct talk about objects can be denied. For some theorists have suggested that even apparently paradigm referential terms, such as proper names, are in fact no more than specialised descriptive phrases.\(^11\) However, although we will eventually have to face the question of whether any observable behaviour of the proposed members of this category *demands* semantic level accommodation, we may at least draw an initial conclusion from our first reflection on noun phrases. For intuition certainly does seem to demand a distinct class of genuinely referential expressions; and, while complete inability to accommodate such a class might make us look again at our strong intuitions, from the outset approaches which deny the existence of a distinct kind of referential noun phrase are handicapped by riding roughshod over our intuitive view of the explananda.

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\(^11\) Cf. Russell (1911); Searle (1958); Quine (1953).
of natural language. The argument is then that pre-theoretical reflection tells us that some expressions, such as proper names, refer to, rather than describe, the objects they are about; and this is sufficient to warrant at least a *prima facie* acceptance of a separate category of singular terms. In the next chapter, we will have to turn to the issue of how such an assumption (about the duality of kinds of noun phrase) might be accommodated within the sort of truth conditional semantic theory we will adopt (in §2). However, before we begin to explore truth conditional semantics there is one final point we should bring to the fore concerning our discussion of noun phrases: this is a possible equivocation in our talk of singular terms.

*(i) The nature of reference:*

In the above section we talked of terms especially tailored for direct talk about objects: expressions which did not simply describe objects, but served to refer to them. The underlying assumption seemed to be that reference was a relation that an element in a linguistic system could bear to an object external to that system; it was a ‘word-world’ relation (to borrow Brandom’s terminology) in which it seemed possible to arrive at correct pairings without explicit mention of the user of the word. This approach is perhaps to be found in Frege’s account of reference and other linguistic notions, for, as Nelson notes, in a Fregean framework:

> The human user who knows the structure grasps a ready-made system of language, semantics and all, and is in no way part of the mechanisms of reference and application. The user is not constitutive of reference as he is for Locke, Brentano and Peirce, but wields a pre-fabricated language-world system.

This idea of a ‘pre-fabricated language-world system’ seems, with respect to singular terms, to invoke a quite particular conception of reference. This is a view of reference as essentially ‘language-bound’: as integral to, and arising out of, our understanding of the formal features of our language. On such a model the true home of a theory of reference will be *within* the theory of meaning for a

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language, where this theory of meaning is sensitive to the systematic properties of linguistic items.

On this kind of approach our conception of reference is tied to our understanding of the form and function of certain linguistic items. In this way the reference relation might be thought to be implicitly defined, or exhausted, by all the correct instances of a referential axiom for the language. There will be nothing more to know about reference than is supplied by claims of the form ‘the referent of “Aristotle” is Aristotle’ (or similar constructions) and there will be no substantial property of reference demanding non-linguistic explanation prior to the generation of such theorems. The reference relation will not stand in need of explanation or analysis in any terms which lie outside the semantic theory; to talk about reference we will not need a richer vocabulary than we need to deliver our formal, truth conditional semantic theory. This conception of reference, as part and parcel of our formal theory of meaning, and thus as admitting words and objects as its primary relata, I will call a ‘syntax-dependent’ conception of reference, for it denies that there is any understanding of reference to be had in isolation from our study of the formal features of a language.

Yet, prima facie, such a conception of reference, as intimately bound up with study of the syntax, might seem a somewhat technical or derived notion. Instead, it might be thought, we have a conception of the relation which can be arrived at independently of our formal semantic theory; so that, when an expression refers to a given object, what this status reflects is not just the formal properties of the expression, but the instantiation of some non-linguistic state of affairs. That is to say, we have a conception of reference which is prior to a study of the formal features of a language, and which can then be brought to our construction of a theory of meaning. So, the reference relation made use of in a clause like ‘the referent of “t” = t’, which pairs natural language expressions with the objects they name, will be derived from or supervenient on some state of

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14 An example of a similar construction is Burge’s (1974b), p.192, biconditional clause: ‘(∀x) Ref (“t”) = x iff x = t’. 

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affairs beyond those captured within our formal theory. Statements of reference pairing words and objects will not be primitive but will rest upon some more fundamental condition, and thus the primary aim of a theory of reference will be to characterise these conditions. This kind of approach assumes that the linguistic relation of reference stands in need of explanation or analysis by appeal to features beyond those the formal semantic theory is sensitive to. We might think of this kind of conception of reference as a 'syntax-independent approach.

Of course, given this kind of syntax-independent view, the kind of state of affairs the theory of reference needs to capture remains quite open. For instance, a syntax-independent view may form part of a wider reductive programme which seeks to explain all semantic notions in some more primitive, or physicalist, vocabulary (for instance, as we will see in Chapter 7, Field seems to advocate this kind of approach). Or again, the vocabulary we are familiar with from the construction of a theory of meaning for a language may be retained, though it is to be understood through its role in characterising the mental states of agents. In this way, the true home of a theory of reference would be within a theory of mind, picking out the referential intentions of agents (e.g., as we will see below, Strawson’s ‘referential use’). Clearly, then, approaches which will be grouped together as syntax-independent accounts may diverge significantly in further dimensions of choice, such as the status accorded to semantic concepts.

However, although we will have reason to touch upon these further debates again (when we come to examine concrete examples of theories of reference in Chapter 7), we should note that these issues are orthogonal to our primary debate. The division we are concerned with is between accounts which view referential status as integral to, and delivered by, a formal semantic theory for a language, and, on the other hand, those which view reference as emerging from some state of affairs characterised independently of such a theory. To

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15 Field (1972).
16 Strawson (1950).
repeat: the crucial distinction we will be interested in is between syntax-dependent conceptions (which take our understanding of reference to arise out of our understanding of syntactic properties) and syntax-independent conceptions (which take our grasp of the relation to be autonomous from such formal features). Finally then, let us conclude this section by briefly considering why this distinction between syntax-dependent and syntax-independent theories of reference might concern us.

The crucial aspect of this debate concerns its repercussions for our account of the semantic assignments made to noun phrases. To advertise a key argument in advance: I will contend that the best theory of noun phrase classification, viz. 'unification' (whereby whole common-sense syntactic categories map to a single semantic category), is threatened by a syntax-independent conception of reference, for this gives us no reason to expect the semantic category of referring expressions to be reflected in formal boundaries, like those of syntactic category. Yet, I will argue, we have reason to believe that the conception of reference actually deployed by natural language speakers is the former, minimal model, where an expression's status as a referring term is determined by a formal theory of meaning, independent of a speaker's aims or intentions; thus the reference relation itself, properly conceived, will be seen to give us no reason to reject unification. This is a complex matter and one we will return to in much more detail in Chapter 7; but let us for the present note that talk of an expression's status as a referring term glosses over fundamental issues about the way in which we are characterising referential expressions in the first place, issues which we will have to return to eventually.

However, what we need to do now is to take a step back and begin to clarify those fundamental notions which have a central role to play in our discussion. For instance, we need to understand what is meant by the term 'semantics' and what sort of background methodology our debate will employ. For only by settling our general methodology can we give content to the technical terms we will employ and see what positing the division in the class of
noun phrases as a *semantic* distinction amounts to. So, let us begin by looking at the aims of, and the constraints on, semantic theorising in general; before ultimately embracing the truth theoretic account owed to Frege, Tarski and Davidson.

(2) *Semantic Theories and Truth Theoretic Accounts:*

(i) *The aims of a semantic theory:*

Let us begin by asking what we want a semantic theory *for:* what is a semantic theory a theory of and what should a successful one do? A semantic theory is a theory of meaning, but only of one particular aspect of meaning: our theory should deal with that portion of meaning derivable solely from the meanings and composition of solely linguistic items. That is to say, it should account for the literal meaning of utterances, sentences and words in a given language. We might think of such a theory as the most basic level of linguistic analysis, yielding what Recanati has called ‘the minimal proposition’, from which further meaning analyses may be drawn (for instance, once pragmatic features have been brought into play, as we will see below). From the outset we should distinguish this kind of endeavour from a distinct project, which might also warrant the label of ‘a theory of meaning’, one which seeks to explore the nature of meaning itself. The kind of semantic theory which is of interest to us in this thesis is one which yields, for each sentence, *s,* a way of completing a sentence of the form: ‘*s* means that...’; while the alternative conception of a theory of meaning would offer us some (possibly reductive) account of what meaning is (along the lines, say, of an account of knowledge which analyses it as ‘justified, true belief’). Since we are not involved in this latter kind of project we must accept the possibility that a satisfactory theory of meaning, in our first sense, may yet not fully explicate the meaning relation itself and thus may not serve as a theory of meaning in the second sense.

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Concentrating on this first form, then, we might immediately recognise two distinct components of any semantic theory: there is the language the theory treats of, which we might call the 'object-language', and there is the language the theory is stated in, which we might call the 'meta-language'. So the task of our semantic theory is to give, for each sentence of the object-language, some specification of that sentence’s meaning. We want a systematic account which yields, for each and every (well-formed) sentence of the object-language a theorem of the form, or equivalent to:

(1) s means (in-L) that \( p \).

Following Frege, this sort of statement of the aim of semantic theorising takes the primary display of linguistic meaning to be the sentence, rather than the word.\(^1^9\) The sentence seems to be a good candidate for the principal level at which meaning is assessed, for it is only at the sentential level that agents are able to express thoughts and represent states of the world. As Wittgenstein noted:

Naming is not so far a move in the language-game - any more than putting a piece in its place on the board is a move in chess. We may say: nothing has so far been done, when a thing has been named. It has not even got a name except in the language-game. This was what Frege meant too, when he said that a word had meaning only as part of a sentence.\(^2^0\)

In this way a word’s significance can be characterised in terms of its role in sentences and the contribution it makes to the meaning of larger propositions. This conjecture, that it is only within the context of a sentence that a smaller linguistic item can be assessed for meaning, is sometimes labelled Frege’s ‘context principle’.\(^2^1\)

On its own, a theory which yields specifications like (1) above will not however be sufficient, for it requires some way of connecting with the speaker’s aims or intentions. That is to say, we need to recognise that it is not just sentences \emph{per se} that are the candidates for meaning, but rather what Austin called ‘illocutionary acts’.\(^2^2\) What we are concerned with are meaningful

\(^1^9\) Frege (1918); this, as Dummett (1978), pp.94-5, points out, should not be taken as the assertion that ‘the sentence is the unit of meaning’, i.e. that the sentence provides a single, non-complex meaningful sign.
\(^2^0\) Wittgenstein (1953), 24e, §49.
\(^2^1\) Frege (1884), Introduction X; see also Dummett (1973), pp.495-6.
\(^2^2\) Austin (1975).
linguistic acts, which are constituted not just by the production of a sentence, but
the uttering of an expression under some particular ‘cognitive guise’, e.g. an
assertion that \( p \), a question or command that \( p \). This recognition that what a
given sentence in some sense \textit{means} has much to do with what it is \textit{being used to}
say has led many theorists away from a formal approach and towards approaches
which try to account for linguistic meaning in terms of ‘speech acts’ or
‘communicative intentions’.\(^2\) However, it seems that the need to accommodate
illocutionary force may be viewed as an addendum, rather than a rival, to a
formal, truth theoretic approach. As Dummett notes:

\begin{quote}
When we make an assertion we are not merely uttering a sentence with
determinate truth-conditions understood by the hearer, and hence with a
particular truth value...We are also, rightly or wrongly, saying that the
sentence is true. This activity of asserting that the thought we are expressing
is true is \textit{su i generis}: it is not a further determination of the truth-conditions of
the sentence, which remain unchanged whether we are asserting it to be true
or not, but rather something which we \textit{do} with a sentence whose truth-
conditions have already been fixed.\(^3\)
\end{quote}

On this kind of picture, it seems that we can posit a degree of meaning which a
sentence possesses independently, to some extent, from the use it is being put to,
which remains static throughout different uses. This would then be subject to a
further mechanism introduced to accommodate differences in mood, such as
McDowell’s theory of force.\(^4\) A theory of force would take us from our
provisional description of the meaning of the utterance (‘s means that \( p \)) to a
particular, contentful linguistic act; e.g. the assertion that \( p \). \textit{Prima facie}, then, a
formal semantic theory can resist the pressure from divergent kinds of speech
act; however, the requirement for a theory of force (or some equivalent notion)
is not the only area in which our semantic theory will prove wanting. A
successful account will also need to work in tandem with an account of
knowledge of grammar or syntax, phonological production and recognition,
lexical information, etc; in addition to a wealth of further, non-linguistic
knowledge, such as that usually labelled ‘pragmatic’. Clearly then, the
endeavour of our semantic theory to give an account of meaning is a modest and

\(\text{\footnotesize \(^2\) Cf. Grice (1957); Strawson (1970); Barwise and Perry (1983).}\)
\(\text{\footnotesize \(^3\) Dummett (1978), p.106.}\)
\(\text{\footnotesize \(^4\) McDowell (1976).}\)
restricted project; and yet the opaque and perplexing character of the connective ‘means that’ makes the task still a very difficult one.

(ii) Conditions of success:

Providing a systematic specification of the meaning of sentences is the primary aim of our semantic theory; yet such a statement of our aim still provides us with no definite suggestion as to how we should proceed. One difficulty is that we have, as yet, no clear idea of when we should accept that a theory has successfully given us the meaning of all sentences in a language; that is to say, we need a less opaque and more specific criterion of success. A second difficulty is that, however we are to measure success, we still have no notion of how to achieve our aims; i.e. what form a semantic theory should take. As Davidson notes:

> While there is agreement that it is the central task of semantics to give the semantic interpretation (the meaning) of every sentence in the language, nowhere in the linguistic literature will one find, so far as I know, a straightforward account of how a theory performs this task, or how to tell when it has been accomplished.\(^{26}\)

Initially, then, it seems that, in addition to our overarching aim, we need some more specific idea of what will constitute success for a semantic theory. This is a very complex question, for we do not have just one description of the evidence the theory must account for (e.g. in speech do we hear just noise disturbance, phonetic forms or words with meanings attached?), nor do we have a single model of how the information the theory captures should relate to speakers. Since these issues remain very much alive in the contemporary debate, the most we can hope to do in setting up the background for our discussion of noun phrases is to survey the area and hope to say enough to motivate one particular kind of approach. So, we are in search of some plausible but less opaque conception of success for a semantic theory and, the suggestion now is, this might be thought to arise out of how we conceive of the relation between the theory and the speaker. For how we relate the information captured in the theory to that deployed by the agent will, to a large extent, dictate the nature of

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the evidence for semantic theorising and the conditions of success for that account.

One aspect that we might stress is that a semantic theory should suffice for understanding or interpreting other speakers; in this way we would be looking to capture a body of knowledge, possession of which would allow someone to understand the language, regardless of whether this was actually identical to or divergent from the knowledge possessed by natural language speakers. On this conception a theory of meaning might seem akin to a kind of ‘translation manual’, ready for use by speakers of different languages in order to understand one another. A second possibility, however, is to relate the speaker and the theory more intimately, maintaining that what the speaker knows is the proper explanandum of a semantic theory. On this model we would be concerned to capture the actual body of knowledge which speakers of the language operate with; a natural language speaker is in fact, tacitly or otherwise, in possession of the knowledge captured by a semantic theory. To see why we might want to embrace either of these claims and to clarify their implications for our present task, let us look at each of these options in a little more detail.

The first suggestion is that a good semantic theory must make speakers and their behaviour (both linguistic and non-linguistic) explicable. That is to say, it must embody knowledge which suffices to explain or make non-mysterious those who use the language of which the theory treats. In this way, we might envisage a semantic theory as the kind of account required by interpreters or constructed by a ‘field linguist’, which, once in hand, could act as a manual by which native speakers' linguistic behaviour is understood. A successful theory of meaning for a language should thus result in speakers of that language becoming interpretable and predictable in word and deed to someone who possesses the theory. As Platts suggests:

A theory of meaning for a language is [thus] seen to be an acceptable theory of meaning only if, in interaction with the other components of the theory of linguistic behaviour, it issues in plausible redescriptions of all of the linguistic actions performed by speakers of that language - plausible in view of the
This claim that a semantic theory must be interpretative (in Platt’s sense of offering fitting propositional attitude ascriptions to the native speaker), and its links to translation, forms one of the key motivations for a Quinean-Davidsonian approach to meaning, as we will see below. However, on this approach it remains fairly open as to how we should construe the relation between the semantic theory and the actual speakers of the language. That is to say, it would be possible that there be nothing more in common between the theory and the speaker than that they are related by a shared interest, i.e. the same body of information, the language L.

However, some theorists have objected that merely specifying knowledge which would suffice for interpretation (in the above sense) cannot be all that we demand of a satisfactory semantic theory; for, they contend, it is a mistake to sever the link between the speaker and the theory. A semantic theory, we might think, cannot just be an account of any knowledge which might suffice but must canvass knowledge which is proper to us as interlocutors. In this way a semantic theory might be thought of as a theory of understanding for ordinary language users, capturing what speakers actually know. One of the most famous proponents of this approach is Dummett, who writes, for instance, that: “a theory of meaning is a theory of understanding; that is, what a theory of meaning has to give an account of is what it is that someone knows when he knows the language, that is, when he knows the meanings of the expressions and sentences of the language.”

We should thus expect an adequate theory to distinguish between those who understand the language in question (i.e. possess the theory) and those who do not; the explanandum of semantic theory will be language use with understanding. On Dummett’s approach such a concentration on what is understood by the individual language user does not threaten a slide into ‘privacy of meaning’ (whereby the meaning of a linguistic item is given by some personal, private activity in the mind of the speaker), for he ties the theory of meaning

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28 Dummett (1976), p.3.
closely to behaviour: the meaning of an expression is what is known by an understanding speaker and what is known is fully exhibited in the use speakers make of that expression.\textsuperscript{29} Our semantic theory, it seems, should for Dummett be a complete description of the linguistic practice of the competent speaker. This kind of aim, linking the knowledge embodied in a semantic theory to agents’ actual understanding, may, as we will see below, prove difficult for the kind of semantic theory advocated by Davidson and others.

However, there are also difficulties inherent in pursuing a Dummettian approach; for as mentioned above there is an emphasis on publicity (meaning as manifested in use), which requires a description of linguistic practice which is both rich enough to satisfy the publicity constraint and yet is still able to provide independent support for the theory. There remains a question as to whether behaviour (or dispositions to behaviour) alone can truly serve to underpin a single unique theory which is supposed to characterise what speakers actually know.\textsuperscript{30} Yet Dummett’s approach is not the only way to pursue a conception of semantic theorising which makes it answerable to the knowledge possessed by speakers. An alternative move would be to follow the kind of approach advocated by Chomsky in the realm of syntax and turn instead to the kind of cognitive mechanisms possessed by the speaker. In this way, the proper target for a theory (of grammar for Chomsky or a semantic theory for those philosophers who have advanced his general approach in this area) is the psychological structures which underpin linguistic competence.\textsuperscript{31} So, though linguistic behaviour may provide evidence for the theory, it is linguistic competence and not actual performance which the theory attempts to capture (since our actual behaviour may belie the knowledge we possess).\textsuperscript{32} A semantic theory viewed in this way becomes an aspect of cognitive science, part of the internal structure of the language user’s mind; Chomsky writes: “linguistic theory is mentalistic, since it is concerned with discovering a mental reality underlying

\textsuperscript{29} For the problem of private meaning, see Wittgenstein (1953), 91e-95e.
\textsuperscript{30} For a discussion of these issues see McDowell (1987).
\textsuperscript{31} Chomsky (1986); Larson and Segal (1995).
\textsuperscript{32} Chomsky (1965), pp.10-15.
actual behaviour". What our theory must capture is the information, tacitly or otherwise known by the agent, which is systematically responsible for her understanding and manipulation of language. In this way then we will have an account which is explanatory in a productive or causal sense, one which can account for our ability to produce/understand a potentially infinite and novel array of utterances, despite our finite cognitive capacities.

Which of these conceptions of our original endeavour we accept or reject will shape the kind of semantic account we will give. It will determine, for instance, whether we are satisfied with a theory which acts as an interpreter’s manual, describing knowledge sufficient for understanding native speaker’s utterances, but ignoring any questions of productive explanation within that speaker (as the Quine-Davidson approach does). Or whether we demand an account which focuses on what the speaker (tacitly) knows or, in Chomsky’s terminology, ‘cognizes’. Yet, at least initially, both of these aims seem quite desirable, and we may thus feel that a truly successful semantic theory must be answerable to both. In this case, while an account which shows how to achieve either one of our aims will be good, to be entirely acceptable it will also have to offer some account of the other, collateral aim. A successful semantic theory must, it seems, account for both the translation and production of language, or show why one or the other is, in actual fact, an improper constraint on such a theory.

Before turning to look at the form a putative satisfier of our aims might take, I should like to raise one further possible constraint on a successful account: this is the constraint to uniqueness. For it seems that if, in what follows, we are to make claims about the correct meaning of certain expressions (including what constitutes the semantic component of an expression’s meaning versus what is only a contextual or pragmatic aspect of meaning), these claims

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34 For an expansion of the different constraints accepted by Davidson, Dummett and Chomsky, see Smith (1992).
will require the background of a single, correct semantic theory for a language. If we should discover that there are in fact multiple, distinct yet equally correct semantic theories for a given language then our claims as to the correct form of natural language expressions will themselves be relativized rather than absolute. The claim that the form suggested is the correct statement of an expression's underlying structure will no longer be able to be sustained; instead the weaker claim, that the outlined form is one, amongst possibly many, adequate ways of handling the expression, will be all that is available. Although this would not negate the findings of this thesis, it would limit the generality of the claims to be made; so, if we should find that satisfying the above constraints also results in a constraint to a single possible theory, this will be of benefit to our overall project. The force of this final concern is perhaps somewhat open to question, for it may be argued that, although there is nothing internal to a semantic theory which demands uniqueness, the nature of the explananda is such that, de facto, we should expect only a single solution. The complexity and difficulty of the subject matter, and our inability to discover, as yet, even a single entirely successful account, should allay fears about a multitude of equally adequate accounts 'waiting in the wings'. Yet, even with this recognition, it would still seem that if we can find theory-internal reasons for uniqueness this will be an added advantage for subsequent claims regarding syntactic and semantic form.

So, we now know what we expect a semantic theory to be a theory of, and we have two suggestions as to how to tell when such a theory is successful (i.e. either when it accounts for interpretation, perhaps in the somewhat specialised sense discussed earlier, or when it captures the knowledge actually possessed by natural language users). However, we as yet have no idea of the possible form such an account might take. To begin to clarify this matter let us start by looking at the first suggested aim above: the thought that a successful semantic theory should suffice for interpreting speakers of that language, and see

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36 For instance, Chomsky, when rejecting Quinean indeterminacy for linguistic theories in general, points out that since no one has yet come up with a single adequate theory for natural language we have no reason to expect a multitude to exist, and the point has been made specifically for semantic theories by Neale in a Spring (1995) lecture series.
what form an account which is successful in this area might take. This conception of the project comes to the fore initially in the work of Quine on radical translation, and, later, in the form of interpretative theories of truth, in the work of Davidson.37 Pursuing a Davidsonian approach to the question of meaning shifts the centre of emphasis slightly in two directions: first, we come to concentrate not on speakers of a language directly, but on the hearers and interpreters of those speakers; and, secondly, rather than looking directly at the opaque and perplexing notion of meaning itself, we turn our attention instead to the notion of truth, attempting to arrive at meaning via the clearer conception of the conditions under which a given utterance would be true. The thought is that, by pursuing a truth conditional account for a language, we may arrive at something that will ‘do duty as a theory of meaning’.38 To see how these twin shifts of focus affect and ameliorate our overarching aim of giving an account of the meaning of all the well-formed sentences within a language, let us look a little more closely at truth theoretic semantics as advocated by Davidson.

(iii) Truth conditional semantics:

The idea that to understand a sentence is to grasp the conditions under which it is true does not originate with Davidson, but can be found much earlier in the work of Frege and Wittgenstein. For instance, Wittgenstein writes in the Tractatus that:

4.022 A sentence in use (satz) shows how things stand if it is true. And it says that they do so stand.
4.024 To understand a sentence in use means to know what is the case if it is true.39

Furthermore, I would suggest, there is something intuitively appealing and natural in the basic idea that the meaning of a sentence is intimately bound up with the conditions in which it is true. However, going beyond this initial thought proves difficult; for, on closer inspection, it seems less possible that truth alone can give us any serious insight into meaning. The problem, as we will see,

37 See Quine (1960) and Davidson (1973).
38 Davidson (1976), pp.178-9. This formulation of the Davidsonian project is, perhaps, slightly misleading, since the term ‘conditions of truth’ might suggest a modal element to the account, which is not there. Although (as we will see below) we might question whether Davidson’s project is necessarily first-order, it is clear that it is non-modal.
39 Wittgenstein (1961); this translation is due to Wiggins (1997), p.5. See also Frege (1884).
is that a theory of truth for a language, dealing as it does with a purely extensional notion, does not seem equipped to capture the aspect of semantic content we are interested in, unless the theory itself makes appeal to some other semantic notions. That is to say, it seems quite possible to deliver something which might serve as a theory of truth for a language and yet which does not tell us anything about meaning for that language. Davidson’s great advance then is not seeing the relation between meaning and truth conditions per se but showing how to deliver the latter in such a way as to tell us about the former.

To begin with, then, let us consider what is required of a theory for it to be a theory of truth for a language. An initial idea might be that the theory should suffice to pair a true object-language sentence with a specification of the conditions which make it true, or a false object-language sentence with the conditions under which it is false. This basic idea is codified in Tarski’s discovery of what is required of the axiomatisation of a predicate in a formal language for it to count as the predicate ‘true’ for that language.40 His suggestion is that a characterisation of a predicate would be adequate for the role of the truth predicate for a language if it entails, for every object-language sentence, a biconditional of the form:

\[(T) s \text{ is true iff } p\]

where ‘s’ stands for a structural description of the object-language sentence and ‘p’ is a place marker for its meta-language translation.41 This is Tarski’s ‘Convention T’ and the biconditionals it gives rise to are usually known as ‘T-sentences’, e.g:

(a) ‘Snow is white’ is true iff snow is white.

(a) is a homophonic T-sentence; that is to say, the sentence of the left-hand side is simply disquoted to provide the sentence on the right-hand side.

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40 Tarski (1956).
41 The importance of the entailment constraint, i.e. that the theory should be materially adequate in addition to being formally correct, is stressed by McDowell (1980); but apparently missed by Field (1972), p.95, where he replaces Convention T with his own Convention M: “Any condition of the form

\[(2) \quad (\forall e) [e \text{ is true } \equiv B(e)]\]

should be accepted as an adequate definition of truth if and only if it is correct and ‘B(e)’ is a well-formed formula containing no semantic terms.”
Disquotational T-sentences are possible where the meta-language contains the object-language as a proper part. However, the homophonic nature of (a) should not disguise its explanatory power, which becomes evident when we consider T-sentences where the object-language and the meta-language diverge, e.g:

(b) ’La neige est blanche’ is true iff snow is white.

Tarski was able to ensure that, even though we are primarily concerned with capturing an extensional notion like truth, the theory pairs true object-language sentences with the particular state of affairs in which the sentence is true by explicitly introducing the notion of translation into the statement of Convention T (i.e. so that the unexplained semantic notion of translation is introduced as an external condition of adequacy on the acceptance of any formally adequate theory of truth).

Davidson’s pivotal move at this juncture is to suggest that, if we were to take our understanding of truth as primitive, we could then use this as a route to understanding meaning in natural language. The thought is that, by using the form of a Tarskian T-theory, yet freeing our account of all semantic notions, we could construct an account which would yield the same object-language/meta-language pairings as an account using the intensional connective ‘means that’. If we had such a theory then we would clearly have something fitting the title of a ‘theory of meaning’ (at least in the first of Davies’ senses discussed in §2.1). However, the disparity between truth and meaning should be all too evident from the outset: for while a disquotational T-theory may well generate the same kinds of pairings as a theory of meaning for a language, such a T-theory will be just one amongst many formally adequate theories of truth for that language. The problem is that the biconditional in (T) is simply the ordinary material biconditional, familiar from first-order logic; such a biconditional will be true just in case both its left-hand side and right-hand side sentences share a truth-value (i.e. are both true or both false), otherwise it will be false. So, for instance, without appeal to features external to the theory of truth, such as the appeal to the semantic notion of translation in the statement of Convention T, we have no
grounds for a choice between an interpretative truth theory and one yielding T-sentences like the following:

(c) ‘Snow is white’ is true iff grass is green.

If we are not concerned with meaning but only with truth, then any theory which pairs object-language sentences with meta-language sentences which are always true or false together will be perfectly acceptable; there will not be just one true truth theory for a language. Yet clearly if our concern is with the richer notion of meaning, and not just truth, then a theory yielding pairings like (c) will be of no interest. What we need is a way to choose from amongst the multiplicity of true truth theories those which are interpretative, which yield the same kinds of pairings as the connective ‘means that’.

So, what we want is some way to select a true truth theory for the language which pairs object-language sentences with their meta-language translations. Davidson’s strategy is to take truth as primitive (rather than meaning or translation) and then try to construct a theory of truth (devoid of all further semantic notions) which might nevertheless generate all and only the interpretative biconditionals. Given that our target formula is ‘s means that p’, Davidson suggests:

The theory will have done its work if it provides, for every sentence s in the language under study, a matching sentence (to replace ‘p’) that, in some way yet to be made clear, ‘gives the meaning’ of s. One obvious candidate for matching sentence is just s itself, if the object-language is contained in the meta-language; otherwise a translation of s in the meta-language. As a final bold step, let us try treating the position occupied by ‘p’ extensionally: to implement this, sweep away the obscure ‘means that’, provide the sentence that replaces ‘p’ with a proper sentential connective, and supply the description that replaces ‘s’ with its own predicate. The plausible result is

\[(T) \text{ s is T if and only if p}. \] ^{12}

This is just Tarski’s Convention T without the additional constraint to translation; yet Davidson’s thought is that we can limit acceptable theories to just those which are interpretative by imposing additional constraints on the theory itself and the way in which we relate the T-theory to the speakers of the language (i.e. the kind of evidence we can appeal to for theory attribution). Thus, he

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^{12} Davidson (1967), p.23.
contends, there will be no need to explicitly reintroduce a semantic notion like translation at any stage.

Davidson's first move is to stress the compositional and holistic nature of his account. The contribution each expression makes to the truth conditions of larger expressions in which it appears must remain constant throughout; so that, for instance, the word 'snow' must make the same contribution in both 'snow is white' and 'snow is cold'. In this way, each part of the theory comes to be supported by *all* the rest of the account, for each theorem is directly supported by the truth of other theorems with which it shares contained elements, and indirectly supported by further theorems which share other contained elements with these, and so on to form a complete network of support.\(^43\) Thus we might well expect that a theory which fails to be interpretative at one point may well fail to be true at another. For instance, a theory which yields (c) above would also yield the falsehood:

(d) 'snow falls from the sky' is true iff grass falls from the sky.

The complexity and strength of a compositional constraint does indeed seem to limit the number of potentially true truth theories considerably, but we should note that it does not necessarily limit uniquely here. For instance, it does not bar what Davidson has called the 'permutation argument', whereby we imagine some 'global shift' throughout the theory which might still preserve truth.\(^44\) Nor does the constraint avoid what is sometimes called the problem of 'overproduction', whereby the T-theory produces uninterpretative T-sentences, which are nevertheless perfectly true, by admitting too much semantic information in the meta-language sentence. So, for instance, appealing to the holistic nature of the account will still not license a choice between a theory yielding disquotational T-sentences like (a) and one yielding:

(e) 'snow is white' is T iff snow is white and grass is green.

\(^{43}\) E.g. (a) above is supported directly by the theorem: "'snow is cold' is true iff snow is cold", and indirectly supported by "'ice is cold' is true iff ice is cold' and "'ice is solid' is true iff ice is solid"; even though (a) shares no contained elements with these last two T-sentences.

\(^{44}\) For a clear expansion of this worry see Putnam (1981).
A theory which conjoins multiple truths on the right-hand side in this way is clearly uninterpretative, yet will not apparently result in any false biconditionals at any point in the account.\textsuperscript{45}

So, theory-internal restrictions, like compositionality, though they restrict our choice of T-theory, do not narrow things down sufficiently to insure an interpretative T-theory. However, Davidson goes on to appeal to a further kind of evidence for our choice of T-theory: namely the empirical evidence concerning speakers’ reactions to sentences of their language. The thought is that we can begin to choose amongst our remaining, formally adequate, T-theories by looking at which sentences speakers of the language actually do hold true or false. Davidson introduces two crucial notions concerning this empirical evidence: the notion of ‘radical interpretation’ and the ‘principle of charity’.\textsuperscript{46}

Radical interpretation is concerned with the way in which the empirical evidence for the theory is initially arrived at: the agent is viewed as a kind of ‘field linguist’, trying to make sense of the alien society she finds herself in. In this situation, the theorist cannot appeal to any prior knowledge of the meaning of the language to be interpreted, rather she must pay attention to the language user and try to assess when simple sentences are held true by the speaker.\textsuperscript{47} The appeal to radical interpretation insures a degree of objectivity for the evidence: the construction of a semantic theory will be based on facts about speakers which

\textsuperscript{45} For a discussion of this worry, see Larson and Segal (1995), pp.34-7.

\textsuperscript{46} ‘Radical interpretation’ is somewhat similar to Quine’s notion of ‘radical translation’; however, we should be clear that Quine and Davidson’s approaches differ in fundamental respects. For instance, Quine, due to his particularly behaviourist approach, takes the crucial evidence available to the radical translator to be assent/dissent conditions for simple (‘stimulus’) sentences; cf. Quine (1960), pp.26-31. Whereas, for Davidson, it is unclear that there is any mechanistic way to move from behaviour to held-true sentences.

\textsuperscript{47} There are two points we should note here: the first concerns a possible worry about getting caught in the ‘intentional circle’: the idea being that we must know what someone’s utterances mean before we can know what they are thinking, yet that we must have access to their propositional attitudes before we can give any meaning to their language. However, Davidson suggests that, at some very basic level (simple held-true sentences) this circle can be broken into. In this way, by building up from a collection of simple ‘held true’ sentences the theorist will be able to proceed toward an interpretative truth theory by tiny steps, each of which is constrained to make sense of her interlocutors. The second point to note is that, in recent work, Davidson appears to have relocated the crucial notion for breaking into the intentional circle, from ‘held true’ sentences to ‘preferred true’ sentences; see, for instance, Davidson (1996), p.278: “Simple preference [in turn] provides the crucial empirical basis through its manifestations in actual behaviour”.

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are not tainted by appeal to semantic information already possessed by the observer.

Given this evidence, the principle of charity is then necessary to provide a way in which the data can come to bear on the selection of a T-theory. This principle states that, in constructing a T-theory for a speaker, the theorist should ‘maximise agreement and self-consistency in the subject to be interpreted’.48 This provides a bridge between the empirical data (the held-true sentences) and our selection of a truth theory (which tells us which sentences of the language are true in which conditions) because it tells us that a speaker holding true a given sentence can act as *prima facie* evidence for the truth of that sentence. So the fact that a speaker holds true a given set of sentences can act as confirmation for a semantic theory which assigns truth to just these sentences.49 David Wiggins provides the following gloss on the Davidsonian project as a whole:

A definition of truth in L(i) will be materially adequate if it generates a T-sentence for each sentence s of L(i) and collectively the T-sentences that the definition implies, when experimentally applied to individual utterances by speakers of L(i), advance unimprovably the effort to make total sense of the speakers of L(i).50

Whether these formal and empirical constraints are ultimately adequate to ensure an interpretative T-theory for a natural language like English is still something which remains to be decided. However, it would seem that our decision procedure must turn to a large extent on seeing how such an account works in practice; i.e. we must actually try to construct a T-theory meeting these constraints for parts of natural language and see if it shadows the results we would expect from a theory dealing directly with the intensional connective ‘means that’. However, we might note from the outset that there are clear

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48 Davidson (1967), p.27.
49 We should note, however, that these constraints to adequacy do not necessarily add up to constraints to uniqueness (as we might initially have expected they should). For Davidson accepts the Quinean contention of the indeterminacy of translation or meaning; for both these theorists, ultimately meaning and reference are relative, for Quine to the conceptual scheme envisaged, for Davidson to the true and empirically adequate truth theory adopted (cf. Quine (1960), p.53; Davidson (1977)). Where there is a conflict between the predictions made by two otherwise satisfactory accounts, there is simply no further question of which it would be right to adopt.
benefits to be accrued from pursuing this kind of approach. For the framework of the formal, truth theoretic semanticist gives us a clear and comprehensible way to move forward in this difficult and complex realm. Also, we might wonder, if we were to reject a truth theoretic approach to semantic theorising, whether any of its competitor accounts would be actually any more feasible. For instance, the major opposing stance to the truth theoretic account is the communication theoretic approach, instigated by the work of theorists such as Grice and Strawson.\(^5\) However, these accounts seem to rest fundamentally on the prior notion of a ‘speech act’ and its criterion of identity; yet, on closer inspection, this notion seems hardly clearer than the notion of meaning itself, with which we began. This is a contentious point, and one which would take us far from our primary concerns to evaluate fully. However, we might at least note that there is a serious question for communication theoretic accounts to answer concerning how to spell out the notion of a speech act without some grasp of truth conditional content.\(^6\)

Yet despite these positive aspects there are still difficulties to be overcome if we decide to endorse the truth theoretic approach. For though it succeeds admirably in our first aim of interpreting speakers, it may seem that this is at the cost of our collateral aim; for such an approach does not, it seems, satisfy Dummett’s demand to distinguish between those who use language with understanding and those who do not. The Davidsonian ‘impersonal’ or third person conception of a semantic theory, looking primarily to interpreters rather than speakers themselves, appears to sever the connection between meaning on the one hand and knowledge which is proper to the speaker of that language on the other. However, before we think of abandoning our current approach at the first sign of trouble, we should ask: ‘is there any way in which to preserve the insights and advances of the truth theoretic framework, whilst not abandoning our collateral aim entirely?’ Can we have a semantic theory in the truth theoretic

\(^5\) Grice (1957); Strawson (1970).
\(^6\) This point is made clear in Rumfitt (1995), amongst other places.
mode which also supplies some answer to the question of what is known by a speaker?

(iv) Utilising a truth theory:

It seems that what we need is to re-impose constraints linking the knowledge the semantic theory specifies and the knowledge possessed by speakers. Rather than the kind of ‘perspective independent’ account facilitated by the notion of the radical interpreter, what we require is an account of the knowledge people actually exploit in understanding. In this way, by turning our attention away from the radical interpreter and re-focusing instead on the actual language user, as she comprehends others and contributes to the dialogue herself, we may arrive at an account which satisfies both Dummett’s concerns for distinguishing those who use the language with understanding, and Chomsky’s concerns about competence and production in speakers. Furthermore, if we are to look for the knowledge encoded in a semantic theory in the mind of the speaker, it seems our concerns about uniqueness will also be satisfied. For if we are looking to codify knowledge an agent actually possesses, clearly only a single account can be correct. So, the suggestion now is that a descriptively adequate truth theory for a language is a theory of meaning for that language only if it is the theory actually employed by speakers of that language.

This kind of move, whereby the formal, truth theoretic account is taken to specify knowledge actually possessed and utilised by interlocutors has been put forward in certain recent accounts, for instance those of Larson and Segal (1995) and Rumfitt (1995). In Larson and Segal, where a distinctively Tarskian framework is adopted, what is known (albeit tacitly) by the agent is a complex, recursive theory dealing with the satisfaction conditions of possibly infinite sequences. What explains and underpins our linguistic competence is the presence of this particular theory in the portion of our brains concerned with language.

53 The technical mechanism of satisfaction by (infinite) sequences is given by Larson and Segal (1995), pp.201-206.
Semantic theory [as we have sketched it] is a component of the larger enterprise of cognitive linguistics. As such it rests on two major empirical assumptions. Like cognitive linguistics as a whole, it assumes that linguistic competence consists of an unconscious body of knowledge, what Chomsky has termed the “language faculty”. Furthermore, it assumes that the language faculty contains a specifically semantic module: a particular, isolable domain of linguistic knowledge beyond phonology, morphology, syntax, etc., that is concerned with meaning.

In our picture, the semantic module has contents of a very specific sort. The module contains specifications of meaning for the simplest expressions of the language and rules for deducing the meanings of complex expressions on the basis of the meanings of their parts and the structural configuration in which they occur.

The Larson and Segal conception of the enterprise thus provides one way in which we might go: we might accept, as a working hypothesis, the existence of a discrete semantic module in the mind, containing a fully formalised truth theoretic semantic theory. This theory, if Larson and Segal are correct, is Tarskian in form, recursively defined and treats predication as a relation to sets. We might think of it as moving the entire Davidsonian project ‘wholesale into the head’; thus Dummett’s worry (that the theory does not canvass knowledge proper to the speaker), as well as the threat of multiple true and empirically adequate, yet divergent, semantic theories, are avoided.

However, the form the Larson and Segal approach takes is, it seems, only one way to tailor truth theories to the speaker. Furthermore, some have objected that the complexity of the knowledge attributed to speakers (with its manipulation of infinite sequences) should make us uncomfortable about positing it as the information agents actually utilise, however tacitly, in language production and understanding. As Rumfitt objects: “[i]here is no merit in departing further than is necessary from a description of reasons which the agent would accept; that is why the Tarskian treatment of predicates is objectionable”. This suggestion, that part of the role of our truth theoretic semantic theory is to rationalise interlocutors perhaps points the way to an alternative conception of how our account may be related to knowledge.

\[^{54}\text{Ibid, p.22.}\]
\[^{55}\text{For the distinction between a Tarskian and a Fregean account of predication see Rumfitt (1994); (1995).}\]
\[^{56}\text{Rumfitt (1995), p.859.}\]
possessed by speakers. This is the method Rumfitt himself pursues, treating semantic theorising as reason giving and invoking knowledge of truth conditions within the kind of practical reasoning that agents engage in when hearing or producing utterances. The thought is that the information codified in our account may have a role to play in an agent's reasoning about her use of language.

Such an appeal to speakers' aims and intentions might initially seem an anathema to a truth theoretic approach since, traditionally, these notions belong to opposing 'communication theoretic' approaches. However, as Rumfitt (1995) argues, there may be good reason to prefer a more conciliatory approach (which he labels a 'hybrid picture'), allowing a truth theoretic model to utilise communication theoretic notions:

On this view [the hybrid picture], a truth-theoretical axiomatisation plays an important part in characterising a speaker's linguistic competence by virtue of the fact that its axioms express knowledge which the speaker expects his audience to possess...Since, on the hybrid story, this last expectation lies at the core of both expressing and apprehending a thought, the successful completion of the axiomatisation would provide the explanation that Dummett demands. We would have explained why an utterance has the content that it does by citing the speaker's actual and operative expectations about the reception of the words he utters.\(^{34}\)

However, as Rumfitt notes, his 'hybrid picture' gives only a sketch of one possible way to proceed; and it might seem that we require a more rigorous account to challenge the concrete proposal of Larson and Segal. However, the important conclusion of this section, I would suggest, is not necessarily to endorse one particular way of making the truth conditional approach accountable to speakers' actual knowledge, to the exclusion of any other such account; rather it is simply to see that there are ways in which it seems possible that this desired outcome may be achieved.

\(^{34}\)Ibid. p.855.
(v) Concluding conception of a semantic theory:

Let us summarise the findings so far: our aim was to provide a framework within which we could explore the nature of noun phrases. This amounted to specifying the kind of semantic theory we should have in mind and the suggestion was that the most hopeful avenue to pursue was the formal semanticist’s truth theoretic account. The general framework then is essentially Davidsonian, with room for certain divergences (such as the move away from interpretation and towards language production and reason-giving accounts, and, as we will see in Chapter 2, the possible inclusion of second order features). The hope then is that this provides us with a solid enough background to make unique predictions about the logical form of certain linguistic items, and to discern fairly clearly the pragmatic/semantic boundary. Semantic information will be that information which is codified within our semantic theory; pragmatic information will be information derived from the context of utterance which is (or may be) used by interlocutors to refine, reassess or re-evaluate the proposition delivered by the semantic theory alone.

Now then we face the issue of putting together our proposed approach to semantic theorising and our working assumption that the class of noun phrases, in which we are interested, divides into two separate semantic categories. In the first section of this chapter it was suggested that the diverse behaviour of certain noun phrases was best accounted for by treating them as distinct semantic kinds: quantified noun phrases and singular terms. Assuming this hypothesis to be warranted, we now need to deliver a way of handling each of these kinds within our truth theoretic account. So, let us turn in the next chapter to the question of how, given the truth theoretic framework we have adopted, we might formally

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58 Although whether Davidson himself explicitly requires his account to be first-order, rather than simply non-modal, is a debatable exegetical question; for instance, Lappin (1996) assumes Davidsonian accounts must be first-order, whereas Sainsbury (1991), p.326, has suggested that only modality is explicitly precluded.

59 For a discussion of the blurring of the semantic/pragmatic division in the case of context-sensitive expressions, see Chapter 2. One question we will have to address in the next chapter is whether we can countenance any semantic information which is not truth-conditionally relevant, since this is the status often advocated for the Kaplanian notion of ‘character’.
capture our initial impressions of the divergent nature of quantified noun phrases and singular terms.
Chapter 2 ~
Quantified Noun Phrases and Referring Terms:

In common with many theorists, we have accepted the idea that the great difference in the role certain noun phrases intuitively appear to play, and the way in which they appear to succeed in settling on objects, points to a fundamental difference in their semantic analysis. Thus we have adopted the hypothesis that the class of noun phrases contains two distinct semantic kinds: quantified noun phrases and singular terms. The time has come now to look much more closely at these two categories and try to see how they might be handled in our semantic account. The task of this chapter, then, is to provide a sketch of one mechanism capable of handling quantified noun phrases within a truth conditional semantic theory, and one which is adequate for referring expressions. Our aim will be to survey the current state of play in this area and indicate the kind of model it seems theorists in general should be willing to endorse.

The first half of this chapter deals with the search for a semantic treatment for quantified noun phrases. The up-shot of our inquiry will be that the model of ‘generalized quantification’, as developed by Barwise and Cooper (amongst others), provides the best account of these expressions to date.1 Crudely, a sentence containing a quantified noun phrase, like ‘all girls are happy’, will be understood as specifying a relation between two sets of objects (i.e. specifying a property of sets). However, to appreciate this model of quantification fully, it will help to begin by looking at the notion of first-order quantification, seeing in what ways it provides a good model for understanding quantified noun phrases in, and in what ways it might be found wanting. Then we will turn to look at generalized quantifier theory itself, seeing how such an account applies in practice to certain paradigm quantified noun phrases, and

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1 Barwise and Cooper (1981).
inquiring whether or not the range of application should include (at least some) expressions of the form ‘the F’.

With a satisfactory account of quantified noun phrases secured, an apparently very straightforward way to handle referring expressions will then be proposed in §2. However, this approach will be seen to be open to certain serious objections: in the first case, from those apparently referential expressions which fail to secure any referent at all, and, in the second case, from putatively referential terms which appear able to secure multiple different referents. It will be this latter problem, of so-called ‘context-dependent’ singular terms, which will most exercise us in what follows; however, the suggestion will be that it is possible to refine our approach to accommodate context-dependent singular terms successfully within the truth theoretic framework we have adopted. Thus the final task of this chapter will be to see how the analysis proposed applies in practice to certain paradigm referential, though context-dependent, expressions, viz. ‘perceptual’ demonstratives. First, however, let us turn to the search for a suitable mechanism for analysing quantified noun phrases.

1. **Quantified Noun Phrases:**

   The behaviour we wish to capture in our semantic analysis of quantified noun phrases is the way of arriving at an object in terms of the properties it instantiates. One component of a quantified noun phrase will then be this descriptive element, given by one or more common nouns. However, to arrive at a particular object or set of objects we also need part of the linguistic expression to tell us about the proposed range or extension of this descriptive component; quantified noun phrases, as their title suggests, serve to tell us about the *quantity* of objects which instantiate certain properties. So, for instance, a sentence like ‘all girls are happy’ (which contains the paradigm quantified noun phrase ‘all girls’) tells us, intuitively, that *all* objects satisfying the predicate ‘x is a girl’ also satisfy the predicate ‘x is happy’. To know what it would be for an utterance of this sentence to be true we do not need to know the identity of any of the objects it denotes, we merely need to know the relation between the two sets of objects.
which it expresses (in this case, the subset relation, since ‘all’ indicates that the
set denoted by one predicate phrase, the ‘restriction’ or ‘nominal’, is contained
within the other, the ‘scope’).

Larson and Segal offer us the following preliminary sketch of what it is to
be a quantifier phrase:

[T]hey concern the quantity of things satisfying the nominal, the quantity of
things satisfying the predicate phrase, and the relation between these two
quantities. Intuitively, a relation of quantities is one that is sensitive to
numbers of things but not to identity of things....A relation that holds only in
virtue of the relative numbers of Xs and Ys, and not their identities, is a
quantificational relation.3

The relation quantified noun phrases bear to objects, intuitively then, has more to
do with the relation of satisfaction than the relation of reference. Yet possessing
some intuitive grasp on the way in which quantified noun phrases function still
leaves us a long way from a serviceable account for our semantic theory.
However a starting point on the road to such an account can be found in the
work of Frege, for it seems that certain of his logical operators are well-adapted
to play the role we are assigning to our natural language quantified phrases.

(i) First-order logical quantifiers:

The original treatment of quantification and generality, adopted by
modern logic, is owed to Frege.3 Frege’s formal language as a whole contained
only two semantically complete categories: names and sentences, with other
components being viewed in terms of these elements. For instance, we have
predicates, which are incomplete expressions arrived at by removing one or more
designating terms from a sentence; e.g. the complete sentence ‘Fido is happy’
yields a predicate by the removal of the name ‘Fido’.4 This predicate, ‘__ is
happy’, contains an ‘open space’ into which may be slotted other names to create
new declarative sentences. However, it is not only names which can fill the slots
left open in predicate phrases to form complete sentences; we can also insert

3 Frege (1879); although the term ‘quantifier’ seems first to have appeared in Peirce (1885),
Vol.3, paragraph 393.
4 Frege (1892b).

39
variables bound by previous acts of quantification into these open positions. Frege constructed two quantifier expressions for his formal language, which we might call the ‘universal’ and ‘existential’ quantifiers, which could be used to bind variables which could then appear in predicate instantiations.

To demonstrate this, we might introduce some symbols to stand for Frege’s two quantifier terms: ‘∀x’ (or simply ‘(x)’) for the universal, which we might paraphrase as ‘for all x’; and ‘∃x’ for the existential, paraphrased along the lines of ‘there is at least one x’. Given an antecedently selected range of objects, which we will call the ‘domain of quantification’, these symbols may then be conjoined with predicate phrases to make claims about the objects within that domain. So, in conjunction with the predicate phrase we have already arrived at, which we might symbolise as ‘Hx’ meaning ‘x is happy’, we can construct two quantified formulae:

\[
\forall x \ Hx \\
\exists x \ Hx
\]

These assert, respectively, that all things in the domain of quantification satisfy the predicate ‘is happy’ and that at least one thing does. The universal and the existential quantifiers are what we might term ‘unary’ quantifiers; that is to say, they have a degree of autonomy from the predicate expressions they combine with to form sentences. Quantifiers act by independently binding a variable, which then goes on to appear in predicate formulae.

However our treatment of generality now appears to face a problem, for if our quantified sentences are to be truly expressive we need to accommodate the role of the ‘logical connectives’, such as ‘and’, ‘not’ and ‘if...then’; yet reflection seems to show that such elements have a dual role to play. For not only do they function at a sentential level, to form complex sentences out of simpler ones (e.g. forming ‘it is not the case that snow is white’ from ‘snow is white’, or ‘snow is white and grass is green’ constructed from two atomic sentences); they also function to form complex predicates out of simpler ones.
(e.g. 'some girls are not happy' or 'someone is young and pretty'). In 'Pronouns, Quantifiers and Relative Clauses (I)', Evans examines this difficulty and suggests we can most easily account for the sentence-forming operators in terms of truth, e.g.:

(A) Any sentence $S \land S'$ is true iff $S$ is true and $S'$ is true.

On the other hand, however, it seems most natural to deal with the predicate-forming operators in terms of satisfaction, e.g.:

(B) An object satisfies a predicate of the form $F \land G$ iff it satisfies $F$ and it also satisfies $G$.

Yet clearly we do not want our semantic theory to include both rules like (A) and (B) for each logical connective, for these semantical units seem to have a univocal meaning despite the different roles they can play. There are then two moves we might make: on the one hand, we could take the sentence-forming role, (A), as basic and try to account for the predicate forming role in terms of this. Or alternatively, we could take the predicate-forming function, (B), as basic and attempt to account for the sentential role via satisfaction. Evans suggests the first approach belongs to Frege, while the second is more properly associated with Tarski.

The Fregean approach treats the truth of a complex predicate in a quantified sentence as derived from the truth of some sentence formed by filling the argument place with a term. So the notion of a complex predicate being true of an object is explained in terms of the truth of a declarative sentence arrived at by putting a name for that object in the argument position. If the complex predicate in the quantified sentence 'someone is young and pretty' is true of an object, say it is satisfied by Mary, then this can be derived from the truth of the complex sentence formed by replacing the variables with a referring term for Mary, i.e. 'Mary is young and Mary is pretty'. In this way, utilising just the

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5 As Evans (1977), pp.80-1, notes, the same difficulty would also arise even if we restricted our attention just to the quantifiers themselves. For these expressions also seem to have a dual function, sometimes forming sentences from predicates (e.g. 'someone runs') and sometimes forming predicates of degree n-1 from predicates of degree n (e.g. '_ loves someone' from '__ loves _').

notion of truth we account for both the sentence-forming and the predicate-forming role of the connectives. The Tarskian approach, on the other hand, takes satisfaction (rather than truth) as the basic explanatory principle and attempts to accommodate the sentential role of the operators in terms of this. Tarski is able to do this by assimilating closed sentences to predicates: closed sentences will be special cases of predication satisfied by all sequences of objects (if the sentence is true) or none (if the sentence is false). As Evans points out, on this approach:

[It will be open for us to define a true sentence as a (closed) sentence with the universal extension. With this definition of truth, it is easy to show that the truth-functional role of the connective 'and', for example, as forming truths, is a special case of its role of forming an expression which is satisfied by an object iff that object satisfies both of the expressions which flank it.]

So, on the Tarskian approach we are able to accommodate both the predicate-forming and the sentence-forming role of the connectives utilising just the relation of satisfaction.

Prima facie, the latter approach appears the more technical and contrived (with its manipulation of infinite sequences, differing in at most the object assigned to one place) and thus seems less attractive than the Fregean approach. However, as Larson and Segal, amongst others, have pointed out, the Fregean approach itself depends upon a questionable further claim: viz. that, for every object, there is some (possible) extension of the language which contains a name for that object (for only in this way will we always be able to complete the sentence with a designator). Yet this may seem an unwelcome consequence of the account; it at least has the consequence of countermanding the prima facie simplicity of the Fregean approach. However, since both accounts will be formally adequate for accommodating the logical connectives, I would suggest that we do not have to settle this matter finally at this stage. For whichever approach we adopt, it seems that our results could be translated into the opposing framework if this should prove ultimately desirable. Given the

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7 Ibid., p.82.
8 For the technical method of satisfaction by infinite sequences, see Larson and Segal (1995), pp.202-5.
adoption of a Fregean or a Tarskian framework, we can introduce symbols for
the sentential operators, such as ‘&’ for ‘and’ and ‘→’ for ‘if...then’, which will
allow us to construct complex quantified sentences, like ‘all girls are happy’ or
‘some girl is happy’:

\[ \forall x \ (x \text{ is a girl} \rightarrow x \text{ is happy}) \]
\[ \exists x \ (x \text{ is a girl} \& x \text{ is happy}) \]

Furthermore, once this mechanism is in place, we can capture the sense
of a great many of our ordinary language quantifier phrases. As well as
straightforward cases such as ‘all’ and ‘every’, any quantifier concerned with a
specific cardinality can be captured using only these Fregean quantifiers.
Consider the quantified phrase ‘only two girls are happy’, which, although we
lack a distinct quantifier for ‘only two’, we can capture in terms of the universal
and existential claims. Thus, introducing ‘Gx’ for ‘x is a girl’, we arrive at:

\[ \exists x \ \exists y \ \forall z \ ((((Gx \& Hx) \& (Gy \& Hy)) \& x \neq y) \& ((Gz \& Hz) \rightarrow (z = x \lor z = y))) \]

This logical formula states that there are two distinct members of the union of
the set of girls and the set of happy things, and any supposed third member of
this union must in fact be identical with one of these first two. Although the
results may appear somewhat unwieldy, there is no quantified phrase of this form
in natural language which cannot be captured by an equivalent first-order
quantified formula. Furthermore, using just our unary quantifiers plus negation
we can capture the sense of ordinary language expressions such as ‘none’, ‘not
every’, etc.\(^{10}\)

This initial success might make us quite optimistic about a project which
seeks to analyse natural language quantifier phrases in terms of the formal
constructions of first-order logic. The assumption would be that no natural
language quantifier phrase could fail to be captured by some sequence of first-

\(^{10}\) We might also note that, if we include negation, we need only really include one of the two
quantifiers, since the other may then be accounted for in terms of negation:

\[ (\exists x \ Fx) \equiv \neg (\forall x \ \neg Fx) \]
\[ (\forall x \ Fx) \equiv \neg (\exists x \ \neg Fx) \]
order logical quantifiers, predicates and connectives. However, despite our initial optimism, it seems that there are certain drawbacks with such a project; for the resources of first-order logic seem simply too poor to accommodate fully the nature of natural language quantifier phrases. The difference emerges in two ways: on the one hand, the structure of the unary logical functions seems ill-suited to the structure displayed by these natural language expressions; while, on the other hand, there seem clearly to exist natural language quantifier phrases which cannot be analysed by either a unary quantifier alone, nor any sequence of them. The paradigm example of the latter problem is to be found in the natural language quantifier ‘most’, as in ‘most girls are happy’, which seems to be simply beyond the range of the unary quantifiers of first-order logic.\footnote{Westerståhl (1989) points out that although ‘most’ is sometimes read as ‘more than half’, in practice, how many objects are required to satisfy both predicates is often a contextual matter, with sometimes a single object or a ‘bare majority’ being insufficient to make the utterance true.} Sentences containing the term ‘most’ seem to serve, just as expressions containing terms like ‘all’, ‘one’ or ‘none’ do, to talk about the extension of properties in the world; they do not strive, like referring terms, to identify a given individual and refer only to that. However, given only the Fregean quantifiers, we seem unable to capture the kind of relation the natural language term expresses.

To see this, let us try to capture ‘most girls are happy’, armed only with unary quantification and sentential connectives. Intuitively, an utterance of this sentence will be true just in case more than half of the objects in the set of girls also belong to the set of happy things. This relation cannot, it seems, be captured by either of the original Fregean quantifiers; for instance, if we try to use the universal quantifier, all we seem able to say is that ‘all things, if girls, are happy’, or ‘all things are girls and happy’, or so on with the other logical connectives, yet none of these sentences seem to capture the sense of ‘most’. Alternatively we might think to use the existential quantifier, and here things seem initially more hopeful; for as we know from above, we can use the existential quantifier to capture any sentence which expresses a definite cardinality. So we can say that some definite number of objects, say two, are
both girls and happy, and that the number of unhappy girls is less than this, say one:

\[ \exists x \exists y (((Gx \& Hx) \& (Gy \& Hy)) \& x \neq y) \& \exists z \forall w ((Gz \& \neg Hz) \& ((Gw \& \neg Hw) \rightarrow w = z)) \] 

Unfortunately, however, this still does not take us very far towards capturing the sense of 'most'. What we do in the above formulation is give a situation in which it is true that most girls are happy, but we do not say that most girls are happy. Our original sentence is not equivalent to the claim that two girls are happy and only one unhappy, nor is it equivalent to any other statement of a definite cardinality: rather it requires that, however many unhappy girls there are, there are simply more happy ones, and this expression of the relation between two sets of objects does not seem to be something which we can capture using the existential quantifier.

However, arguing that neither of the two existing quantifiers are sufficient to capture the sense of 'most' is not the same as arguing that the system of unary quantification is itself inadequate for natural language. For it might be that the proponent of Fregean quantifiers could introduce a different unary quantifier, especially to capture 'most', without this in any way weakening the present model of quantification. Let us grant the proponent of first-order quantification this and allow them to introduce a new quantifier, 'Σ', envisaged on the unary, first-order model, to symbolise 'most'. Armed with this additional quantifier can we now capture the sentence in question? Unfortunately, the answer still seems to be 'no', for no sentential connective we could then use to stand between our pairs of predicate sets could succeed in specifying the right relation. For imagine that we translate our chosen sentence via the logical formula:

(1) \[ \Sigma x (x \text{ is a girl } \& x \text{ is happy}) \]

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12 Note that, unlike above, we here claim only that at least two girls are happy (not 'exactly two'), although we do claim that exactly one girl is unhappy.

13 This discussion borrows from similar, succinct discussions in Wiggins (1980); Neale (1990a), pp.40-2.
Then our claim is that more than half of the entire domain is made up of things which satisfy the predicates 'is a girl' and 'is happy'. So, the fact that most objects are not girls (e.g. the multitude of trees, cars, boats, etc.) suffices to make this formula false. The falsehood of (1) has little to do with the number of happy girls, specifically whether or not there are more happy girls than unhappy ones is irrelevant; yet this cannot be the intended interpretation of the original English sentence.

At this stage it might be suggested that the proposal could fare better with a different sentential connective such as the material conditional, so that:

\( \Sigma x \) (x is a girl → x is happy)

Yet this now claims that most things are 'if-a-girl-then-happy'; a sentence which would be falsified by the majority of things in the universal domain being unhappy girls. However, so long as girls are not the majority of things in the universal domain, this formula must always come out true. Specifically, it will come out true even if the majority of girls are unhappy, since its truth is based solely on the fact that most things are not girls. Yet once again, this does not capture what was meant by the original sentence. The problem is that by treating 'most' as a free-standing quantifier we are unable to capture its relational nature. Once the intimate relation between 'most' and the predicate 'girls' in our original sentence has been severed it seems that we cannot recapture it simply by inserting logical connectives between two predicate assignments. What is required is not a new way to join predicate sentences together, but a new way to combine a quantifier and a concatenated predicate.

What we need is not the unary devices of first-order logic, but some richer construction which allows us to cope with the genuinely 'binary' nature of at least some quantifier phrases. Furthermore, as we will see below, by moving to relational or binary devices we are better able to capture the true structure of all quantified noun phrases in natural language; thus the move away from the first-order constructions will be seen to be motivated by the nature of all quantifier phrases, not only the subset of them which are entirely beyond unary
analysis. This recognition means we must reject the assumption suggested earlier, that the quantifiers of natural language can be successfully mapped onto the quantifier phrases of first-order logic. For the resources of the latter have proved too poor to accommodate the full richness of natural language. However, as recent advances in quantifier theory have shown, it seems that we can successfully account for natural language quantifiers by moving away from strictly first-order functions to incorporate some second level features. This is the approach suggested by, amongst others, Barwise and Cooper in their theory of 'generalized quantification'. This quantificational model, although not the only second-order model which is able to cope with the problematic phenomena, will be the model adopted throughout the rest of this thesis. Thus it will prove helpful to have before us a brief sketch of what is involved in this approach.

(ii) Generalized quantification:

Barwise and Cooper begin by noting the motivations for the generalized quantification model (henceforth 'G.Q'), indicating the areas of weakness of first-order quantification and the potential strength of G.Q:

The quantifiers of standard first-order logic...are inadequate to treat the quantified sentences of natural languages in at least two respects. First, there are sentences which simply cannot be symbolized in a logic which is restricted to the first-order quantifiers ℰ and ∃. Second, the syntactic structure of quantified sentences in predicate calculus is completely different from the syntactic structure of quantified sentences in natural language. The work on generalized quantifiers...has led to insights into the nature of quantifiers, insights which permit logical syntax to correspond more closely to natural language syntax.

The first of these insights (which allows reparation between natural language syntax and logical syntax) is to recognise that quantifier phrases correspond not merely to quantity terms, such as 'all' or 'some', in isolation, but to quantity terms, which we will call 'determiners', plus predicate expressions. That is to

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1 Barwise and Cooper (1981).
2 E.g. Evans (1977); Wiggins (1980); and Davies (1981), propose that quantifiers be construed as combining with two further formulae to yield a single formula, as in: [most x] (girls x: happy x). The formal differences between the two approaches seem very slight, but for presentational purposes the G.Q model will be the one adopted in this thesis.
4 We should be clear that ‘determiner’ is a syntactic category, whereas ‘quantifier’ is a semantic one; thus the claim that quantifiers correspond to determiners plus predicate expressions is a substantive one. This is an issue we will explore further in following chapters.
say, we need to capture the relation between the determiner and the predicate phrase it attaches to (which we will call the ‘restriction’ of the expression), rather than treating the determiner as a ‘free-standing’ element. Thus the unary, Fregean quantifiers are replaced with relational ones, expressing binary relations between sets. The complex expression of G.Q thus corresponds in a clear way to the structure of proposed quantified noun phrases in natural language; which can be seen if we schematise the proposal:

<table>
<thead>
<tr>
<th>Quantifier</th>
<th>Noun Phrase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Determiner</td>
<td>Restriction</td>
</tr>
<tr>
<td>ALL (x)</td>
<td>girl (x)</td>
</tr>
<tr>
<td>Det</td>
<td>Noun</td>
</tr>
<tr>
<td>all</td>
<td>girls</td>
</tr>
</tbody>
</table>

The view that quantifier relations are those concerned with cardinality (rather than identity) is captured in G.Q because the phrases deal solely with the relative number of objects in the two specified sets. So, for instance, rather than treating ‘all’ as expressing the subset relation, we can now express this in G.Q in terms of numbers of objects: a determiner in G.Q has the value ‘all’ if, given an ordered pair of sets, \( <X,Y> \), where \( X \) corresponds to the subject argument of the determiner, and \( Y \) corresponds to the object argument, the relation expressed is:

\[
|Y - X| = 0
\]

In a quantified sentence such as ‘all girls are happy’, then, ‘all’ has something of the status of a transitive predicate; it relates two arguments, with the restriction ‘girls’ functioning as its object argument, and the remainder of the sentence (the quantifier’s ‘scope’) acting as the subject argument. This view of the role of quantifier phrases might encourage us to adopt the same kind of analysis for these expressions as we might for ordinary transitive predicates. In this way, we might think of quantifier phrases as serving to denote properties of certain sets of objects; i.e. as themselves specifying sets of sets. If this is correct, then we must move away from the resources available to us within the confines of first-order logic; for functions selecting sets of sets are second-order elements.

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18 Although we might note that, in addition to the approach to quantification outlined above, Frege (1884), §47, also suggests an opposing account which does take note of the binary nature of the determiner.

19 This way of looking at the issue is borrowed from Larson and Segal (1995), pp.274-5.
However, the benefits of breaking with first-order logic for natural language quantifier phrases seem to outweigh the drawbacks. For, not only are we able to accommodate properly the structure of all quantified expressions (and define determiners explicitly in terms of the cardinal relations between sets), we can also capture those expressions which lay beyond the reach of first-order quantification. This is possible because we preserve the relation between the quantifier and the restricting predicate. Since ‘most’ is no longer a ‘free-standing’ operator, but is tied to a given predicate set, we are no longer in the position whereby sentences containing it will be made true or false by a majority of objects which lie outside the sets we are interested in. Instead, just as we desire, our logical formula will be true if and only if a greater number of the members of the set of girls lie in the intersection with the set of happy things. A determiner in G.Q thus has the value ‘most’ if (again taking X as corresponding to the subject argument and Y to the object argument) it expresses the relation:

\[ |Y \cap X| > |Y - X| \]

So, since the G.Q model allows us to capture difficult cases like ‘most’, and since it fits well with the syntax of natural language quantified noun phrases, it is the G.Q model which will be adopted below as giving the best treatment for these expressions. This then satisfies the primary aim of this part of the chapter, viz. to provide a mechanism for understanding quantified phrases in natural language from the perspective of our truth conditional semantic theory. However, before we turn our attention to referring terms, I would like to pause briefly to consider the range of expression-types we might want to extend our G.Q analysis to; specifically, should any expressions of the form ‘the F’ be treated along these lines? Although I want to leave detailed consideration of how we tell, for any token noun phrase, whether we should treat it as a quantified noun phrase or a referring term until the next chapter, it seems appropriate to touch on the question of definite descriptions at this stage, seeing if we have any reasons to treat at least some members of this category on the model to hand.
(iii) Definite descriptions:

Frege initially proposed treating these expressions as referential terms; thus they were classed, not with the semantic category of quantified noun phrases, but in his class of ‘Proper Names’ (*Eigennamen*). However, Russell famously rejected this claim, arguing in ‘On Denoting’ that definite descriptions could and should be handled as quantified phrases. Here the primary motivation for his theory of descriptions came from its ability to solve what he called three ‘logical puzzles’: the issue of informative identity statements, applications of the Law of the Excluded Middle, and true, negative, existential statements. To contemporary eyes, it may be less clear that these features provide straightforward support for a quantificational analysis; yet Russell’s general approach still remains popular. To see why this might be, let us begin by looking at the account Russell himself proposed, before seeing how his general insight can be captured in the current context. We will see that translating Russell’s theory into the G.Q framework brings with it its own motivation for the approach, and also avoids certain objections to the original Russelian analysis. Finally, we will note two further motivations for the quantified approach, related to those originally given by Russell in ‘On Denoting’.

The formal system that Russell was working with was the first-order quantificational system he inherited from Frege. Thus the Russelian claim was that definite descriptions could be correctly analysed in terms of the universal and existential quantifiers (or complexes of these and other logical items). His claim was that sentences of the form ‘the F is G’ should be analysed along the lines of: there is one and only one F, and whatever is F is G. Thus an utterance of ‘the tallest spy is American’ translates (crudely) into the claim that ‘there is one and only one tallest spy and whoever is the tallest spy is also American’. Using the

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21 Frege (1892b).
23 For instance, a worry with these motivations may be that the phenomena Russell notes applies equally to statements involving definite descriptions and those involving expressions we intuitively want to treat as singular terms. Thus the logical puzzles seem unable to provide the genuine ground of difference between definite descriptions and other expressions which might motivate divergent semantic analyses.
symbolisation we introduced for first-order quantification earlier, this claim may be formalised as:

$$\exists x \forall y (Fx \land (Fy \rightarrow x = y) \land Gy))$$

So, the thought is, wherever we are faced with a definite description in natural language, it is to be treated as possessing the above underlying logical form or structure. Treating the simple natural language expression as concealing such a complex structure, with its multiple acts of quantification, may seem a relatively unhappy move; but for Russell this discomfort is mitigated by the account’s ability to ameliorate the logical puzzles.

On this model, Chastain notes:

\[\text{A}ny \text{ sentence containing a definite description is understood as asserting that exactly one thing satisfies its descriptive content, that is, exactly one thing is uniquely denoted by it. We get at physical objects only by a semantic shot in the dark: we specify properties or relations and hope they are uniquely exemplified.}\]

I would suggest that our intuitive view of at least some definite descriptions does indeed side with such a picture; for it seems that some such terms do serve to select an object \textit{only} as it satisfies the descriptive condition the expression brings into play. For instance, utterances now of ‘the first baby to be born in the twenty-second century’ or ‘the star furthest from the earth’ seem to serve not to refer to particular individuals, which we know or are acquainted with and which could just as easily have been named or demonstrated, but serve instead to pick out something just in case it instantiates the property in question. Furthermore, if we translate Russell’s basic insight into the framework of a G.Q analysis, it seems both that we avoid objections which may be levelled at the Russellian formulation itself and that we discover positive reasons to embrace the account.

For instance, it seems that any potential discrepancy between the simple surface form of the description and its underlying structure is avoided, for on the model to hand we can treat the determiner ‘the’ as indicating a quantifier in its own right, rather than trying to force the expression into a complex conjunction.
of Fregean quantifiers. In this way, a definite description like 'the tallest spy is American' is analysed as a G.Q formula:

\[ \text{[the } x \text{: tallest spy } x \text{]} (\text{American } x) \]

Clearly here there is no butchery of surface grammar (a charge often levelled at the Russellian theory), but instead a \textit{prima facie} very appropriate treatment of an expression which, syntactically and semantically, seems akin to an indefinite description like 'an F'. This point also brings to the fore an argument Russell gave for his theory of descriptions in 'The Philosophy of Logical Atomism'. Here he claimed that the only difference between 'a' and 'the' is that the latter implies uniqueness; thus since the former is to be analysed in terms of the existential quantifier, the latter should be understood as an existential quantification with the additional claim of uniqueness. This recognition, of an intuitive parallel between indefinite and definite descriptions, is reinforced within our G.Q framework, since both expression-types are syntactically constituted by determiners plus nouns, and semantically analysed as quantifiers plus restrictions. So, treating definite descriptions as quantified noun phrases within a G.Q framework seems both natural and intuitively appealing, and, as we will see later, by any behavioural criterion we wish to introduce, at least some definite descriptions in natural language certainly do behave as the model to hand predicts.

We should also note that by translating Russell's theory into our contemporary framework we avoid a possible technical problem for his account; for carving up the apparently unified surface structure of the definite description into multiple distinct quantifications may run into difficulties. For, if the domain of quantification is allowed to \textit{shift} between distinct quantifiers, then the

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25 Russell (1918).

26 It has been argued that some definite descriptions \textit{demand} analysis as quantified phrases; for instance, where the expression depends for much of its meaning on some other, clearly quantified, phrase (in terminology to be introduced later, they are \textit{anaphoric}). These cases, brought to the fore in Mates (1973), include examples like 'The woman every Englishman respects is his mother', where 'his mother' cannot be taken as a referential expression. However, as we will see later, there are questions to be raised concerning the role of anaphoric expressions in indicating the semantic analysis of superficially similar, though non-anaphoric, expressions; for this reason I do not discuss these cases as a motivation for a Russell-style treatment in the main text.
Russellian paraphrase cannot serve as the correct analysis of a natural language definite description. The problem is that, if subsentential shifts in the domain of quantification are possible (and there is some evidence that this is the case), then there is nothing to ensure that the domain remains constant for the multiple quantifications of Russell's theory. This point is stressed by Stanley and Williamson, who argue for the possibility of subsentential shifts on the basis of sentences such as:

A group of evangelists met in the square, whereupon everyone converted someone.\(^{27}\)

Here it seems 'someone' cannot select another evangelist; thus the domain over which this last quantifier ranges cannot be identical to the domain active at the start of the sentence. From this they conclude:

\[\text{The English sentence which expresses the Russellian expansion of a definite description is more context-sensitive than the sentence which contains just the definite description. Since we have shown that domain can vary with each quantified expression, whereas only one domain is possible for utterances of [the F], we can conclude that definite descriptions are not shorthand for English sentences containing multiple quantifier expressions.}\(^{28}\)

Yet, if we adopt a G.Q formulation of Russell's basic insight, then such a problem is obviated.

Finally, it seems that there may still be some reasons to support a quantified approach to be drawn from 'On Denoting'. For instance, Russell drew a distinction between 'primary' and 'secondary' occurrences of definite descriptions: the idea was that sentences containing definite descriptions plus logical operators (like negation), or embedded in indirect contexts (like propositional attitude ascriptions), permitted different readings according the logical position assigned to the description. This distinction captures the modern notion of 'scope' and the recognition that definite descriptions are, like other clearly quantified phrases, scope ambiguous does indeed seem to mark out these expressions from referring terms.\(^{29}\) Furthermore, it might be thought that Russell

\(^{28}\) Ibid., p.294.
\(^{29}\) For instance, Sainsbury (1995), p.82, when discussing Russell's primary/secondary distinction, writes: "In my opinion, Russell's reasoning here is impeccable, and the scope distinction is important in the description of the workings of English."
was right to stress as he did the difference between empty descriptions and empty singular terms; for it may be thought that the former do indeed retain a degree of semantic content which is lacking in the latter. For instance, Evans suggests that an utterance of ‘That is red’, made by someone who is hallucinating the presence of a red object, lacks content in a quite fundamental way; there is simply no meaning or content to be recovered from the utterance in this situation. This contrasts with an utterance like ‘the author of Principia Mathematica was a great philosopher’, for although the definite description fails to pick out an object (as the book had two authors), still there is a degree of content retained in this case. If we do feel that empty definite descriptions possess some degree of content, which is lacking for empty singular terms, then once again we have reason to prefer a non-referential analysis for them. We have seen, then, I would suggest, that there is good reason to extend the G.Q analysis for quantified noun phrases to at least some expressions of the form ‘the F’.

(iv) A semantic mechanism for quantified noun phrases:

Let us summarise the findings of the first part of this chapter: our aim was to find a semantic mechanism capable of handling expressions which appeared to rely on the relation of satisfaction to deliver a denotation. The first suggestion utilised the first-order logical quantifiers of Frege, and was successful in delivering the truth conditions of paradigm quantified noun phrases, such as those containing ‘all’ or ‘some’. Ultimately, however, it was suggested that the constraints of first-order logic made this account seem less feasible, failing as it did to account for natural language expressions such as ‘most’ (which intuitively grouped together with ‘all’, etc.) and the expected structure of natural language expressions. To this end a richer, binary notion, in the form of generalised quantification, was proposed. Such a model allowed us to accommodate the characteristics of natural language quantifier phrases in a way which seemed

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30 Evans (1982), p.52, writes that: “[b]y far the most important argument that Russell gave was this: if we treat definite descriptions as referring expressions, then we shall be obliged to conclude that, in the absence of a referent, sentences containing them would not be meaningful - i.e. would fail to express a thought.”
much more fitting; mirroring the syntax of the supposed natural language counterparts in a more satisfactory way, and enabling us to account for determiners like ‘most’.

So we have a technical method for analysing quantified noun phrases within our semantic theory, and we have seen that there is good reason to suppose this treatment extends to at least some definite descriptions. For intuitively, some definite descriptions do serve, in a manner akin to indefinite descriptions, to select an object simply through the properties it instantiates, and this should encourage us to adopt similar G.Q analyses for each. Yet, having rehearsed the arguments for treating some definite descriptions as quantified noun phrases, the question which begins to emerge now is whether we can treat all members of this syntactic category in the same way. In general, in fact, what we now need is a method which will allow us, when faced with some token noun phrase, to decide if it will be correctly handled as a quantified noun phrase or as a referring term. As we will see, in Chapter 3, determining this method is a complex and controversial matter; however, before we can begin to tackle this issue, we need first to turn our attention to referring expressions. For we still stand in need of some mechanism which will allow us to handle these expressions within our semantic theory.

(2) Referring Terms:

These expressions are, intuitively, those in natural language which stand in the most close or intimate relation to objects; they do not seem to serve, as quantifier phrases do, merely to talk about whichever object possesses certain properties, but instead to actually refer to particular objects, regardless of their acquisition or loss of properties. Referential terms seem rightly regarded as the point at which language comes closest to the world. Thus if we are to accommodate this intuition within our semantic theory we need to produce a mechanism which does not rely on a relation such as satisfaction, but which makes the appeal to properties of the object otiose. I would suggest that there is a very simple way to do this, by incorporating the relation of reference directly
into our semantic theory. In this way, a singular term will be any one whose correct semantic analysis treats it as referring to an object rather than describing it. So, unlike our quite complex semantic analysis of quantified noun phrases, the proposal for singular terms seems, prima facie, incredibly simple: for a given singular term, 'a', its semantic analysis will be of the form:

\[ \text{the referent of } 'a' = a \]

(where the left-hand expression contains a singular term in natural language and the right-hand designator introduces the object referred to itself). Given the primary role of the object in a proposal of this kind, it seems that we might be warranted in claiming that the meaning of a singular term is exhausted by the object it refers to. This echoes Mill's idea that a name is merely an ad hoc label for an object, an expression possessing 'denotation' (or 'referent' in the terminology of this thesis, for, as was noted earlier, I intend to use 'denotation' only in the Russellian sense to talk about the object selected by a quantified noun phrase) but no 'connotation' (descriptive meaning).32

There are, however, serious difficulties to be overcome before [R] can be unproblematically adopted as the semantic analysis of singular terms. These problems divide, I believe, into two distinct kinds: the first kind, which will be of primary concern to us here, we may think of as formal objections, to the effect that [R] proves unfit to deliver the correct truth conditions for at least some singular terms. The particular objections I wish to consider on this front concern the issue of empty names and invalid inference, and context-dependent expressions. The second general kind of objection which may be levelled at [R] arises from concerns about singular terms and propositional attitude ascriptions, turning on the apparent inadequacy of [R] to account for the meaning entertained by an agent with relation to a proposition containing a singular term in subject position. This general worry surfaces in several ways; for instance, from a

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31 Although the clause is formulated using a definite description in the meta-language, whether this is treated as a referring expression or a quantified noun phrase is unimportant; we might think of 'Ref ("a")' as a functional term, spelt out above as a definite description.
32 Mill (1843).
language-internal perspective, there are difficulties since it seems that we cannot exchange co-referring terms in indirect contexts *salva veritate*.

Or again, from a cognitive perspective, there are problems, as stressed by Evans (amongst others) concerning an agent’s ability to take different cognitive stances towards propositions which differ, at most, in the referential expression used to pick out a single object (e.g. an agent may believe the proposition ‘Hesperus is hot’ while simultaneously disbelieving ‘Phosphorous is hot’, despite the identity of the referent of the two singular terms). Another objection belonging to this second category relates to sentences containing empty names in subject positions; for given [R] such sentences should be meaningless. [R] specifies the meaning of a singular expression solely in terms of its referent, so the absence of an object should result in a meaningless singular term and a complete lack of meaningful contribution to larger sentences in which it occurs. Where an empty singular term occurs in subject position the result would seem to be a proposition which is, at its heart, devoid of meaning. Yet, it may be argued, there is still some thought available for the agent to entertain in such cases. Thus the agent who thinks ‘Vulcan does not exist’ might still be taken to entertain a genuine, contentful thought of some kind; a possibility which seems ruled out if [R] is allowed to exhaust the content of the singular term in question.

This second set of objections, though undoubtedly requiring an answer from the advocate of [R] are, I believe, somewhat less pressing as far as our present endeavour is concerned. For one thing, unless we can show the technical objections unfounded, our proposal will never even get off the ground and the issues of cognitive content will never arise. Furthermore, objections from cognitive content concern the issue of an expression’s content within the scope of a propositional attitude verb, and it is at least open to a proponent of an ‘object-only’ analysis of singular terms to locate the problem with the very

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33 Evans (1982) discusses the problem of the potential discrepancy between meaning assignments and cognitive value under the heading of ‘Frege’s intuitive criterion of difference’; somewhat similar difficulties are also labelled ‘Frege’s problem’ by Salmon (1986). However, we should be clear that there are several different, and potentially non-equivalent, ways of characterising the problem here.
specialised context in which the expression appears.\textsuperscript{34} So, although we will have cause to touch again very briefly on the question of empty singular terms and cognitive content in Chapter 7, in general such questions should really be considered beyond the scope of the present exercise. Instead, then, let us concentrate on the technical objections to [R] and see how they might be overcome.

\textit{(i) Empty names:}

One barrier to adopting [R] (or a similar clause) as the semantic analysis of singular terms within our truth conditional theory stems from the existence of empty names and the question of how to deliver truth conditions for sentences containing them. Empty (or sometimes ‘improper’) singular terms are those which lack a referent, there is no object in existence to supply the content of the right-hand side of an axiom such as [R]. Since it seems clear that natural language contains at least some such elements, we seem to have a problem, as Burge notes:

\begin{quote}

The most clearly semantical problem which non-denoting singular terms raise is that of saying how the truth conditions of sentences containing them may be determined on the basis of the logical roles of the parts of the sentence.\textsuperscript{35}
\end{quote}

Empty terms, if treated as playing the same logical role as ordinary singular terms, will result in invalid conclusions from applications of rules such as existential generalisation or universal instantiation. For instance, we would, by an application of the rule of existential generalisation, be able to move from an instance of [R] such as:

‘Pegasus’ refers to Pegasus

to the conclusion:

\((\exists x) (‘Pegasus’ \text{ refers to } x)\)

Yet, since there is no such object, the conclusion is false.

Clearly, then, some alternative treatment is required if we are to stand a chance of handling natural language and the full range of (ordinary and empty)

\textsuperscript{34} Cf. Crimmins (1992).
\textsuperscript{35} Burge (1974b), pp.189-90.
singular terms it may contain. One strategy, pursued by Russell and Quine, is to refine our analysis of apparently referential expressions, seeking to ‘analyse (all or some of) them out’ into forms of descriptive expressions.\(^{36}\) Another might be to appeal to pragmatic considerations concerning the way an empty name is used in a community to explain the appearance of truth conditional meaning for sentences containing it. While another still, suggested by Frege, is to deny such expressions are genuinely empty, stipulating a referent for them (in Frege’s case, the empty set). However, as Bencivenga notes:

Non-denoting singular terms denote nothing existent. Of course, they could denote something else...but this is one possibility among many, and we must also take into serious account the possibility that they denote nothing at all. And taking this possibility seriously means considering situations in which some of the basic correspondences required by classical semantics are simply not there.\(^{37}\)

This recognition however points the way to a further possible area in which to look for a solution: refining classical logic in such a way as to make it explicitly able to accommodate empty singular terms successfully. Forms of logic which are expressly able to accommodate empty terms are known as ‘free logics’. Although ultimately, I want to suggest, it remains unclear that a move to a free logic does provide the best way to handle empty terms in natural language, it is, I think, a suggestion well worth exploring; for modifying classical logic may \textit{prima facie} seem very appealing in the face of empty names.

Free logics are those which deny existential import to their terms, though allowing quantifiers to retain their usual import.\(^{38}\) What this means is that we are assured of an object which a term or variable refers to only when that expression is bound by a quantifier, unbound variables do not in themselves guarantee objects. This basic insight has been further developed in several different ways: some posit two different kinds of quantifiers, one pair which have existential

\(^{36}\) Cf. Russell (1911); Quine (1953). Russell analysed any singular term where our knowledge of its extension was not incorrigible (i.e. where we could be confused about its identity or existence) into a definite description, while Quine removed all singular terms, replacing them with specialized predicates.


\(^{38}\) Lambert (1991a), p.3, defines them as “logics devoid of existence assumptions with respect to their terms, but whose quantifiers have existential force”. 
commitment and one pair which lack it; others posit two distinct kinds of domain, an inner domain of existing objects over which the quantifiers range and an outer domain of non-existing objects; and some posit two kinds of denotata, ordinary objects for most expressions and special objects to be denoted by 'empty' singular terms. A further dimension of choice here concerns how we wish our logic to handle atomic propositions containing empty terms: do we want them all to be true (positive free logics), all to be false (negative free logics, to which the Burgean approach to be explored below belongs), or all or some to be truth-valueless (neuter free logics). Clearly free logic is a highly complex area and one which we cannot hope to do real justice to within the confines of our present project. Instead, then, I would like to survey just one treatment of empty singular terms (which I believe to be the most appealing), that given by Burge in 'Truth and Singular Terms'.

Burge’s problem is how to derive truth conditions for atomic sentences containing singular terms which we know may be empty and his solution is to allow empty (unbound) expressions in both the object-language and the meta-language. Thus to give the T-sentence for an object-language sentence containing an empty term it must be paired with a meta-language sentence containing an appropriate empty meta-language expression. In order to do this there are two crucial points in his logic: first, he rejects the simple way of stating the reference of terms, as given via [R], and replaces it with a far more complex, biconditional construction; and, second, he adopts a complex substitution rule (replacing the idea of substitution only for co-referential expressions) which allows him to substitute singular terms which differ in certain respects. Although restating the whole of Burge’s project is beyond us here, I believe we can sketch the argument in such a way as to illustrate how these two features come into play to ameliorate the problem with empty terms.

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40 E.g. Leblanc and Thomason (1968).
41 E.g. Scott (1967). For a clear summary of these distinctions see Bencivenga (1986).
42 Burge (1974b).
To begin with, let us look at a very crude reconstruction of a derivation we might engage in to deliver the truth condition for a simple subject-predicate sentence such as ‘Aristotle is wise’. What we need is a clause for the predicate, a clause for the singular term and a way of putting them together. Suppressing many necessary details (such as the relativisation to utterances, speakers and times) we might construct a sample derivation such as:

1. (x) satisfies ‘is wise (x)’ iff x is wise
2. Ref (‘Aristotle’) = Aristotle
3. ‘Aristotle is wise’ is T iff Ref (‘Aristotle’) is wise
4. ‘Aristotle is wise’ is T iff Aristotle is wise

Now however, if we try a similar derivation for ‘Pegasus is wise’ we run into trouble:

1. (x) satisfies ‘is wise (x)’ iff x is wise
2. Ref (‘Pegasus’) = Pegasus

But (2) is “intuitively untrue because both sides of ‘=’ are improper”; there is no object which the meta-language or the object-language term refers to. What we need then is a way of stating reference which can be true even//the terms are empty and this is provided by Burge’s biconditional: ‘(x) (x = Ref (‘Pegasus’) iff x = Pegasus’. Given the rule for the biconditional, this whole formula can be true even when both sides of the ‘iff’ are false, so it can play a role in derivations of truth conditions even for empty terms. Now then we can derive:

1. (x) satisfies ‘is wise (x)’ iff x is wise
2. (x) (x = Ref (‘Pegasus’)) iff x = Pegasus
3. ‘Pegasus is wise’ is T iff Ref (‘Pegasus’) is wise

However, to arrive at the final truth condition for our sentence we require an additional feature of the account. For, if the only rule we had for substitution at this point was something akin to appeal to Leibniz’s law of identity (whereby, if two objects are identical there is no property one has which the other lacks, so two terms standing for a single object may be exchanged salva veritate) then we would be unable to move from (3) to the final truth

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43 For a proper account of how to proceed in such derivations see Larson and Segal (1995).
conditional statement where the right hand side contains only meta-language expressions (since there is no object which both object-language and meta-language expressions pick out). To circumvent this difficulty Burge’s meta-language axioms contain a complex substitution rule which allows the substitution of expressions which, if they had a referent, would refer to the same thing. That is to say, we can replace expressions which we use in the same way, i.e. as if they both referred to the same object:

\[
(A8) \text{If (for all bound variables, } x \text{ is identical to } t_1 \text{ just in case } x \text{ is identical to } t_2 \text{) then you can replace a variable, } y, \text{ in a sentence, } A, \text{ with } t_1 \text{ just in case you can replace } y \text{ with } t_2.  
\]

(A8) licenses the final step from (3) to:

\[
(4) \text{‘Pegasus is wise’ is T iff Pegasus is wise}
\]

In this way then we have specified the meaning for the sentence (i.e. derived its correct truth condition) without ever being forced to specify a referent for the empty terms. By having a free object-language and meta-language we can give the meaning of sentences containing empty expressions by correctly pairing empty object-language terms with empty meta-language expressions.

So, should we adopt a Burge-style non-classical logic, with its biconditional reference clause and complex substitution rule? Unfortunately, it is not at all clear that we should; for despite its technical success, the approach does appear to have serious drawbacks. For instance, it is open to question how well the complex clauses of reference and substitution match ordinary language speakers’ intuitions about the form of their own language. As long as we confine our attention to the (vast majority of singular terms which are) non-empty expressions, the biconditional and substitution rules Burge posits are unnecessary and seem far too complex to be natural candidates to capture ways of specifying reference which ordinary speakers could construct or assent to. Yet, if this is the case, then can the introduction of such complexity for all referring expressions in natural language really be licensed by the existence of a handful of empty expressions? Furthermore, we might wonder about the assumption that all atomic sentences containing empty names are false, especially since they must

\[\text{Ibid., p.192}\]
clearly be false in a way which is very different to ordinary untrue subject-predicate sentences, where the object picked out merely fails to satisfy the predicate. Burge’s account offers us a very impressive theory for a formal language which contains empty terms; but it remains to be seen whether it provides the best account of our own language just because our own language also permits empty terms. However, the aim of this section has not been to settle the problem of empty terms once and for all; rather the strategy has been to recognise a problem for semantic treatments of natural language terms and then to sketch some possible responses. Although the issue of empty names remains a live issue, I hope to have demonstrated that there are further moves the theorist in search of a truth theoretic semantic analysis of referring terms can make.

However, a second technical objection now remains to be faced, for it seems that, apart from empty terms, there are other natural language expressions which diverge from the behaviour predicted for them by the kind of ‘static’ reference clauses we have envisaged thus far. The problem now is not expressions which fail to secure any referent at all, but those which, as it were, succeed in securing too many. For it seems as though very many apparently singular terms in natural language are highly sensitive to the context in which they are uttered, often going as far as to pick out a different object on each occasion of use (e.g. compare two sequential utterances of ‘now’); whereas [R] seemed to assign an eternal referent to a term. The problem seems to be that, while the above account might work for some, very ‘enduring’ types of noun phrase, ‘context-dependent’ expressions, such as demonstratives and indexicals, which are intuitively singular terms, will require some richer account. The task of making reference clauses amenable to the particular problem of context-dependent singular terms, whilst remembering the constraints of our truth theoretic framework, will be the subject of the concluding sections of this chapter.

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46 This might be thought to be unproblematic, since one might feel that empty statements should be false in a different way to ordinary falsehoods; but we should note that such a move would be in tension with what seems to be our intuitively univocal notion of falsehood, and the fact that simply replying ‘that is false’ to an empty statement seems misleading.
(ii) Context-dependence:

Although we have not yet introduced any rigorous criteria for assessing when an expression is a referential expression (the task of the next chapter), the suggestion so far is that anything which we feel might be a referring expression should be well-handled by a semantic axiom like [R]. However, while this claim might have some plausibility with respect to certain intuitively singular terms, such as proper names, the suggestion seems less convincing for those expressions we might call ‘context-dependent terms’. Such expressions, whose paradigm members include demonstratives like ‘this’ and ‘that’, and indexicals like ‘I’ and ‘now’, seem too complex to attach to objects merely in the *ad hoc* way predicted by [R]. So, let us look now at what seems so special about these latter kinds of expression, before proposing ways to accommodate these features.

If there is an object which is of significance to a given linguistic community, one which will be referred to time and again, by many and various community members, it will be helpful for that community to introduce a name for that object. The name need not (and indeed usually will not) arise through any properties of the object, instead it will be no more than a conventional tag, an *ad hoc* label to aid reference. Such a label appears to attach to its object in some relatively eternal, context-independent way; for instance, it seems that the name ‘Margaret Thatcher’ serves to refer to one particular woman, regardless of its context of utterance. Of course, this is not quite correct, for it is a feature of our language that even proper names may be used to name more than one object; for instance, ‘Aristotle’ attaches to the great philosopher, as well as the oil tycoon (and probably innumerable boys, dogs and boats, etc., in between). However, this appears to be a quite contingent feature of names, rather than

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17 Although I would suggest that, as it stands, [R] is not in fact suitable for *any* singular terms, since it is far from clear that there are any singular terms which are entirely untouched by indexicality. For instance, if the approach to proper names advocated in, e.g., Burge (1973), or Fitch (1993), is accepted, then these expressions too are best handled as context-dependent expressions.

being something essential to them. We can easily imagine a language where this is not the case and no two objects share a proper name. Indeed, if we think of tokens of the same name which have different referents as actually possessing invisible indexes, so that, even though expressed as homonyms, the semantic tokens are actually different, our own language might be made to meet this constraint. In this way, ‘Aristotle’ might refer to the Greek philosopher, while ‘Aristotle’ names the Greek billionaire.

However, some apparently referential expressions, such as demonstratives and indexicals, seem to stand in no such ‘eternal’ relation to an object, but instead seem free to pick out a different referent on certain different occasions of use. For instance, though my utterance of ‘I’ serves to pick me out, your utterance of exactly the same linguistic type will secure a completely different object, viz. you. Yet this flexibility in extension is, prima facie, in stark contrast to the kind of behaviour predicted by a semantic clause like [R]. Furthermore, when [R] was first introduced we noticed that it supported the view of those, like Mill, who held that singular terms possessed a meaning which would be exhausted by the object they referred to. However, turning to demonstratives and indexicals, it now seems far less evident that this contention is correct. For there seems to be a degree of meaning possessed by these expressions which goes beyond their referent. A term like ‘I’ seems to attach to objects, not as an ad hoc label, but in some principled, regulated way which an axiom like [R] simply cannot account for. So, if we wish to preserve our intuition that (at least some) demonstratives and indexicals are singular terms we will need to refine or reject [R] in order to accommodate these expressions. Happily, however, it seems that such refinements are available in the account of context-dependent expressions given by Kaplan’s theory of ‘direct reference’.

49 Though as Rumfitt (1993), p.445, has noted “if names are tainted, then surely all the familiar categories of referential expressions are touched with the brush of indexicality”.

50 Although I embrace the mechanisms of direct reference given below as the most comprehensive and successful account of referring terms to date, I should make it clear that there are certain aspects in which divergence from Kaplan’s own account may be preferred. One area we will discuss later is the precise status of ‘character’; while another, which will not be discussed here, is the possibility of emending the account with an Evans-style, object-dependent and non-descriptive sense for singular terms.
The first distinction we need to borrow from Kaplan is that between ‘context of utterance’ and ‘circumstance of evaluation’; for with a clear distinction between these two notions we can dissolve the worry of potential variations in extension. A context of utterance is the conversational environment in which a token indexical or demonstrative is produced; while circumstances of evaluation are the different models or possible worlds where we might evaluate the token utterance for truth or falsity. Kaplan’s claim is that the stability of extension necessary for genuinely referential terms is displayed across the latter: given a token (dated) occurrence of a demonstrative, at any circumstance of evaluation where we choose to evaluate it, it must select just that object it referred to in the original context of utterance. Thus potential variation in extension, as in two sequential utterances of ‘now’ or two different speakers’ production of ‘I’, is explained by the token’s different contexts of utterance. Though we have two tokens of the same type, they are different tokens and thus can permit variations in their extensions; for sameness of referent is only required so far as a single token is concerned.

So, for instance, let us imagine that in a given context, \( c_1 \), I point at John and utter “that man is happy”, then this particular individual must remain the referent of this particular utterance. No matter what circumstance of evaluation or possible world I choose to assess this utterance for truth or falsity in, it is only John and his state of mind which can be of importance. Even if in some other circumstance of evaluation, say \( c_2 \), I am pointing at some other individual, say James, this man’s happiness will be irrelevant to the truth of my utterance; for my utterance is about John, not James. For Kaplan this is possible because the object initially secured is ‘loaded into the proposition’, the object itself, not any description of it, is imported directly into the proposition which is then taken away for modal consideration.\(^52\) At each circumstance of evaluation the

\(^{51}\) Kaplan (1977), pp.505-6.

\(^{52}\) We might note then that Kaplan’s own account depends on the independent acceptability both of propositions themselves and, more specifically, of objects as the constituents of some propositions. Kaplan treats propositions as ordered n-tuples, with the objects invoked by directly referential expressions playing a role in the content together with the properties
proposition containing a directly referential expression will not ‘look around’ for an object which satisfies some descriptive condition, instead it will simply export its original referent again. This stress on the non-descriptive nature of identification is brought to the fore in a passage by Wettstein:

[W]e have been criticizing is that in using indexical expressions I communicate bits of descriptive identificatory information that are supplied, at least in part, by the context. The alternative I am proposing is that the circumstances of utterance do help to provide us with an identification of a referent but not by providing some descriptive characterisation of it. When one says, ‘It is covered with books’ (e.g. in the conspicuous presence of a table covered with books), the context fails to provide us with some unique characterisation of the table; the context does reveal, however, which item is in question.53

We have then a solution to our first apparent problem with these expressions: their apparent liberalism concerning their extensions stretches only as far as different tokens, it does not allow a single token to exchange its extension across circumstances of evaluation.

Now, however, it seems that we have a further problem; for given the way we are envisaging demonstratives and indexicals as working, it seems that we cannot hold that their meanings are exhausted by their objects. For if different tokens can pick out different objects in each different context of utterance there should be some constant feature of these expressions which serves to deliver the object each time. That is to say, there seems to be some additional aspect to the meaning of these terms, above and beyond their referents, which speakers can utilise to arrive at the potentially different object in each context. However, recognising that the term ‘I’ or ‘you’, etc., has a richer meaning than merely being an ad hoc label for an object seems in tension with the claim that such expressions are genuinely referential. For our original thought was that quantified noun phrases would describe objects, whilst referential expressions would merely pick them out. Yet now we seem to be countenancing singular terms which attach to objects precisely because of the properties they possess (such as being the producer of the token in the case of

 invoked by predicative components. However, it does not seem that this view of singular propositions is an essential feature of the doctrine of direct reference.

Fortunately however, a second distinction from Kaplan’s account promises
to be of help here. Kaplan’s solution to this problem is to introduce a bifurcated
account of the meaning of such terms: part of the meaning of a demonstrative or
an indexical (its propositional constituent or content) is simply the object the
expression refers to. However, in addition to this, the terms in question have
associated ‘meaning rules’ or ‘character’ (analogous to what Perry calls ‘role’) which
determine the referent in any given context of utterance but which are
external and extraneous to the terms’ content.\(^\text{54}\)

The linguistic conventions which constitute meaning consist of rules
specifying the reference of a given occurrence of the word...in terms of various
features of the occurrence....The rules tell us what is referred to. Thus, they
determine the content (the propositional constituent) for a particular
occurrence of the indexical. But they are not a part of the content.\(^\text{55}\)

Kaplan tells us that character is that element of meaning which is known by a
competent language user; it is that element of meaning associated with an agent’s
understanding. To know and use demonstratives and indexicals it is enough that
one know the meaning rule they are associated with. We might think of this as
connected to the lexical entry for the term; that part of the expression’s meaning
which transcends times and agents and contexts of utterance.

The character of a context-dependent expression will differ in kind for
Kaplan depending on which of two categories it belongs to. For he recognises
both ‘pure indexicals’ (expressions whose semantic rules alone suffice to
determine which object in any given context of utterance they refer to) and ‘true
demonstratives’ (expressions which have an attached meaning which serves to
partially determine a referent, but which also require some additional contextual
feature to secure an object). Kaplan takes the additional feature required by a
true demonstrative to be a demonstration:

The linguistic rules which govern the use of the true demonstratives ‘that’,
‘he’, etc., are not sufficient to determine the reference in all contexts of use.
Something else - an associated demonstration - must be provided. The
linguistic rules assume that such a demonstration accompanies each
(demonstrative) use of a demonstrative.\(^\text{56}\)

\(^{54}\) Perry (1977).
\(^{56}\) Ibid., p.490.
Exactly how we are to understand ‘demonstration’ is something of an open question however; for Kaplan recognises the possibility of an object ‘demonstrating itself’ as it were. Thus he allows that, for instance, a soldier who dramatically faints before us on parade or someone who has just left the room by storming out and slamming the door, may apparently be picked out by an utterance of ‘That man’ without any ostensive gesture on behalf of the speaker. This is an issue we will have to return to later (in Chapter 6); yet for now let us accept that demonstratives require at least some additional contextual feature or other, be it an ostensive demonstration or contextual salience, etc.

The recognition that ‘I’ will always pick out its speaker; that ‘that’ will always select an object, at some proximal distance from the speaker, which is (probably) being demonstrated; that ‘you’ refers to the addressee, etc., constitutes, for Kaplan, the recognition of a distinct semantic value for context-dependent expressions. To crystallise the distinction, Kaplan offers us the aphorisms:

Character: Contexts ⇒ Contents
Content: Circumstances ⇒ Extensions

By introducing this ‘two-valued’ account of expressions it seems that Kaplan is able to do justice to both aspects of our intuitions here. On the one hand, intuition and theory seem to demand that demonstratives and indexicals contribute nothing more than the object to which they refer to the propositions in which they occur, and this can be accounted for by the notion of content. However, on the other hand, these expressions seem far removed from the ad hoc connection of a name to its bearer or the apparent emptiness of a bearerless name, and this additional aspect of their meaning, that which ranges beyond the propositional constituent, can be accounted for by character.

So, it seems that context-dependent expressions may be incorporated into our semantic analysis of singular terms, provided we are willing to refine clauses

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57 This is Kaplan’s (1977), p.490, footnote 9, notion of an ‘opportune demonstration’.
58 Ibid., p.506.
like [R]. We must recognise that [R] applies only to particular, dated occurrences of context-dependent expressions, for across different tokens variations in extension will be permitted. Furthermore, we must allow that [R] does not exhaust the meaning of these terms but only gives their propositional contribution. Now, however, a new objection might emerge: for it seems that by allowing an additional aspect of meaning which goes beyond truth conditional, or propositional, content we might open ourselves up to a charge of neglecting the constraints of the semantic framework already embraced. The problem is that, if we are claiming that a properly given truth conditional account can serve as the semantic theory for natural language, then we seem to have no room in our account for an element which is both semantic and non-truth conditional. If something is a genuine element of the semantic meaning of an expression then, it would seem, it must make an appearance in our truth theory; thus character must be either non-semantic or truth conditionally present.

If we accept this apparent dilemma, then it would seem we have two options before us: either we must accept character as a non-semantic entity and attempt to show that such a rendition is still capable of capturing all the features of a Kaplanian character. Or we must retain our semantic conception of character and try to show why it does not conflict with our analysis of meaning via a truth conditional semantic theory. I would like to close our discussion of the semantic treatment of referring expressions by examining both these options: looking first at a proposal from Higginbotham which follows the first response and then at an approach from Rumfitt which pursues the second. We will see how both deal with a paradigm example of a referring term, viz. an utterance of ‘This is red’ spoken by an agent who is currently demonstrating an object within the experiential environment of all interlocutors.

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50 There is, of course, a third option here which would be to reject the apparent dilemma entirely; thus while accepting that an appropriate truth theory could explicate propositional content this would not be thought of as exhaustive of all possible semantic meaning. A truth theory would then be a (very important) part of a larger semantic theory. However, I will not pursue this response in what follows, since it does not join with our supposed opponent.

60 E.g. Higginbotham (1988); Rumfitt (1993).
(iii) Conditionalised truth theorems:

The first suggestion as to how we might proceed here turns on the accommodation of these linguistic devices via a conditional specification of reference and truth conditions. In this way, rather than attempting to specify the referent of any given occurrence of a demonstrative or indexical via a rigid pairing of token and object, what is provided is a reference rule which is conditional upon the object itself being supplied from the context of utterance:

\[ \text{T} \]

The truth conditions of sentences with context-dependent elements are themselves conditional, dependent upon the satisfaction of conditions that are not in general represented in utterances of those sentences...[e.g.]

(3) If the speaker of 'this is red' refers with the utterance of 'this' therein to \( x \) and to nothing else, then that utterance is true if and only if \( x \) is red.\(^61\)

The antecedent part of the T-sentence relates the utterance of the context-dependent expression to an object, while the consequent then specifies the correct truth condition for a referential expression referring to that object.\(^62\) The additional linguistic rules for settling on the referent, accorded semantic status in Kaplan’s two-valued approach, are on this proposal relegated to something more akin to a lexical entry; an understanding of parts of our language which is not directly encoded within our semantic theory. Higginbotham suggests that the ability to arrive at the correct reference for any token demonstrative or indexical does not require the positing of a second kind of semantic value (beside the truth conditional content), but instead requires only a more comprehensive recognition of the role of the information contained in the lexicon and our ability to act on it.

This non-semantic notion Higginbotham labels ‘sense’ and he takes a competent speaker’s grasp of sense to be reflected in their ability to deploy the term in question in the right way. The idea seems to be that knowing the lexical entry for a context-dependent expression will involve knowing a wealth of non-

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\(^{62}\) There are important technical details about the way in which we specify the objects available to act as the referents of context-dependent expressions within our formalised account, which are omitted here for clarity. However, Larson and Segal (1995), pp.202-210, make this additional step explicit, with their adoption of the Tarskian notion of a sequence and index, plus a selection relation. For a full account then, these additional mechanisms and their repercussions for other elements within the theory would need to be taken into consideration (e.g. all axioms for linguistic items which might contain context-dependent items would also need to be relativised to a sequence).
semantic information which alone will be sufficient to determine a referent on each occasion of use:

[It is to be assumed that the speaker refers to a day with the word ‘tomorrow’ only if he knows that the day to which he is referring is the day following the day of his utterance, whatever that day might be. So knowledge of a sense, a way of keeping track of days in relation to the egocentric coordinate established by his utterance is presupposed. But provided this presupposition is satisfied its content does not enter the knowledge of truth conditions of the utterance.]

Higginbotham contends that the apparent tension between the unexpressed sense and the single, truth conditional level of content stems from a misunderstanding about what we take speakers to know or understand about utterances in context. The tension we witnessed at the close of the last section arises, he suggests, only if we tacitly restrict what speakers know to the bare knowledge of static truth conditions of sentences. Whereas, if we want properly to accommodate context-dependent expressions, what we ought to think of agents as knowing are the conditional truth conditions of potential utterances, which appeal to antecedent lexical (or, at least, non-semantic) knowledge of language in their very construction. So, Higginbotham embraces the Kaplanian idea of propositional content as exhausted by the referent, but then seeks to accommodate the second element of Kaplan’s two-valued approach simply in terms of the kind of non-semantic lexical information required for all linguistic competence.

However, there are certain difficulties with this picture; for, as we will see later (in Chapter 4), certain demonstrative expressions (viz. complex demonstratives like ‘that cat’) seem well-handled by allowing a fairly complicated and structured meaning rule by which their reference is arrived at, and this complex character seems to have a good claim to be a genuinely semantic feature. Furthermore, Sainsbury has objected that such conditionalised truth conditions lose the ability to be genuinely interpretative in embedded contexts, such as reported speech or propositional attitude ascriptions. The problem is due to the possible ‘detachability’ of the truth condition-containing consequent and the antecedent where appeal to non-semantic sense is made.

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64 See Sainsbury (1997).
For instance, for an utterance, \( u \), of ‘today is hot’, spoken on 4th July, 1997, we are instructed to generate the conditionalised t-theorem:

(i) if the speaker of ‘today is hot’ refers with the utterance of ‘today’ therein to 4th July, 1997, and to nothing else, then that utterance is true iff 4th July, 1997 is hot.

We can then detach the consequent to arrive at the claim that ‘\( u \) is true iff 4th July, 1997 is hot’, which seems correct. Yet, if we now consider this utterance in an embedded context this move to detach the consequent seems more questionable.

For instance, if \( u^* \) is an utterance of ‘John believes that today is hot’ we generate the conditionalised truth theorem:

(ii) if the speaker of ‘John believes that today is hot’ refers with the utterance of ‘today’ therein to 4th July, 1997, and to nothing else, then that utterance is true iff John believes that 4th July, 1997 is hot.

Yet it is no longer clear that the detached consequent, ‘\( u^* \) is true iff John believes that 4th July, 1997 is hot’, yields the correct truth condition for the utterance. Intuitively, what has been lost is the indexical guise under which John was supposed to believe the proposition; and it seems at least open to question whether John might not believe ‘today is hot’ without believing ‘4th July, 1997 is hot’. The problem then is that the proposed truth theorem no longer seems to be genuinely interpretative of speakers, losing something essential to their interpretation in the process of deriving the truth condition. Yet the strive for interpretation was taken to be a key motivation for the truth theoretic approach in the first place. Neither the objection from complex demonstratives (which we will rehearse more fully when we come to look at these expressions in detail) nor Sainsbury’s objection from interpretability seems to force a proponent of non-semantic sense to embrace semantic character (for the treatment of complex demonstratives to be proposed might be rejected and the loss of indexical guise

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65 The point seems to echo somewhat Perry’s (1977) recognition that no non-indexical way of selecting a referent guarantees its continued truth in such embedded contexts.

66 Cf. Davidson (1967).
claimed non-problematic). However, I would suggest that, \textit{prima facie}, a method of endorsing the two-valued framework without making the non-content element also non-semantic would be preferable; since it would allow us to endorse the two-valued Kaplanian account (the explanatory prowess of which has already been suggested) without serious revision.

\textit{(iv) Truth theories as relativised:}

When we began exploring the idea of a truth theoretic account of meaning, in Chapter 1, we noted that some theorists, such as Rumfitt, envisaged a less abstract, more ‘speaker-relative’, type of account than perhaps might be envisaged within the traditional Davidsonian approach. The thought is now that, by adopting this kind of model, with its connections to practical reasoning and what speakers actually do with language, we may see that the existence of context-dependent terms is not as much of an anathema to the general approach as may previously have been thought. For, the suggestion is, the distinctive properties displayed by the terms of variable reference in the object-language may simply be reflected by properties of the meta-language truth theory itself. That is to say, if the truth theory itself is thought of as a context-dependent entity (taken as requiring relativisation to the user of that theory), then some element of context-dependence must be integral to the semantic theory itself. Rather than viewing the input of the context as something entirely alien to a formal semantic theory (belonging instead to the realm of the pragmatic account), the meta-language itself will be seen to require indexical components. These meta-language context-dependent items might then be deployed to handle the context-dependent elements in the object-language.

This idea is put forward by Rumfitt (1993), who argues for an allowance for contextual input throughout. He suggests that to fully capture the contextual aspects of certain parts of our language we need recognise not only indexical

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\textsuperscript{67} E.g. one possible, although perhaps not entirely appealing, response to the latter difficulty would follow Salmon’s (1986) approach where he holds that the co-reference of terms such as ‘Hesperus’ and ‘Phosphorous’ is enough to ensure that an agent who believes ‘Hesperus is cold’ thereby believes Phosphorous is cold, even though they might not assent to such a formulation of their belief.
elements in the part of the language to be explained, but within the theory which
will do the explaining:

What is being suggested is that we can maintain a beneficial correspondence
between the truth theory, the theory of understanding and a theory of indirect
speech by recognising that such theories are themselves propounded in
particular contexts, and that indexical expressions need not, then, be alien to
the languages in which those theories are expressed.68

So, when we have an object-language utterance containing a context-dependent
item such as the word ‘this’ we might envisage the meta-language sentence
giving the truth conditions for it as containing a similar demonstrative item,
relativised to the same speaker, context and demonstrated object:

\[(\forall s, c, \alpha) \text{‘this is red}_{s,c,\alpha} \text{ is T iff this is red}_{s,c,\alpha}\]

where ‘s’ is a speaker, ‘c’ a context and ‘\(\alpha\)’ a demonstrated object. The idea
would be that the meta-language itself, used to give the right-hand side of the T-
condition, would contain indexical elements making it sensitive to the context in
which it was used. Thus we would not be trying to derive T-sentences for
context-sensitive utterances in a language which was any less context-sensitive
than the object-language. Clearly there are problems even sketching a proposal
of this kind; for instance, there would seem to be a question about the kind of
context appealed to on each side of the biconditional (must it be the same or
different in each case?) and increasing the amount of contextual influence within
the realm of semantics can only serve to blur the distinction between semantics
and pragmatics (a distinction which, it may be thought, it is already difficult to
keep a firm grip on in places). Thus we may worry that Rumfitt’s approach
threatens the search for a stable, ‘minimal proposition’ which we introduced a
truth conditional semantic theory to deliver.69 It would seem then that much
more work needs to be done before we can be assured that the degree of
reconciliation Rumfitt suggests between our alternative approaches to semantic

69 For instance, we find Rumfitt (1993), p.451, when looking at the issue of indirect discourse
and the paratactic analysis from the standpoint of his ‘contextually embedded interpretative
truth theory’, claiming that we must reject the principle that each utterance expresses a unique
proposition: “even though there may be things that are said, it will not do to foist on the
semanticist the project of systematically determining the proposition that each utterance
expresses” (although a clear distinction between sentence and utterance might still render this
unproblematic for our current semantic model).
theorising does not result in the loss of the insights gained by the truth theoretic approach alone.

On the positive side, however, it seems clear that some further step forward is required by the formal theorist at just this point; for the question of exactly what the truth theory is supposed to run on (i.e. sentences, utterances, possible utterances, sentences relativised to speakers and times and contexts, etc.) is a crucial one, which seems to force us towards incorporating notions traditionally thought to belong to the pragmatic realm into our truth theoretic approach. Perhaps then we might expect an account which shows us how to incorporate the two-valued approach of Kaplan into our truth theoretic framework (without relegating character to the non-semantic) to fall out of a broader story about how properly to characterise the input for the truth theory in the first place. Although I believe this is an avenue worth pursuing, it is unfortunately far beyond our present remit. So let us conclude simply by noting that there is some apparent tension between the two-sorted approach of Kaplan and our commitment to a truth theoretic semantic theory, and that resolving this tension requires further work.

(v) A semantic mechanism for referring terms:

Our aim in this part of the chapter has been to provide a feasible analysis of referring terms from within our truth conditional semantic framework. To this end, we began with a very simple suggestion, that singular terms could be semantically handled by clauses of the form ‘the referent of “a” = a’. However, objections were raised to this account on two fronts: first, that it was truth conditionally unsatisfactory, and, second, that it was unable to account for the cognitive value of referential terms. Bracketing the second kind of objection for the moment, we recognised two distinct instances of the first complaint, one concerning empty names and the other context-dependence. It was suggested that the issue of empty names might be ameliorated by a move to a non-standard logic (e.g. Burge’s free logic), or by some other move, such as an appeal to pragmatic features. Though no approach was ultimately endorsed, it was seen
that the theorist has several options to explore in her defence when faced with empty terms. We then turned to the second formal inadequacy, the question of context-dependence, which required quite extensive debate. We first noted the precise characteristics of context-dependent expressions which seemed problematic: namely, the possibility of variations in their referents, and the apparent need for an additional degree of meaning for these terms. We then saw that both these features could be handled in a way consistent with the expressions' status as singular terms by adopting Kaplan’s theory of direct reference. In this way, the propositional content of a token context-dependent expression remained object-only; while a second semantic aspect, the term’s ‘character’, accounted for the principled way in which that expression selected the object and gave the additional degree of meaning for the expression-type. This approach proved very successful, but left us with a further issue, concerning how to utilise the findings from within a truth conditional account.

In the final sections, two suggestions were made as to how this might be done: one by making character non-semantic and one by positing indexicality ‘all the way up’. Once again the final choice of approach was left somewhat open; for we noted that, on the first theory, the implications of making the linguistic rule non-semantic were not entirely clear (furthermore, we might begin to wonder what kind of evidence could come to bear in deciding this issue). While pursuing the second option seemed to call for an understanding of how we might tailor a formal, truth conditional semantic theory to the contextual domain in which it is used, which we do not yet possess. So, exactly which of these approaches is more viable or best suited to our aims is, I would suggest, still something of an open question. Yet it seems that we might perhaps press on without finalising all of the precise details of our semantic account; for the question which begins to emerge now is ‘how are we to relate our truth conditional semantic treatment to token noun phrases in natural language?’ Given that we have a relatively clear idea of how to incorporate referential expressions within our formal approach, how are we to decide which expressions are amenable to being handled in this way? This question should have a familiar
ring to it, for we raised exactly this issue at the close of our discussion of quantified noun phrases. So, now that we have some understanding of the analysis of both quantified noun phrases and referring expressions within a truth conditional semantic theory, we are in a position to reunite our two discussions, and inquire in general how it is that we come to ascribe one or other of our semantic treatments to a token noun phrase.

(3) Conclusion:

At the start of Chapter 1 it was noted that, in order to understand the claims of the unified hypothesis properly, we would need to begin by setting out the background to the debate. This has taken us quite some time: in the last chapter we set up the framework of a truth conditional approach to semantics and in this chapter we provided ways to analyse the two semantic kinds we are interested in within this structure. I have tried to provide a sketch of the current state of play as regards this issue, suggesting that quantified noun phrases be accommodated by adopting the model of generalized quantification; while referential terms be treated as utilising the reference relation itself to deliver objects directly to the truth conditions of propositions in which they occur. Although there remain further questions to be addressed for both accounts (such as the choice between Fregean and Tarskian views of predication, the final analysis of empty terms, and how to accommodate Kaplanian character within a truth theory), still it seems that we have a working understanding of the semantic mechanisms for each kind of noun phrase, which will allow us to proceed to apply the accounts in practice.

Now we are finally ready to turn to the central issue of the thesis: the question of how we actually sift the explananda of natural language into expressions correctly treated as quantified noun phrases and those correctly handled as referring terms. For although we have looked at how the mechanisms to hand might apply in certain paradigm cases, we have as yet no principled explanation of when either account should be invoked. That is to say, we have as yet no clear idea of how we tell, faced with any token noun phrase in natural
language, whether it is a quantified noun phrase or a singular term. Addressing this question, of how in practice we should limn these semantic categories in our language, is the central task ahead.
Chapter 3 ~
Assigning Semantic Category

A phrase is denoting solely in virtue of its form.

So far, we have accepted the hypothesis that the class of noun phrases contains both singular terms and quantified noun phrases, and we have seen how to accommodate both semantic kinds within our truth theory for a language. Now, however, we face a crucial question: we need to know, for any token noun phrase, which semantic category we should assign it to. That is to say, we need to know the criterion for something’s being either a singular term or a quantified noun phrase. The positive proposal I wish to put forward (and defend in the rest of the thesis) is that semantic kinds are reflected in certain kinds of formal or syntactic categories for natural language (with a one:many mapping possible from semantic kind to syntactic class). The kind of categories responsible for mirroring semantic kinds will be the common-sense categories, first introduced in Chapter 1, which ordinary speakers recognise within the syntactic class of noun phrases; kinds of expression like ‘definite description’ and ‘demonstrative’. I will argue that these syntactic categories can be recognised on the grounds of surface features of token expressions; and that for each category there are certain central cases where their semantic allegiance is clear. So, if one member of a syntactic category belongs to a given semantic kind then all do, and for at least one member of each syntactic category its semantic status is evident.

This proposal, which I will call the ‘unified’ approach to noun phrases, will be explored and clarified in this chapter and the next, in part by contrasting it with an opposing ‘ambiguity’ stance on noun phrase classification. Proponents of an ambiguity theory reject the mirroring of semantic kinds in syntactic categories, though, as we will see, they may admit a principled correlation between syntactic properties other than syntactic categorisations and semantic kinds. To begin with, then, let us look at the unified stance in a little more detail.
and see why we might initially find such a position attractive. I will then raise two opposing suggestions about how semantic category might be assessed, both of which give rise to an ambiguity theory of noun phrases; finally, I will provide a very brief initial sketch of the *prima facie* problems for unification which might push us towards an alternative approach. Then, in the next chapter, I will say more about the unified theory, looking in detail at how it applies in practice to a particular kind of noun phrase; before returning, in Chapter 5, to the possible objections to unification which are to be briefly alluded to at the close of this chapter.

(1) **The Unified Theory:**

The appealingly simple proposal of the unified approach is that we can in practice read off semantic category from surface form. That is to say, the easily accessible, ‘open to view’ features of natural language expressions provide us with a way into the complex and difficult realm of semantic allegiance. The thought is that we can tell, by features of the orthographic or phonetic presentation of an expression, or its sentential position, or other such surface features recognisable to a competent language user *prior to* any kind of semantic evaluation of the term, what kind of token is being put forward. This is because agents appeal to such surface features to determine an expression’s syntactic category and syntactic categories map as a whole to semantic kinds. The thought is that semantic evaluation always proceeds via recognition of formal properties; specifically via the recognition of syntactic kinds, such as definite description, which ordinary language speakers are capable of discriminating within the class of ‘noun phrase’ on the basis of an expression’s surface presentation. The claim is that given a syntactic category of this kind, if one member of that category belongs to a given semantic class, then all do; for this reason the approach is labelled a ‘unified’ one. On such a picture, there is not a further substantial move for the agent to make from determining that an expression is a definite description or a proper name, etc., to an assessment of
that expression's semantic allegiance. The unified stance is, I believe, the 'null hypothesis', from which we may be forced to move by counterexample or argument to the contrary, but which constitutes our intuitive view of our language.

For the unified approach to be successful several factors have to be in play: on the one hand, if syntactic or formal categories sub the class of noun phrase are to have such a key role to play, it must be that we have a clear conception of them and a way to assess membership of a class which is independent of semantic questions. I will examine the formal structure of expressions more closely in the next chapter, when we come to look at how the unified account might handle a particular kind of noun phrase, viz. complex demonstratives, and in Chapter 6, when we look at the kind of features speakers actually seem to take as indicative of syntactic category. Initially, however, we might note that there is a strong philosophical tradition of appealing to just the kinds of category I am interested in and that it has generally been held that speakers and theorists alike have a grasp of something’s being a demonstrative or a pronoun, etc., which arises out of features like the orthographic form of the expression, and which seems autonomous from questions of semantics. A second requirement of the unified account is that, given any such syntactic category, the semantic allegiance of some of its members is indisputable. For unless we can tie at least one member of a syntactic class to a semantic kind, the relation between syntax and semantics unification appeals to would be of little practical value.

This claim, however, I take to be independently plausible, demonstrated already in the introduction of our two kinds of noun phrase and the intuitive

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1 The claim cannot be that there is no further move to be made, for holding that there is a one:many mapping between semantic and syntactic kinds does not yet tell us which syntactic classes map to which semantic categories. However, as we will see below, I assume that there are certain key cases for each syntactic class where semantic allegiance is clear.

2 We should note that the claim is that speakers can recognise or differentiate kinds of expressions such as definite descriptions and demonstratives, not that they necessarily know or deploy these kinds of labels for noun phrases.
appeal of the division between quantified noun phrases and referential expressions. It just does seem that in certain paradigm cases an expression’s semantic status is almost beyond doubt (so perceptual demonstratives seem to require analysis as singular terms, while the noun phrase in ‘all girls are happy’ seems a clear quantified noun phrase); thus this second requirement will not be explored much further in what follows. Finally, and most importantly, the unified theory needs it to be the case that its version of a ‘mirroring constraint’ between syntax and semantics is thought plausible. That is to say, the idea that semantic allegiance be reflected in syntactic kinds must accord with the dictates of intuition and not conflict with any constraints antecedently accepted from elsewhere. Furthermore, it should be seen to be warranted; there should be reason to think that such a mirroring condition could hold. Establishing the plausibility of the mirroring condition of the unified stance is one of the major tasks ahead.

It seems, prima facie, that the unified stance has much in its favour: it is, I would suggest, the pre-theoretical stance, the position on noun phrase classification with which ordinary speakers begin and from which they will move only if this position is shown untenable. It is also the position which has been (perhaps not always overtly) endorsed by a great number of theorists in this area; for instance, though disagreeing on which semantic category to assign the class to, both Frege and Russell seem to agree that definite descriptions as a whole map to the category of referring expressions or quantified noun phrases. Kaplan’s theory of direct reference is said to be (primarily) a theory of demonstratives and indexicals, where it seems these are thought to be classes of words characterised independently of their semantic analysis, and Kaplan rarely suggests he has anything other than a unified account in mind. Finally, in the

\footnote{Frege (1892b); Russell (1905).}

\footnote{This is a somewhat delicate point, for we should note that Kaplan (1977), p.489, begins with a statement which might seem to contradict his inclusion in the unified camp: “The group of words for which I propose a semantical theory includes the pronouns ‘I’, ‘my’, ‘you’, ‘he’, ‘his’, ‘she’, ‘it’, the demonstrative pronouns ‘that’, ‘this’, the adverbs ‘here’, ‘now’, ‘tomorrow’, ‘yesterday’, the adjectives ‘actual’, ‘present’, and others. These words have uses other than those in which I am interested (or, perhaps, depending on how you individuate words, we should say that they have homonyms in which I am not interested).” In general,
contemporary arena, recent accounts of complex demonstratives, such as Neale’s, Larson and Segal’s, and Lepore and Ludwig’s (all of which we will look at in the next chapter), seem to presume unification is correct for these expressions.5

The appeal of unification lies in part, I would suggest, in the fact that making the key features for deciding semantic allegiance for noun phrases relatively superficial and open to view to competent language users prior to any kind of semantic evaluation is surely an appealing move. Unification is theoretically clear and simple, providing us with a concrete and uncomplicated way in which to carve up the inputs for our semantic theory. Finally, as we will come to see, the unified stance can accommodate all noun phrase occurrences in natural language and is not in tension with any other assumptions we need to preserve or wish to make. However, the unified stance is not the only position available here; for it may instead be thought either that syntax is irrelevant to assessing semantic form, or that syntactic properties other than those displayed at the level of syntactic category are important in ascertaining semantic kind. Both these options lead to what I call an ‘ambiguity’ theory of noun phrases, so let us turn now to this approach.

An ambiguity approach to noun phrases denies that semantic kinds are reflected in syntactic categories. Given a single syntactic category, it might contain both quantified noun phrases and singular terms; so occurrences of an expression like ‘the F’ might, on occasion, be correctly handled by our axiom for quantified noun phrases, and, on another occasion, by our axiom for singular terms. Perhaps the most famous discussion of an ambiguity theory for definite descriptions can be found in Keith Donnellan’s ‘Reference and Descriptions’ (although there remains an exegetical question of whether or not he actually advocated such a position himself), where it seems that the unified approaches

5 Neale (1993); Larson and Segal (1995); Lepore and Ludwig (typescript).
previously advocated by theorists such as Frege and Russell are superseded in
favour of an account which permits members of a single syntactic category to
belong to dual semantic categories. Clearly, however, if syntactic category is
not to be indicative of semantic kind, then the ambiguity theorist owes us some
alternative account of the crucial features here. She must still answer the
question of how we come to assign each token noun phrase to a semantic class.
There are two claims the ambiguity theorist could make which would support
this rejection of unification: on the one hand, she might dismiss altogether the
thought that syntax has a principled relation to semantics, claiming that the
features constitutive of semantic status are ‘beyond the reach’ of syntactic
properties. Alternatively, she might accept that syntactic properties can be
informative about semantic status, but claim that the kinds of properties which
need to be appealed to in determining semantic structure may cross-cut the
boundaries of syntactic categories. In the remainder of this chapter, I would like
to look at these two alternative options for ambiguity, spelling each out in some
more detail and seeing how initially plausible either approach really is.

(2) Ambiguity Theory (I): Semantic status as dependent on intuited

behaviour across contexts

In empirical linguistics appeal to intuitive judgements about properties
such as grammaticality or well-formedness have an important role to play. So it
might be thought that in semantics an appeal to similar intuitions, this time about
subsentential parts. might provide the key to semantic category; somehow we
can just tell which term is playing which semantic role. We can appeal to our
intuitive judgements of the meaning of certain locutions. That we do have such
intuitions in at least some, paradigm cases is, I would suggest, plausible; indeed,
it was appeal to just such intuitions which was used to motivate the distinction
between singular terms and quantified noun phrases when the class of object-
words was first introduced in Chapter 1. The suggestion now then is that there
is a common sense grasp of the category of ‘referential expression’ or ‘quantified
noun phrase’, allowing us to decide the meaning of subsentential parts in all

\[\text{Donnellan (1966).}\]
cases, and that it is this which our semantic account of noun phrases should capture.

However, there seems to be an immediate objection to this approach; for although we may have immediate and clear intuitions available in certain cases, this does not seem to hold on all occasions. There appear to be borderline cases where it is simply unclear whether we think an expression is playing a referential or a descriptive role; for instance, if I point at an individual and utter 'the boy by the tree' have I said something referential or not? However, the advocate of this approach has something further to say on this matter; for though we are appealing to intuition, this does not mean the same thing as simple guess-work. That is to say, we may take time to reflect and test our intuitions in order to clearly discern what they are and, by comparison with others, hopefully arrive at some kind of a consensus view. What is needed, it would seem, is some kind of test or way to make more concrete our intuitions about the correct semantic analysis of particular expressions. If we could find some kind of a counterfactual situation in which expressions of either supposed category were believed to behave in a different manner to expressions of the other kind, then it seems we might warrant a given semantic analysis in particular cases by appeal to intuition alone. I would suggest that three of the most plausible tests for our intuitions can be located in the idea of simplicity; Kripke's notion of 'rigid designation'; and the set-theoretic notion of 'permutation invariance'. So, let us look at each of these suggestions in turn and see whether they can provide adequate ways to test our intuitions as to an expression's semantic status.

(i) Simplicity:

For Mill, the important feature of proper names was that they should be no more than *ad hoc* labels for objects; possessing, in his terms, a 'denotation' but 'connoting' absolutely nothing. The thought was that, if an expression possessed any degree of meaning, above and beyond that delivered by its object (or denotation), then it could not be a genuine referring term. A truly singular term did not serve to describe an object, nor did it attach to its object through its
instantiation of any properties or relations; rather it was simply an ‘unmeaning mark’ to be tied to an object. As he wrote:

Whenever the names given to objects convey any information, that is, whenever they have properly any meaning, the meaning resides not in what they denote, but in what they connote. The only names of objects which connote nothing are proper names; and these have, strictly speaking no signification.7

The simplicity of a Millian referential term lies, not necessarily in its total lack of structure or complexity, but in the fact that its entire meaning is exhausted by its denotation. It serves to tell us absolutely nothing about the properties of the object, but merely ‘introduces’ it into the discourse. It seems that, if want to test whether or not an expression has the degree of simplicity being contemplated, we need to consider how it might behave in certain counterfactual situations. Specifically, we need to think what degree of meaning would the term have had if the object it refers to had not existed? For if it is true that the entire meaning of a singular term is exhausted by the object it picks out, then, in a counterfactual situation where it picks out nothing, the expression should be meaningless.8

So, if Millian simplicity is thought to be constitutive of being a singular term, it seems that assessing behaviour in certain situations, viz. empty cases, can help us to decide semantic status. However, the problem with such an appeal to simplicity is that it seems to fail to carve the explananda at the desired point. For the simplicity criterion (as formulated in the above account) fails to admit referential expressions which are more than ad hoc labels. Yet, as we have already seen many (perhaps even all) apparently referential expressions possess

7 Mill (1843), Book II, p.25. Although this view of proper names, as simply attaching to objects, is the position usually ascribed to Mill and is supported by passages such as the one quoted in the text, we might note, as a purely exegetical point, that not everything Mill wrote supports this ascription. For instance, an earlier passage, Book I, Chapter 2, Section 5, reads: “we put a mark, not indeed upon the object itself, but, so to speak, upon the idea of an object....A proper name is but an unmeaning mark which we connect in our minds with the idea of the object”.  
8 The suggestion that we look to behaviour in empty possible worlds to assess semantic category might call to mind Russell’s (1918), p.245, proposed test for referential status: “Whenever the grammatical subject of a proposition can be supposed not to exist without rendering the proposition meaningless, it is plain that the grammatical subject is not a proper name, i.e. not a name directly representing some object”. However, Russell’s criterion seems to be more permissive than Mill’s; as is witnessed by the fact that the former criterion is embraced in Evans’ (1982) account, which allows singular terms to possess senses, while Mill’s view is there rejected.
an additional degree of meaning or ‘character’, which stops them being *entirely* meaningless when they fail to secure a referent. For instance, when I use an expression like ‘you’ or ‘this book’ it simply does not seem that I have used an *ad hoc* label, nor that the utterance is devoid of all meaning should it fail on some occasion to secure a referent. Instead, though the object seems of crucial importance to the token expression, both demonstratives and indexicals, as linguistic types, seem to possess some further meaning or attached rule by which they select an object in a context of utterance.

Given this recognition it seems that demonstrative and indexical expressions must fail to reach the level of simplicity which Mill suggested. It might at this stage be suggested that we *refine* the Millian criterion for referential status; so that an expression is a singular term if propositions in which it occurs in subject position lack truth conditional content if it fails to secure a referent. However, this seems too close to our actual semantic analysis of singular terms to offer any help in assessing our intuitions in difficult cases. Inquiring whether or not we feel such a proposition will lack truth conditional content simply *is* asking whether or not we feel the term in question is a singular term. So, I would argue, no appeal to simplicity, ‘refined’ or otherwise, is able to provide a useful way of verifying our intuitions about semantic category in difficult cases.

(ii) *Rigid designation:*

One of the most important pieces of evidence concerning the behaviour of noun phrases was highlighted by Kripke in *Naming and Necessity*, where he sought to show that our intuitions about the way in which certain phrases behave in modal contexts diverge in significant ways. Kripke recognised that, whereas many noun phrases (i.e. the majority of quantified expressions) are happy to select a different object at different worlds or circumstances of evaluation, this was not a property that all noun phrases shared. Most significantly, it was not a property those terms we intuitively think of as referring terms possessed. For, while a quantified phrase seems to have a variable extension across worlds, picking out an object at any given world merely as it satisfies some prearranged
complex of properties, a name or a demonstrative, etc., seems to have a far more rigid extension. For instance:

(1) The last great philosopher of antiquity was fond of dogs.

(2) Aristotle was fond of dogs.°

The extension of both these utterances is the same object in the actual world, since Aristotle is in fact identical with the last great philosopher of antiquity. So, the actual truth conditions for (1) and (2) seem to agree entirely; but if we look at counterfactual situations, the case seems very different.

For, as Kripke stressed, considering (1), it seems that any world where the object which satisfies the description ‘the last great philosopher of antiquity’ also satisfies the predicate ‘was fond of dogs’ will be one where (1) is true; and it will be true regardless of the identity of that person. Specifically, whether or not that person is Aristotle will be irrelevant for the truth of the utterance; so a world where Plato liked dogs and was the last great philosopher of antiquity would be a world where (1) was true. However, this is certainly not the case with (2); here it is only Aristotle that can be of relevance for the truth or falsity of the utterance. It is that very man and his canine preferences (whether he be philosopher or pig farmer in that world) which will matter for the truth of (2).

To account for this phenomenon Kripke introduces what he calls some ‘quasi-technical’ terms:

Let’s call something a rigid designator if in every possible world it designates the same object, a nonrigid or accidental designator if that is not the case.°°

One of the distinctions Kripke was at pains to draw out in his account was the distinction between using a description to fix the referent of an expression and using a description to give the meaning of an expression. In the first instance, the term may still be a rigid designator; for, though we might settle on an object because it satisfies certain properties in this world, when we turn to counterfactual situations, what matters is not what individual satisfies the description there, but the individual antecedently fixed at the real world. However, if a description is actually used to give the meaning of the term in

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° Kripke (1980), pp.6-7.

°° Ibid., p.48.
question (so that, say, ‘Aristotle’ is thought of as *equivalent to* ‘the last great philosopher of antiquity’) then all that can matter in counterfactual situations is the satisfying of the description. Thus the extension could change across worlds and the expression would fail to be a rigid designator. So, the description theory as an account of the meaning of rigid designators is rejected *ex hypothesi*. We might also note that Kripke himself rejects the idea of reference-fixing by description as well; offering an alternative causal model of the reference relation (although we should be clear from the outset that Kripke does not offer an opposing *theory* to the descriptive account, only a different *picture*).11

Reflecting on the intuitions which Kripke brought to light, however, it seems that his particular appeal to modal rigidity provides just one aspect of the rigidity of certain noun phrases. For, it seems as though we can draw exact parallels for temporal and spatial contexts. For instance, consider the following propositions, as evaluated at different times:

(3) The president of America is a Democrat.

(4) Kennedy is a Democrat.

If (3) and (4) were evaluated in 1962 both would be true and, furthermore, both would be true on the basis of how things were with one and the same object: that very man, Kennedy, who was president at that time. However, let us imagine these utterances evaluated at some time prior to this date, say, 1961, when Eisenhower was president and Kennedy was the challenger for that position. As assessed relative to that time, (3) is false, while (4) remains true. What this change in truth value reflects is a change in one of the two expressions’ extension; although they coincided in extension relative to 1962, they seem able to diverge in different temporal contexts, with only the proper name staying rigid in extension. The same kind of phenomenon can be illustrated for spatial contexts as well. So then, if we are looking to rigidity across contexts as the hallmark of a referential expression, it seems that we might offer an ‘inflated’

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11 Kripke’s model of reference will be explored in more detail, and contrasted with properly reductive accounts, in Chapter 7.
account of rigid designation: a term is a rigid designator if and only if it maintains a stable extension across modal, temporal and spatial contexts.\(^\text{12}\)

The modal intuitions which Kripke brought to light have also been emphasised by other philosophers, often with respect to noun phrases other than names. One such example can be found in the work on demonstratives and indexicals of Kaplan or Perry. As we have already seen, Kaplan argues that demonstrative and indexical utterances remain rigid across modal contexts, for they continue to maintain a stable extension even in other possible worlds where their referents fail to possess the relevant features that made them the extension of the expression in the first place.\(^\text{13}\) Specifically, there is no descriptive condition which suffices to make an object the extension of the expression at another world or circumstance of evaluation; not even, in the case of a demonstrative, being the demonstrated object at that world:

\begin{quote}
I am arguing that in order to determine what the truth-value of a proposition expressed by a sentence containing a demonstrative would be under other possible circumstances, the relevant individual is not the individual that \textit{would have} been demonstrated had those circumstances obtained and the demonstration been set in the context of those circumstances, but rather the individual demonstrated in the context which did generate the proposition being evaluated.\(^\text{14}\)
\end{quote}

This kind of behaviour is parallel to that captured by rigid designation; what is important is not a complex of properties, but an object. Though Kaplan’s eventual explanation of this phenomenon, in terms of ‘direct reference’, diverges significantly from Kripke’s, it is clear that both share a common motivation.\(^\text{15}\)

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\(^\text{12}\) This point is noted by Dummett (1981), p.183: “proper names are temporally as well as modally rigid”. It has also been stressed by Neale in ‘Knowing How to Refer’ (unpublished), where he constructs ‘property R’, which a linguistic expression possesses just in case it is rigid in the three-fold way described above (which he abbreviates to ‘MTS-rigidity’).

\(^\text{13}\) Indeed, Evans (1982), pp.62-3, when rejecting the absence of Fregean \textit{Sinn} in Kaplan’s account, takes modal considerations to be the sole explanatory feature of direct reference: “It becomes clear that Kaplan’s notion of ‘direct reference’ is to be explained in terms of behaviour in modal contexts: ‘...I intend to use ‘directly referential’ for an expression whose referent, once determined, is taken as fixed in all circumstances...’ (Demonstratives, p.12)”.


\(^\text{15}\) One such divergence occurs in their analyses of worlds where the referent does not exist; with Kripke allowing that sometimes no object will be selected by a rigid designator, while for Kaplan, since the proposition carries its object ‘loaded into it’, a rigid designator will \textit{always} select its original referent.
So, the suggestion now at hand is that we can discover evidence of semantic allegiance by looking at the way in which the expression in question behaves across certain changes in context. However, there are two serious challenges to this approach; first, it may be objected that the only phenomenon Kripke has drawn attention to is that of scope distinction; and, second, rigid designation, as defined either by Kripke’s original notion or our inflated conception, defines a class containing both conventional referring terms and certain apparently descriptive phrases. The first objection is due in the main to Dummett, who, whilst accepting the phenomenon to be explained, suggests that this can be done by simple appeal to a scope distinction, rather than requiring the introduction of a further, distinct mechanism.

Dummett’s thought is that what we are witnessing when the extension of an expression remains constant across contexts is a consequence of that expression’s position outside the scope of the operator. This view of the phenomenon being highlighted is also echoed by Higginbotham, when he writes of Kaplan: “It is as if the demonstrative were constrained to take wide scope; for this reason, I will call Kaplan’s observation the scopal datum”. So, while ordinary descriptions may appear within the scope of a modal operator, thus allowing the extension of the expression to vary; specialised descriptions and proper names, etc., are constrained to take wide scope which lends the extension its apparent rigidity. For Dummett, the explanation of this constraint is to be found in the conventions of our language:

When these conventions governing the use of proper names and definite descriptions, and the introduction of proper names by means of definite descriptions, have been acknowledged, what else remains of the alleged distinction between the meaning of a term and the way in which its reference is fixed? Nothing. Given the general conventions, all that is needed in order to arrive at the sense of a particular proper name or definite description is to know how its reference is fixed, that is, what is required of an object for it to be the referent of the term: the conventions governing scope determine whether, for each given occurrence of the term, the method of fixing the reference shall be taken relative to the present time or to that referred to, to the actual world or to a possible one.

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Kripke's response to this line of objection is to argue that scope distinction alone is unable to account for the phenomenon he has recognised, since it occurs even in 'simple' contexts, i.e. those lacking operators where there is no possibility of a scope distinction: "it is a doctrine about the truth conditions, with respect to counterfactual situations, of (the propositions expressed by) all sentences, including simple sentences". The thought is that, if we can assess a term for rigidity even in simple sentences (like (1) and (2)) then it certainly cannot be the case that our intuitions are a matter of scope only.

Dummett, however, rejects this reply in the appendix to his *Interpretation of Frege's Philosophy of Language*, offering a sustained attack both on the notion of rigid designation itself and on Kripke's claim that the phenomenon cannot be handled by scope distinctions. He questions the idea that rigid designation is "an ingredient of a proper understanding" of a statement, arguing that a speaker can only manifest an understanding unique to a grasp of rigid designation where a simple sentence like (2) is embedded in a larger, modally complex sentence. Thus, he suggests, that element of understanding above and beyond grasp of truth conditions which Kripke posits (i.e. grasp that an expression is a rigid designator) should be related only to occurrences of sentences like (2) when they occur as subsentential parts. Yet to say that this is what is required to grasp an embedded sentence tells us nothing about what is required to understand the unembedded sentence:

We can, if we like, say of someone who has only a grade-1 [truth-conditional] understanding of a simple sentence that he does not know the truth-conditions of the sentence with respect to other possible worlds. We can point out that this is a feature of that sentence, a sentence which contains no modal expression. But all this is a kind of empty rhetoric, so long as we can point to no deficiency in his understanding of the sentence as used on its own. If his failure to grasp the truth-conditions of the sentence with respect to other possible worlds is manifested only in his inability to grasp the content of sentences in which the given one occurs as a constituent, then that is what he does not understand; to make any more sweeping claim is just playing with words.

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The Kripke-Dummett debate is both complex and controversial, turning, it seems, on difficult ideas such as what is required for understanding, and the relation between understanding and manifestation of understanding in behaviour. However, I would suggest that we can afford to leave this matter unsettled; for ultimately rigid designation proves unsatisfactory for our purposes for reasons quite apart from those stressed by Dummett. Rigid designation cannot act as the test for semantic intuitions, by which we can carve up the category of noun phrases into semantic kinds, due to the second difficulty alluded to above: it delimits a category containing both clearly singular terms and intuitively quantified noun phrases.

The class of rigid designators will contain any quantified noun phrases where the predicative component in the expression is suitably specialised, i.e. guaranteed to be satisfied by one and the same object at any world where it is evaluated. There are two ways in which this can occur: either due to the special nature of the property involved (such as in the mathematical description ‘the even prime’, which can only be satisfied by the number two) or due to the relativisation of the search for an extension. So long as a description is suitably relativized (to a time and a world and a location) any failures of rigidity in the initial predicative component itself can be easily rectified. For instance, the failure of description (3) above to be temporally rigid can be overcome by the overt inclusion of a period or time at which the extension of the description is to be fixed or discovered:

(5) The president of America on 1st January, 1962, was a Democrat.

So, although a description must be multiply relativized in order to display the property of fully rigid designation, such a thing can be constructed:

(6) The actual president of America on 1st January, 1962, was a Democrat.

(6) contains a rigid designator for John F. Kennedy; thus the noun phrase in (6) should, on our current proposal, be classed together with names and demonstratives picking out that particular man. However, I would suggest this
is wrong; descriptions don’t make the grade as referring terms just because they have a stable extension.

Furthermore, this was a point Kripke himself recognised. In an attempt to accommodate the intuitive difference between genuinely referential terms and quantificational rigid designators, Kripke introduced a further distinction within the class of modally stable expressions: some terms are de facto rigid designators and some are de jure. The difference comes from the fact that some expressions (those we intuitively think of as truly referring terms) seem to maintain a stable extension across worlds due to something essential in their nature. Thus names, demonstratives, etc., are de jure rigid: the way they attain their referent ensures their stability. On the other hand, those descriptions which succeed in rigidly designating do so only due to the special nature of their descriptive component, which is either so specialised as to be satisfied by one and the same object across all worlds (e.g. ‘the smallest prime’) or which relativises the search for a satisfier to a single world (e.g. ‘the actual F’). This makes them de facto rigid designators, since it is not something essential to their nature as linguistic types which makes them rigid, but something stemming from the predicate at work.

However this move seems to take us back to stage one; for our proposed test of our intuitions has collapsed into brute reliance on our intuitive grasp of de jure versus de facto rigid designators. A term’s status as a genuine referential expression lies beyond the sensitivity of our proposed test; by looking at behaviour across contexts we can deliver the class of rigid designators, but within this class, the proposal now is, we have yet to discern the class of true referring terms from the rigidly designating descriptions. So, although rigidity may be a necessary feature of a referential term, it is not alone sufficient. Rigidity alone is not enough to ensure reference, for true referring terms are rigid thanks to the nature of reference, while rigidly designating descriptions are rigid due to the specialised predicate they involve. Despite the rigidity of the latter,

\[21\] Kripke (1980), footnote 21, p.21.
nothing should detract from the recognition that descriptions describe - they settle on an extension via the relation of satisfaction - and no matter how specialised the predicate to be satisfied is, this can never amount to reference. If we have any common-sense conception of the semantic class of ‘referential expression’ at all, then, I believe it is of a class which rules out actualised descriptions or those simply satisfied by the same object in all worlds (as in the mathematical case); yet if this is correct then to be a rigid designator is not to be a singular term.

The problem which seems to be emerging here is that this kind of behavioural test and our intuitions about noun phrases seem to be pulling in different directions. For, on the one hand, I would suggest, we can intuitively make sense of the idea of an expression of one semantic kind (say, a quantified noun phrase) being manipulated or ‘got up’ in such a way as to behave in a manner akin to a member of the opposing semantic category, yet without that making it the case that the expression becomes a member of the opposing category. Yet, if this is the case, then obviously no kind of behavioural property like rigid designation can serve as the sole constitutive feature of something’s being a singular term. To put it crudely, the suggestion is that we have a conception of constitution (i.e. of something’s being a singular term) which is independent of this kind of behaviour. However, to put this claim to the test let us conclude by looking at one final kind of test for our semantic intuitions.

(iii) Permutation invariance:

It might perhaps be suggested that, though the Kripkean property of rigid designation fails to delimit correctly the class of singular terms, we might appeal to an opposing kind of property to define our class of quantified noun phrases. Thus, we might try to define quantifier phrases as those which do not require preservation of object identity in order to preserve truth across models. For instance, the determiner ‘all’ requires for truth that all the objects which fall within the restriction set also fall within the set of objects denoted by the predicate forming the scope, while ‘most’ requires only that the majority of
objects in the restriction set fall within the set picked out by the scope. So long as these relations are maintained across models, identity of the objects within each set is unimportant. As Larson and Segal note:

> [W]e would like to know what a quantifier is semantically...a quantificational relation has the property that if we were to change the identities of the individuals in X and Y in a consistent way, preserving the numbers in each and their relative proportions, then the relation would continue to hold. A relation that holds only in virtue of the relative numbers of Xs and Ys, and not their identities, is a quantificational relation."’

Recognising this concern with structure over identity might open the way to a more rigorous account of the property we are interested in, perhaps in terms of the notion of ‘permutation invariance’, as borrowed from set theory. A permutation on a set is a function which maps each and every member of our original set onto just one member of another, isomorphic set. Thus, for instance, the function which maps the set \{a, b\} onto the set \{c, d\}, by mapping a to c and b to d, is a permutation of these sets. Permutations then look to the cardinality of sets and the structural relations which members of those sets bear to one another and preserve just these features; however, what is not necessarily preserved under permutations are the identities of objects within sets. Expressions whose truth or falsity are unaffected by permutations we might call ‘permutation invariant’, and the expressions in natural language which display this property seem to be quantifier phrases rather than referring terms.

For instance, suppose we are considering the expression ‘exactly two’, as in ‘exactly two books are about singing and dancing’. We might then imagine a domain of books, E, containing a set about singing, A, and a set about dancing, B. Our initial statement makes a claim about the intersection of these two sets, shown as C in (1) below; viz. that it has exactly two members, say \{a,b\}. Let us

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23 Thus a permutation could map a set back onto itself. In more technical terms, Lappin (1996), p.200, defines a permuting function as "an automorphism of E which respects the cardinality of the subsets of E".
24 Lappin (1996), p.202, uses this notion of permutation invariance to define the property of ‘Logicality’ (following May (1991)); the current suggestion can then be captured in his terminology: “The Logicality Thesis can be formulated as the claim that, at the level of syntactic representation which constitutes the interface to semantic interpretation, logical NPs are expressed as operator-variable chains while non-logical NPs appear in argument position".
now imagine that there is another intersection relation in the same domain, this time between books about singing and books about acting, shown as $C'$ below. $C'$ contains exactly two members as well, though these are the books \{c,d\}.

![Diagram](image1)

In such a scenario we can construct a permutation, $\pi$, from $C$ to $C'$ (say mapping $<a,c>$ and $<b,d>$), which will maintain the cardinality of the set and any relations between its set members, though not the identity of those set members. However, the truth of any assertion utilising ‘exactly two’ will remain unchanged under this permutation; exactly two books are about singing and dancing just in case exactly two books are about singing and acting. The identity of the objects is unimportant, what matters is cardinality and cardinal relations (this latter would come to the fore if the cardinality not only of the intersection but also of the restriction set, (A), were important, e.g. utterances containing the expression ‘most’). So expressions which display the property of permutation invariance, and thus show themselves unconcerned with object identity, seem suitable for treatment as quantified noun phrases.

However, things are very different with certain other noun phrases. For instance, with possessives formed using proper names. Let us imagine that John owns the only book about singing and dancing, while James is the sole owner of the only book about singing and acting. In this case, the cardinality of $C$ and $C'$ is the same, both being singleton sets; but, if the noun phrase in question is ‘John’s book’ no truth preserving permutation is possible. For instance, the statement ‘John’s book is about singing and dancing’ is true since it will be a member of the set $C$ in (1). However, if we apply the same permuting function as we did above we end up with a falsehood, for John’s book will not be a member of $C'$. So, although superficially the expression ‘John’s book’ may look
as though it is playing the same role as 'exactly two books', by using the test for permutation invariance, we discover that, while the latter is a 'logical' or permutation invariant noun phrase, the former is a 'non-logical' or non-permutation invariant one. If this is to be our criterion for semantic status, then we can see that 'exactly two books' is a quantified noun phrase, whereas 'John's book' is semantically a singular term.

Unfortunately, however, permutation invariance does not ultimately seem any more satisfactory as a prompt for our semantic intuitions than rigid designation did; for exactly the same problem as noted for rigid designation seems to re-occur for permutation invariance. Actualised definite descriptions or those like 'the smallest prime' (expressions intuition tells us are descriptive, quantified noun phrases) fail to display the property of permutation invariance. Thus if we were to make the behavioural property of permutation invariance constitutive of something’s being a quantified noun phrase it seems we would once again fail to carve where we intuitively expect the semantic joints to lie. We would end up with one semantic category for most descriptions and quantified expressions and another for actualised and (most) mathematical descriptions, proper names, demonstratives, etc. Yet still it seems we can recognise a distinction in this proposed second category, and the distinction just seems to be between genuine singular terms and quantified noun phrases ‘got up’ in a way to behave like singular terms. I would suggest that this reinforces the claim that we can differentiate behaviour and constitution in these contexts. Once again, it seems that while permutation invariance supports the predictions of ‘brute intuition’ in the paradigm cases, it fails to carve at the joints we intuitively expect in certain cases. Thus the technical notion of permutation invariance seems no better suited to testing our intuitions as to semantic category than rigid designation did.\(^\text{26}\)

\(^{25}\) Although this claim perhaps depends on the interpretation given to the actuality operator, it seems that permuting the set denoted by 'the actual last great philosopher of antiquity', a singleton set containing Aristotle, may not preserve the truth of sentences in which the expression appears.

\(^{26}\) There is an additional potential problem here, concerning how to accommodate what are known as 'exception phrases': e.g. 'Every student except Mary came to the party'. The
(iv) Conclusion:

What conclusion can we draw from the above discussion of tests for our semantic intuitions then? I would suggest that unfortunately the findings are negative: we began with an intuitive grasp of a division in kind between types of noun phrase. However, when we came to draw that division in practice, assigning borderline cases to one or other semantic camp, intuition seemed to fail us. Our first test for referentiality, the Millian condition of simplicity, left us with either far too stringent a condition (i.e. it did not even seem to be a necessary condition of referential status) or it was of no actual help in the problematic cases (i.e. where it collapsed into a direct question about the expression’s propositional contribution). While, on the other hand, tests like rigid designation and permutation invariance seemed unable to carve where the semantic joints intuitively seemed to be. By actualising a definite description we arrive at an expression which is behaviourally indistinguishable (as far as the kinds of tests considered in this section are concerned) from genuine singular terms; yet, intuitively, I have argued, we don’t thereby arrive at a semantically singular term.

If we have any common-sense notion of the semantic class of ‘referential expression’ at all, then, I believe, it is a notion which rules out actualised descriptions or those simply satisfied by the same object in all worlds. Since rigid designation and permutation invariance fail to respect this they fail as correct tests for semantic category. I would suggest that, ultimately, what underpins this failure is the fact that we can make sense of the following idea: an expression belonging to one semantic category of noun phrase can be manipulated so as to come to behave in a way akin to members of the opposing semantic category of noun phrase without this forcing us to conclude that the expression really belongs to this alternative semantic class. The rigid designation of ‘the smallest prime number’ does not force us to conclude that the expression is really a member of the semantic category of singular terms, rather we can

difficulty arises because, although there are good reasons to treat ‘except’ as a determiner, the phrases formed using it are not permutation invariant, thus they flout our supposed condition for quantifier status. For an argument that exception phrases reveal the need for non-logical quantified noun phrases see Lappin (1996); however, for an alternative treatment of the same phenomenon see Larson and Segal (1995), pp.300, 306-7.
conclude that the responsibility for its behaviour lies with its surroundings. However, if it is right that we can make sense of this general idea, then no behavioural test of the kind proposed in this section is ever going to be sufficient for discerning semantic category.

So, even though we might have initially accepted the idea that intuitive reflection alone, based on the behaviour of certain paradigm cases, might serve to support the basic distinction between quantified and referential noun phrases, drawing a rigid line between these two classes in practice seems to demand more than mere intuitive tests. For, for any piece of intuited behaviour, such as actions over modal contexts, it seems that we can always envisage an expression of an opposing semantic category being ‘mocked up’ in such a way as to behave in this manner. Prima facie, then, the move to an ambiguity theory which makes intuited behaviour constitutive of semantic status seems less than entirely appealing; yet, as we noted at the outset, making intuited behaviour across contexts constitutive of semantic status is not the only way in which an option for ambiguity can be pursued. It may be that the relation between syntax and semantics, posited by the unified stance, is embraced, while the unified position itself is rejected. This position would be possible if there were thought to be syntactic properties displayed by expressions which were able to cross-cut syntactic categories and these features were taken to be responsible for indicating semantic allegiance. Let us now consider this second version of the ambiguity approach to noun phrase classification.

(3) **Ambiguity Theory (II): Semantic status as dependent on syntactic properties**

Although the unified stance appeals to syntactic features, it is a particular kind of syntactic feature, viz. that of common-sense syntactic category. That is to say, it appeals to classes such as proper names, demonstratives and definite descriptions which ordinary speakers can recognise on the basis of formal features (like the form of words constituting the expression) and which theorists have traditionally recognised as independent of semantic interpretation.
Unification claims that there is a one:many mapping between semantic kinds and classes of this sort. So one way in which to pursue an opposing, ambiguity stance is to accept the general claim that semantic status is mirrored in syntax, but to reject the claim that the important level of syntactic description is this kind of syntactic category. Rather it might be thought, the indicative features of semantic category which we are in search of are syntactic properties which may cross-cut the boundaries of common-sense syntactic category. So, reflection on an expression’s syntactic properties or behaviour will allow us to assign it to a given semantic category; but given a single common-sense syntactic category, some members may display the behaviour in question, while others may not. To see this, let us begin by saying a little more about syntactic theory itself, before turning to the kinds of properties noun phrases can display.

The study of syntax is the study of the composition and categories of language; it is concerned with how complex items, like sentences, are constructed from parts. A syntactic theory thus gives us the rules for composition and attributes to each linguistic item a definite syntactic structure. The suggestion is that features of this syntactic structure can be taken as indicative of semantic category. Although choice of syntactic theory is still apparently open, in practice most adopt the ‘principles and parameters’ account instigated by Chomsky. On this model, a single linguistic expression is thought to possess a number of different representations at different syntactic levels, which are related as follows:

\[\text{Deep Structure (DS)} \quad \downarrow \quad \text{Surface Structure (SS)} \quad \downarrow \quad \text{Logical Form (LF)}\]

\[\text{Phonetic Form}\]

\[27\text{ Although the Chomskian approach will be somewhat elaborated below, most of the detail will be omitted; for an expansion see Chomsky (1975); (1986).}\]
These distinct levels of representation are related by *transformation* operations: special grammatical rules which show us how to move between the levels. In the principles and parameters account there is thought to be just a single transformational rule: ‘move α’. So, the idea is that the phonetic form of any sentence is arrived at by applications of the ‘move α’ rule to DS; with this surface form in turn being transformed into the LF structure. Items that appear able to move easily are question words (often called ‘wh-phrases’: who, what, where, etc.) and quantifier expressions; to see this movement in action let us look at one such an example.

In the question ‘Who does Mary love?’ we have a transitive verb ‘love’ which requires two arguments, roughly a lover and a thing loved. Yet, *prima facie*, it seems as though we have only one argument, Mary, in the above question. This difficulty is solved, however, by seeing that the question word relates to the missing argument: we wish to inquire as to the identity of the person loved by Mary, thus the wh-phrase takes the place of the absent argument. This is revealed in the Chomskian approach at the level of DS, which relates to the phonetically realised structure by applications of ‘move α’. The deep structure of such a question sentence is thus thought to be:

![Diagram](image)

The sentence itself at DS is taken to be part of a larger clausal phrase CP which includes an empty position XP; this is necessary to provide a position into which the wh-phrase can move when we apply the transformational rule to arrive at SS. When this happens, and the structure realised at the phonetic level is formed, the
wh-phrase leaves behind an (unvocalised) trace element in its earlier position; so the full representation of the surface structure becomes: ‘Who does Mary love?’

In English, wh-phrase movement is thought to occur between DS and SS, thus, since SS is the level which interfaces with the mechanism of speech production, wh-phrases are heard in their moved positions. Quantifier phrases, on the other hand, are thought to move between SS and LF, thus they will be heard in their pre-movement site. For instance, the sentence ‘Mary loves every boy’ is heard with the proper name preceding the quantifier phrase. However, at the level of LF this order is reversed (in an application of ‘move α’ known as ‘quantifier raising’) to give us:

\[
\begin{array}{c}
  \text{S} \\
  \text{NP} \\
  \text{Det} \quad \text{N} \\
  \text{every} \quad \text{boy} \\
  \text{NP} \quad \text{VP} \\
  \text{Mary} \quad \text{loves} \quad \text{t} \\
\end{array}
\]

Here the quantifier phrase leaves its embedded position and moves to the front of the structure leaving a (coindexed) trace in its former position.

Although any of these levels, DS, SS or LF, could be chosen to indicate semantic form (i.e. interface with semantic representations), the most hopeful suggestion, it is often thought, is the final level, LF. Thus, as May contends:

[Logical form] represents whatever properties of syntactic form are relevant to semantic interpretation - those aspects of semantic structure that are expressed syntactically. Succinctly, the contribution of grammar to meaning.\(^\text{28}\)

Advocates of this kind of syntactic guide to semantic form may be thought of as making the firm proposal Larson and Segal suggest:

**LF hypothesis** The level of logical form is where syntactic representation is interpreted by semantic rules.\(^\text{29}\)

It would be open to the proponent of this position to maintain that two tokens possessing indistinguishable surface forms may actually instantiate different syntactic forms and it is these which provide the true guide to semantic allegiance. Thus, where we thought we had a single lexical item (e.g. the word 'that') or structure (e.g. 'that F'), what we might actually have is two distinct syntactic items, which happen to be expressed homophonically. So a single surface type of noun phrase such as 'the F' could in practice belong to both our semantic categories and thus this approach admits of noun phrase semantic ambiguity. On such an approach, the position of (some) noun phrases might be thought of as somewhat analogous to that of terms like 'bank', where a single word is actually assigned distinct meanings (in this case 'edge of a river' or 'financial institution'). What is required in both cases, before the truth conditions of larger expressions in which they occur can be arrived at, is to discover which syntactic token is actually being put forward by the speaker. What is important here cannot be simply the question of common-sense syntactic category, for proponents of the view I am envisaging wish to allow that tokens of 'the F' may belong to either semantic kind. So the thought is, there must be additional syntactic features, 'sub' syntactic category, which can be independently assessed and used to indicate semantic status.

However, if LF is to be allowed to differ within common-sense syntactic categories, there must be some way of ascertaining which LF to ascribe to which token noun phrase; and this is where the problems come in. For it is unclear that there is this kind of delicate syntactic evidence available for LF assignment, independent of a semantic theory for the language. The kinds of features it

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29 Larson and Segal (1995), p.105. We should be clear that the proponent of the unified stance may also adopt a form of the LF hypothesis; the difference between unification and the kind of ambiguity approach to be explored below lies not in the acceptance of the kind of mirroring constraint contained in the LF hypothesis per se, but in the kind of syntactic properties appealed to. Roughly, the unified theorist will require each member of the same common-sense syntactic category to be assigned the same LF, while the ambiguity theorist will appeal to syntactic properties more fine-grained than this, allowing members of a single syntactic category to be assigned different LFs.

30 Although whether or not this is a genuine analogy is, of course, a serious point of contention between the unified and ambiguity positions. For a truth theoretic account of lexically ambiguous words on precisely the model suggested here, see Gillon (1990).
seems an advocate of this position might appeal to are concepts like ‘commanding’ and ‘weak-crossover’. These are purely syntactic properties of expressions, arising from the properties of the phrase structure for a sentence, abstracted from the semantic properties of the linguistic items. Such features, which need not be tied exclusively to divisions of syntactic category like definite description or demonstrative, might then be thought indicative of semantic status. To see this, let us consider the second feature mentioned above: the phenomenon of ‘weak-crossover’.

‘Weak-crossover’ is the peculiar effect whereby sentences of apparently very similar surface structures, which contain pronoun elements, either prohibit or allow the pronoun to be bound by a co-occurring noun phrase. To witness this, let us look at three sentences:

(a) Which boy does his mother love?
(b) His mother loves every boy.
(c) His mother loves John.31

At the level of surface syntax, it would seem as though (b) and (c) pattern together, as against (a). However, when we come to reflect on the possible semantic interpretations of these expressions, it seems clear that (a) and (b) are related, with (c) differing in potential meaning. For, considering the pronoun ‘his’, it seems possible to interpret (c) as expressing a proposition where the pronoun picks out the same individual as is loved, i.e. John. Whereas, in both (a) and (b) this reading seems very hard to achieve; with the reading whereby the pronoun refers to some other individual far more accessible. Thus:

(a’) *For which x, x is a boy, does x’s mother love x?
(b’) *For every x, x is a boy, x’s mother loves x.
(c’) John’s mother loves John.

Recognising this syntactic phenomenon, Larson and Segal contend:

Our semantic criterion for quantifier status, invariance under permutation, appears to converge in an interesting way with a syntactic criterion for

31 This example, and much of the following discussion, is taken from Larson and Segal (1995), pp.304-5
quantifier status widely assumed in the principles and parameters theory of syntax.\textsuperscript{32}

Properties such as weak-crossover can be explained within the Chomskian approach which allows a quantifier phrase to move, but prohibits it from simultaneously binding its trace and a pronoun which is embedded in another constituent. Thus in contexts such as the above, containing pronouns which may be bound or referential, the possibility of a co-referential reading of the pronoun reveals the noun phrase in question to be a singular term; whereas the impossibility of such an interpretation reveals we have a quantified noun phrase to hand. Larson and Segal again:

\begin{quote}

[The syntactic property of obligatory LF movement appears to correlate quite closely with semantic status as quantifier. That is, the class of noun phrases showing the weak-crossover effects diagnostic of LF movement is also the class of noun phrases containing a specifier element that has the permutation property,...The semantic and syntactic characterizations of quantifiers thus seem to converge.\textsuperscript{33}

Together with any other such purely syntactic behavioural differences which may emerge, weak-crossover will serve to indicate which LF to assign to which token noun phrases, and this in turn will allow us to map the semantic layout.\textsuperscript{34}

Once again, however, I think we can raise certain \textit{prima facie} worries for this ambiguity-friendly approach. The proposal so far is that, first, there is a principled relation between syntax and semantics, but, second, that the point of contact is ‘below’ that of syntactic category. Given any syntactic category like definite description or demonstrative, we cannot yet ascertain semantic allegiance because tokens of each category may possess different LFs. The tests for LF, where these must be more fine-grained than those for common-sense syntactic categorisations, are to be syntactic properties like the weak-crossover effect looked at above. The worry I have now is whether such syntactic features can really be autonomous enough from our semantic judgements to provide the kind

\textsuperscript{32} \textit{Ibid.}, p.304.
\textsuperscript{33} \textit{Ibid.}, p.306.
\textsuperscript{34} It is important for Larson and Segal that there be properties diagnostic of LF other than common-sense syntactic category, for they hold an ambiguity approach to definite descriptions, allowing some to be referential and some to be quantificational; thus they must envisage such fine-grained syntactic properties as sufficient to assign LF.
of independent evidence for semantic assignments we are in search of. The problem is that our intuitions of well-formedness in these quite complex cases seem tightly bound up with the kind of semantic interpretations we are willing to allow. For instance, consider the weak crossover case of ‘His mother loved the boy’, where we must decide whether the pronoun can be bound or not (i.e. whether we can get the reading equivalent to ‘The boy’s mother loves him’). Although the bound reading may seem rather strained, I would suggest that judgements of ill-formedness (as opposed to legitimate, though hard to recover, interpretations) can only be made with the back-up of a theory which predicts such an interpretation as ill-formed. To put matters crudely, the direction of explanation seems to be that if we think ‘the boy’ is here a singular term, then we can get the reading where the pronoun co-refers, while if we think the expression is here appearing as a quantified noun phrase, then the unbound reading, diagnostic of LF movement, will be the only admissible reading we can get; yet it is not immediately evident that we can reverse this direction of explanation.

Our syntactic judgements at this point seem affected by our semantic judgements in a way which might be thought to make the former unsuitable to provide the sole support for the latter. That is to say, the slight unease we feel with the bound reading is not, abstracted from any kind of semantic background, enough to mitigate between rival theories. Though the fact that some readings are harder to recover than others is indisputable, the claim that this kind of fact alone is sufficient to provide independent support for a determinate division between referring terms and quantified noun phrases is questionable. Furthermore, for those theorists, like Larson and Segal, who want to admit a semantically referential kind of definite description, our syntactic judgements will have to be sensitive enough to mark this out: sometimes we will judge the bound reading ill-formed and sometimes (i.e. when the token description is referential) we must be perfectly able to recover the co-referential reading. Yet to make this kind of fine-grained judgement I would suggest that we already need to possess some grasp of the items the syntactic theory is running on. To repeat, we are happy with a bound reading if we think the noun phrase is referential and we are
unhappy with it if we think it is a quantified expression, but to try to reverse these conditionals seems to ‘put the cart before the horse’ as it were. Although the predictions of a semantic theory can be reinforced by a phenomenon like weak-crossover, I would argue that we cannot start with a phenomenon of this kind and hope to generate semantic classifications from it.

This is not to argue against the general project of the syntactician nor the explanatory worth of the ‘LF hypothesis’; indeed, as we have seen, the proposal for noun phrase classification to be advocated in this thesis agrees with the claim that syntactic properties mirror semantic ones. The divergence comes at the point where the crucial syntactic properties are thought to be more fine-grained than common-sense syntactic categories, i.e. the claim that LF can cross-cut syntactic types, say assigning different logical forms to two tokens of ‘the F’. The objection to the proposal of this section is that, in the particular borderline cases with which we will be interested, nothing in the account to date is able to provide the objective, verifiable condition for semantic category for noun phrases which we are in search of. To decide whether to ascribe a token of ‘the F’ a logical form which makes it a singular term or one which makes it a quantified noun phrase we are asked to look to syntactic properties like weak-crossover; yet determining whether an expression displays this behaviour seems so intimately bound up with whether we think it is a singular term or a quantified noun phrase that this cannot provide autonomous support for semantic assignments. Although this might not be thought to provide a knock-down argument against this rendition of the ambiguity stance, I do take it to provide further motivation for maintaining what I have anyway suggested is our intuitive position in this area; viz. that syntactic category reflects semantic kind.

(4) The Way Ahead:

We have looked at three proposals in answer to our original question of how to assign semantic forms to noun phrases. The first approach, the unified stance, claimed that common-sense syntactic category could be taken as indicative of semantic kind; while the other two dismissed this claim. The second
approach rejected any kind of principled mirroring constraint between syntax and semantics, looking instead to intuited behaviour across different contexts (e.g. modal concerns), to indicate semantic status. The final approach accepted some kind of mirroring relation, but looked to syntactic properties other than syntactic category. I have suggested that it is the first approach which best accords with our pre-theoretic intuitions here and which is the most theoretically simple and attractive. Furthermore, I have indicated that the latter two suggestions both have prima facie worries associated with them: in the first case, because the behaviour taken to be constitutive of being a singular term does not seem to be so. In the second, since our judgements of syntactic properties which are more fine-grained than syntactic category seem so intimately interwoven with the predictions of a semantic theory for a language, it is unclear that they can provide the kind of autonomous support for that theory we were in search of. So far, then, the claim is that unification provides the best account of noun phrase classification.

Given all this, however, we might now begin to wonder why any theorist would reject unification - the approach has so far seemed attractive and trouble-free, so why would anyone advocate ambiguity? To answer this question, and to balance an account which has so far been overwhelmingly in support of unification, I would like to conclude by sketching the problems with unification, which have led some theorists to see ambiguity as the only feasible model of noun phrase classification. For the unified stance is open to two serious objections: first, the account may seem to fail for certain recalcitrant cases in natural language; and, second, the account conflicts with certain assumptions about the nature of reference and what it is to be a referring term which it may be thought we ought to preserve. In what follows I want to examine and ultimately reject each of these putative difficulties, first showing that the 'non-standard' cases which superficially appear to flout unification (which we will look at in Chapter 5) in fact do not. For, by appealing to the kinds of features interlocutors use for assigning syntactic category, and appending our unified approach with a
principled distinction between semantic and pragmatic meaning, all the difficult cases can be properly accommodated (as we will see in Chapter 6).

However, the ambiguity theorist at this juncture has a more potent objection up her sleeve; for it seems that the kind of pragmatic explanation to be appealed to by unification is threatened by a certain, prima facie appealing, conception of reference. The thought will be that if we embrace the kind of view of reference labelled as ‘syntax-independent’ in Chapter 1 (whereby the referential status of a singular term is thought to depend on features external to those a formal semantic theory is sensitive to), then the pragmatic move made in Chapter 6 is seriously undermined. For such a conception of reference throws into doubt the correlation between syntax and semantics which lies at the heart of unification. Thus, if we have no reason to expect semantic kinds to be mirrored in syntactic features, then the advocate of ambiguity may claim the recalcitrant cases (to be outlined in Chapter 5) demand semantic level accommodation. Tackling this positive argument for a move to ambiguity will be the work of Chapter 7.

However, having acknowledged the very serious concerns for unification which are waiting in the wings, I would like to pause before considering them in more detail and spend some time clarifying the positive account of noun phrase classification which is ultimately to be defended. For although we have so far established some pairings of syntactic category and semantic kind (viz. the suggestion that all definite descriptions be mapped to the semantic category of quantified noun phrase, and all demonstratives to the semantic category of referring expression) there remains a further question concerning expressions of the form ‘this F’ or ‘that G’. Expressions like these seem to pose a problem, for they apparently share features with both definite descriptions and demonstratives; so we might wonder, what should unification predict for them? The version of unification to be defended in this thesis will claim that expressions

\[\text{The claim that all demonstratives are referring expressions will be refined in Chapter 6 to 'all non-anaphoric demonstratives'; however, until then, this qualification will be suppressed.}\]
like these, which I will call ‘complex demonstratives’, should be treated as syntactically and semantically akin to bare demonstratives. However to see why this is so I would like to turn in the next chapter to consider these expressions in detail.
In the last chapter a proposal was made about how to ascertain the semantic category of any token noun phrase: we should determine whether it is a definite description or a demonstrative, etc., and assign it to the same semantic class as is demanded by paradigm examples of other expressions which share that syntactic category. Clearly, however, for this proposal to prove useful in practice we need to be able to assign token noun phrases to their appropriate syntactic categories. The suggestion has been that, conventionally, the form of words the expression contains will suffice for ordinary speakers to assess syntactic category; and, although this suggestion will be somewhat refined in Chapter 6, the thought remains that relatively superficial features can indicate syntactic kind. So, for instance, unification claims that all occurrences of the form of words ‘the F’ should be treated as sharing a single syntactic and semantic form. However, the matter becomes more complex when we turn away from definite descriptions and towards other expressions, like demonstratives; for a word like ‘that’ can appear both ‘free-standing’ and alongside predicates, and we might then wonder whether both kinds of occurrence are members of the same syntactic (and semantic) category or different. In this chapter then I would like to look at what I will call ‘complex demonstratives’ in some detail, clarifying the version of unification to be defended in this thesis by seeing how we deal with these expressions. To begin with we will look at exactly what is meant by the term ‘complex demonstrative’ and see why such expressions form a good subject for investigation within the current framework. Then we will look at four proposals for how to treat these expressions and see to what extent each accords with our intuitions about the nature of these phrases.¹

¹ Whether or not these options exhaust all possible approaches remains an open question; they do, however, constitute what I take to be the most plausible approaches.
Some demonstrative expressions, those we might term ‘bare demonstratives’, appear without any appended descriptive content (e.g. occurrences of ‘this’ or ‘that’ *simpliciter*). However, it seems that the majority of demonstrative occurrences do not follow this model. ‘Complex demonstratives’ is the collective term we might use for phrases formed by adjoining one or more common nouns to a demonstrative expression (e.g. ‘that cat’, ‘this happy man’), and let us call the combination of predicates immediately concatenated with the demonstrative in such phrases the ‘matrix’ of the expression. Such expressions are a particularly good subject of investigation for us at this juncture for they explicitly combine several aspects in which we are interested. In the first case, they are headed by a demonstrative term which, as we have already suggested, often appears as a paradigm singular term. Thus utterances of ‘this’ or ‘that’, accompanied by a pointing or other gesture to some object in the current environment, seem to display all the features we have thought to be characteristic of referential semantic status. However, in their complex form, the expressions contain a descriptive element and the form of the whole might thus be thought to be that of ‘determiner plus predicate’; a form we have associated with quantified noun phrases.

Our questions then are ‘what is the role of the descriptive element in complex demonstratives?’ and, following from this, ‘what is the form of the whole expression?’ In what follows I want to consider four distinct proposals for how to accommodate the descriptive information, two of which treat the whole expression as a quantified noun phrase, and two of which treat it as a singular term. I want to suggest that there are serious drawbacks for both analyses which treat complex demonstratives as semantically aligned with phrases like ‘the F’ or ‘some F’; for ‘that’ in ‘that F’ does not seem to be a quantifier in its own right, nor (without explicit further embedding) does it seem to be a part of a larger quantified noun phrase. So, I will suggest that the best way to treat these expressions is as semantically referential expressions. I will then consider two different ways of accommodating the descriptive component of the expression in a manner which allows this and I will argue that it is the final
approach to complex demonstratives (which I will label a ‘complex character’
account) which provides the most attractive model of these expressions. Thus
we will arrive at a concrete version of unification by the end of this chapter: all
expressions of the form ‘the F’ must be semantically analysed as quantified noun
phrases, and all bare and complex demonstratives must be referring terms.

(1) ‘That’ is a Quantifier:

One way to understand ‘that’ when it appears concatenated with a
common noun would be as some kind of quantifier, with the matrix serving as its
restriction. In this way the complete expression could be semantically aligned
with other restricted quantifier phrases (i.e. a complex demonstrative such as
‘that man’ would belong to the same semantic class as ‘all men’, ‘the man’, etc).²
However, there appears to be an immediate objection to such a move; for on this
kind of approach we appear to lose the stability of extension across worlds that
we associated with demonstrative expressions. That is to say, as Kaplan
emphasised, at any circumstance of evaluation or possible world where we
choose to assess a given demonstrative utterance, its referent should remain the
same; yet this is not a requirement for ordinary quantifier phrases.³ However,
this initial objection is easily overcome by regarding the demonstrative term as
functioning as some kind of rigidifier of the accompanying matrix. Thus, in the
same way that the actuality operator is often supposed to function, using the
term ‘that’ assures the agent that the object selected as the extension will always
be just that object which satisfies the description in the actual world/context of
utterance. In fact, Kaplan considers just such a possibility in relation to his
‘dthat’ operator in Afterthoughts:

If “dthat” is an operator, and if the description, which constitutes the operand
and thus syntactically completes the singular term, induces a complex element
into content, then the correct way to describe “dthat” is as a rigidifier...The
complete dthat-term would then be a rigid description which induces a
complex ‘representation’ of the referent into the content.⁴

² For an introduction to generalized quantifier theory and the notion of restricted quantifiers
see Barwise and Cooper (1981).
³ For the difference between context of utterance and circumstance of evaluation see Kaplan
(1977), pp.500-5.
So, is it feasible to treat ‘that’ as semantically akin to a quantifier plus actuality operator? Should we analyse complex demonstratives along the lines of:

\[(1) \text{ ‘That black cat’ } \equiv \text{ ‘actually (the black cat)’} \]

A slightly modified version of this approach has recently been put forward by Stephen Neale:

\[\text{[Although there are counterfactual considerations that preclude treating ‘that’ as equivalent to the ordinary definite description ‘the thing I am demonstrating’, it is not wholly unreasonable to suppose that something like this description captures its character. So it may be possible to view demonstratives as equivalent to actualized descriptions, and hence as quantifiers. For example, on the assumption that ‘I’ is a rigid referring expression, we might consider analysing a complex demonstrative ‘that } F \text{ in terms of, or at least as equivalent to, a description such as [the actual } F \text{ I am demonstrating]. On this account, a better name for complex demonstratives might be demonstrative descriptions.}^5\]

Although there are certain technical problems to be overcome with such an approach (as Neale recognises in his refinements of the account to attempt to accommodate objects not available for demonstration and the need to rule out narrow scope interpretations of demonstrative descriptions in attitude frames), there does not seem to be any knock-down argument against adopting this model.\(^6\) However, I would suggest that in terms of general motivation we still have reason to resist Neale’s approach; for it seems that the overall picture of noun phrases which this approach leaves us with is somewhat precarious. The tension arises from the conjunction of Neale’s avowed adherence to the semantic division of the class of noun phrases and the potential weakening of this distinction by the move of complex demonstratives from referential terms to the class of quantified phrases.\(^7\) For, if we allow that complex demonstratives are not to be treated as referring terms then it seems we must ask about the implications of such a treatment for other noun phrases, such as bare demonstratives. Clearly, the advocate of demonstrative descriptions has two

\(^6\) The refinements in question concern making the description more elaborate (ibid., footnote 41, p.120), and stipulating a wide scope-only reading for demonstrative descriptions in embedded contexts (ibid., p.108).
\(^7\) Neale’s (1993), p.90, paper opens with an adoption of the following principle: “(T1) Every meaningful noun phrase (NP) in natural language is either a semantically unstructured, rigid referring expression (singular term) or else a semantically structured, restricted quantifier.”
choices here: either bare demonstratives retain a referential analysis or they too are treated as quantifiers; yet neither of these options seems entirely satisfactory.

On the first option, whereby bare demonstratives remain referential, the theorist must deny that bare and complex demonstratives belong to the same semantic category. So the suggestion is that the act of concatenating a paradigm referential term with a predicate expression changes its semantic status to that of a quantifier; yet this class of demonstrative descriptions would seem (especially given Neale’s support for a unified, Russellian treatment of descriptions) to be the only case of such a remarkable change of allegiance. Furthermore, this stance must completely disregard the apparent similarities in the surface form and role of both kinds of demonstrative expression. For instance, we should note that the bare demonstrative too may come with additional information about the referent, garnered, for instance, from a detailed and complex demonstration, or descriptive information earlier in the conversation. In addition to this similarity, in the majority of cases, the alteration in semantic status will not be backed by any change in the referential intentions of the speaker, nor in the kind of proposition the audience might be expected to grasp for full understanding. Thus, to suggest that, despite the overwhelming similarity in function and surface form, bare and complex demonstratives nevertheless belong to distinct semantic categories seems to be a position in need of much further support.

So it would seem more feasible for the advocate of demonstrative descriptions to opt for the second alternative for bare demonstratives, whereby they too are analysed as quantified phrases. However, I would suggest that maintaining this claim is harder than may at first be envisaged. For instance, I think our intuition is that if anything is a distinct referring term, ordinary

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8 We might also note that in Latin and other inflected languages the bare demonstrative has the surface form equivalent to ‘that (thing)’, e.g. ‘illud’ or ‘istud’, which are both the nominative (subject) and accusative (object) forms of the neuter singular. This perhaps tends to reinforce the argument against bare and complex demonstratives occurring in different semantic categories.

9 Neale (1993), p.108, himself seems to prefer this option: “if simple demonstratives are to be included, then perhaps they will be treated as demonstrative descriptions composed of the determiner and a phonetically empty complement”. 117
appearances of ‘this’ or ‘that’, used to pick out objects in the immediate environment, must be. In the majority of cases where bare demonstratives occur they come replete with referential intentions and are available for (proper) use only where the agent has had the kind of direct contact with an object which theorists often take to be a prerequisite for genuine reference. So, if our distinction of semantic category is allowed to take notice of speaker intuition or intention, it would seem bare demonstratives should remain in the category of referential terms. Furthermore, if bare demonstratives were relocated to the class of quantified noun phrases, we might then wonder what such a move would entail for indexicals, for it seems hard to imagine, given the close parity of function stressed by theorists such as Kaplan and Perry, an argument to show that they belong to different semantic categories. Yet, if they too are treated as quantified phrases, then we are asked to accept an entirely distinct semantic category, motivated solely by the function of proper names. Yet, I would suggest, it is hard to see what sort of criteria could be brought to bear to distinguish such a category. For there does not seem to be any functional or behavioural test which would serve to distinguish proper names from bare demonstratives or indexicals.

There is a slight equivocation here (as pointed out by an anonymous reviewer for my (forthcoming) ‘Complex Demonstratives’) for of course not all bare demonstratives are used to pick out objects in the immediate environment; indeed some occurrences of bare demonstratives, just like their complex cousins, seem far from intuitively referential, e.g. those Wegner (1885) called ‘afterthought exposition’ (nachträgliche Exposition): “I want this before I leave: a kiss”. However, it is interesting to note that other putatively non-referential occurrences for bare demonstratives are quite hard to come by. For instance, it seems that they cannot be used for deferred ostension nor (at least in the singular case) in ordinary anaphoric contexts; e.g.:  
(a) I bought a donkey and had that donkey vaccinated.
(b) I bought a donkey and had it vaccinated.
(c) *I bought a donkey and had that vaccinated.
Difficulties such as these, contrasted with the evident suitability of bare demonstratives for use in clearly referential cases, lead me to contend that the most natural occurrence of bare demonstratives is in contexts where their status as singular terms seems beyond question. Yet this claim is anyway somewhat tangential; all that is required for the argument against demonstrative descriptions at this juncture is that at least some occurrences of bare demonstratives intuitively require analysis as referential expressions. This is undoubtedly the case with bare demonstratives used of perceptually salient objects.

For instance, Perry (1977), following Frege, uses ‘today’ and ‘I’ as two of his primary candidates of demonstratives.

It might perhaps be argued that the property of context-dependence could individuate the classes; yet, even if such a difference was thought to be enough to motivate distinct semantic
So, the dilemma here is that either we must assign bare and complex demonstratives to entirely different semantic categories (a move which seems quite ad hoc), or we must try to motivate a distinct semantic class of referential terms based solely on the function of proper names (yet how this might be done is simply unclear). Of course, the advocate of demonstrative descriptions might instead choose to jettison the assumption that there is a distinct semantic category of referring terms; yet this is an extreme position which brings with it its own problems, and it is clearly not an option Neale himself considers.\(^\text{13}\) If we wish to maintain the hypothesis that the class of noun phrases contains both referential and non-referential elements, we shall want some evidence that proper names behave in a way unlike any other noun phrase; yet, at least prima facie, it is hard to see what sort of differentiating condition this could be. It certainly can’t be intuition, speaker intention or relation to objects, nor can it be rigid designation or context independence. Of course, the claim might be that the differentiating feature lies at the level of logical form; but without some independent test for this covert level of structure we seem to be thrown back on some sort of linguistic intuition (intuitions which we have already noted seem unable to differentiate clearly the role of a perceptual demonstrative like ‘that’, an indexical expression like ‘you’, and the role of a name like ‘John’). So, although in the absence of anything better the demonstrative description position might perhaps warrant further exploration, since we have (as we will see below) a far more attractive position available from the account of demonstratives originally proffered by Kaplan, it is an approach I think we should reject. However, treating ‘that’ as a quantifier in its own right is only one way of implementing the idea that complex demonstratives are quantified noun phrases. An alternative route would be to divide the complex demonstrative into parts, retaining a referential treatment for the demonstrative part and proffering a non-

\(^{13}\) For an advocate of the view that all noun phrases are quantified expressions see Lappin (1996), where Montague’s ‘type-raising’ treatment of proper names is advocated; however, I would suggest that very few philosophers find such a move appealing.
referential analysis for the rest of the phrase; this proposal will be the subject of the next section.

(2) *Divide ‘That’ from the Matrix:*

The second suggestion for complex demonstratives *retains* the idea that the superficial demonstrative is a singular term akin to bare demonstratives and proper names, etc. In fact, it claims that there is no such thing as a *complex* demonstrative: *all* demonstratives are free-standing, bare demonstratives, but sometimes they appear as parts of more complex expressions. Hence, we are perfectly at liberty to analyse the demonstrative and the concatenated predicate in unrelated ways; they can belong to different syntactic categories and thus map to different semantic kinds. There would seem to be two ways of treating the expression as a whole on this approach: on the one hand, the expression might be thought to contain a bare demonstrative followed by a conjunction of atomic predicate statements; while on the other hand, the whole expression might be thought of as a quantified noun phrase which happens to contain a bare demonstrative. Both approaches agree with the analysis in (§1) that phrases of the form ‘that F’ are non-referential; however their route to this result differs as the demonstrative is *not* treated as a quantifier expression, but as a referring term. However, once again, I believe we can raise *prima facie* difficulties for these non-referential approaches to complex demonstratives.

On the first approach to divided logical form the demonstrative is to be analysed in terms of Kaplan’s theory of direct reference (operating simply to fetch a referent);\(^{14}\) whilst the matrix is to be analysed as a predicate sentence, attributing properties to the object the demonstrative has previously secured. So, for example, in ‘That cat is black’, we should analyse the demonstrative simply as the bare demonstrative ‘that’ (which ‘goes out’ into the context of utterance and secures an object, regardless of the properties that object instantiates), and we should then posit a separate predication, concerning whichever referent ‘that’ has secured, stating that that object is both a cat and is

\(^{14}\) Kaplan (1977).
black. We might imagine this logical form realised along the following lines, using an abstraction operator, ‘\(\lambda\)’ for the function realised by the term ‘that’:

\[
(2) \; [\lambda x. (Cx \land Bx) (\text{that})]
\]

(where ‘\(Cx\)’ = x is a cat, ‘\(Bx\)’ = x is black).

This will serve to refer to an object, say \(\alpha\), and then predicate of \(\alpha\) the properties denoted by ‘is a cat’ and ‘is black’. Roughly, we might think of a sentence containing a complex demonstrative as akin to one utilising a proper name plus a conjunction of properties (say ‘Tiddles is a cat and is black’). However, such an account seems to run into difficulties in modal cases; for our intuitions seem clearly to indicate that objects picked out via complex demonstratives need not possess the properties given in the matrix necessarily. Yet this is not obviously an intuition the approach to hand can preserve.

There seems to be a serious discrepancy between our judgements of the truth or falsity of utterances containing complex demonstratives under modal operators, and our judgements of those expressions when rendered as two distinct semantic parts, as the present account contends.\(^\text{15}\) To see this let us look at how the complex demonstrative ‘that philosopher’ functions under the necessity operator:

\[
(3) \; \Box (\text{that philosopher exists} \rightarrow \text{s/he is a philosopher})
\]

Confining ourselves to the notion of metaphysical necessity, (3) comes out as false; what it claims is that, if the object referred to by ‘that philosopher’ exists, then it must be, necessarily, a philosopher. Thus if (3) were true, objects picked out by complex demonstratives would have to instantiate the properties of the matrix essentially. Yet, a moment’s consideration shows that this is not what we expect from complex demonstratives at all. If I utter “That philosopher might not have written \(Descriptions\)”, and succeed in referring to a particular philosopher (say SN), then this very object will be the referent of my utterance at other possible worlds or circumstances of evaluation, despite any changes it may undergo. Particularly, whether or not the object instantiates the predicate ‘is a

\(^{15}\) This discussion has benefited from similar, succinct arguments to the same effect in Braun (1994).
philosopher' in other worlds seems irrelevant. What this illustrates is simply that we do not expect objects, picked out by complex demonstratives, to have to instantiate essentially the property used in the original context of utterance. This perhaps becomes even clearer if we recognise the existence of true utterances which actually assert this possibility directly, e.g. "That philosopher might not have been a philosopher". However, if we consider a sentence like (3) analysed along the lines of the current suggestion, it seems the results we derive are very different.

For if we adopt the proposal in hand, and analyse the complex demonstrative as an initial ‘free-standing’ demonstrative (operating as a term of direct reference) followed by a conjunction of any predicates mentioned, and then place this whole expression under a modal operator the resulting proposition is unquestionably true. This becomes clear if we formalise this proposal for treating (3), using an abstraction operator:

\[ \Box \[ \lambda x. (P_x \land E_x \rightarrow P_x) (\text{that}) \] \]

(4) \[ \Box \[ \lambda x. (P_x \land E_x \rightarrow P_x) (\text{that}) \] \]

(4) \[ \Box \[ \lambda x. (P_x \land E_x \rightarrow P_x) (\text{that}) \] \]

(where 'P_x' = 'x is a philosopher', 'E_x' = 'x exists' and '\lambda x' denotes the function specified by 'that').

The denoted function serves merely to supply an object, a value for the variable, which is then the subject of the ensuing act of predication; and it is indeed necessarily true that, if the object selected by the function is both a philosopher and exists, then it must be a philosopher. Treating complex demonstratives in this way reveals a logical form which has a conditional antecedent consisting of a conjunction of predicate assignments and a consequent which simply reiterates one of these conjuncts. There is thus no possible world where the antecedent is true and the consequent is false, and the whole modal proposition is thus true. Yet this is in stark contrast to the intuitive falsehood we originally recognised in (3).

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16 That the function selected here serves merely to supply a value for the variable of the predicative act becomes clear if we compare a similar formulation for a proper name. Thus:

\[ \Box \[ \lambda x. (P_x \land E_x \rightarrow P_x) (\text{SN}) \] \]
This disparity of truth and falsehood in modal contexts serves, I believe, to show that utterances of complex demonstratives should not be analysed as having the divided logical form suggested by this approach. However, we should note that there is a second way to construe this approach to complex demonstratives, which has been very recently put forward by Lepore and Ludwig.\(^1^7\) They divide the logical form of the expression as above but then treat the parts as combining within a larger quantified noun phrase, so the predicate assignments contain a quantified variable rather than a designator for the object referred to by ‘that’. They propose treating bare demonstratives as singular terms and complex demonstratives as quantified noun phrases which merely contain bare demonstratives. On this approach, the things we are calling ‘complex demonstratives’ are actually quantified expressions containing bare demonstratives and elided quantifiers; so ‘that cat is black’ comes to be analysed as an initial act of quantification, with ‘that’ and ‘cat’ serving as its restriction, and ‘black’ as its scope. The underlying logical form of a complex demonstrative is thus taken to be along the lines of:

\[
(5) \ [\text{some } x: \text{that}(x) \& Cx] \ Bx
\]

(although the ultimate choice of elided quantifier remains open). Such an account, they claim, avoids the discrepancy in modal intuitions levelled at the first approach by permitting two readings in modal contexts:

\[
(6) \ [\text{some } x: \text{that}(x) \& \text{philosopher}(x)] \ \text{philosopher}(x)
\]
\[
(7) \ [\text{some } x: \text{that}(x) \& \text{philosopher}(x)] \ [\text{philosopher}(x)]
\]

Although (6), where the necessity operator takes wide scope must be true; (7), where the necessity operator takes narrow scope will be false (where the object does not instantiate the property of necessity). It is this second reading which, Lepore and Ludwig suggest, matches our intuitions about complex demonstratives in modal contexts and they attempt to explain its predominance over the true, wide-scope reading on pragmatic grounds.\(^1^8\)

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\(^1^7\) Lepore and Ludwig (typescript).

\(^1^8\) It seems that there might also be further contexts in which a narrow-scope reading for complex demonstratives is required. For instance, ordinary quantified noun phrases with complex restrictions seem to allow for the elimination of one or more conjuncts from within the restriction, arriving at a more general proposition entailed by the first; thus ‘some child wants a strawberry ice-cream’ seems to entail that ‘some child wants an ice-cream’, and ‘every boy loves some girl from that school’ seems to entail ‘every boy loves some girl’ (we might...
However, even if the pragmatic explanation of the unavailability of the reading given in (6) is thought to be adequate, I would still suggest that such a picture has strong *prima facie* drawbacks. For a start, the theory must hold that we can, in *all* cases, settle on the referent of a demonstrative *independently* of appeal to any predicative content. The descriptive material in this picture appears in an entirely different conjunct from the demonstrative, thus it would seem to be unavailable to play a role in the prior determination of the object settled on by ‘that’. The claim is that we refer to an object simply by our use of ‘that’ within the more complex expression ‘that F’ and we then *go on* to predicate F-ness of this object. Yet it seems quite rare that a context succeeds in supplying a uniquely salient object without *any* restriction on the sortal type in question. Utterances of a bare demonstrative like ‘this’ or ‘that’ seem, in the majority of cases, simply inadequate to succeed in conveying a determinate reference. Furthermore, recent work in psychology seems to show that, in most situations where interlocutors are asked to select a referent through a pointing gesture alone, their rates of success are little better than chance; and this might be thought to further reinforce the central role for the sortal term in most demonstrative utterances.19

Furthermore, that we are going to have to countenance (and account for) at least some genuinely referential expressions which contain descriptive

formalise this as: ‘\([\text{every } x: Bx] \ [\text{some } y: Gy \ & \ Sy] \ Lxy \)’; where \(Bx = x \text{ is a boy}; \ Gx = x \text{ is a girl}; \ Sx = x \text{ attends school} \). However, complex demonstratives, which here simply are quantified noun phrases with complex restrictions, seem somewhat resistant to this move. For instance, ‘every boy loves that girl’ (which, for Lepore and Ludwig, has the form: ‘\([\text{every } x: Bx] \ [\text{some } y: \lambda y \ & \ Gy] \ Lxy\)’; where ‘\(\lambda\)’ indicates the function denoted by ‘that’) seems to entail ‘every boy loves some girl’ *only* in so far as the existentially quantified phrase takes wide-scope. For instance, ‘John believes that every boy loves that girl’ entails that ‘John believes that every boy loves some girl’ *only* where ‘some girl’ takes wide-scope; on a narrow scope reading each boy would be allowed to love a different girl, yet the original statement does not seem to entail this. To suppress this potential discrepancy and allow for conjunction elimination in overt quantifier phrases and complex demonstratives, it might seem that Lepore and Ludwig need to impose a wide-scope-only reading for complex demonstratives in these contexts; however, it is interesting to note that one of their criticisms of Neale’s account is that it requires what they regard as an *ad hoc* stipulation that complex demonstratives must be given wide-scope in indirect contexts.

\[\text{See Butterworth (1996a).}\]
information is revealed by our acceptance of deictic pronouns (such as ‘she’ said whilst pointing at a perceptually present woman). Here some role will have to be accorded to the descriptive information ‘is female’, yet apparently without this making the term non-referential. Yet for an object to be picked out by an utterance of ‘he’ or ‘she’ seems to provide us with much the same level of descriptive information as an object picked out by ‘that man’ or ‘this woman’, and this common aspect might be thought to be something we want our account of these phrases to reflect. However, given the current proposal, deictic pronouns and complex demonstratives must be treated as members of entirely different semantic categories. Finally, we might also wonder where the evidence for the elided quantifier comes from; for in general, prior to positing semantically present yet unvocalised material we seem to demand some quite explicit level of recoverability. For elided material to be licensed it should be possible for ordinary language speakers to recover it easily; so in the exchange: “Do you like fish?”, “Yes, I do”, we can allow elided material in the second utterance because it is vocalised in the first. Thus all competent language users should be able to recover the full form of the response in this exchange as “Yes, I do [vp like fish]” (where ‘[vp ]’ signals an elided verb phrase). Yet in the case of the proposed elided quantifier in complex demonstratives we might wonder what equivalent recovery data licenses our positing the unvocalised material. The problem with this account seems to be that, although we might have some theory-driven reasons to pursue such an approach, e.g. perhaps if it really was the only feasible way of accommodating the referential status of the demonstrative and the semantic role of the description, it does not seem to fit with ordinary speakers’ intuitions about these, or other expressions (such as pronouns).

So, then, I would suggest neither of the ‘divided logical form’ proposals seem entirely satisfactory; to put matters crudely, there simply doesn’t seem to be the ‘space’ for a conjunction in an expression like ‘that F’. Yet if this is right then both options canvassed for accommodating the matrix in a way which allows us to view the expression as a whole as a quantified noun phrase have been exhausted; despite the fact that both complex demonstratives and definite
descriptions contain overt descriptive material, there seem to be difficulties with treating them as sharing a semantic kind and a syntactic form. Perhaps then we would do better to reject this kind of proposal entirely, opting instead for an approach which preserves the similarity between bare and complex demonstratives by allowing them both to be treated as singular terms. It was noted at the outset that there are two ways in which we might pursue this view: on the one hand, we might treat the matrix as only pragmatically relevant; while, alternatively, we might treat it as semantically, though non-truth conditionally, relevant.

(3) The Pragmatic Approach:

One possibility for treating complex demonstratives would be to consign the matrix to merely pragmatic relevance. On this approach the matrix is viewed as serving (like pointing and other acts of demonstration) to help the audience settle on the intended referent, but bearing no semantic relation to the content of what is said. In this way, no matter how long or complex or precise the appended description is, the full semantic analysis of the expression is exactly the same as that given for the bare demonstrative: ‘that F’ is semantically equivalent to ‘that’.

Kaplan himself apparently noted the possibility of such a stance, writing in Afterthoughts:

Can an expression such as the description in a dthat-term appear in logical syntax but make no contribution to semantical form? It would seem strange if it did. But there is, I suppose, no strict contradiction in such a language form.\(^{30}\)

Such a position has important consequences for instances of misdescription (or what, on this approach, will be more accurately labelled as ‘misdemonstrations’); for it is now never the case that using a predicate, the extension of which fails to contain the intended referent, results either in the expression’s lacking a referent or its being false (the positions entailed by any degree of semantic role). If the descriptive material is of pragmatic importance only, the worst that can happen if one gets it wrong is ensuing communicative breakdown.

Just such an approach is advocated (albeit tentatively) by Larson and Segal in their *Knowledge of Meaning*, where they write, when considering the utterance “That fox is making a terrible mess”, as said of a badger:

> What (if anything) did you refer to with your utterance of *that fox*? And was what you said true or false? Our intuitions are not entirely clear on this point, but they tend toward the judgement that in uttering *that fox*, you referred to the badger. Even though the animal in question was not a fox, you still succeeded in picking it out with your utterance. Furthermore, your utterance was true....On this view, the contribution of [the concatenated common noun] can be at most a pragmatic one: it functions as an often helpful “information pointer” to the object that the utterer is getting at. But this role is completely nonsemantic, and when the information is incorrect, it can be ignored.21

An approach such as this might also be advocated for referential expressions with a more ‘covert’ level of descriptive information, such as pronouns. For instance, the male personal pronoun ‘he’ in English generally seems to encode certain descriptive information, i.e. that the referent is male, though such a descriptive component makes no appearance at the level of surface form, as it does in a complex demonstrative such as ‘that male’. If pronouns are (at least sometimes) to be treated as genuinely referential then, given the assumption that referential expressions may ignore any descriptive element they contain, this implicit description in pronouns might also be treated as of pragmatic significance only. Thus, an utterance of ‘he’ might succeed in picking out an object which is not in fact male, although communication of this fact would be put in jeopardy by the use of the pragmatically unsuitable singular term.

So, the pragmatic approach allows us to maintain a referential treatment of complex demonstratives (and other singular terms with a descriptive element) without contravening the assumption made in Chapter 2 as to referential terms’ simplicity; however, there are problems with adopting such an approach. For instance, one initial consideration might be how well such an account fits with our acknowledged aims in semantic theorising. For, although such an approach can be made to cohere with compositional constraints still, I would suggest, adopting it means imposing some *prima facie* undesirable constraints on our theory (and the language faculty that is, on many accounts, supposed to embody

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it). For in every other area of linguistic expression it is the aim of our theory to uncover, and remain highly sensitive to, structure, manipulating correct grammatical form and meaningful parts to deliver a meaning for the complex whole. Yet this proposal for complex demonstratives suggests that our semantic theory should be somewhat insensitive at this point. Despite the fact that, at least at some superficial level, the form of ‘that F’ appears similar to ‘the F’, the proponent of semantic exclusion for the matrix must hold that our theory treats only the latter as possessing a structured meaning, constructed (in part) out of the meaning of the concatenated predicate, while treating the former as an unstructured whole.

In addition to this kind of theoretical concern, it also seems open to question whether the semantic exclusionist can account for all the data of natural language. For instance, let us consider the validity or otherwise of certain natural language arguments, for it seems that there are apparently valid argument forms which can only be captured if we allow the predicative material in complex demonstratives some kind of semantic role. For instance, let us consider the agent who reasons thus:

(8) All dentists are paid more than all doctors
    That dentist is paid more than all doctors

At least prima facie, this would appear to be a perfectly valid form of argument, moving from a general premise specifying a certain relation holding between objects of given types, to an instance of that relation. However, if the predicative material in the complex demonstrative in the conclusion is given no more than pragmatic significance, it is hard to see how this apparent validity could be captured. If the syntactic appearance of ‘dentist’ in the conclusion is doing no more work than providing a contextual aid for the audience to secure an object, then the apparent validity of the argument dissolves. The underlying semantic structure of the argument might, on this approach to the matrix, be rendered thus:

(9) \( \forall x \forall y ((x \text{ is a dentist} \land y \text{ is a doctor}) \rightarrow x \text{ is paid more than } y) \)
   \( \forall y ((y \text{ is a doctor}) \rightarrow \text{That}_1 \text{ is paid more than } y) \)
Since the specification of the referent of 'that₁', as belonging to the class of dentists, is missing from the semantic analysis of the conclusion, the argument is now invalid. Thus, it would appear, only by granting a semantic role to the appearance of the predicate in the conclusion can validity be preserved.

Of course, the force of this argument might be queried, for, despite initial appearances, it might be contended that the original form, (8), is not in itself a valid argument either. A critic who took this line might complain that our intuitive judgements about validity are simply confused; (8) appears valid only through our willingness to supply a missing premise. In this way, (8) itself would be thought to be invalid as enthymematic; the completed, and thus valid, form of the argument being:

(10) All dentists are paid more than all doctors

That₁ is a dentist

That₁ is paid more than all doctors

Although it might seem somewhat surprising to have to render all arguments of the form of (8) in the more complex form of (10), it is open to our critic to hold that this merely reflects our lack of warranted intuitions about the structure formally valid arguments must take. However, I would still suggest that, in the absence of good, independent argument in favour of the pragmatic approach, the recognition of the apparent role played by the contained predicative material in linguistic contexts like these should serve to make us somewhat uneasy about this stance.

The last, related worry for the pragmatic approach I should like to consider concerns its failure to capture the apparently contradictory nature of certain occurrences of complex demonstratives. For, if we accord the matrix no semantic role whatsoever, it appears that we may construct sentences of the form 'that F is not-F' without constructing anything contradictory (since the first appearance of the predicate in this context is semantically otiose). For instance, imagine an utterance of:

(11) That doctor is not a doctor
Which is semantically equivalent to:

(12) That is not a doctor

Here we have clearly lost any notion of the contradictory nature of our original assertion since the predicate ‘is a doctor’ appears only once. This, I would suggest, is highly counterintuitive: it seems that the agent uttering (11) has, in normal circumstances, uttered something seriously wrong, and not merely made some kind of pragmatic mistake. Furthermore, if we allow features beyond the pragmatic matrix to play a deciding role in determining the referent, e.g. perhaps the directing intention of the agent which may not essentially involve the property mentioned in the final utterance, it seems as though (11) may, on the approach to hand, express a literal truth. For, in those circumstances where the intended referent, \( \alpha \), is not a doctor, and the speaker succeeds in referring to \( \alpha \), then she will say something true of that object. Yet, the contention that an utterance such as (11) may be literally true is, I think, something most natural language speakers would balk at. So, because the pragmatic approach runs counter to the aim of semantic theory (to discern and preserve structure wherever possible) and because it contravenes evidence from natural language (i.e. valid argument forms and apparent contradiction), it seems to me that we should resist the move to consign concatenated predicates to the realm of the merely pragmatic.\(^2\)

\(^2\) Of course, this is not to say that there are no contexts in which an utterance of (11) would be suitable; for instance, where an earlier speaker has asserted that the object in question is a doctor, an interlocutor who knows this to be false might reply with (11). However, in these kinds of cases, we might think of the first occurrence of the predicate as being mentioned rather than used, so that the utterance is more akin to “That so-called ‘doctor’ is not a doctor”. There is a further objection which might be levelled at the pragmatic approach, concerning the occasions when anaphoric interpretation is possible. For instance, in the sentence: ‘every father with a son and a daughter loves that girl more’, we might feel that, if this sentence is well-formed at all (a claim which is itself disputed, with some people holding that such formulations can be well-formed only using ‘the’ and not ‘that’), then the only candidate for antecedent status is the quantifier phrase ‘a daughter’. ‘A son’ seems to be ruled out by the mismatching of the gender of its restriction and the predicate ‘girl’. Thus, we have:

(1) Every father with a son and a daughter loves that girl more
(2) Every father with a son, and a daughter loves that girl more

However, if the matrix of the demonstrative has no more than pragmatic input, then the anaphoric reading in (2) where the complex demonstrative is bound by the antecedent phrase ‘a son’ can be only pragmatically, not semantically, prohibited; a result we may find counterintuitive. The trouble I see with this line of attack is that it presupposes that the logical form of anaphorically bound expressions can be taken as indicative of the logical form of similar, unbound expressions, an assumption which we will have cause to question (Chapter 6). For this reason then, the above argument is not explored in the main text.
Let us recap briefly: we are looking at complex demonstratives in order to establish whether such expressions should be aligned with definite descriptions or bare demonstratives. We have looked at three proposals so far, all of which can be thought of as respecting the claim made by the unified theorist that semantic kind is reflected in syntactic category, even though each account differs on the kind of syntactic analysis the expression is given and thus the semantic structure it is thought to have. However, I have tried to show that each of the accounts considered thus far diverges from our intuitive view of these expressions at some point. For instance, treating complex demonstratives as quantified expressions where the demonstrative itself is construed as a kind of quantifier (as Neale suggested) runs into problems with our account of other apparently referential expressions and requires the kind of ad hoc stipulations and constraints required of any semantic theory which attempts to handle apparently referential expressions as descriptive phrases (e.g. it must stipulate a wide-scope only reading for complex demonstratives in propositional attitude ascriptions). On the other hand, any account which seeks to divide the demonstrative from its matrix (perhaps by treating them both as separable constituents of a larger quantified phrase) must assume, apparently counter to empirical evidence, that agents can always determine a referent simply through an utterance of ‘this’ or ‘that’, independent of any sortal restrictions. Furthermore, they must assume that utterances of the form ‘that F’ contain covert conjunctions and, perhaps, elided quantifiers; yet these are additional logical elements we seem to have little independent evidence for.

Finally, in this section, we have seen that, although treating complex demonstratives as referring terms seems to accord best with our intuitions here, doing so by making the matrix purely pragmatic seems to run into difficulties. For such an approach cannot easily accommodate intuitively valid argument forms and certain cases of contradiction. So, we come now to the fourth and final suggestion as to how to analyse these expressions; the thought is that we should treat them as genuinely singular terms, yet accord the matrix some degree
of semantic significance. This will be possible if we recall the kind of ‘two-tiered’ account of demonstratives which was put forward by Kaplan; for it seems that we may grant the matrix semantic significance at the level of character, without granting it a semantic role in the truth conditional content of the expression.

(4) **Complex Characters:**

The suggestion is that the matrix should form part of the character of the complex demonstrative; that is to say, it lays a constraint on the selection of the referent in the initial context of utterance. As we saw earlier, in *Demonstratives*, Kaplan formulated two aspects to the meaning of a demonstrative term: first, there is the content, the truth evaluable component of the token demonstrative utterance which remains constant across circumstances of evaluation and which is exhausted by the object referred to; second, there is the character, which is a ‘meaning rule’ or function, which, together with the context of utterance, delivers the extension of the utterance. In other words, it is the rule which takes one from an utterance of “That” plus the context, to the referent; and it is here that we might envisage the matrix having a role to play. In this way the character of a complex demonstrative would be thought of as embodying the complex meaning rule:

\[(CD) \text{ An object, } \alpha, \text{ is the referent of an utterance of “that } F \text{” iff:} \]

\[\text{i. } \alpha \text{ is the object being demonstrated by the speaker}^{25} \]

\[\text{and} \quad \text{ii. } \alpha \text{ satisfies } F\]

For an object to be the literal referent of a complex demonstrative it must be, first, the demonstrated object, and, second, it must fall under the extension of the matrix. An object thus cannot be the referent of “that cat” unless it is both the speaker’s demonstrated referent and it is a cat. If no object meets both criteria,

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24 Kaplan (1977), p.506, states his dual account via the aphorisms:

Meaning + Context ⇒ Intension

Intension + Possible World ⇒ Extension.

25 (i) is dependent on one’s view of what is criterial in determining the referent in a demonstrative utterance. If one accepts Kaplan’s later (1989) view that directing intentions are paramount (as does, e.g., Bach (1992)), (i) should instead read:

(i’) \( \alpha \) is the speaker’s intended referent.

However, this in no way affects the current proposal.
then the demonstrative utterance fails of reference: it is literally empty, lacking a truth condition.\textsuperscript{26} This preserves the mirroring condition of unification in a most appealing way: for it allows us to maintain the claim that bare and complex demonstratives share a syntactic category, whilst recognising that the predicate seems to have a more important role to play than simply being some (potentially cancellable) additional demonstration.

There is some indication that this is an idea Kaplan himself was drawn toward in \textit{Demonstratives}; for although most of his discussion of the function embodied by the character of demonstratives treats them as simple, non-complex entities, he does write:

\begin{quote}
It is possible...for a demonstration to have no demonstratum. This can arise in several ways: through hallucination...through a sortal conflict (using the demonstrative phrase ‘that F’, where F is a common noun phrase, while demonstrating something which is not an F), and in other ways.\textsuperscript{27}
\end{quote}

I believe Kaplan was right to envisage reference failure as ensuing from a mistaken use of a matrix; for, by granting the matrix a semantic role in the character of the expression we are able to avoid all the objections levelled at previous treatments. There are no modal disparities to be accounted for (as there were for semantically divided accounts); no \textit{ad hoc} stipulations required or threats to the referential status of bare demonstratives (as for demonstrative descriptions); no deviations from the general aims of semantic theorising nor, as we will see, problems with validity and contradiction (as for pragmatic accounts). Instead we have an account which preserves our fundamental picture of singular terms (as possessing a propositional content individuated by an object rather than by a description), whilst admitting some degree of semantic relevance to the matrix of complex demonstratives and the descriptive element of pronouns. However, we should be aware that positioning the descriptive information within the meaning rule for the complex demonstrative suffices to make that information semantically relevant only given an antecedent acceptance of a

\textsuperscript{26} It is perhaps of note that a rule such as (CD) can be easily accommodated into the truth theoretic framework of theorists such as Larson and Segal by construing the matrix as a constraint on their selection relation, Σ, which serves to select sequences against which demonstrative utterances are assessed for truth or falsity.

\textsuperscript{27} Kaplan (1977), p.515 (\textit{italics} added).
Kaplanian view of character. If, contra Kaplan, we were to embrace a view more akin to Higginbotham's (1994) 'demonstrative sense' (whereby the linguistic rule attached to a context-dependent term formed part of a non-semantic lexical entry for that expression) and we were to maintain that the descriptive information in the matrix formed part of this lexical entry, then, once again, the descriptive material would be non-semantic. On this approach it would seem that holding the matrix to be part of the 'sense' of the expression would not avoid certain objections labelled at our previous pragmatic approach, since it too would accord the information a non-semantic status.

However, as we saw in Chapter 2, there were difficult issues to be faced by the non-semantic approach to character, concerning its ability fully to interpret natural language speakers. Furthermore, I would suggest, the claim that the potentially very elaborate material contained within the matrix of a complex demonstrative constitutes part of some non-semantic sense is not itself intuitively convincing. Given a complex matrix such as is found in 'That blonde-haired, blue-eyed, second son of a second son' it seems to me simply unclear what the proposal that this information is part of a linguistic rule, yet non-semantic, could amount to. It is clear that there is much meaning to be recovered from such an utterance, a degree of meaning which is not accounted for simply by discovering the referent of the utterance. The proposal to hand is able to offer some answer to this intuitive recognition, for we are asked to accept that this information is available to the agent, but only through some non-semantic lexical entry for the expression. However, it would seem strange, I would suggest, to find that the processes required for understanding the above utterance drew on completely different resources from those at work in understanding an utterance such as 'The blonde-haired, blue-eyed, second son of a second son'; with the first utilising lexical information and the second utilising genuinely semantic information. This might seem to require the same kind of information to be encoded within our system twice: once, in the lexical body of information, for when a predicate appeared concatenated with a demonstrative
term, and once again, in the semantic, truth conditional component, for predicates as they occur within quantified noun phrases.

In addition to this, we have further positive reasons to want the information contained within the matrix to be semantically present. For, if we adopt an account of character as a simple function embodied by particular types of demonstratives, ignoring the contribution of the matrix, then it seems all tokens of complex demonstratives headed by, say, ‘that’, must embody the same function. That is to say, if the rule these expressions invoke is just that taking the agent from a bare demonstrative utterance and a context to an extension, this function will remain constant whatever concatenated predicates appear. So:

(13) That
(13’) That black cat
(13’’) That black cat such that (p v ¬p)

will all possess exactly the same character; will all embody exactly the same function from context to content. Yet, intuitively this seems wrong; there are differences in the meaning of each of these complex demonstratives which we wish to be able to capture. However, adopting the present stance, as Braun has highlighted, means that we can offer a principled explanation of these intuitive differences in meaning. For, if character can be a complex function which incorporates the presence of the matrix, then each of (13)-(13’’) have a different character, according to the different elements they contain. Thus each of (13)-(13’’) have distinct semantic interpretations and their intuitive differences in meaning are thus only to be expected.

Furthermore, it seems that adopting complex characters for complex demonstratives allows us to construct a unified account for all descriptive material in all referential expressions. For, as we noted earlier, though complex demonstratives are the only apparently referential expressions to ‘wear their predicative material on their sleeve’, so to speak, many (indeed, it might be argued, all, given context-dependent accounts of proper names) singular terms

\[28\] Braun (1994).
possess a more 'covert' kind of descriptive information. Thus we see that associated with the first-person pronoun (Perry's 'essential indexical') we have a descriptive condition such as 'is the producer of the current token';\(^{29}\) associated with the third-person pronoun 'she' with have the descriptive condition 'is female'; and, perhaps, associated with the proper name 'John' we have the description 'is called "John"'. In each of these cases, there is descriptive information contained in the linguistic type, though it does not succeed in surfacing at the level of spoken form. Yet, on almost all accounts this sort of descriptive material is allowed to be semantically accommodated without the expression in question thereby being treated as a quantifier phrase. We might then argue that, just because the descriptive condition which the referent of a complex demonstrative must satisfy makes it to the surface level, this does not in itself demand an analysis any different from the descriptive condition of any other singular term. Just as a quantified noun phrase retains this semantic status even where it overtly contains referential material; so, the thought is, a singular term can retain this semantic status whether it overtly or covertly contains any descriptive material.\(^{30}\)

So by allowing the matrix a semantic role in the character of a complex demonstrative we are able to achieve many things. We accommodate the intuition that an utterance of 'that' concatenated with a predicate, perhaps accompanied by a demonstration and serving to indicate an object in the current environment, is no less a referring term than an utterance of 'that' in the same circumstances without a concatenated predicate. We preserve the idea that singular terms have a propositional content which is exhausted by the object they refer to, but allow for the idea that the often complex descriptive material in a

\(^{29}\) Perry (1979).

\(^{30}\) Neale (1990a), p. 100, makes this point (that referential material within a quantified phrase doesn't suffice for referential status for the whole expression) very clearly in the case of descriptions: "To the extent that one countenances indexical and demonstrative referring expressions...if 'b' is an indexical or demonstrative, then '[the x: Rbx]' is a perfectly good Russellian description, albeit one with an indexical or demonstrative component...a description may contain overtly referential components (including indexical and demonstrative components)...And this is very different from saying that the description is interpreted referentially".
complex demonstrative is not only syntactically or pragmatically present, but succeeds in contributing something to the meaning of the whole expression. Furthermore, this latter point allows the approach to avoid the criticisms earlier levelled at the pragmatic approach. As we saw above, that approach had *prima facie* problems with certain apparently valid inference patterns and apparently contradictory statements, since the validity or contradiction depended on the (then only pragmatically present) matrix. Given the complex characters account, although the matrix is not truth conditionally present so the problematic cases cannot be given a totally standard explanation, we do have a very good account of why the phenomena holds in each case.

For instance, turning to validity first, the argument form we envisaged was:

\[
\text{All } F\text{'s are } G \\
\text{That } F \text{ is a } G
\]

Now, both the pragmatic and the current account must claim that, given just the truth conditional content of the premise and the conclusion, the validity of the argument is lost; for both render this aspect as:

\[
\text{All } F\text{'s are } G \\
\alpha \text{ is } G
\]

However, in addition to this, the complex characters account can note that, since the matrix of the complex demonstrative forms a constraint on the expression’s picking out any object at all, there will be no possibility of the premise being true, and the conclusion referring successfully and being false. For either the demonstrative will fail of reference or it will pick out an F-object, in which case it must also pick out a G-object if the premise is true. So, in any situation where the demonstrative picks out an object, if the premise is true the conclusion must be. This, the advocate of complex characters claims, is sufficient to explain the intuitive validity of the argument form in question: for there is no situation in which the premise can be true and the conclusion false.\(^{31}\)

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\(^{31}\) We might note that such an explanation is possible only given a rejection of negative or neuter free logics, which would allow the conclusion to be false when the referential term failed
The solution to the issue of contradiction is similar; for although again the possibility of a contradiction in truth conditional content is ruled out by both the pragmatic and the complex character accounts, the latter can still explain why someone who utters ‘That F is not-F’ has made a serious mistake. For there will be no world where this expression can say something true about an object; in any world where the expression secures a referent, the utterance must be false. If the complex demonstrative secures any object at all, it secures an F-object; thus a sentence predicating ‘not-F’ of this object must be false. If I utter ‘That doctor is not a doctor’ either I fail to refer or I say something false, and this again might be thought sufficient to underpin our intuitions of contradiction. I conclude, then, that the most successful account of complex demonstratives is the complex characters model and it is this account which will be adopted in what follows. Given this, the unified account advocated in the last chapter can now be seen as making a very concrete proposal about noun phrase classification: it claims all definite descriptions share a single semantic category, viz. that of quantified noun phrase; and it claims that all bare and complex demonstratives share a single semantic category, viz. that of referring expression. Given a token noun phrase, an agent can proceed to determine its semantic allegiance simply through determining which common-sense syntactic category it belongs to; with bare and complex demonstratives mapping to one semantic category and definite descriptions to another.

However, there is one further issue the opponent of the complex characters approach might draw attention to at this juncture; for it seems to be the case that some occurrences of complex demonstratives in natural language do not cohere well with the proposed account. For instance, in arguing for the pragmatic approach, Larson and Segal noted that an utterance of ‘that fox’ might succeed, in the right circumstances, in talking about a badger; and, in general, it seems that it is always possible to envisage contexts in which a complex of reference. This, we might feel, lends further impetus to the search for a more plausible alternative to Burge’s (1974b) account of empty terms, explored here in Chapter 2.
demonstrative containing the predicative material ‘F’ manages to convey a proposition about a non-F object. Yet this is in direct contrast to the claims of the complex characters approach. The position advocated above holds that the literal referent of an expression of the form ‘That F’ must be an F-object; yet now we seem to be forced to admit that in ordinary discourse an expression of this form may be used to talk about a non-F object. Clearly, if our account is to be accepted something more must be said about these cases. However, on reflection, it seems that this problem for our proposed account of complex demonstratives merely reflects a wider challenge to the unified stance as a whole; for, as noted at the close of Chapter 3, not all occurrences of noun phrases in natural language appear to support the predictions of unification. That is to say, there appear to be some perfectly acceptable uses of noun phrases in natural language where intuition demands they be analysed in a way which diverges from other members of their syntactic category. To appreciate this challenge properly I would like to turn, in the next chapter, to consider other occurrences of noun phrases which appear problematic for the unified stance. Then, in Chapter 6, I will argue that all of what I will call these ‘non-standard’ occurrences of noun phrases can be perfectly well handled by a (suitably equipped) unified theory.
Chapter 5 ~

Non-standard Noun Phrases

5.93 A main cause of philosophical disease - a one-sided diet: one nourishes one’s thinking with only one kind of example.

Let us survey the position so far: we began by adopting a well-known assumption about the nature of noun phrases, to the effect that this linguistic category divides into two distinct semantic categories, quantified noun phrases and referential terms, and we raised the question of what kind of relation it was that the latter category, of referential terms, was supposed to capture. We then examined each of these categories in turn and suggested a possible way to handle them within our truth theoretic framework. Then, in Chapter 3, we raised a central question concerning how to assign semantic category in any particular case and we came away from that discussion with the idea that the most intuitively appealing and, so far, unproblematic view was what we called the ‘unified hypothesis’: the idea that common-sense syntactic classes within the syntactic category of noun phrase (of the kind first examined in Chapter 1) could indicate semantic kind. The suggestion was that we might successfully trace the profile of semantic classes by drawing the outlines of syntactic classes like definite description and demonstrative. These common-sense classes were thought to be recognisable, by speakers and theorists alike, via features like the form of words of the expression, independently of appeal to semantic properties. So far, all the cases we have looked at have supported this proposal; for all expressions of the form ‘the F’ have been well handled as quantified noun phrases and all expressions of the form ‘that’ or ‘that F’ have seemed to function as singular terms. Now, however, we are ready to appreciate a problem with the approach to hand: for not all occurrences of noun phrases in natural language seem to lend it the kind of support we have so far recognised.
The opponent of unification may seem to have an easy task dismissing the hypothesis that common-sense syntactic category indicates semantic category, because a proper examination of the range of cases in which noun phrases can appear seems immediately to reveal the inadequacy of such an approach. The unified stance, it might seem, is simply not supported by natural language. The primary task of this chapter then will be to look again at the occurrences of noun phrases in natural language, searching in particular for those cases which, \textit{prima facie}, are problematic for the unified stance. Thus we will be concerned with apparently proper uses of superficially quantified noun phrases which appear to behave as semantically singular terms and uses of superficially singular terms which seem to demand quantificational semantic analyses. In general, I will class all such uses as ‘non-standard occurrences’ of noun phrases and, as we will see, such cases provide putative counterexamples to the unified stance. However, having raised the problematic cases in this chapter, it will then be suggested in the next that they can be well accommodated, in an independently motivated and appealing way, from within the unified stance.

The first set of cases we will look at concern quantified noun phrases and, specifically, definite descriptions. I think it is fair to say that these constitute the best recognised instances of what I am calling ‘non-standard’ cases in the literature; yet I want to suggest that the emphasis on these expressions is in general unwarranted (non-standard definite descriptions are not different in kind to, or apparently more common than, certain other non-standard noun phrases). Furthermore, it has led to a slant in the debate which has had important and unwelcome consequences for discussions of noun phrase classification, as we will see in Chapter 7. What we might think of as a somewhat parochial concentration on definite descriptions runs the risk of leading us to ignore the wider issues of how we make semantic assignments to noun phrases across the board. So, in order to redress the balance, the second set of cases we look at will be non-standard occurrences of singular terms. Furthermore, we will see that there is one member of this set, viz. ‘anaphoric’ singular terms, which is different in kind to the non-standard definite descriptions we will look at; yet this
difference only serves to make the anaphoric case a more powerful cause for concern for the advocate of unification than non-standard definite descriptions.

(1) **Non-standard Occurrences of Superficially Quantified Noun Phrases:**

The natural language evidence in question here is superficially quantified noun phrases behaving in such a way as apparently to demand referential semantic analyses and there are two kinds of case we will concentrate on. The first kind of example, perhaps the most commonly appealed to in arguments for semantic ambiguity, concerns a distinction drawn by Donnellan between different occurrences of definite descriptions. However, as we will see, the phenomenon Donnellan appeals to is quite general amongst superficially quantified noun phrases and thus would seem to provide a plethora of potential counterexamples to unification. The second problematic case turns on a potential disparity between the non-uniqueness of the descriptive material appealed to and the uniqueness required for denotation by our semantic analysis of the quantifier. As far as I am aware this difficulty, which we will call ‘incompleteness’, is always given with respect to definite descriptions alone; yet as we will see below, the general problem once again seems to be one which certain other quantified noun phrases are susceptible to. The suggestion will be that, in any case where our semantic analysis of the quantifier phrase in question contains a requirement for a specific cardinality (for instance, as in ‘exactly two’ or ‘just one’) the problem of incompleteness can be generated. So the question of disparity between the cardinality of the quantifier and the number of objects which satisfy the restricting predicate in the domain will be seen to range wider than definite descriptions. In both kinds of case, then, the argument will be that, despite superficial appearances to the contrary, we have expressions which behave in a way more reminiscent of referential expressions and thus that unification is put in jeopardy. So let us look at each of our kinds of putative counterexample in more detail.

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1 Donnellan (1966).
In ‘Reference and Definite Descriptions’ Donnellan first brought to light the fact that there are contexts in which agents utter descriptions apparently not with the aim of ‘casting about’ the world for any object which satisfies certain predicates, but precisely with the aim of referring directly to a given individual:

Definite descriptions, I shall argue, have two possible functions. They are used to refer to what a speaker wishes to talk about, but they are also used quite differently... The failure to deal with this duality of function obscures the genuine referential use of definite descriptions.²

He thus distinguishes two different kinds of definite description: the ‘attributive’ and the ‘referential’. Obviously if it can be shown that even a single occurrence of a definite description functions in a genuinely referential way then the unified Russellian claim to have given a single, universal account for all definite descriptions must be abandoned.³ However, all our examples so far seem to have fitted the pattern proffered by the quantificational schema very well, so what evidence can Donnellan have for positing a different role for them? To see this we will do best to outline a famous example given by Donnellan himself. Here he asks us to compare the activity of a single description in two different scenarios:

Case One:

You and I are walking home one night when we come across the body of poor Smith, horribly murdered. Aghast at this senseless killing of a man renowned for his kindness and generosity, I exclaim to you “Smith’s murderer must be insane!”

Case Two:

You and I are watching the trial of a man, Jones, who stands accused of murdering Smith. As we gaze across the court at the man in the dock, who is universally believed to be guilty of the crime, we see from his increasingly odd behaviour that he is clearly not in his right mind and I exclaim to you “Smith’s

² Ibid., p.281.
³ There is much exegetical debate about Donnellan’s own stance concerning the putative counterexamples he brings to light (see, e.g., Devitt (1981) and Bertolet (1980)); for it is unclear to what extent he takes himself to be genuinely challenging the Russellian semantic analysis, rather than simply bringing to bear a phenomenon the quantificational story needs to account for. However, in what follows we will, perhaps somewhat unfairly, attribute the stronger position to Donnellan, whereby he provides a direct challenge to the quantificational theory.
murderer must be insane!"

Now, in both scenarios we have used exactly the same words to try to talk about an object in the world, but intuitively the way we have done this in the two cases is very different. In the first case it does indeed seem that the Russellian schema exactly mirrors the way in which my utterance is working: what I want to claim is that there is a unique individual which instantiates the property of murdering Smith, and whichever individual that is also instantiates the property of being insane. If the object in the singleton set described by the first part of the sentence is also a member of the set defined by the second predicate, then what I have said is true, otherwise not. However the difficulties begin when we turn to the second situation, for the very same description seems to be serving a different purpose here. In Case Two, what I say seems directed at precisely one individual, the man in the dock we are both staring at. I want to say of that very man that he is insane, regardless of whether or not he does in actual fact fall under the extension of the first predicate. To see this, imagine that it was not the man in the dock who murdered Smith but really the crime was committed by the extremely rational Brown, who has succeeded in framing the unfortunate Jones. If this information is not known to either of us, then it would seem irrelevant to the truth conditions of my utterance. I mean to comment on the mental instability of the accused and that is the person you would clearly take my words as about: why then should we be concerned with the lack of insanity of some other person, whom intuitively no one was talking about? Yet if this is right then we have a clear case of someone uttering a description with the intention of it operating like a directly referential term (i.e. going straight to an object in the world) and the term itself succeeding in operating in this manner. Thus the conclusion seems inescapable: some descriptions do not operate quantificationally and the Russellian schema must be either limited in application or entirely wrong.

Although the referential/attributive distinction is almost always made with respect to definite descriptions, it seems that the same kind of phenomenon can
also be recognised for other conventionally quantified expressions. Perhaps the best candidates here are ‘indefinite descriptions’: expressions such as ‘an F’. For instance, Chastain argues:

Sentences containing indefinite descriptions are ambiguous. Sometimes “A mosquito is in here” and its stylistic variant “There is a mosquito in here” must be taken as asserting merely that the place is not wholly mosquito-less, but sometimes they involve an intended reference to a particular mosquito.⁴

Preceding this point, he notes:

I am not claiming that indefinite descriptions are always singular terms, purporting to refer; like the other singular expressions, including definite descriptions, they qualify as singular terms in some contexts but not in others.⁵

The emphasis here, both for Chastain and Donnellan, seems to be on the role of the context, in particular the intentions of the speaker, in determining semantic form. Since an expression of a single surface form type can appear in a range of contexts, with a range of speaker intentions, clearly, on this model, surface form cannot act as a guide to semantic form. Thus, if we accept Donnellan’s definite descriptions as potentially referential, it seems that we should expand our potential counterexamples to include any superficially quantified noun phrase uttered in the right kind of context. For instance, if the speaker catches sight of a figure raking leaves in the distance, she might point and utter “Oh good, some boy is clearing the path”, with every intention of referring to the figure she is demonstrating.⁶ So for both definite descriptions and other conventionally quantified noun phrases it is possible to envisage situations in which their function seems to be to refer to one particular individual, rather than merely settle on some denotation.

The second kind of problem for superficially descriptive noun phrases receiving a univocal, quantified analysis is what we might think of as a more technical objection. The worry in general is that our semantic analyses of certain

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⁴ Chastain (1975), p.212.
⁵ Ibid., p.209.
⁶ Although we are ignoring plural reference for the moment, we might envisage other superficially quantified noun phrases such as ‘all’ or ‘many’, which will not pick out just a single object, as able to function like the plural referential expressions ‘these’ and ‘those’ in the right contexts.
quantified noun phrases contain constraints as to the number of objects which satisfy the descriptive component of the expression; yet these expressions may sometimes be apparently properly used in contexts where the cardinality constraints are flouted. Hence, the thought would be, in such contexts the superficially quantified noun phrases must be acting semantically as referential expressions. As was suggested at the start of this section, this is a worry for any quantified expression whose quantifier contains a precise cardinality constraint; i.e. which specifies exactly how many objects of a certain kind there are, so ‘the’ or ‘exactly two’, as opposed to ‘all’ or ‘at least one’. However, the difficulty is at its clearest and most convincing with respect to definite descriptions, so let us concentrate on these examples before widening our attention to other superficially quantified noun phrases.

In his original analysis of definite descriptions Russell stressed that there is an implication of uniqueness in utterances of ‘the F’; we seem to require that there is one and only one object which satisfies the predicate mentioned. Yet this is clearly not the case for the majority of definite descriptions which actually appear in natural language. Though it might be correct to claim that ‘The oldest man alive is happy’ is true if and only if there is some unique oldest man alive who is happy, the same does not seem to hold for utterances of ‘the cat’ or ‘the book’, etc. This discrepancy between the semantic analysis of the quantifier ‘the’ and the function of the determiner ‘the’ in most natural language contexts might lead us to believe that, where the uniqueness constraint is violated, what the utterance really succeeds in conveying is some more suitable referential proposition. So, when I utter “The cat” in the conspicuous presence of a feline I should not be construed as claiming that ‘there is one and only one cat’ but rather as communicating a referential proposition akin to ‘that cat’. The idea that incomplete definite descriptions force us to admit a semantically divided interpretation of this linguistic class is well rehearsed; for instance we find Kripke writing:

If I were to be asked for a tentative stab about Russell, I would say that although his theory does a far better job of handling ordinary discourse than many have thought, and although many popular arguments against it are inconclusive, probably it ultimately fails. The considerations I have in mind
have to do with the existence of ‘improper’ definite descriptions, such as “the table”, where uniquely specifying conditions are not contained in the description itself.\textsuperscript{7}

However, although it may be that incomplete descriptions do constitute an objection to unification we should be aware that this objection is harder to construct than is sometimes envisaged.

The feature which may be overlooked in constructing this challenge is the requirement for all natural language quantifiers to be restricted by some (contextually determined) domain of quantification. It is not only utterances of ‘the’ which require additional supplementation from the context of utterance before they can function properly, it is apparently all quantified noun phrases. Thus, as Neale notes, if one utters ‘Everyone was sick’ in reply to an inquiry about how a party went, one should not be taken as intending to convey the proposition that everyone in some universal domain was sick; rather what is meant is that everyone in some very constrained domain, viz. everyone who was at the particular party, got ill.\textsuperscript{8} Yet if this mechanism of contextual constraint of a domain is available for other quantifiers in natural language, then it must also be available for ‘the’. Thus, although our semantic analysis of these expressions requires uniqueness, it is uniqueness relative only to a particular, salient domain. So, if I utter ‘The cat wants to come in’ the existence of a plethora of cats in the universe is unimportant, what matters is the one cat in the domain which is salient to us (e.g. the immediate perceptual environment or the domain of pets we own, etc).

So, if we are to support a challenge to unification from incompleteness we need it to be the case that the usual mechanism of domain restriction is not available or not sufficient in some cases; and indeed certain opponents of Russell’s analysis of definite descriptions have made this claim. For instance Lewis contends that:

It is not true that a definite description “the $F$” denotes $x$ if and only if $x$ is the only $F$ in existence. Neither is it true that “the $F$” denotes $x$ if and only if $x$

\textsuperscript{7} Kripke (1977), p.255; see also Strawson (1950).
\textsuperscript{8} Neale (1990a), pp.94-5.
$x$ is the one and only one $F$ in some contextually determined domain of discourse. For consider this sentence: "The pig is grunting, but the pig with the floppy ears is not grunting" (Lewis). And this: "The dog got in a fight with another dog" (McCawley). They could be true. But for them to be true, "the pig" or "the dog" must denote one of two pigs or dogs, both of which belong to the domain of discourse.\(^9\)

The problem here seems to be two-fold: on the one hand we have no account of the mechanism by which we are supposing the natural domain is rejected and some alternative domain (perhaps containing just one object) is selected, and, secondly, it seems that if we could provide such a mechanism it would allow domains of quantification to ‘cut finer’ than the smallest unit of discourse.

Concentrating on the first point, Larson and Segal object that in a room with several doors the natural domain will include all the doors the room has.\(^{10}\) For instance, in a room with four doors, when three doors are closed and one is open, the domain cannot shrink to exclude the one open door and thus the statement ‘All the doors are closed’ in this context cannot be true. However, when the statement in question involves the determiner ‘the’ we are asked to suppose that the natural domain is no longer ‘doors in the room’, but is a much smaller domain which may somehow have shrunk to include just one member. Thus, if I utter ‘The door is open’ in the above situation it seems that my utterance may be true, since one door is open. Yet we have no explanation of why the natural domain is no longer deemed suitable in such a case nor by what mechanism the shrinking of the domain to just one object is facilitated. The second problem is that, even if we were to allow that the domain somehow shrinks to just a single object, we would then have to allow two different domains of quantification within just a single sentence (e.g. in the Lewis example, one domain containing the grunting pig and the other the pig with floppy ears). That is to say, we would be required to carve the sentence into sub-sentential parts, each with its own unique act of quantification relative to its own unique domain. Although, as we saw in Chapter 2, some theorists have argued that subsentential shifts in domain must be countenanced in order to

\(^{10}\) Larson and Segal (1995), pp.332-3.
properly account for all natural language quantifiers, not just ‘the’, it might still 
prima facie seem that such a move has regrettable implications for logical 
notions such as inference and validity; for entailments will no longer hold 
between parts of the sentence which belong to different domains of 
quantification.\textsuperscript{11} Thus, there might still be some motivation for a referential 
analysis of incomplete descriptions to be derived from the thought that 
subsentential domain shifts would not be required to account for them if handled 
as singular terms.

So, if it is correct to claim that there are some superficially quantified 
noun phrases which fail to respect their claims of cardinality, even relative to 
some appropriate domain, then it seems we have a second kind of potential 
counterexample to unification. For a natural explanation of what is going on in 
cases like the above would seem to be to construe the superficially 
quantificational expression as acting as a referential term. That is to say, for 
definite descriptions, rather than serving to denote the unique object satisfying 
the description, we should view them as acting like singular terms naming the 
(demonstrated or otherwise salient) object. Expressions like ‘the door’ in the 
above scenario, or ‘the pig’ in Lewis’ example, are not acting as semantically 
quantified noun phrases but are instead behaving as referential terms. Thus, 
given the referential/attributive distinction raised by Donnellan, together with the 
technical problem of incompleteness, the advocate of unification seems to be in a 
vulnerable position as far as the category of quantified noun phrase is concerned. 
For, just as her opponent claimed, there are apparently appropriate uses of 
superficially quantified noun phrases in natural language which do not behave as 
standard quantified noun phrases do. However, as noted at the outset, it is not 
just in the realm of standardly quantified expressions that putative 
counterexamples to unification are to be found. Similar cases can also be 
discovered amongst the natural language occurrences of standardly singular 
terms.

\textsuperscript{11} For an argument that subsentential shifts in domain are a perfectly general feature of 
quantification, see Stanley and Williamson (1995).
Non-standard Occurrences of Superficially Referential Expressions:

Previously, it has been argued that demonstratives and indexicals should be taken to be paradigm referential expressions, despite the degree of complexity they contain in the form of an additional linguistic rule or ‘character’. This was motivated by the recognition of the central role of the object in, for instance, utterances such as ‘that dog’ said of a presently seen canine; the object selected seemed to remain constant across any circumstance of evaluation, regardless of the possible alterations in properties it might undergo, which seemed diametrically opposed to the actions of most quantifier phrases. So, the recognition of the referential status of paradigm perceptual demonstratives, in conjunction with the unified stance, leads us to the claim that all surface form demonstratives must belong to the semantic category of referring terms. However, the ambiguity theorist now steps in to point out that our concentration on the perceptual paradigm has led us to ignore a significant range of cases which simply do not support the proposed analysis. The cases I would like to look at are: ‘deferred ostension’ and ‘anaphora’. These are not the only cases our opponent may bring to light, but I feel they do constitute the strongest challenges available, thus they will be the only examples explicitly dealt with below.¹²

¹² For instance, one further non-standard occurrence which proponents of ambiguity might appeal to concerns the use of demonstratives in narrative; as noted by Halliday and Hasan (1976), p.61: “[It is an] assumption of shared interest and attention which lies behind the use of the ‘near’ forms, this and these, in conversational narrative where they are not strictly ‘phoric’ [i.e. referential] at all: There was this man..., where ‘this man’ is present neither in the text nor in the situation but only in the speaker’s mind.” Larson and Segal (1995), pp.336, 347-8, appeal to this kind of usage as a potential case of a surface form demonstrative acting as a semantic quantifier phrase; however, I would suggest that two features of such occurrences make them unsuitable for independent exploration. On the one hand, many such cases collapse into the straightforwardly anaphoric (this would seem to be the case with Halliday and Hasan’s example, which, I would suggest, should be rendered as an existential quantifier binding an anaphoric demonstrative). Secondly, the position of these demonstratives within the telling of a story makes them more akin to the ‘quasi-referential’ fictional names of Evans (1982), pp.28-30; they certainly seem more idiomatic than the above non-standard cases.

A potentially stronger challenge to unification, which, again, will not be discussed directly within this chapter, concerns demonstrative terms concatenated with sortal terms for abstract objects; for it may be felt that there are special problems associated with referring to objects which are causally isolated from us. However, any such worries seem to depend fundamentally on one’s conception of the reference relation itself, thus they belong with the kind of objection we will look at in Chapter 7.
The first case is that of ‘deferred ostension’: this is where an object is selected, not through its presence in the immediate environment but through its relation to something in the immediate environment. Thus an object outside the interlocutor’s immediate environment, which bears some sort of conventional or standard connection to an object within that environment can, it seems, be selected using a demonstrative. This is done by drawing attention to the object available for ostensive gesture, whilst using a sortal term appropriate for the related object; e.g. indicating a painting of a cricket match and uttering ‘That game’. The role of demonstrative expressions in such contexts seems very different to the standard kind of case, where demonstratum and intended referent coincide (except in cases of mistake). For instance, compare:

Case One:

You and I are watching a particularly well-known writer at a literary festival, when he begins to behave in a very strange way. As we watch him cavorting around the stage with little or no self-regard, I say to you “That author must be insane!”

Case Two:

You and I have just finished reading the political drama Primary Colours, which has been published anonymously, and are speculating on the motives for writing such a book. I am convinced that writing such a novel must amount to professional suicide, whoever the author may be, thus I point to the book and exclaim “That author must be insane!”

Just as with the earlier examples of referential versus attributive descriptions which Donnellan gave us, we seem once again to have two utterances of superficially identical types behaving in very different ways. In

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13 This term appears in Quine (1973) and Evans (1982), amongst others; but the same phenomena is also sometimes labelled ‘deferred reference’, e.g. Nunberg (1993).


15 The same kind of phenomenon can also be seen to hold for certain uses of indexical expressions, as Nunberg (1993), pp.20-1, has pointed out. For instance compare ordinary referential uses of ‘I’ and ‘me’ with the following:

(1) Condemned prisoner: I am traditionally allowed to order whatever I like for my last meal.
(2) President: The Founders invested me with sole responsibility for appointing Supreme Court justices.
the first case we have an ordinary utterance of a paradigm perceptual demonstrative; there is a single object which I can demonstratively identify and ostensibly indicate to my audience and I wish to refer to that individual and attribute to it the property of insanity. However, in the second case the way in which the object is arrived at seems very different. Rather than referring directly to an individual in my present environment, it seems that I wish to select an object (which I am unable to identify in any 'robust' way) merely as it satisfies some predicative material. I wish to claim that there is a unique individual responsible for producing the book I am demonstrating and claim that the singleton member of this set is also a member of the set of insane things. There is no presumption that the interlocutors must have any intimate contact with the object and apparently no promise that an extension, even once secured, will be held constant across possible worlds. For instance, even if the actual writer of *Primary Colours* is $\alpha$, it might perhaps seem that at some other possible world, where the author of the book is not $\alpha$ but $\beta$, the extension of the utterance will be $\beta$ and not $\alpha$. Deferred ostension cases do not seem to fit the profile we have come to expect for utterances containing directly referential expressions; thus, once again, it may seem mistaken to treat surface form demonstratives and indexicals in such contexts as genuinely referential. As Evans has pointed out:

> If our conception of demonstrative identification is tied in a simple way to the use of demonstrative expressions in English, then we shall include in that category cases like the one in which a man is indicated by means of his footprints...nothing may be said about such a rag-bag category at all.\(^{16}\)

Thus the suggestion is that (in at least some) deferred ostension contexts, despite the surface appearance of a singular term, the noun phrase is behaving more like a denoting, quantifier phrase.

The second case which I should like to consider comes from a subset of a certain class of cases which we might call 'anaphoric'. Anaphoric noun phrases may initially be defined as those which occur in sentential positions which are tied to earlier occurring noun phrases, so that the anaphoric term inherits its extension (and perhaps more of its semantic properties) from the 'antecedent'

A noun phrase may inherit its extension either from a referring expression (as in ‘John came in, he sat down’) or a quantified noun phrase (as in ‘A man came in, he sat down’). In the former case whether or not we have a genuinely anaphoric occurrence or whether we simply have a case of coreference is still open to debate; for instance, Lewis in ‘Scorekeeping in a Language Game’ seems to argue that ‘pairs’ of singular terms can only be coreferential, not anaphorically tied, whilst Soames in ‘Pronouns and Propositional Attitudes’ suggests that such a picture would be too simplistic. Yet, whatever our position on these constructions, the cases which will most interest us in what follows are of the latter kind: superficially singular terms which inherit their extension from quantified noun phrases. For it seems that these expressions not only constitute non-standard occurrences of noun phrases but a kind of non-standard occurrence which, as we will see, the advocate of unification must propose a distinct solution for.

As in the above example, these kinds of constructions perhaps most naturally occur in ordinary language with quantified antecedents binding pronouns. However, it is by no means the case that these are the only superficially singular terms which may behave anaphorically. For instance, it seems that we can recognise exactly the same phenomenon for the class of conventionally referring terms we are particularly interested in, viz. demonstratives:

(1) Some girl has stolen the book, I want that girl to stand up.
(2) Every child who has a favourite toy breaks that toy first.

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17 This definition is not quite correct, since some instances of anaphora appear before their binding expression, as in ‘afterthought exposition’: e.g. ‘I want these things: a new car and a new house’. As Bosch (1983), p.203, notes: “Afterthought expositions reverse the order of introducing things into discourse and talking about them: first something is said about an object (in a wide sense of ‘object’), which is apparently assumed to be in focus, and only then is the object introduced.” To account for cases such as these, Tesnière’s (1959) terminology of ‘source’, instead of ‘antecedent’, seems more accurate; however, since ‘antecedent’ is in such wide usage, I too shall continue to use the common term.

18 Lewis (1979); Soames (1990). We should note at this juncture that not everyone accepts the claim that ‘free standing’ pronouns are referential, e.g. Tasmowski-De Ryck and Verluyten (1982).
(3) For every woman there are several left-handed men who admire her, and amongst those left-handed men one is the most ardent. Some woman likes that left-handed man who admires her.¹⁹
So there seems to be a potentially very large class of cases where superficially singular terms appear in sentential positions where they are bound by non-referential antecedents and where they thus seem to behave in non-referential ways.

At the moment, the precise mechanism underlying anaphora is still very much open to question. In at least some cases (those Bosch calls ‘absolutely controlled’) the bound expression appears within the scope of its antecedent and these can apparently be well accounted for in terms of the Chomskian notion of ‘c-commanding’.²⁰ This is a technical notion from Chomsky’s grammatical theory, whereby a phrase, α, c-command a phrase, β, if and only if the first branching node dominating α also dominates β (and neither α nor β dominates the other).²¹ We might then allow that an expression may be anaphorically tied to another if it is c-commanded by this other expression. However, where the anaphoric expression appears in a different sentence or sub-sentential part, it will not be c-commanded by its antecedent and thus some further mechanism will be required. For instance in the following cases the pronoun is not c-commanded by its antecedent, though it is still anaphoric:

(4) A man came in. He sat down.

(5) If a man buys a donkey then he will vaccinate it.

Yet another difficulty in determining the anaphoric mechanism concerns the potential disparity between the uniqueness conditions which our logical rendering of the sentence seems to give rise to, and the uniqueness relations our interpretation of the natural language sentence seems to require. For instance, in

(5) our natural interpretation of the sentence makes it true just in case a man vaccinates every donkey that he buys; if someone buys two donkeys and

¹⁹ The example is from Davies (1982), p.307.
²¹ This definition follows Reinhart (1978).
vaccinates just one of them, then sentence (5) seems false. However, this is not the result our logical analysis of the sentence seems to give rise to.

The problem is that the indefinite description ‘a donkey’ is usually thought to be akin to the existential quantifier ‘∃x’ (‘there is at least one x’). Intuitively, what sentence (5) requires is a universal quantifier, ‘∀x’, giving us the reading: ‘for any donkey a man buys, he will vaccinate it’; yet there seems no obvious way in which to deliver such a truth condition. This problem (and related issues, such as the apparent need to sometimes deliver an ‘∃x’ reading, so that the mechanism for switching the interpretation of the indefinite article must be thought of as applying only in certain situations) has spawned a great deal of debate in the philosophy of language and linguistics. It has served to encourage an entirely new approach in the ‘Dynamic Semantics’ of Kamp (1981), Heim (1982) and others, as well as provoking renewed interest in the E-type pronouns posited by Evans (1977). These divergent approaches and their relative degrees of success are matters which unfortunately stretch far beyond the limits of this thesis. Yet, I believe, even without exploring the mechanism underpinning anaphora, we can still appreciate the problems such cases cause for the unified approach.

For by whatever mechanism the truth conditions for such occurrences are ultimately delivered, the point remains that they simply cannot be handled as ordinary singular terms, and this seems to be in tension with the claims of the unified stance, as Davies notes:

Syntax need not distinguish between the anaphoric ‘that’ and the ‘that’ which shades into ‘the’ on the one hand, and the perceptual demonstrative ‘that’ on the other. But semantically they are quite different. Here is one more point at which syntax and semantics do not go neatly in step.

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22 For a discussion of the need for an ‘∃x’ reading or a ‘∀x’ reading depending on the context, see Heim’s (1990) ‘sage brush’ cases.
23 E.g. Neale (1990b); Frances and Lappin (1994).
24 Davies (1982), p.308. We might note that if it is really the case that syntax cannot distinguish between anaphoric and non-anaphoric expressions, then these cases hold as much against an ambiguity approach which appeals to syntactic properties sub syntactic category, as they do against unification.
In each of the above cases, (1)-(5), we have an expression which, according to the unified stance, should be analysed as a referring term, yet which appears to require treatment as a quantified noun phrase. There is no one object which we expect the utterance to single out and ‘hang on to at all costs’; rather an object will be arrived at purely as it satisfies certain predicates, and the truth of the utterance seems to be unaffected by the exchange of objects which satisfy that predicate at other possible worlds. Thus, the behaviour of anaphoric expressions would seem to demand that they be treated as akin to bound variables of quantification; and, as we will see in the next chapter, this recognition, that anaphoric expressions demand a different semantic analysis from their deictic cousins, will lead the proponent of unification to handle these non-standard cases in a different way to the others looked at in this chapter.

To recapitulate: opponents of unification have been right to raise phenomena like ‘referential’ and ‘incomplete’ definite descriptions as prima facie worries for this approach. However, by confining their attention to just one kind of noun phrase they have, in the main, failed to recognise the breadth of the problem; for other standardly quantified noun phrases, besides definite descriptions, can cause problems, as can standardly singular terms. Furthermore, looking just to definite descriptions has led theorists to ignore the issue of anaphoric singular terms which seem to provide (as we will see below) a different kind of evidence for the abandonment of unification. Although of course it would be possible to maintain the distinction which has grown up between definite descriptions and other noun phrases, so that, say, definite descriptions are treated as ambiguous while other noun phrases are thought to conform to unification, such a stance seems unattractive.\footnote{Possible examples of those who do combine unified and divided accounts include Russell, who unified definite descriptions in ‘On Denoting’ but apparently divided singular terms, eventually accepting only ‘this’ and ‘that’ naming privileged objects as genuine referring expressions in ‘The Philosophy of Logical Atomism’; and Larson and Segal (1995), who divide definite descriptions, though they appear to admit only a referential role for bare demonstratives.} Ceteris paribus, it seems we should prefer a common methodology for all noun phrases, or at least some explanation of, or grounding for, the proposed distinction between
descriptions and other expressions. In the absence of this, I think we will do better to consider noun phrases as a whole, considering unification as a proposal across the board and hence deciding on its aptitude or otherwise on the grounds of features which may be wider ranging than those to be found within any *specific* kind of noun phrase. So, we should take non-standard definite descriptions as just one aspect of a more pervasive worry about how unification fares with problematic cases of all kinds of noun phrases in natural language; seeing that it can in fact cope perfectly well will be the task of the next chapter.
Chapter 6 ~
Syntax, Surface Features and Pragmatics

A difference in understanding is a necessary, but not a sufficient condition for ambiguity...Nevertheless, philosophers perennially argue for ambiguities on the basis of a difference in understanding alone, and linguists are not immune either.

The advocate of unification cannot, I believe, deny that the kinds of cases raised in the last chapter are problematic for her account; it seems clear that the predictions of the unified stance and the claims of intuition clash, to some extent at least, in each case. However, we should note now what is required for these recalcitrant cases to genuinely force us to abandon the unified theory: it must be the case either that there is simply no explanation of the problematic cases available from within the unified model, or it must be that any such explanation fails, perhaps through being unmotivated, counter-intuitive or clashing with constraints we antecedently need to accept from elsewhere. In this chapter I want to begin to show that none of these requirements are satisfied. There is an explanation which can account for all the phenomena in question, it can be independently motivated and it can account for the apparent clash of intuition and theory in the difficult cases. Establishing this claim will not, however, be quite enough to silence the advocate of ambiguity. For she may still claim that the solution to non-standard cases to be advocated is unacceptable through its conflict or tension with other necessary assumptions. This further challenge, that the otherwise adequate and well-motivated explanation of recalcitrant cases, is not, in fact, available to the advocate of unification will be looked at in the final chapter, once we have explored the proposed explanation itself in this chapter.

There are two responses the advocate of unification may make to the apparent counterexamples raised earlier: one approach is to argue that the token expressions in question do not, after all, reach the standards of membership of the syntactic category they have been supposed to belong to. The other
approach is to claim that they do not, in fact, behave as members of the alternative semantic category proposed. I believe both of these responses must be deployed to account for the full range of putative counterexamples the ambiguity theorist has noted. Thus this chapter divides into two sections: first, I would like to explore the nature of surface features more closely and see how a proper appreciation of this level of representation dissolves certain occurrences of apparently non-standard singular terms. The argument will be that by drawing a distinction between anaphoric and deictic occurrences, which we can do on the grounds of surface level differences alone, the unified theorist can avoid the objections from anaphoric contexts (which, we noted in the last chapter, constituted a different kind of objection to those more commonly appealed to in the literature). After this we will turn to our second response, arguing that all the remaining cases can be explained by positing a pragmatic, rather than a semantic, level solution. Furthermore we will see that in each of the cases in question the move to a pragmatic explanation can be motivated simply by appeal to quite general (Gricean) principles of good communication. The claim will be that, in each of the residual problematic cases, our intuitions can be accommodated by allowing that the speaker succeeds in conveying some additional proposition, alongside the literal, semantic one, and that the audience’s inference to this further proposition is warranted by features of the context of utterance. Before this, however, our defence rests with a clarification of exactly what claim is being made by the unified hypothesis. For though we have so far simply appealed to the unexplained ‘surface features’ of expressions as providing the key to syntactic category, it will become clear, on closer inspection, that these features may cut more finely than our opponent has perhaps envisaged.

(1) **Surface Form:**

The most obvious feature of surface form is the orthographic form of the written word; for instance, in English we can isolate a large number of occurrences of words such as ‘this’ or ‘that’. Clearly however, this criterion could never be seriously considered as our indicator of semantic category, since occurrences of a single typographic form are certainly capable of playing distinct
roles within a sentence. For instance, the word ‘that’ plays two very different roles in the following sentences:

1. John wants that dog.

2. The dog was so big that it didn’t fit in the car.

In the first case the term may be playing a genuinely referential role, whereas in the second case its role is as a ‘complementizer’. Clearly, advocates of unification will not wish to propose a referential analysis for orthographic tokens of ‘that’ appearing in sentential contexts like the second example above. Thus, in addition to the uniform orthography we must look at the phonetic or spoken form of the expression; and here we seem to stand much more chance of carving on or near the semantic joints. For instance, in the first, referential case, the vowel pronunciation remains hard and can never undergo the phonetic rule for vowel reduction. Whereas, in the second case the phonetic form is the reduced ‘θæt’, which is a completely distinct phonetic item.1

A further surface form difference between the potentially referential ‘that’ and the complementizer ‘that’ emerges in the kinds of context in which deletion without loss of grammatical form can take place; for instance:

3. *John wants dog.

4. The dog was so big it didn’t fit in the car.

If the orthographic symbol ‘that’ can be removed without loss of grammatical well-formedness, then the token in question is appearing in a complementizer role. It would clearly be ridiculous for the advocate of the unified hypothesis to maintain that all tokens of the typographic form ‘that’ were semantic terms of direct reference; yet this is clearly not the claim she is forced to make. For, as we have seen, there are further, purely surface features which serve to differentiate potentially referential occurrences from complementizer uses. However, the advocate of unification may now contend that it is no less ludicrous to assume that she must claim all non-complementizer occurrences of ‘that’ are referential; for closer attention to the range of surface features available...
may reveal that there is not a single surface-level kind here. Rather, our proponent of unification may argue, there are two very different surface tokens, only one of which is claimed to be potentially semantically referential. The anaphoric occurrence of expressions whose orthographic features might otherwise indicate referential semantic form is quite permissible, I contend, since, just as with the complementizer role of ‘that’, the anaphoric form has additional surface-form properties which serve to delineate it from its truly referential brethren.

(i) Anaphora:

As we saw when we first introduced this category of demonstrative occurrences as a counterexample to the unified stance, anaphoric expressions may (initially) be thought of as those which are in some way dependent for their interpretation on an earlier occurring term or phrase. For instance, Cornish takes the usual definition of anaphora as follows:

[A relation between expressions co-occurring within a text - namely the antecedent (or source, in Tesnière’s (1969) more appropriate terminology) and one or more anaphors...the latter [being] an indexical expression of some kind...The anaphor is the dependent term in the relation, being semantically and referentially non-autonomous, and hence requiring for its full interpretation the ‘saturation’ by a co-occurring expression which is autonomous in these respects, namely a potential antecedent.]

Thus we saw in Chapter 5 examples such as:

(5) Every child with a favourite toy breaks that toy first.

(6) For every woman there are several left-handed men who admire her, and amongst those left-handed men one is the most ardent. Some woman likes that left-handed man who admires her.

In each case the suggestion was that the superficially referential expression was not playing a referential role but was acting more like a bound variable of quantification. Hence, it might seem, such cases will provide paradigm grounds for an argument against unification.

However, although the advocate of unification cannot argue with the natural language data (nor, I think, with the conclusion that in such contexts

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orthographic demonstratives are not semantically referential expressions), she should, I believe, deny the claim that these are superficially (and hence syntactically) referential expressions at all. If we look at the kinds of features speakers in practice use to assign syntactic category to token expressions we will see that deictic and anaphoric expressions are associated with different features; requiring interlocutors to assign them different syntactic forms which may be related to different semantic kinds. An anaphoric expression is used, not to introduce a new object into the discourse, but to maintain the audience’s attention on some already salient object. While a deictic expression is ‘creative’ or ‘innovative’, pulling new items into the focus of attention, an anaphoric expression serves merely to continue interlocutors focus on the salient object. Thus, I would suggest, we might expect a deictic use to require far more emphasis or effort on behalf of the speaker to bring this novel element into play, and indeed this is exactly what we find happening in terms of the stress and pitch of the expression, as well as its possible accompaniment by an ostensive demonstration. Stress relates to the role an expression is playing: with those which are ‘creative’ or introduce new objects or items into the discourse receiving the highest stress (or ‘tonicity’) and those which serve to maintain attention to an already ‘given’ item being unstressed.

The suggestion here, then, is that these kinds of surface features may mark a semantic difference between anaphoric and deictic occurrences of a single orthographic type in English. So, an anaphoric term, unlike its referential counterpart, will always remain (relatively) unstressed within an utterance and will be spoken with a low, rather than a high, pitch. Anaphoric demonstratives serve, not as referential expressions usually do (as a form of ‘verbal pointing’, in Halliday and Hasan’s (1976) terminology, to some new object), but to maintain interlocutor’s attention on some already salient item; thus they require less effort or stress from the speaker. A referential pronoun or demonstrative on the other hand, acting as it does to ‘reach out’ to a new object, must be stressed and given a high pitch. These differences are easy to demonstrate when we take a
potentially anaphoric utterance and try to give it two distinct readings, one
anaphoric, the other not. For instance:

Some child with a teddy bear left that toy behind.
Some child with a teddy bear left THAT toy behind.

In the first case, where co-indexing indicates anaphoric binding is present,
the expression ‘that toy’ simply cannot be stressed; whereas, in the second case,
failure to stress the term ‘that’ makes a referential reading impossible. As Bosch
notes:

The demonstrative article is [also] possible in anaphoric noun phrases. It is
essential, however, that the demonstrative article remain unstressed. With a
stressed article the whole noun phrase becomes deictic and can no longer
function anaphorically.  

Furthermore, the idea that tonicity in English may mark genuine semantic
differences is perhaps supported by consideration of other languages; for instance
Ariel notes: “Gundel (1980) presents examples from Polish and Irish, where third
person pronouns are not differentiated as in English or Hebrew. English
unstressed pronouns correspond to Polish go, Irish e; stressed pronouns,
including those accompanied by a pointing gesture, are lexically distinct (though
obviously morphologically related): Polish jego, Irish eisen”. Yet the stress and
pitch with which a token expression is uttered are phonetic properties, which are
available from a purely surface level inspection of the expression. So there is,
just as the unified account demands, a surface form way to differentiate
anaphoric and deictic occurrences.

It might be objected at this stage that stress alone is not sufficient to do
all the work here. For instance, some anaphoric pronouns require a degree of
stress in order to shift the antecedent from the most obvious candidate to some
less salient one. For instance, the following sentence should have three possible
readings, signalled by three distinct degrees of stress on the pronoun:

Mary kissed Jane and then she kissed Bill.
Mary kissed Jane and then SHE kissed Bill.

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Mary kissed Jane and then SHE kissed Bill.

So the claim cannot be that anaphoric pronouns will always be entirely unstressed, but that deictic expressions receive the highest degree of stress. For though an anaphoric demonstrative can receive some (reduced) level of stress in order to select an object other than the most salient one, this alternative object must be a previous or partial subject of the interlocutor’s focus. That is to say, the anaphoric expression is still not serving to introduce an entirely novel item into the discourse, but is merely appealing to some less obvious object already within the agent’s realm of attention. However, if the orthographic demonstrative is to act to introduce an entirely new object, then more effort, reflected in the stress accorded to the expression by the speaker, will be required.

Furthermore, we should also note that the unified theorist does not necessarily have to claim that all the emphasis placed on the deictic expression stems from features of its pronunciation. For instance, it might be allowed that the presence or absence of an attached demonstration is a feature which is immediately recoverable from the surface features of the token expression in its context of utterance. So, if an utterance of an orthographic demonstrative, or other superficially singular term, comes replete with an ostensive gesture (or perhaps is accompanied by some contextual occurrence which shifts salience to some new object in the environment) then the token reaches the standard of being a superficially referential expression, otherwise not. If the demonstration is thought of as on a par with other features of pronunciation, then it too will be available to act as a surface level indicator of deictic status. Of course, admitting features such as demonstrations as able to play a role in informing speakers as to the kind of syntactic token put forward shifts us from talk of the ‘surface form’ of an expression (thought of as its orthographic or phonetic properties) to a more liberal notion, where what matters is that there are immediately available features (accessible prior to any kind of semantic interpretation) which can

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5 Kaplan (1977), p. 490, footnote 9, notes the possibility of ‘opportune demonstration’ which requires no further effort on behalf of the speaker, such as when one soldier in a line very visibly collapses and is picked out by an utterance of ‘that soldier’, unaccompanied by any demonstration.
provide evidence for a particular syntactic interpretation. Yet, I would suggest, this is just the kind of claim the unified theorist should be happy to make. So, the suggestion is that the advocate of surface form does not have to claim that *all* orthographic demonstratives must be referential. Rather her claim is the far more refined one that all non-complementizer, non-anaphoric singular terms are referential, and that this is a category which can be recognised on surface grounds alone.

Finally, I would suggest that the idea that surface features suffice for distinguishing anaphora and deixis may well be a conclusion we have already implicitly embraced. For the dual role of pronouns, as referential when ‘free-standing’ and non-referential in anaphoric contexts, has long been recognised. Yet no one that I am aware of has sought to argue for semantic ambiguity on the basis of these expressions. Instead, attention has focused on the far more

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6 There is a further issue concerning the division between anaphora and deixis here: for, rather than there being a hard and fast division between the two kinds in all cases, we seem to have something of a ‘sliding scale’, with clearly referential cases clustered at one end and straightforwardly anaphoric occurrences at the other, but with a penumbra of intermediate uses in between. There are cases where there is a potential antecedent for the expression, but where enough seems to have been said about the satisfier of the description to raise the object to salience so the term can act deictically rather than anaphorically. Furthermore, there are cases of ‘antecedentless’ anaphora (cf. Tasmosowski-De Ryck and Verluyten (1982); Cornish (1996)) where there is no vocalised antecedent and yet the expression does seem to be behaving anaphorically. I would suggest that the answer to worries such as these lies in a more detailed exploration of the mechanisms by which an object is made the centre of attention prior to, or simultaneous with, a referential act, and the role pragmatic properties such as salience have to play in a fully worked out semantic theory. Although the discussion in this chapter begins to point towards a reassessment of the relationship between aspects which are more usually assigned to the purely pragmatic and other, more formal, features of our account, a fuller exploration of this area is beyond the scope of this thesis.

7 Some theorists (e.g. Ehlich (1982); Tasmosowski-De Ryck and Verluyten (1982); Cornish (1996)) have rejected the definition of anaphora embraced here, whereby an antecedent expression is required to bind the anaphoric term, in favour of ‘antecedentless anaphora’ (Cornish’s label). On such a model no antecedent term is required and instead the role of the expression is stressed; thus Ehlich (1982) offers the following definitions:

“The deictic pronoun is a linguistic instrument for achieving focusing of the hearer’s attention towards a specific item which is part of the respective deictic space”, p.325.

“The anaphoric pronoun is a linguistic instrument for having the hearer continue (sustain) a previously established focus towards a specific item on which he had orientated earlier”, p.330.

The implications of adopting such a model are not entirely clear for our current proposal. However, it would seem that such an approach might still be acceptable to the advocate of unification so long as surface features such as pronunciation and demonstration served to indicate to interlocutors which kind of token is in play.

8 Exceptions being those linguists who deny any non-anaphoric occurrences of pronouns at all; e.g. Tasmosowski-De Ryck and Verluyten (1982).
complex and tendentious Donnellan-style examples and their parallels in the
domain of conventionally singular terms, such as deferred ostension cases. This
reflects, I believe, an intuitive realisation that anaphoric occurrences, like
complementizer roles, don’t even get in the running as superficially singular
terms. In practice, it seems that we can differentiate deictic and anaphoric
tokens prior to any kind of appeal to an expression’s semantic interpretation.
So, having removed this instance of the ambiguity theorist’s argument, let us turn
now to the remainder of her cases: referential and incomplete quantified noun
phrases, and supposedly attributive singular terms.\(^9\)

\(2\) Semantics and Pragmatics:

What is required by the unified theorist now is some principled
explanation of the residual recalcitrant cases: referential definite and indefinite
descriptions, incomplete quantified noun phrases, and deferred ostension
utterances. Our task is to see how the advocate of unification might dissolve the
apparently non-standard appearance of these remaining cases, without admitting
semantic ambiguity. The argument will be that, unlike the counterexamples
based on anaphoric rather than deictic occurrences of demonstratives, we have
absolutely no reason to take these kinds of cases as semantically relevant. For
there is an alternative way of accommodating them, thanks to the division
between semantics and pragmatics, due in a large part to the work of Paul Grice,
which does not require us to deviate from the unified stance at all. Furthermore,
it will be argued that applications of the Gricean mechanism in the cases in which
we are interested are simply particular instances of the very general
conversational principles which Grice himself proposed. Thus, if we accept the
Gricean approach in other cases, then we should also accept it for these

\(^9\) Nunberg (1993), p.3, having noted the multiple roles of pronouns, goes on to suggest that the
ambiguity thesis is also threatened by expressions which behave as if they contained indexical
elements: “[T]he homonymy thesis is even less attractive when we note that the same pattern of
use is associated with a large number of open-class items, such as enemy, ahead and local,
which behave as if they contained implicit pronoun-like variables (see, e.g. Mitchell (1986) and
Partee (1989)). Thus in (3) the word local can have any of three interpretations, depending on
whether it is controlled by the subject, the quantifier, or the context of utterance:

(3) The Times has every reporter cover a local athlete”.

Since these occurrences do not prompt us toward semantic ambiguity, the thought is we should
be similarly unmoved by straightforwardly anaphoric uses.
apparently non-standard occurrences of noun phrases. To see this however, we need to begin with a quite general statement of the distinction we wish to draw between semantics and pragmatics, before turning to look at the Gricean position itself in more detail. Once we have this account before us, we will be able to return to the proposed counterexamples and look at the way in which the mechanism applies in these cases.

It seems that there is a distinction to be drawn between features of language which have a role to play in a systematic theory which might suffice for the understanding of linguistic types, and features more properly belonging to the use of that language, giving some situational story of the utterance of tokens of that language within a context. Intuitively the distinction is fairly easy to see, although attempts to make it more concrete quickly run into difficulties, since exactly how and where the line should be drawn is still a matter of much contention. The basic idea to be appealed to, however, is as follows: in natural language it seems we can often use a particular sentence to convey several distinct messages, depending on the way in which we employ it. However, if all the possible meanings which attach to sentences were given semantic status it is hard to see how we might ever come to understand or learn our language or treat its use as a systematic and explicable activity. Thus we require a more persistent analysis of any given sentence, one which reflects what it is that an agent knows when she understands that sentence-type. One way of capturing this persistent, cross-context component of meaning might be in terms of the kind of truth theoretic semantic theory we motivated in Chapter 1. Of course, this idea of a context-independent level of analysis is challenged by the recognition of such context-dependent items as demonstratives and indexicals; yet, as we saw in Chapter 2, these expressions do not cause insurmountable problems for the formal semanticist.

So, in addition to that degree of meaning capturable by semantic theory, some further account must also be given of the range of alternative messages attaching at the level of utterance or communicated proposition. Features of this
further account then may be grouped together under the heading of ‘pragmatics’ (features which are contingent and contextual) and employed to underpin a pragmatic account of meaning which may alter according to each occasion of use. The general line of defence is then that, although the existence of the phenomenon in question (the non-standard appearance of some token noun phrases) is incontrovertible, it does not demand a semantic-level accommodation, but can be perfectly well handled by a unified semantic theory armed with a satisfactory account of pragmatics. The thought will be that, though in certain cases what is communicated by an utterance containing a noun phrase may diverge from the literal meaning we associate with that expression, this difference lies at the level of communication only, not at the level of semantics. To clarify this distinction, and help codify the kind of phenomenon which warrants non-semantic accommodation, let us turn to look at the exploration of these issues in the work of Grice.

(i) The Gricean mechanism:

Grice was the first theorist to bring to the fore the fact that sentences can sometimes be used to convey propositions which significantly diverge from those assigned by their literal interpretation. He noted that, for instance, on some occasions one can succeed in conveying the proposition ‘It is raining’ by an utterance of “It is a lovely day”, despite the fact that the former meaning seems diametrically opposed to the meaning we standardly attribute to the sentence uttered. Or again, in one of his most famous examples, it seems that a philosophy professor, on receiving a recommendation for an applicant for a lectureship, which reads only ‘Jones has very nice handwriting’, may take the proposition conveyed not to be the literal one we attach to the sentence. Instead it seems that the message the professor will take to have been communicated may be very different, something along the lines of ‘Jones has little philosophical talent’. The explanation of this kind of phenomenon was located by Grice in the kinds of principles and unstated assumptions we expect to be upheld in

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10 See, e.g., Grice (1967a).
communication, together with a fundamental distinction between 'speaker meaning' and 'semantic meaning'.

Grice's first move was to see that the complete meaning of an utterance could be divided into parts:

[The total significance of an utterance may be regarded as divisible in two different ways. First, one may distinguish, within the total signification, between what is said (in a favoured sense) and what is implicated; and second, one may distinguish between what is part of the conventional force (or meaning) of the utterance and what is not. This yields three possible elements - what is said, what is conventionally implicated, and what is nonconventionally implicated.]

We might take the 'favoured sense' of what is said here to be the literal or semantic interpretation given by our truth theoretic account. The notion of 'conventional implicature' (though we need not concern ourselves with too detailed an exploration here, since it will prove somewhat tangential to our main concerns) is closely tied to the literal interpretation of the sentence uttered. A conventional implicature is a proposition not explicitly given by the literal meaning of what is said, but which is conveyed on the basis of accepted, conventional features of that utterance type (an example of this might perhaps be the temporal or causal implication in the utterance of 'She got married and had a child'). Exactly how we are to draw the boundary between conventional and non-conventional implicature is a complex question (Grice himself considers and ultimately rejects two tests: nondetachability and cancelability); but, however the distinction is ultimately drawn, it will clearly be the second notion we are more interested in.

Non-conventional implicatures, and in particular a sub-class of these implicatures which Grice labels 'conversational', are essentially connected not just with the meaning of the sentence uttered but with certain general features of the context of utterance. A conversational implicature is arrived at by a recognition of the nature of communication; for, Grice contends, our conversational exchanges can be viewed as co-operative efforts, governed by

\[11 \text{Grice (1967b), p.41.}\]
\[12 \text{Ibid., pp.43-5.}\]
quite general, usually unspoken conventions. It seems that, in general, if genuine communication is to take place at all, we must have a guarantee that contributions to a dialogue will reach certain standards of truthfulness, usefulness and honesty. It is only by assuming that all interlocutors are trying to live up to these notions, which Grice calls the ‘conversational maxims’, that we can hope for successful communicative exchanges. Conversational maxims are very general in form; e.g. the ‘Cooperative Principle’: “make your conversational contribution such as is required, at the stage at which it occurs, by the accepted purpose or direction of the truth exchange in which you are engaged”. When one of these very general, tacitly assumed conversational maxims is overtly flouted, we can (usually) infer that the speaker has a reason for doing so. That is to say, the flouting of convention is itself meaningful, and may result in the speaker succeeding in implying a proposition which diverges from the literal interpretation of what has been said. So, when some presumed principle of good communication is blatantly transgressed (and knowledge of this transgression can be supposed to be mutual), the audience is licensed to infer some further proposition as the one the speaker is actually trying to communicate. To see this, let us return to the two instances of conversational implicature with which we began.

In the first case above, where the speaker utters “It is a lovely day”, if it is clear to all parties that the weather is in fact horrible and wet, the literal semantic value of the utterance must be rejected as a fitting interpretation of what the speaker is trying to communicate. This is because the utterance of blatant falsehoods transgresses the ‘first maxim of Quality’: contributions can be expected to be genuine and not spurious. So, Grice’s gloss on this case is as follows:

It is perfectly obvious to A and his audience that what A has said or has made as if to say is something that he does not believe, and the audience knows that A knows that this is obvious to the audience. So, unless A’s utterance is entirely pointless, A must be trying to get across some other proposition than the one he purports to be putting forward. This must be some obviously

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14 Grice (1967a), pp.30-1.
related proposition; the most obviously related proposition is the contradictory of the one he purports to be putting forward.\textsuperscript{16}

A similar explanation can be given of the handwriting case, except that here the maxim being flouted is ‘the first maxim of Quantity’: be as informative as is required. In this case, it is clear to all parties that the literal proposition is not relevant at all to the acknowledged aims of this particular communicative exchange; the speaker has withheld relevant information which must have been in her possession, yet she has not entirely opted out of the conversation (since a reference was given). The supposition then must be that the interlocutor is unwilling to write down the relevant information, and this becomes tenable only if the speaker thinks that the candidate has no philosophical talent. Thus this is the proposition we can take to have been conversationally implicated.\textsuperscript{17}

In addition to the original Gricean distinction between ‘semantic meaning’ and ‘speaker meaning’ it seems that we might also recognise a further distinction in play here. For, as Ludlow and Neale argue in their paper ‘Indefinite Descriptions: A Defence of Russell’, we should be careful to distinguish the literal interpretation of an utterance from the beliefs which lead to its production. Following Grice, they recognise the literal proposition attaching to the uttered sentence, which they call the proposition expressed, (PE); and they distinguish this from the proposition meant, (PM), introduced “to label the proposition(s) a speaker intends to communicate”.\textsuperscript{18} However, Ludlow and Neale note that, not only may there be a discrepancy between the literal meaning of a sentence and the proposition it is used to express (as Grice noted), but that there may also be a discrepancy between the kinds of grounds a speaker has for an utterance and the kind of utterance she produces. So, for instance, a speaker may utter a general, descriptive sentence (e.g. where the (PE) is ‘Some girl is happy’), yet their grounds for this utterance, the most relevant belief prompting the production of the sentence, may be of a different kind (e.g. the singular belief ‘Mary is happy’). In general, it seems we can always distinguish between the

\textsuperscript{16} Ibid., p.34.
\textsuperscript{17} Ibid., p.33.
so, armed with the distinction between proposition expressed, proposition meant, and speaker's grounds, plus the Gricean mechanism of allowing the proposition expressed and the proposition meant to diverge when some recognised principle of communication is flouted, we can now try to show why the non-standard cases from chapter 5 need not be treated as semantic level counterexamples to unification. in each case the general structure of the argument will be as follows: unification as a theory is meant to tell us about the literal meaning of certain noun phrases, it does not have to account for everything that may be conveyed by utterances containing noun phrases. in the problematic cases, though we are right to feel intuitively that the proposition meant differs from the one predicted by unification per se, this can be seen as a purely pragmatically conveyed proposition and not a semantic challenge. we will be licensed in proposing a possible divergence between proposition expressed and proposition meant in these cases because attention to the speaker's grounds reveals that a general principle of good communication is being contravened.

(3) Non-standard Quantified Noun Phrases:

When we first raised the spectre of token noun phrases which failed to be adequately accounted for by the unified hypothesis as it stood, we began by looking at non-standard occurrences of superficially quantified noun phrases. A non-standard noun phrase in this context was one which had the syntactic form 'determiner+predicate' but which seemed to require semantic treatment as a non-quantificational, singular term. The two examples of non-standard quantified noun phrases the ambiguity theorist raised were, first, the referential definite and indefinite descriptions of Donnellan and Chastain, and, second, incomplete expressions. In the first, and most wide ranging, set of cases it was suggested that features of the speaker's intentions, the immediate availability of the object and the stress on that object over and above any properties it possessed all
contrived to show that at least some tokens of superficially quantified noun phrases could be used to express singular propositions in the right circumstances.

The subsidiary set of cases, the incomplete definite descriptions, first noted by Strawson and pursued in a contemporary setting by Larson and Segal, Ramachandran and many others, seemed to prompt a referential analysis for a somewhat different reason.\(^\text{19}\) The thought was that a speaker might utter a phrase of the form ‘The F’ in a situation where there was more than one F in existence. If it was nevertheless the case that she succeeded in talking about just one of these objects, the thought was, this could only be because her utterance was a disguised referential act. If the unified approach is to be vindicated it must be shown that no superficially quantified noun phrase ever acts as a semantically referential expression; thus we need to accommodate both kinds of putatively referential occurrences in some non-semantic way. I believe we can do this once equipped with the Gricean mechanism explored above, so let’s see how.

Turning first to the allegation of singular status due to Donnellan and Chastain; we will recall that utterances such as ‘The murderer of Smith’ or ‘A mosquito’ which were spoken in the presence of the speaker’s intended referent, with the right (i.e. referential) intentions, were thought to behave as semantically akin to referential expressions. However, on reflection, it seems that we have some reason to doubt this claim. To begin with, let us consider the cases Donnellan made popular, where the speaker makes a mistake about her intended referent; for instance, using ‘The murderer of Smith’ to talk about the innocent man in the dock, Jones.\(^\text{20}\) Here the suggestion was that the utterance should be semantically analysed as a referential proposition which paid no heed to the mistaken description. However, there are many problems with adopting such a proposal, as Kripke has famously pointed out.\(^\text{21}\) For instance, there are problems when we turn to other speakers, for it seems that those who are ‘in the know’ about Jones’ true status cannot use a token of the same type of expression as the

\(^\text{19}\) Larson and Segal (1995); Ramachandran (1993).

\(^\text{20}\) Donnellan (1966); his other famous example here is using the utterance “The man in the corner drinking champagne” to pick out someone who is only drinking sparkling water.

\(^\text{21}\) Kripke (1977).
original speaker to talk about Jones amongst themselves. If it is common
knowledge that Jones is innocent then an utterance of “The murderer of Smith”
cannot (at least not where this expression is used and not mentioned) succeed in
referring to him. Yet, as Kripke rightly argues, if there were a correct semantic
analysis of the original speaker’s utterance whereby it referred to Jones, then this
same meaning should be available for all competent language users, regardless of
what they do or don’t know about the properties of the object talked about.

Furthermore, it seems clear that the speaker in such a situation,
attempting to talk about a non-F object by an utterance of ‘the F’ or ‘an F’,
would accept that she had made a mistake if this fact were made clear to her; she
would retract her earlier statement and offer some more suitable replacement.
Yet such actions hardly seem explicable if there were to exist a perfectly proper
use of the initial expression-type which allowed it to refer to the non-F object.
(An opponent might contend that her actions would be explicable given her
realisation that communication is put in jeopardy by her use of a pragmatically
unsuitable token, yet since we are assuming the audience to have pointed out her
mistake to her, communication has ultimately not been caused to breakdown by
her mistake, thus she would still seem to have little reason for retraction). So,
although Donnellan has recognised a phenomenon of our language, it does seem
to be one which should be accounted for in the pragmatics of language use. If
any of the audience are aware of the discrepancy in these cases then the only way
in which they can arrive at the speaker’s intended meaning is via a complex chain
of reasoning (i.e. they will have to reason that S may not know that Jones is
innocent and that lacking this piece of knowledge S may be using the description
‘Smith’s killer’ with the aim of selecting someone other than the individual who
really meets this criterion, viz. the individual she believes meets this criterion, so
S should be taken as attempting to talk about Jones). Yet if there were a
semantic analysis of the utterance which picked out Jones immediately, this
would be completely unnecessary.
It seems clear that what speakers do or don’t know about the properties of objects is a pragmatic, contextual matter and thus it is not the kind of thing we can expect to be built into our semantic analysis. Indeed, even those who argue for semantic ambiguity have sometimes accepted that ‘predicative irrelevance’ does not hold for singular terms; for instance Devitt notes:

I am assuming for the moment that the semantic referent of ‘that F’ and ‘the F’ must be an F even though it need not be the one and only F...If this is right, then whether ‘F’ applies to x is relevant to whether x is the semantic referent of ‘the F’ (referential)....According to this assumption, then, the lover is not the semantic referent of ‘her husband’...A successful referential use requires application as well as designation.”

It would seem ad hoc at best to start tinkering with truth conditions, claiming one set to be in play if nobody knows who killed Smith (so that the description can be allowed to function referentially) and another if anybody is aware that Jones is innocent (so that the utterance reclaims its standard, Russelian form); especially when we have a far simpler solution available by allowing Jones to only ever be the speaker’s referent, arrived at pragmatically, rather than searching for some semantic accommodation.

Furthermore, we should note that all these points apply equally to the final objection to our account of complex demonstratives put forward in Chapter 4; for there it was suggested that an utterance of ‘That F’ could not literally refer to a non-F object, yet it was noted that someone might still succeed, in the right circumstances, in conveying a proposition about an object which did not satisfy the predicative material. Thus, in Larson and Segal’s example, an utterance of ‘That fox is making a terrible mess’ succeeded in conveying a proposition about a badger.23 Now we can see that this phenomenon can be treated as on a par with mistaken uses of definite descriptions. For while both uses require us to posit some mechanism (like the Gricean distinction between speaker reference and semantic reference) to explain them, since both are clearly incorrect uses of language they do not seem to force us to offer divergent semantic analyses of the expressions in play. Since, just as above, those of us ‘in the know’ cannot use

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‘that fox’ to refer to a badger it would seem better to treat the communicated proposition in this instance as a purely pragmatic phenomenon. However, while we may rule out cases based on mistake from indicating referential status for descriptions, what about the other cases, due primarily to Chastain, where no such mistake was envisaged?

To explain these occurrences I believe we need to recall Ludlow and Neale’s notion of a ‘speaker’s grounds’ for an utterance; for I wish to claim that all circumstances in which a superficially quantified noun phrase appears able to express a singular proposition are circumstances in which (it is mutually evident that) a speaker’s grounds for her utterance are singular instead of general. That is to say, where the use of a definite or indefinite description (or other superficially quantified noun phrase) is referential, as Ludlow and Neale define it for indefinite descriptions:

An indefinite description ‘an F’ is being used referentially in an utterance of ‘An F is G’ if, and only if, (i) the speaker intends to communicate something about a particular individual, $h$, and (ii) the speaker is using ‘an F’ intending that his audience shall realise that it is $h$ that he intends to communicate something about.

Such referential occurrences, though possible in natural language, will be instances of speaker meaning and not semantic meaning, for in such cases the speaker may be mutually acknowledged to be flouting one of Grice’s principles of communication.

The maxim I believe speakers in such situations may be charged with explicitly violating is that of Quantity. As its name suggests, the communicative constraints of Quantity relate to the quantity of information provided by the speaker, which should be neither more nor less than is required by the communicative exchange. Thus, for example, if I know that some individual, John, will visit on Thursday, then I contravene the maxim of Quantity by asserting ‘John will visit on Thursday or Friday’. In general, agents are required to try to communicate all the relevant information which will be useful

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to their interlocutors in the conversation, whilst refraining from conveying any irrelevant or unrelated data. So, then, the proponent of unification might argue, if it is mutually known that it is a belief about a particular object, say α, which underpins production of a certain utterance, then the agent is flouting the principle of Quantity by asserting only a general, descriptive proposition whose extension happens to include α. The belief which underpins the utterance has a propositional content which is individuated in terms of an object, whereas the literal propositional content of the utterance is indifferent to object identity.

A general proposition might be thought to be less informative than a singular one since it specifies only a set of ways the world might be, rather than narrowing the possibilities down to just one as a singular proposition does. A general proposition such as ‘Someone hasn’t done the washing-up again’ or ‘The murderer of Smith is insane’ will be made true by there being an object (or a specified number of objects) which satisfy the predicate and this may be the case in a (possibly infinite) number of cases. For instance, in the latter example, the definite description may serve to denote a different object at each different circumstance of evaluation, thus each different model provides a different way for the utterance to be true. What is important is the set of worlds where the denoted object satisfies the predicate ‘is insane’: if the actual world is a member of this set then the utterance will be true in the actual context of utterance, but which set member is the actual world is unimportant. Yet for singular propositions this is not the case: for these only one situation will serve to make them true. The object referred to by the singular term must satisfy what is predicated of it. A proposition with a singular term in subject position informs us that (the agent believes that) the world is a very particular way; thus it might be thought more informative than a merely general proposition. So, where a speaker’s grounds are evidently singular yet the proposition expressed is general, an audience will be warranted, due to the clear violation of the maxim of Quality, in inferring a singular proposition.
This disparity then may license an inference to a singular proposition on behalf of the audience; for where it is evident to all that the speaker is withholding information concerning the identity of the object which is grounding her utterance, then interlocutors are free to infer this more informative proposition from the general utterance actually produced. So, the speaker who literally says that someone or other hasn’t done the washing-up again may succeed in conveying the referential proposition that α hasn’t done the washing-up again if it is obvious to all parties that it is α’s failure to wash-up that prompts the speaker’s utterance. Or, the speaker who utters the sentence “The murderer of Smith is insane” might, in appropriate circumstances, succeed in conveying some alternative, referential proposition concerning that man there. In any such case, interlocutors would seem able to infer that the general proposition, which gives the literal meaning of the uttered sentence, is not the proposition which the speaker actually conveys; rather some alternative ‘proposition meant’ might be inferred which reflects the speaker’s evidently singular grounds for her utterance.

Furthermore, in each of these cases the choice of the description rather than the available referential expression might be thought to be significant in itself; for instance, in the first case, the usage seems ironic since the literal proposition that ‘there exists a person who has not washed up’ seems trivial and redundant (especially given the supposed presence of washing-up to be done). Or again, in the second case, the description might be used in order to stress those descriptive features of the intended extension which the speaker finds most salient.

The idea that the referential proposition is a pragmatic, rather than a semantic, level interpretation of what the speaker says can also be brought home, I think, by considering cases where the speaker’s grounds for her utterance are singular but this is not mutually manifest. Suppose for instance that you and I are walking through a beautifully maintained park when you see Bloggs, the mayor, sitting in a deck-chair, evidently enjoying himself. Without indicating the figure before us, since you assume that this public figure is instantly recognisable, you utter “The mayor must like this park”. Here, if it so happens that I do not know the mayor and thus do not recognise the figure before us, I will understand
you as having merely asserted the general proposition that the unique mayor of this city, whoever that may be, must like this park (I may think your grounds for this concern the civic pride such a place must generate, etc). In such a scenario I will clearly miss any intended referential interpretation of your utterance, but to claim that I will entirely fail to understand what you have said seems far too strong. By assigning the conventional, quantificational interpretation to your words I do not misunderstand you, even if I fail to move on from this semantic interpretation to any further conveyed proposition. Even were my failure to identify the mayor as the figure before us pointed out to me, it does not seem that I should retract my initial assignment of meaning to the sentence uttered or come to believe that I had misinterpreted you. We might perhaps contrast this with a clear case of ambiguity, where retraction does seem to be entailed. For instance, imagine I hear you utter “Look at her duck” and assign to you a meaning concerning some particular member of the family *Anatidae*. If, on turning round, the salient object is not a bird but a girl crouched on the floor then I will retract my earlier interpretation, understanding that a different, though homophonic, lexical item was in fact put forward by you. Yet the recognition of such a mistake seems to have absolutely no parallel in the case of a superficially quantified noun phrase produced on singular grounds of which the interlocutor is unaware.

Finally, we might consider cases where a speaker’s grounds are constituted by a false singular belief yet she succeeds in producing a true descriptive utterance. So for instance, imagine that we see two figures out to sea, one of whom, *a*, I believe to be waving, and the other of whom, *b*, I believe to be drowning. However, I am mistaken, for *a* is not waving but drowning, while *b* is not drowning but waving. My false singular belief, which we might characterise as ‘<*b*, is drowning>’, does however underpin my utterance of “Look, someone is drowning!” Here I would suggest that, so long as both swimmers are members of my contextual domain of utterance, it intuitively seems that what I have said is true; for there does exist a person within the domain of quantification who satisfies the predicate ‘is drowning’, even though I
am confused about which particular object this is. Were I to learn of my mistake later, it seems that I should certainly admit that the grounds for my utterance were suspect, yet it does not seem that I should be forced to retract what I said nor to accept that I had uttered a falsehood; “Look”, I might imagine replying, “I just said someone was drowning, I didn’t say that that someone was b”. The generality of my literally expressed proposition serves to ‘cover up’ my false belief in a way that a genuinely singular utterance cannot; if I had uttered “b is drowning!” then no amount of distress on a’s behalf could have made my utterance true. Thus I would suggest we have every reason to take the supposedly referential occurrences of superficially quantified noun phrases as instances of pragmatically conveyed propositions, which are perfectly explicable from within our unified perspective. Apparently referential occurrences of superficially quantified noun phrases can be accommodated from within the unified stance equipped with a theory of pragmatics for they occur, I suggest, only when it is mutually evident that the speaker’s grounds are singular and thus the speaker can be seen as violating Grice’s maxim of Quantity.

Furthermore, I want to suggest that, on those occasions where we are willing to assign a referential proposition to speakers who utter putatively incomplete quantified noun phrases, our reasons can be traced to similar grounds. For instance, recall Lewis’ example of ‘The pig is grunting but the pig with floppy ears is not grunting’, where the first description, ‘the pig’, is supposed to fail to denote even relative to the domain of quantification for the sentence. Here it seems that we have two options: on the first and (I would suggest) most appealing option, Lewis’ claim that the description is genuinely incomplete is rejected. On this approach, we would follow those, like Stanley and Williamson, who have argued for subsentential domains of quantification, which may shift throughout a sentence.26 Given a subsentential domain of quantification, the description could be perfectly proper; thus any further conveyed referential proposition could be explained via exactly the same mechanism as above (i.e. given a mutual recognition of the speaker’s singular

grounds for her utterance and thereby her contravention of the maxim of Quantity.

The second option here would be to allow Lewis’ claim of incompleteness to stand by prohibiting subsentential domains of quantification, but to hold that the speaker still succeeds in conveying some further, referential proposition. On this model, the literal proposition expressed fails to denote; it secures no object since there is more than one pig within the domain of quantification. Whether or not this literal proposition is then true or false is somewhat debatable, depending on our general account of non-denoting descriptions. Russell, considering empty descriptions, tells us that a statement such as ‘The King of France is bald’ is ‘obviously false’ and if we follow Russell we might be willing to claim that the very few radically incomplete definite descriptions which might occur in natural language are literally false. However, taking the speaker to convey a literally false proposition seems to curtail our communicative endeavour; furthermore, if we are supposing that interlocutors can recover a referential proposition in such a scenario, then it seems that the speaker’s grounds for her utterance must be evident. Yet, given the combination of a literally false proposition and mutually known singular grounds for the quantificational utterance, it seems that, once again, the audience may be licensed in inferring some more appropriate, referential proposition as the one conveyed.

Again the speaker may be viewed as flouting Grice’s maxim of Quantity, as uttering a literal proposition which conveys less relevant information than she is in a position to communicate. It is correct that all the speaker has literally expressed is a descriptive proposition denoting the unique satisfier of the predicate (which, if we are asked to believe domain constraint is inadequate in such situations, fails to denote since there is no such object and may thus be false). Yet the audience are in a very good position to infer a more fitting pragmatically conveyed proposition, a referential assertion concerning the object which supplies the speaker’s singular grounds for her utterance. Thus, I want to

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27 Russell (1905), pp.424-5.
suggest, even if we admit quantified noun phrases which remain incomplete relative to the contextually determined domain of quantification, the fact that a referential proposition might still be successfully conveyed in any such situation can be explained pragmatically, without requiring a semantic analysis of the expressions in question as singular terms.

So the suggestion is that all non-standard uses of superficially quantified noun phrases have principled explanations in terms of the distinction between semantic meaning and speaker meaning, and the general principles of good communication delimited by Grice. Thus the advocate of unification remains unthreatened by recalcitrant occurrences of superficially quantified noun phrases.

All that remains now, then, having accounted for non-standard quantified noun phrases and anaphoric singular terms, is for the advocate of unification to offer some account of deferred ostension. This final defence will take two forms: for on the one hand, the ambiguity theorist’s contention that deferred ostension cases are non-standard is open to question; while, on the other hand, even if we admit that, on some rare occasions, a superficially singular term may succeed in conveying a general proposition, this can only be a pragmatic phenomena, based on the knowing interlocutors ability to ‘recover’ a warranted proposition where none has been literally expressed.

(4) Non-standard Referential Expressions:

Given the explanation of anaphoric cases earlier in this chapter, the only example remaining to the ambiguity theorist seems to be the deferred ostension uses. The suggestion was that, where a superficially referential expression is used to pick out an object having some specified relation to a demonstrated object, then the proposition conveyed is not an object-dependent, singular one but some descriptive alternative. On reflection, however, it seems that if the ambiguity theorist’s claim is that all deferred ostension occurrences, simply because of their structure, as it were, must be non-referential then this is counter-intuitive. For sometimes one may use a deferred ostension utterance in what appears to be a perfectly standard (referential) way. Deferred ostension allows
us to refer to an object not immediately available for demonstration through that
object’s relation to something which can be immediately demonstrated. Yet, I
would suggest, deferred ostension cases in this respect are just extreme instances
of a feature which is common to all demonstratives: viz. that they refer to the
object the speaker makes salient in the context of utterance and the way in which
this object is made salient may be quite complex.

For perceptual demonstratives the making salient of an object might seem
a straightforward matter of ostensive gesture; the speaker only has to point at her
intended referent in order to ensure that her interlocutors recognise it as such.
Even here however which object is taken as the one demonstrated will be a quite
complex matter which apparently requires appeal to the sortal term used. For a
start, recent work in psychology seems to show that, in most situations, without
the aid of descriptive information, an agent’s rate of success in discriminating the
intended demonstratum of a pointing gesture is little better than chance.*
Furthermore, from the interlocutor’s point of view it may seem that identical
ostensive gestures accompany utterances of ‘That dog’, ‘That collar’ and ‘That
fur’, etc. Thus to actually decide which object (or which feature of an object) is
being drawn to attention it seems that the audience must make use of the
predicative information in the utterance. If this is the case even for currently
perceived objects picked out by demonstrative utterances, then the claim that
delayed ostension cases are radically different in kind to ordinary perceptual
demonstratives seems highly tendentious. Though delayed ostension cases are
certainly more complex than other uses of demonstratives, they seem to appeal
to exactly the same kind of features as other complex demonstratives.

For instance, if I wish to refer to a man who has just left the room or a
girl met on holiday last year, then it seems I can indicate some feature of the
context which represents my intended referent: thus I might point to the door the
man has just slammed behind him or a photograph of the girl. In general, it
seems that we can refer to objects which are no longer themselves perceptually

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present by indicating things which stand for them or symbolise them in the current environment. Sometimes these representatives are very straightforward and direct (as in the photograph, the television picture, the written name or the location depicted on a map) and sometimes they are more oblique (as in the slammed door). It is at this more oblique end of the spectrum that I believe we can locate deferred ostension cases. For what we have here is a demonstrated object where the feature which is being drawn to salience is its conventional relation to some further object which is itself the intended referent. Thus, because books stand in conventionally recognised relations to their authors and footprints to their makers, it seems that I can demonstrate a book or a set of footprints and, by use of appropriate descriptive material in my referential utterance, succeed in drawing to attention that further object standing in the specified relation.

To accommodate the difference between the demonstrated object and the intended referent, Nunberg introduces some terminology. The object which is ostensively demonstrated in the context he calls the ‘index’ of the expression, while the object actually referred to remains the ‘referent’. He writes:

I will use the term index to refer to the...thing picked out by a demonstration associated with the use of a word like that.  
[T]he referents of indexicals are always the very things that are picked out by their linguistic meanings, or by their meanings taken together with the demonstrations that accompany their use.

Deferred ostension cases are, then, those where the index and the referent very clearly come apart, yet, the thought is, in all demonstratives we should recognise this dual element. Discovering when and how audiences come to realise that the index is not identical to the referent on any particular occasion would be a serious achievement, but the question seems to be one which we have as yet little idea about. Summarising the results of an earlier paper (Nunberg (1979)), Nunberg writes:

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30 Ibid., p.6. Although we might adopt Nunberg’s terminology, we should be clear that the present account differs fundamentally from his own. For he treats indexicality as predominantly a feature of the use of expressions (cf. Nunberg (1993), p.3: “[m]ost of the time, indexical reference is achieved using expressions that have non-indexical uses as well”); thus his account is a pragmatic one, as opposed to the current truth conditional approach.
A speaker can get away with pointing at an object $a$ to identify $b$ when it is common knowledge that $b$ stands in a certain relation to $a$, and when the knowledge that $b$ stands in this relation provides a useful way of discriminating $b$ from the other things that the speaker might have intended to refer to.\(^{31}\)

While this seems unobjectionable, we might feel that the fundamental issue remains untouched; for we still have no answer to the question of how the audience knows it is $b$ that they should be discriminating, as opposed to all the other potential referents the speaker might have had in mind.

Clearly, any adequate answer to this question is going to depend on an explanation of the mechanisms of attention and how interlocutors recognise and manipulate salience, as well as showing how the wealth of non-semantic information interlocutors are in possession of can come into play in deciding questions of reference assignment. For what will be involved will be knowledge about objects and their conventional and causal relations, which, \textit{prima facie}, goes far beyond the merely semantic. Yet because of this, I would suggest, answering such questions is not obviously something we should expect our semantic theory to achieve. That is to say, the way in which an agent communicates the fact that a token expression is actually hooked up with a token object in any particular context of utterance would seem to be something which our constrained and limited semantic theory might never fully address for us. If this is correct then, although the semanticist must recognise an area of further work here (belonging to the complex and vague border between mind and language), it seems that this need not challenge her analysis of (at least most) deferred ostension cases as ordinary referential expressions. What makes such cases peculiar is the wealth of (non-linguistic) information needed to determine the object the speaker is actually raising to salience (e.g. concerning books and authors, or footprints and their need for a maker), but none of this entails that the speaker must only be describing rather than referring to that object.

So, it seems that we have some reason to doubt the ambiguity theorist’s claim that all deferred ostension cases must intuitively be viewed as behaving as

\(^{31}\) \textit{Ibid.}, p.25.
akin to descriptive phrases. However, it might now be objected that, although some such utterances do succeed in conveying genuinely referential propositions, others still do not fit this profile. There are at least some superficially singular utterances which apparently behave as more akin to descriptive phrases and all the ambiguity theorist needs is one such example to support her case against unification. Yet it would seem once again that the advocate of unification might call the distinction between speaker meaning and semantic meaning into play here: if there are, as the ambiguity theorist suggests, at least some uses of (non-anaphoric) superficially singular terms which appear to convey general propositions, then this constitutes an instance of pragmatic 'proposition meant' and not semantic 'proposition expressed'. Yet to warrant the deployment of the Gricean mechanism we have seen that there must be some general principle of good communication which is being publicly violated in these cases. For without this, the advocate of unification is open to a charge of making an ad hoc appeal. So, is there any such principle which can be appealed to in those situations where we are to suppose that a speaker succeeds in conveying a descriptive proposition by means of a semantically referential utterance?

The case is less clear-cut than for referential propositions conveyed by quantified noun phrases; however, I would like to suggest that, once again, appeal to the (mutually evident) grounds of the speaker for her utterance may serve to explain any genuine cases where a non-referential proposition is conveyed by a semantically singular term. For I believe that any case where it is possible that a speaker conveys a general proposition through uttering a sentence containing a singular term in subject position is a case where it is recognised that the grounds for her utterance are inappropriate. Earlier we thought of speakers as flouting the principle of Quantity - as conveying less information than they had in their possession. Here I think we need to recognise speakers as flouting the principle of Quality - as possessing less information than they need to be warranted in producing their utterance. The maxim of Quality contains the specific constraint: do not say that for which you lack adequate evidence. Yet I

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32 Grice (1967a), p.27.
would like to suggest that the speaker who produces a semantically singular utterance on the grounds of a general belief flouts this maxim and where this contravention is recognised interlocutors will be licensed in rejecting the literal meaning as the one communicated. Instead, in a kind of rescue manoeuvre, they may take the less-specific, generalised proposition which actually grounds the utterance, and which the speaker would be warranted in producing, as the proposition meant.

However, for this kind of pragmatic intervention to be possible it must be the case that a general proposition provides insufficient warrant or inadequate evidence for production of a sentence with a singular term in subject position, and it may initially be unclear why we should think this is the case. Yet, I would suggest descriptive belief about an object should be taken to furnish weaker justification for a singular utterance than a singular belief with the same extension because, at different circumstances of evaluation, descriptive beliefs and the extension of the token referential expression may diverge, so that the former can no longer be justificatory of the latter. As we have seen all along, singular beliefs and singular utterances do not permit variations in their objects across different circumstances of evaluation, whereas general beliefs and utterances do. Yet if this is correct, then there will be circumstances in which the extension of the descriptive belief and the extension of the singular utterance come apart, and thus where the production of the utterance on the grounds of the belief seems unwarranted. A singular belief which underpins production of a singular term, if it provides warrant in the actual context of utterance, will warrant that utterance in any other circumstance of evaluation; yet this is not the case with descriptive beliefs.

Although a descriptive belief might support production of a singular term in the actual context of utterance (where the extension of the belief and the utterance coincide), this may alter across circumstances of evaluation (where the two extensions may come apart). Thus, suppose I utter “That child will be pretty”, pointing at α, but basing my utterance solely on the perfectly general
belief that any child of the parents β and δ will be pretty. In this case, where α is the child of β and δ, the general belief might be thought to support my utterance; but if we consider another circumstance of evaluation, where α lacks the property of being the child of β and δ, then it seems I do not have any grounds for my utterance at all.\textsuperscript{33} This potential divergence in extension, I believe, reinforces the idea that singular utterances, whose content is individuated in terms of an object and not the properties it contingently possesses, require similar singular beliefs to warrant fully their production, rather than simply general beliefs, which will be insensitive to the identity of their extension.

Furthermore, it seems that in those few cases where we might allow that a superficially singular term succeeds in conveying a descriptive proposition we have good reason to take this further proposition as purely pragmatic. For instance, in the above scenario, where my utterance of "That child" is based on a purely descriptive belief, it would seem that arriving at the descriptive proposition meant depends entirely on what you know about my motives in the context. If you think that I have met α before and have been in countless situations in which I am likely to have formed perfectly ordinary singular beliefs about this individual, then it seems that you will not have any reason to reject the literal proposition expressed as the one communicated. In this situation, though the hearer might be charged with missing an implied proposition (by failing to realise that the descriptive proposition 'the child of β and δ' was uppermost in my mind at the time of utterance), she could not, it seems, be charged with completely misunderstanding my words (as would be the case if the descriptive proposition formed the correct semantic analysis of the utterance). On the other hand, if you recognise that it is the descriptive proposition which is responsible for my utterance, rather than any singular belief about α, then you may well infer some alternative, non-referential proposition meant. Yet what interlocutors assume about speakers' grounds cannot be something we seek to accommodate at a semantic level.

\textsuperscript{33} Assuming for this example (contra Kripke) that an individual's parentage is not a necessary feature of their identity.
It may also be quite unclear which of several suitable descriptive propositions the speaker should be thought of as conveying in a particular context of utterance; so that the choice of any one proposition as the single correct semantic analysis of the utterance would be *ad hoc*. For instance, where a speaker utters “That author” indicating a book and it is mutually evident that the speaker’s grounds are general (i.e. perhaps her utterance includes the interpolation ‘whoever it is’ or ‘if it is α or β or δ’), then we might accept that a singular proposition does not provide the most suitable rendition of the proposition the speaker is trying to communicate. Yet the non-literal proposition meant might be thought to be one of several suitable descriptive phrases, such as ‘the author of that’ or ‘the author depicted on that sleeve’, etc. The interlocutor who opted for any such description would seem quite willing to withdraw their interpretation should it later become evident that some other description formed the speaker’s grounds; whereas it seems that the discovery of different grounds could never affect the semantic analysis of the utterance. The recognition that, in those cases where we might accept some descriptive proposition as the one conveyed, there are multiple such fitting descriptive propositions to choose amongst supports, I believe, the claim that any such further proposition is pragmatically, not semantically, conveyed.

So I would argue that, on reflection, the claim that deferred ostension cases are necessarily non-standard is incorrect; we are perfectly willing to allow that, at least in the majority of cases, the singular terms act in an ordinary manner to convey suitable, singular propositions. However, this is not necessarily to claim that there are no instances of singular terms acting in the ways proposed by the advocate of ambiguity (and perhaps such cases are more common amongst deferred ostension cases). Yet where we will accept a descriptive proposition as the one communicated such behaviour can be well explained by appeal to the Gricean mechanism explored above. Furthermore, such a solution can be warranted by recognising the disparity between the kinds of evidence the speaker has for her utterance and the kind of proposition literally expressed. Where a
speaker can be mutually seen to have only general grounds for her utterance and yet to produce a referential expression, then the contravention of Grice’s maxim of Quality may license the inference to some more suitable, descriptive proposition meant. In cases where a speaker utters a quantificational sentence on the basis of a singular thought what she says, though warranted, is not fully informative and appeal to Grice’s maxim of Quantity allows us to infer a more relevant or useful statement. On the other hand, where a speaker utters a singular term on the basis of a general thought, the speaker is not fully warranted in what she says and thereby flouts the principle of Quality. There is however a warranted proposition we can recover in such cases, i.e. the general thought forming the grounds for her utterance, and this can be pragmatically accorded to the speaker in order to preserve our communicative ends. Such explanations, however, do not threaten our unified semantic analysis of noun phrases.

(5) Conclusion:

So, where does this leave us in our debate between the unified and ambiguity positions? We began this chapter by arguing that the range of possible counterexamples to the unified hypothesis, as raised in Chapter 5, were in fact more constrained than we at first imagined. For, once the claims of the unified stance are properly understood, the class of anaphoric occurrences are excluded from the class of potentially non-standard occurrences. The advocate of unification does not have to claim that, contra intuition, anaphoric demonstratives and pronouns are singular terms because she does not have to claim that they are of the same syntactic category as deictic expressions. Appeal to the kinds of surface level features ordinary language speakers actually make use of in locating and tracking singular terms in practice allows us to demarcate deictic and anaphoric expressions, and treat only the former as referential. This then leaves the proponent of ambiguity with the more restricted class of cases familiar from the literature, ranging from referential descriptions to deferred ostension. Yet in each of these cases we have seen either that the claim that they are non-standard itself is questionable (e.g. for incomplete descriptions and
deferred ostension demonstratives) or that the non-standard proposition conveyed can be successfully explained by appeal to pragmatic features.

In the key cases where a superficially singular term or quantified noun phrase succeeds in conveying a non-standard proposition the audience must recognise the non-standard nature of the speaker’s grounds for her utterance. Yet in recognising this they come to see the speaker as flouting either the principle of Quantity or the maxim of Quality and this allows them to reject the literal proposition expressed as the one conveyed, inferring some more fitting, pragmatic proposition meant. In the first case, where superficially quantified expressions appear to convey singular propositions, a pragmatically conveyed proposition is warranted by the recognition that speakers possess more information than they are literally conveying. Though they evidently possess singular beliefs, which claim the world to be a very definite way, they choose to produce only general, far less informative utterances; thus they contravene the maxim of Quantity. On the other hand, where we feel inclined to accept that a speaker succeeds in communicating a general proposition by means of a singular utterance this can only be, I contend, because the audience recognises that the speaker’s grounds for her utterance are general in nature and thus that she is violating the principle of Quality, she is saying that which she lacks adequate evidence for. In order to preserve our communicative aims, then, the audience may perform a kind of ‘rescue operation’, rejecting the unwarranted singular proposition and replacing it with some alternative ‘proposition meant’, which can be seen to be grounded given mutually evident beliefs. Yet in neither of these (quite specialised) scenarios should the speaker’s ability to convey a non-standard proposition be thought to reflect on the literal interpretation of the proposition expressed, which remains that predicted by the unified stance all along.

So, what initially seemed to be immediate evidence for the falsehood of unification has on reflection been shown to be no such thing. The unified approach can cope, and cope well, with the *prima facie* difficult cases from
natural language. Now, however, the theory faces a more substantial worry. For, as we noted at the start of this chapter, it may be argued that the kind of pragmatic explanation appealed to by unification, though practically adequate to account for all recalcitrant cases, is unavailable since it conflicts with prior assumptions in this area. That is to say, it may be thought that a pragmatic explanation of non-standard cases is impossible, since our conception of what it is to be a referring term or a quantified noun phrase reveals that the cases demand semantic level accommodation. It is open to the ambiguity theorist to argue that unification is either in direct conflict with, or is at least unsupported by, our conception of the reference relation itself. The problem is that unification suggests that we should carve noun phrases along syntactic joints if we wish to trace the outline of our semantic categories; yet the reference relation by which we characterise singular terms may seem to have little to do with syntax. Reference, after all, often appears to be a deep and complex notion, which will impose substantial constraints on the way speakers and objects must be related prior to reference. Thus we can have little or no reason to expect this category of expression to be reflected by the boundaries of syntax. If this is correct then the work of this chapter, purporting to show the pragmatic explanation adequate and warranted in all non-standard cases, will be redundant; for the fundamental principle that syntax mirrors semantics will be ungrounded, and thus the existence of recalcitrant cases will suffice to show unification is not the correct model for noun phrases in natural language. However, in the final chapter, I want to argue that this idea is incorrect, that the mirroring principle of unification is not threatened by a proper conception of reference. To see this we will need to return to the views on reference we first introduced in Chapter 1 and examine their relations to unified and ambiguity theories of noun phrase classification.
One possible objection to the unified stance has then, I hope, been seen to be unfounded: despite *prima facie* appearances to the contrary the unified approach is able to accommodate *all* the noun phrase occurrences in natural language we have looked at so far. However, we now face a second kind of worry, stemming from our conception of reference and its relation to syntax. The suggestion is that our view of reference might be of a relation which holds independently of, or unrelated to, syntax, and thus that we have little or no reason to expect our semantic category of referential expressions to be reflected in syntactic categories, as unification predicts. If this is the case then, it would seem, the mere existence of recalcitrant cases suffices to show unification incorrect as the model of noun phrase classification in natural language. This objection relates back to the two views of reference which were first sketched in Chapter 1: there we contrasted what we called a ‘syntax-dependent’ view with a ‘syntax-independent’ conception and suggested that the latter approach would prove to be in tension with our advocated approach to noun phrase classification.

We are now in a position to assess this worry, seeing in more detail what a syntax-independent conception of reference might look like and why it causes problems for unification. To begin with I will sketch the general shape of the objection here, before turning to look in more detail at examples of the kind of conception of reference which might be deployed in an argument against unification. Finally, it will be contended that, although a satisfactory syntax-independent picture would undermine unification, such a thing is both hard to deliver and fails to fit the conception of reference and referential terms had by ordinary language users. Thus there is no bar to our adoption of the syntax-dependent view, which in turn lends support to unification.
The argument for noun phrase ambiguity to be considered now turns on a very simple and perhaps *prima facie* appealing thought: viz. that reference is a relation which we can conceive of independently of our syntactic view of a language. Crudely, referring to an object is a question of instantiating some mental or physical state (which can be characterised without appeal to the formal features of a language) and it is from its use in communicating this state of affairs that an expression derives its referential status. This view requires given extralinguistic conditions to be satisfied before the reference relation can be instantiated; an agent and an object must lie in some close relation before the former can refer to the latter and these conditions are (partly) constitutive of what it is to be a referential term. If we look at what is actually required to use a referential expression properly, the argument goes, we will see that there are constraints and conditions which are unrelated to, and which may thus cross-cut, syntactic categories. As a rough first approximation, we might schematise the argument as follows:

(i) An expression, $t$, is a referential expression iff to properly use/understand $t$ the agent must satisfy condition $C$.

(ii) Given a single syntactic category, $Y$, it may be that some member of $Y$, $t_1$, requires $C$ to be satisfied prior to proper use, while some other member of $Y$, $t_2$, does not require $C$ to be satisfied.

(iii) Syntactic category is not a good guide to semantic category.

If we impose substantial conditions on what it is to be a singular term then the unified theorist’s claim that syntax will provide an infallible key to semantic status is seen either to be false or ungrounded.

The ambiguity theorist’s claim is that understanding a semantically singular term requires an agent to know about, or be related to, the referent in some intimate way. We should recognise that these are constraints only on the ‘proper use’ of singular terms, i.e. use with understanding, and not simply on what is required for production of a semantically singular term. As Evans notes:

The divergence arises because of the possibility that a subject may exploit a linguistic device he does not himself properly understand...Given the
So, then, our primary task in this chapter is to discover what might be required for understanding a semantically singular term, and the suggestion will be that it requires the entertaining of a particular kind of thought, viz. a singular thought. What we will then need to know is exactly what is meant by the term 'singular thought' and to see why such a requirement might render unification mistaken. As we will see, the imposition of such a condition on singular termhood does not, in and of itself, create an argument against unification. For entertaining a singular thought can be related to syntactic properties of linguistic items in a way which would not threaten unification at all. However, it will be seen that it is a small step for many theorists from embracing a constraint on singular termhood to spelling out this constraint in a way which conflicts with unification. When theorists have considered what is required for having a singular thought, the answer in most cases has been inimical to unification. To see this, I will (in §3) sketch some syntax-independent accounts of reference to be found in the literature, all of which undermine unification.

(2) **Singular Terms and Singular Thoughts:**

I would suggest that there are at least three distinct ways in which we may explicate the notion of understanding a linguistic token, $t$:

i. $S$ grasps the type of which $t$ is a token.

ii. $S$ knows the linguistic function or rule associated with this type.

iii. $S$ knows the propositional content of $t$.

The first aspect of understanding is a question of identification: when faced with any phonetic or orthographic symbol, an agent must be able to recognise that representation as a token of some type with which she is familiar. In this sense a native English speaker might be said to understand utterances of 'that' but not utterances of 'cette-la', if they know no French. Or again, the dialect, speed and volume of the utterance must not bar the agent from identifying which kind of linguistic token is being put forward. Clearly this kind of understanding is

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common to all linguistic types, not just singular terms. The second, closely related, aspect to understanding requires that the type which is recognised be one with which the agent is sufficiently familiar. That is to say, the token identified must belong to a type which the agent knows the lexical entry and meaning rule for. Exactly what is required of the agent will depend to some extent on the view of lexical information and linguistic rules advocated. For instance, on a Kaplanian model of 'character' what is required of the interlocutor is grasp of some semantic item, divergent from the truth conditions of the expression, which indicates how to arrive at those truth conditions in any context of utterance. Thus in the case of the word ‘I’ the associated rule would seem to be something like: 'any token of ‘I’ refers to the producer of the token'; whereas for a predicate such as ‘red’ we might take the attached linguistic rule to be something along the lines of ‘any token of ‘red’ is satisfied by an object iff that object is red’. Once again, then, this seems to be an aspect of understanding which may be common to both singular and descriptive expressions.

Finally, then, the last way in which an agent may be thought to understand a given linguistic expression is by grasping its propositional content, and here at last we come to an apparent divergence between referential and descriptive expressions. A descriptive expression will give rise to a general proposition, whereas a singular term in subject position will result in a singular proposition. So, in the case of non-referential expressions it seems that grasping the propositional component of a particular token expression will not require adversion to any particular object. If one knows the character of the predicative component then one can always ascertain the propositional content; whereas this does not necessarily seem to be the case with referential expressions. Thus, the suggestion is, at this point we can recognise the divergence between singular and descriptive expressions: the former conveys an object-dependent proposition, while the latter does not. Let us see then how the recognition of this distinction translates into the kinds of thoughts which seem to be required for understanding each of our linguistic types.
At the level of propositional content then there is a divergence between a declarative sentence which has a singular term in subject position and an otherwise identical sentence with a descriptive phrase in subject position. I would suggest that we can translate this difference into a claim about the kinds of thoughts required for understanding each of the sentences in question. The general claim at work here might be stated thus: we might have two thoughts which agree in the property ascribed to an object, and which agree (ultimately) on the object to which the property is to be attributed, but which nonetheless differ in kind due to the way in which the object is involved in the thought. A token of one kind of thought, which we will label ‘descriptive’, would involve thinking of the object only as that denoted by some complex of predicates. Thus a descriptive thought about an object, \( \alpha \), would be one which did not invoke any direct representation of \( \alpha \), but thought of it only as, say, ‘the unique F’. In this way, adversion to the object might be viewed as somewhat ‘indirect’ or ‘contingent’; with the emphasis falling on the properties the object instantiates. Thus we might think of a descriptive thought as a thought which denotes (in the Russellian sense of the term), rather than refers to, objects. Thinking of objects in this descriptive way evidently does not require any particular relation to any particular object; instead it requires only a grasp of the predicative content involved.

The second kind of thought, which we will label ‘singular thought’, might then simply be construed as thought about objects which does not fit this descriptivist model. Such thoughts involve the object in a much more immediate fashion than their descriptive counterparts, and might \textit{prima facie} be thought to require some appropriate relation to that object. The primary example of a singular thought would seem to be a demonstrative thought about an object, where the agent entertains a thought about a particular object because it lies in some specific relation to her (e.g. is presently perceived, is demonstrated, etc).

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\(^2\) The label ‘contingent’ is, of course, only appropriate where the description is not necessarily true of the individual.
independently of its satisfaction of any (other) predicative complex. Thus we might envisage someone thinking of a presently seen object only as ‘that’, which seems to involve the object directly, rather than any properties it may instantiate. However, beyond this intuitive level, we might wonder exactly what this notion of ‘direct involvement’ amounts to; and I would like to suggest two possible ways of spelling out this idea. A claim about singular thoughts may surface either simply in the nature of the propositional content of certain thoughts, or in the existence of certain states of mind for the individual.

The first characterisation of singular thoughts depends solely on the recognition of a difference in kind in the propositional contribution of singular and descriptive expressions. Just as we saw earlier, one contributes an object directly to the propositional (or truth conditional) content of larger phrases, while the other contributes an object-independent, descriptive complex. The suggestion now is that the recognition of this difference is itself sufficient to motivate and characterise a difference in the kinds of thought entertained. Of course, exactly what we mean by a singular proposition still stands in need of some clarification, but Nunberg offers us the following initial characterisation:

At a first pass, we might say that a singular proposition is one whose identity conditions vary as the identity conditions on the individuals that correspond to its constituents. To say that an utterance of Oh, it’s you expresses a singular proposition, then, is to say that it would express a different proposition if this token of you picked out a different person.

In this way, a singular proposition would be one where the object itself, as opposed to any description of it, was relevant for the assessment of truth or falsity. To individuate the truth conditional content of a singular thought we need to advert to the object itself, regardless of the properties it instantiates, which is in stark contrast to the way in which we individuate the content of a descriptive thought. For a descriptive thought the identity of the object which forms the denotation of the thought is irrelevant; the same thought may be

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1 Although there will always be some description of the object which is relevant in the demonstrative case (e.g. Schiffer (1978) suggests ‘the one I have my gaze fixed on’), it does not seem that any such description can be taken to be doing the work in such a case; cf. Evans (1982), footnote 44, p.173.

entertained whether it is object \(a\) or \(b\) which ultimately satisfies the predicative component. However, for singular thoughts a difference in the identity of the object thought about is sufficient for a difference in the content of the thought; if the referent of the thought is different then the content of the thought itself must be different.

Appealing to singular propositions in this way, however, still leaves room for a further level of cognitive description; for instance, Kaplan and Perry, though according a central role to object-dependent propositions of the kind outlined above, take the level of description which is important for guiding action, etc., to be that of the thought’s ‘character’ or ‘role’, which is itself object-independent. That is to say, it is the guise under which the object appears in the proposition (or, perhaps more correctly, the function by which the object is secured) which is paramount in describing the agent’s state of mind. For instance, suppose a man, \(\alpha\), is standing in front of a mirror in which he sees an individual, \(\beta\), whose trousers are on fire. Now, if \(\alpha\) does not realise that he is looking in a mirror and thus that \(\beta\) is simply his own reflection, he may form a singular belief such as ‘That man’s trousers are alight’, which may lead to a certain course of action, such as shouting at the supposed stranger. If, however, \(\alpha\) realises that it is his own reflection he is viewing he will entertain a thought such as ‘My trousers are alight’ which will lead to a different course of action, such as trying to remove the flaming clothes. In both cases the singular proposition has the same truth conditional content, it is in this respect the same thought apprehended, concerning the same individual \(\alpha\) and the state of his trousers. Yet the ensuing behaviour we can expect is very different depending on how the object comes to figure in the thought. So, on this model, it seems

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5 Kaplan (1990), pp. 39-40, writes: “What we must do is disentangle two epistemological notions: the objects of thought (what Frege called ‘Thoughts’) and the cognitive significance of an object of thought...[A] character may be likened to a manner of presentation of a content. This suggests that we identify objects of thought with contents and the cognitive significance of such objects with characters.

Principle I: Objects of thought (Thoughts) = Contents
Principle II: Cognitive significance of a Thought = Character.”

See also Perry (1977).

6 This example is from Kaplan (1977), footnote 64, p. 537.
possible that entertaining the *same* singular thought may result in *different* states of mind (if a state of mind is individuated in terms of character). Perry writes:

> We use senses to individuate psychological states, in explaining and predicting action. When you and I entertain the sense of "A bear is about to attack me," we behave similarly. We both roll up in a ball and try to be as still as possible. Different thoughts apprehended, same sense entertained, same behaviour. When you and I both apprehend the thought that I am about to be attacked by a bear, we behave differently. I roll up in a ball, you run to get help. Same thought apprehended, different sense entertained, different behaviour.⁷

This model differs from the way of characterising singular thoughts due to Evans and McDowell; for here the individuating role of the object permeates, as it were, the thought. Unlike the Kaplan/Perry model there is not, as regards singular thoughts, some level of cognitive description which is independent of the object actually thought about. Rather the object appearing in the singular proposition, which gives the truth conditional content of the thought, is responsible for all aspects of the thought itself. Although the way in which the object is thought about, its 'mode of presentation', matters, this too is 'saturated' by the object.⁸ Modes of presentation are, on this approach, *object-dependent*: they are ways in which the referent is thought about which are constituted simply by the object itself. The distinction between this and our first approach perhaps comes into clearest focus in the empty cases, i.e. situations in which the speaker uses a singular term expecting to refer to a particular object but, perhaps through hallucination, is precluded from doing so by the lack of an appropriate object. Here it seems that both approaches will agree that a putative singular thought in such circumstances must lack truth conditional content, since this is individuated in terms of an object and there is no object.⁹ Beyond this however, it seems that the accounts may diverge. For Kaplan and Perry have an additional, object-independent level of cognitive description relating to singular thoughts which

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⁸ Evans (1982), Chapter 1.
⁹ There is a third possible picture which we should be aware of here, for it seems that Burge (e.g. (1974b)), given his commitment to a free logic where sentences containing empty terms will be false yet meaningful, may reject the claim that there is no truth conditional content available in these cases. Indeed he has shown us *how* we can ascribe truth conditional content to sentences containing empty terms. Yet since his position might then agree with Kaplan and Perry on the central issue of an independent level of cognitive description, we need not differentiate his account in the above discussion.
may be invoked to explain the agent’s state of mind in these empty cases. Thus, although the agent fails to entertain any truth conditional content, her state of mind and her ensuing behaviour may all be explained in terms of the thought’s character, which can remain unchanged even where no object is ultimately referred to.

However, things are very different on the Evans/McDowell picture, for here there is no level of cognitive description concerning a singular thought which is object-independent. So, without an object, neither the truth conditional content nor a ‘way of thinking’, or mode of presentation, is available. In the empty case, then, it seems Evans and McDowell owe us some explanation of the state of mind of the agent and the fact that things can to an agent seem as if she is entertaining an ordinary singular thought, despite the absence of an object. Evans and McDowell appear to diverge somewhat in their answers to this question, for McDowell sometimes seems to claim that the hallucinating agent has no thought at all: “[the agent] may think there is a singular thought at, so to speak, a certain position in his internal organisation although there is really nothing precisely there”. Although there may be a vast number of related, descriptive thoughts the agent has, at this crucial point she genuinely lacks something and is simply unaware of this fact. Evans, however, seems to propose a more conciliatory position, allowing that something may be present in these cases, though it clearly cannot be an ordinary singular thought. He recognises a kind of ‘mock’ or ‘apparent’ thought, related to the Fregean notion of fiction, which may still be available in empty cases. Thus this ‘mock thought’ might be invoked to explain the agent’s state of mind in hallucinatory cases.

To pursue the Evans and McDowell model of singular thoughts we would need to explore these empty cases further, seeing what is entailed in either a ‘mock thought’ or a ‘no thought’ view, and what could count as evidence for each. Furthermore, we might wish to consider in more detail the relation

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11 Evans (1982), p.28: “at almost every place where Frege discusses empty singular terms, the idea of myth or fiction, sometimes even poetry, is close at hand”.

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between the claim that singular thoughts have a content individuated in terms of an object and the claim that singular thoughts are entirely exhausted by an object, seeing what motivation Evans and McDowell have for moving from the former model to the more restrictive latter picture. Exploring these issues would, however, take us too far from our central concerns. So, pending such discussion, I shall embrace the more liberal model of singular thoughts offered by Kaplan and Perry; whereby the truth conditional content of a singular thought is individuated in terms of an object, yet there remains the possibility of a further, object-independent level of cognitive description even in such cases.

Let us recapitulate: we were interested in discovering what is required for understanding a singular term as opposed to a descriptive phrase, and the suggestion was that one difference lay in the kind of propositional content to be grasped. This gave rise to a further claim, that we could distinguish different kinds of thoughts an agent might entertain about an object, and that only one kind, the singular thought, would be sufficient for understanding an utterance containing a singular term in subject position. We then looked more closely at the nature of singular thoughts and recognised two distinct ways to characterise them: on the one hand, we might combine object-dependent truth conditional content with some object-independent level of cognitive description, arriving at a picture of a singular thought as different in kind to a descriptive thought, yet allowing that even in such cases a state of mind is not entirely exhausted by the object thought about. Alternatively, we might stress the requirement for an object ‘all the way up’ as it were. However, it was suggested that we had as yet no clear reason to move towards the second conception of singular thoughts rather than embracing the former characterisation. So the claim is that there is a difference between the kind of proposition conveyed by a sentence containing a singular term in subject position and that conveyed by a sentence containing a quantified noun phrase. This difference is a difference in truth conditional content and can be used to mark a distinction in the way we think about objects in the world around us.
We should be very clear, however, that nothing we have said so far is objectionable to the advocate of unification: for she might accept that understanding a singular term always requires entertaining a singular thought, so long as a singular thought is always available given certain syntactic properties of an expression. That is to say, if recognition of a certain syntactic type suffices for an agent to entertain a singular thought, the unification claim is put in no jeopardy. In this way, the kinds of thoughts we have in relation to parts of our language would be engendered by the linguistic properties of those parts, specifically whether or not they shared a syntactic category with expressions already classified as referential. This kind of claim, that entertaining a singular proposition comes about through recognising the formal, syntactic properties of parts of our language, might perhaps be attributed to Kaplan in the following passage:

There is nothing inaccessible to the mind about the semantics of direct reference, even when the reference is to that which we know only by description. What allows us to take various propositional attitudes towards singular propositions is not the form of our acquaintance with the objects but is rather our ability to manipulate the conceptual apparatus of direct reference.\textsuperscript{12}

In practice, however, as Kaplan goes on to note, the recognition that understanding a singular term requires entertaining a singular thought has come to seem an anathema to unification, for having a referential thought has been seen as much more than mere sensitivity to syntax.\textsuperscript{13} Rather it has come to seem a matter of an agent's relation to an object and it seems eminently possible that this kind of constraint might cross-cut syntactic boundaries. To see this I would like now to turn to some specific conceptions of reference, all of which throw doubt on unification.

\textsuperscript{12} Kaplan (1990), p.45.

\textsuperscript{13} The passage quoted above continues: "The foregoing remarks are aimed at refuting Direct Acquaintance Theories of direct reference. According to such theories, the question whether an utterance expresses a singular proposition turns, in the first instance, on the speaker's knowledge of the referent rather than on the form of the reference. If the speaker lacks the appropriate form of acquaintance with the referent, the utterance cannot express a singular proposition, and any apparently directly referring expressions used must be abbreviations or disguises for something like Fregean descriptions". 
Reference as Independent of Syntax:

The thought here is that reference is a rich and complex notion which has little or nothing to do with the notion of syntax. We can arrive at a conception of reference without studying the form and structure of our language and thus our category of singular terms in language should answer to this prior conception, not some internally prescribed syntactic category. This conception of reference as independent from the features of language to be found regimented in our grammar was, in Chapter 1, labelled a 'syntax-independent' conception. As was noted there, once we locate the home of reference beyond the confines of the formal features of expressions further dimensions of choice open up. For where we are supposed to garner our understanding of the relation from remains to be settled; however, perhaps the most natural move is to trace our conception of the relation to our theory of mind. Yet, even if we agree on this step, there are still many different ways to proceed: for instance, we might account for semantic concepts directly via their role in the mental life of agents (as Strawson and Grice seem to); or we might seek a naturalistic reduction of reference, accounting for the relevant mental states through causal, or other physicalist, relations; or we might take our understanding of reference to emerge from our theory of agents' knowledge of objects. To better understand what adopting a syntax-independent conception of reference might amount to, let us look, in this section, at each of these possibilities (which I take to be the most attractive or usual forms of syntax-independent views) in more detail, seeing how each comes to collide with the predictions of unification. Then, in the next section, we will turn to consider the problems with each of these particular models and the drawbacks of the syntax-independent approach in general.

The first kind of syntax-independent conception of reference I would like to consider belongs to Strawson in 'On Referring'. On Strawson's model reference is not a property expression-types or tokens can possess as abstracted from their context of utterance; rather it is something which comes about only through a certain kind of contextual deployment:

'Mentioning', or 'referring', is not something an expression does; it is something that someone can use an expression to do. Mentioning, or
referring to, something is a characteristic of a use of an expression, just as ‘being about’ something, and truth-or-falsity, are characteristics of a use of a sentence.\(^4\)

Given this conception of reference, it is not words, abstracted from contexts of utterance, that are referential or non-referential, but words as they realise the referential intentions of speakers which acquire such a semantic status. Except in a context, with a certain employment, language is ‘referentially mute’. We have a conception of reference which is independent of our formal semantic theory for a language and which should thus be spelt out in some alternative vocabulary prior to such semantic theorising.

For Strawson, to be a singular term is to be a token expression which the speaker uses to signal her reference to an object, where this is a relation which we understand independently of the grammar of our language. He notes at one point:

> It should be clear that the distinction I am trying to draw [the general distinction being between referential and descriptive expressions] is primarily one between different roles or parts that expressions may play in a language, and not primarily between different groups of expressions; for some expressions may appear in either role. Some of the kinds of words I shall speak of have predominantly, if not exclusively, a referential role. This is most obviously true of pronouns and ordinary proper names. Some can occur as wholes or parts of expressions which have a predominantly referential use, and as wholes or parts of expressions which have a predominantly ascriptive or classificatory use.\(^5\)

Clearly, then, characterising singular terms as those used in ‘a uniquely referring way’ is something which will run counter to the predictions of a theory like unification for Strawson. For him, expressions grouped syntactically cannot be expected to mirror expressions grouped semantically. Although Strawson does not expand a great deal on how he envisages or characterises this mental act of using an expression in a referential way, perhaps we might think of it as using an expression to ‘bring an object directly before the mind’ or express some commitment on the speaker’s behalf to there being a unique object she can single out to talk about.\(^6\)

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\(^4\) \textit{Ibid.}, p.326.


\(^6\) Wittgenstein (1958), p.3, notes a somewhat similar suggestion: “if you are asked what is the relation between a name and the thing it names, you will be inclined to answer that the relation
A second theorist who embraces the account of semantic notions in terms of what an agent is using an expression to do is Grice. In his reductive programme he envisages accounting for the meaning of a sentence in psychological terms; specifically the intention of the speaker which the utterance can be used to convey. So, in ‘Meaning’ we find him suggesting:

Perhaps we may sum up what is necessary for $A$ to mean something by $x$ as follows. $A$ must intend to induce by $x$ a belief in an audience and he must also intend his utterance to be recognised as so intended. But these intentions are not independent; the recognition is intended by $A$ to play its part in inducing the belief; and if it does not do so something will have gone wrong with the fulfilment of $A$’s intentions. Shortly, perhaps, we may say that “A meant to mean [non-natural meaning] something by $x$” is roughly equivalent to “$A$ uttered $x$ with the intention of inducing a belief by means of the recognition of this intention”\(^{17}\)

Given this general explanation of semantic notions via a theory of mind, it seems that we might also conceive of the semantic properties of sub-sentential parts in ways which derive their content from the psychology of language users and not from the formal features of our theory of language. If this is the case then what we need to pay attention to in order to specify the meaning of sentences or the semantic status of sub-sentential parts is what a speaker is using the particular piece of language to do, what intentions she has in producing any given linguistic token. We need to look to the cognitive content of the individual and then regiment our language in terms of this. Yet given this kind of approach, which locates semantic notions first and foremost via a theory of mind, we can have little reason to expect semantic categories to be reflected in syntactic classes.

Though both Strawson and Grice propose accounting for semantic notions at a psychological level, with their application to language being derivative, in some sense, on their primary use in a theory of mind, it seems we can envisage taking this move one stage further. For if we were to advocate a

\(^{17}\) Grice (1957), p.219. We should note that, although the sentential semantic notion of meaning is to be accounted for in this way, Grice is less explicit about sub-sentential notions like reference. Thus the attribution to him of a syntax-independent view of this relation is open to question; for instance, it would be consistent with his general position to spell out the intentions here as adverting to the syntactic features of expressions.
naturalistic reduction of psychological properties, it seems we should be able to account for reference in a physical or scientific vocabulary, e.g. in terms of causation. Many theorists have been associated with causal approaches to reference; for instance, Kripke in *Naming and Necessity* and Evans in ‘The Causal Theory of Names’ both look to causation to tell us something about reference. However, as we will see, Kripke’s own account seems more concerned with providing a picture of reference preservation than reducing the reference relation itself to naturalistic terms; thus the account which will prove to be most germane at this point in our inquiry will be Field’s approach in ‘Tarski’s Theory of Truth’. For Field really does suggest a naturalistic reduction of reference to causal (or other) terms which he deems ‘physicalistically respectable’. We should also note in advance that, were Field’s position embraced, the argument against noun phrase unification would become particularly strong: for it would then be the case that no superficially singular term concatenated with a sortal term for an abstract object could ever be semantically a singular term. If we require causal contact with an object prior to referring to it, expressions like ‘that number’ or ‘this function’, purporting to refer to abstract objects (which are usually taken to be causally inert), would demand semantic analyses as descriptive expressions. So a syntax-independent conception of reference of the kind we will look at next would not only undermine the claim that syntactic category should reflect semantic kind, it would make such a claim false.

In *Naming and Necessity*, Kripke is concerned to reject the so-called ‘descriptive theory’ of reference (whereby the extension of a referential expression is decided by an object’s possession of some particularly apposite property or cluster of properties associated with a name) in favour of a causation-based alternative. His account posits an initial ‘baptism’ and an ensuing preservation of this word-object link through a continuous causal chain, stretching from the first use of the expression to the current speaker who utters

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18 Kripke (1980); Evans (1973).
19 Field (1972).
the name with the intention of co-referring with the initial baptiser. The appeal to the causal chain found in Kripke’s account, however, serves primarily to explicate the notion of reference preservation; that is to say, its role in the theory seems to be to underpin and explain how a singular term in our mouths can pick out the same individual it was introduced to name, even when current speakers may lack any direct contact with the referent (e.g. how my utterance of ‘Aristotle’ serves to refer to an Ancient Greek philosopher who dies long ago). Thus it seems that the initial referential act or baptism still stands in need of explanation. Furthermore, we should be clear that Kripke himself did not propose his account as a new theory of reference; but stressed instead that it offered only a new picture of the relation.20

Yet, it seems that we might go on to explicate even the fundamental referential act in a thoroughly causal way. For instance, Devitt appeals to causation to preserve reference and then takes perception to be the key to any initial referential act. Thus, when considering the Kripkean case of an utterance of “Smith is raking leaves”, as said of Jones, he writes:

In virtue of what does a speaker mean Smith or Jones? What would make either person “the object of thought”? I suggest answers in terms of causal chains of a certain sort; I call them “d-chains”, short for “designating chains”...Underlying [a paradigmatic use of ‘Jones’] is a causal network stretching back through other people’s uses and ultimately “grounded in” Jones in a face-to-face perceptual situation.21

Our primary referential instance then is the perceptual situation and if we were to hold a purely causal theory of perception, such as that put forward by Grice, this would seem to yield a thoroughly causal account of reference.22 Widening our constraint to require an object to be causally responsible for information beyond the purely perceptual might lead us toward the kind of picture put forward by Evans in his ‘The Causal Theory of Names’. Here the fundamental notion is of an object serving as the cause or source of a body of information we associate

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20 Kripke (1980), pp.93-4: “Rather than giving a set of necessary and sufficient conditions which will work for a term like reference, I want to present just a better picture than the picture presented by the received views...[P]hilosophical analyses of some concept like reference, in completely different terms which make no mention of reference, are very apt to fail.”
22 Grice (1961).
with a name; so that an object is the referent of an expression not necessarily because it fits the body of information we associate with the name (as the ‘description theory’ claimed) but because it is causally responsible for (a significant part of) that information. Thus he writes:

Such an expression as ‘That mountaineer’ in ‘That mountaineer is coming to town tonight’ may avert to a body of information presumed in common possession, perhaps through the newspapers, which fixes its denotation. No one can be that mountaineer unless he is the source of that information no matter how perfectly he fits it, and of course someone can be that man and fail to fit quite a bit of it.\(^2\)

The key to determining an expression’s referent is then the idea of an object’s being causally responsible for a body of information. An expression might be thought to be a referential expression if it answers to a ‘dossier’ which is causally dependent on a certain object.\(^3\)

The appeals to causation to be found in Kripke and Evans have, it seems, more to do with overcoming the problems of the description theory of reference assignment than a desire to reduce reference itself to a naturalistic notion. However, this latter, truly reductive view of reference has been proposed by some, e.g. Field in his paper ‘Tarski’s Theory of Truth’. Field sees an unreconcilable conflict between physicalism (which seems for him to be the claim that the physical facts exhaust all the facts) and irreducibly semantic notions. He defines a position called ‘semanicalism’ as “the doctrine that there are irreducibly semantic facts. The semanticalist claims, in other words, that semantic phenomena (such as the fact that ‘schnee’ refers to snow) must be accepted as primitive, in precisely the way that electromagnetic phenomena are accepted as primitive (by those who accept Maxwell’s equations)”.\(^4\) Field wants to preserve his version of physicalism against semanticalism, thus he must offer us a reduction of semantic notions to physical relations; the prime candidate for reference being causation. We should see the referential status of a linguistic expression as underwritten by what Field calls ‘primitive denotation’:


\(^3\) The notion of a ‘dossier’ is central in Crimmins (1992); however, I believe the term first appears in the work of Grice.

\(^4\) Field (1972), pp.92-3.
physicalistically respectable relation in terms of which the semantic notion can be explained.

Although Field does not go into a great deal of detail about this subvenient base, he does note with approval the development of causal accounts such as Kripke's. Yet although it seems natural to group the search for a naturalistic reduction of reference alongside causal theories (but perhaps not, given what we said earlier, alongside Kripke), Field himself sounds a note of caution about seeing causation as the sole factor at work here:

I don't think that Kripke or anyone else thinks that purely causal theories of primitive denotation can be developed (even for proper names of past physical objects and for natural-kind predicates); this however should not blind us to the fact that he has suggested a new kind of factor involved in denotation that gives new hope to the idea of explaining the connection between language and the things it is about. It seems to me that the possibility of some such theory of denotation (to be deliberately very vague) is essential to the joint acceptance of physicalism and the semantic term 'denotes'.

So we are offered no more concrete account of primitive denotation, just the promissory note that causation plus some other physicalistically respectable notions will eventually be able to replace reference as an essentially semantic concept.

The final kind of approach to reference, which accords with the ambiguity theorist's assumption that syntax cannot be expected to have much to do with semantics, which I want to look at is to be found in the work of Russell and (to an extent) Evans. What Russell and Evans share in their discussion of reference is a particularly epistemological slant on the issue; though reference is once again approached through a theory of mind, what matters is the kind of knowledge an agent has about an object. The important notions here are to do with the way in which an agent knows about an object; for only by standing in the close, intimate relation with an object which yields a particular kind of

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26 Ibid., pp.99-100.

27 Nelson (1992), pp.63-4, writes: "Russell’s conception of reference continues the line of British empiricism from Locke through Mill. Reference is based on the acquaintance a person has with the objects of his immediate experience; it is a word-to-object link established by a knowing subjects acquaintance with the world. Hence reference theory is a department of theory of knowledge."
knowledge of it, can a speaker be in a position to refer to it. An agent must, so to speak, be ‘acquainted’ with the objects she refers to. This suggestion belongs originally to Russell, who recognised two different kinds of knowledge an agent might have about an object: knowledge by description and knowledge by acquaintance.

I shall say that an object is ‘known by description’ when we know that it is ‘the so-and-so’, i.e. when we know that there is one object, and no more, having a certain property. We know that the candidate who gets the most votes will be elected, and in this case we are very likely also acquainted (in the only sense in which one can be acquainted with someone else) with the man who is, in fact, the candidate who will get most votes, but we do not know which of the candidates he is, i.e. we do not know any proposition of the form ‘A is the candidate who will get most votes’ where A is one of the candidates by name.

Russell’s idea is that we can only genuinely refer, i.e. use singular terms about, those objects which we are acquainted with; this is his ‘principle of acquaintance’, which he motivates as follows:

The chief reason for supposing the principle true is that it seems scarcely possible to believe that we can make a judgement or entertain a supposition without knowing what it is that we are judging or supposing about. I shall, therefore, in what follows, assume the principle and use it as a guide in analysing judgements that contain descriptions.

However, if the principle of acquaintance is to act as an informative guide in the analysis of utterances, we need to be clear about exactly what the relation of ‘acquaintance’ amounts to and this has proved a controversial matter.

The intuitive distinction seems clear enough: acquaintance is some sort of direct contact with an object, while description is knowledge based solely on predicative claims about some entity. However, it is in moving from this intuitive grasp of the notion to anything more concrete that Russell’s own account loses much of its appeal. For Russell was led to claim that the only true

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28 Russell (1911), p.156.
29 There is an exegetical question here; for instance, Sainsbury (1995) seems to suggest that Russell should be taken as proposing a constraint on thought and not on the analysis of singular terms in a public language. On this reading, Russell would seem to be very close to the position I ascribe Evans below.
30 Ibid., pp.159-60. We might note that Cappio (1981) has argued that initially, in ‘On Denoting’, the principle of acquaintance emerged as a consequence of Russell’s theory of descriptions; whereas in later works, e.g. ‘Knowledge by Acquaintance and Knowledge by Description’, it is taken as a constraint on an acceptable analysis of definite descriptions.
objects of acquaintance were sense-data (named via the genuine names ‘this’ and ‘that’), universals and, perhaps, the self, since these were the only objects which could be ‘directly before the mind’.31 This property, he thought, made them capable of sustaining the degree of incorrigibility he required for an agent’s most fundamental knowledge. This clearly gives rise to a very strong argument against unification, for we are severely limited in those objects we can use referential expressions of. As Cappio notes:

Russell’s claim is that the only sentences that contain “Bismarck” as a genuine name are those uttered by Bismarck himself, on the ground that only Bismarck could even understand such a sentence...for those of us who do not know Bismarck, just because we can understand propositions apparently about him, they must really not be about him: that is, they cannot contain him as a constituent. Our propositions about Bismarck must be different propositions from Bismarck’s about himself even though they may have the same verbal expression.32

However, the epistemological background which serves to give content to the principle of acquaintance for Russell (and the extremely restrictive account of the objects of reference it gives rise to) holds little attraction in the contemporary arena. So, we might wonder, can we elaborate the acquaintance relation in any way which does not lose its appeal?33

One initial way to spell out exactly what is meant by ‘acquaintance’ might be to appeal to perception. In this way we could claim that an agent is acquainted with an object only if that object is immediately available for demonstrative location; i.e. is recognised as present in the immediate environment of the interlocutors. However, a moment’s reflection should show us that in fact this suggestion is too extreme to be plausible. For there are a myriad of cases we surely wish to count as referential which do not meet this standard. The most obvious category being demonstratives used to talk about objects which are no longer perceptually present; thus ‘that man was awful’ said of someone who has just left the room, or ‘that girl was terrific’ said of someone met last year. Nevertheless, the notion of perception itself does seem to capture

31 Russell (1918).
33 As Sainsbury (1979) has argued, it is unlikely that there is any more relaxed constraint which could fit into the Russellian programme itself, given the epistemological claims he wanted to support.
something very important to the notion of reference; so perhaps what ‘acquaintance’ needs to capture is the idea that the object is now or has been perceived by the agent. In this way, being ‘acquainted’ with an object would require an experiential encounter of some kind with that object. Thus singular terms used to pick out objects which the agent has direct experience of may be countenanced as semantically singular, while others will be semantically quantificational. Or again, those superficial quantified noun phrases which require a singular, perception-based thought to comprehend will be semantically referential, otherwise they will be analysed as the denoting phrases their surface form suggests.

On closer inspection, however, it is not immediately clear that the notion of perception per se can play the role of the non-syntactic condition on referential status. For instance, we might feel that it is somewhat unclear exactly what we perceive, as Dummett notes when considering such an appeal for the distinction between abstract and concrete objects:

This makes the distinction relative to human faculties, for it is evidently sometimes a contingent matter whether or not something affects human sense-organs: by such a criterion, light-waves would be concrete but radio waves abstract. Moreover, difficulties would arise, in applying such a definition, as to what counted as, e.g. ‘feeling’ something: do we feel the gravitational pull of the Earth, for instance, or do we feel only the pressure of the objects which support us, or, again, do we really feel, not the pressure, but only the objects themselves?\(^{34}\)

Dummett contends that brute appeal to which objects it is possible for us to perceive cannot provide a principled division between abstract and concrete objects.\(^{35}\) If this is correct, it relates to our current proposal (that the possible objects of perception demarcate the objects of reference), for unless we have a

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\(^{34}\) Dummett (1973), pp.480-1.

\(^{35}\) As Wright (1983), pp.66-7, notes, however, Dummett’s objection is not to reference to abstract objects per se: “It seems that, for Dummett, the assignment of reference to abstract singular terms need not be illegitimate - it all depends on whether our explanations of contexts involving those terms are in good order. What for Dummett is illegitimate, in the absence of support for the G"odelian brand of platonism (according to which we possess faculties directly sensitive to abstract objects as our ordinary senses are to concrete ones) is the attribution of reference realistically construed”. This is an objection Wright himself rejects (see, for instance, pp.82-3: “if the objectivity of the existence of the referent of abstract singular terms is not sufficient to legitimate a realistic construal of reference for them, what can ‘realistic’ possibly mean?”).
clear distinction between objects we can and cannot perceive we will be unable to use this to underpin a distinction between objects we can and cannot refer to. Can an utterance of ‘that pull’ succeed in being a semantically referential expression in virtue of my perception of the Earth’s gravitational field, or should it be analysed in some other way? So, if we are utilising our sensory mechanisms to delimit what we can become acquainted with, and acquaintance in turn as instrumental in defining semantic category via its role in singular thoughts, then, if we accept Dummett’s worry, it seems we will be left with borderline cases.

As well as failing to draw a concrete division, however, an appeal to perception also appears to be too strict to delimit an intuitively appealing category. For it seems to be the case that reference can go ahead concerning objects which the agent has never directly experienced herself, but which she has learnt about vicariously, through some other medium. Do we really wish to be forced to claim that an utterance is necessarily non-referential simply because the speaker’s information about an object comes from other members of her linguistic community? I may never have been in perceptual contact with Zanzibar, but the testimony of others seems to license singular thoughts about it and thus referential utterances utilising the singular term ‘that place’. Or again, imagine that we are reading of a long running crime spree in the local area where, due to the peculiar modus operandi in each case, the police are convinced that a single individual must be responsible for all the incidents. Here it might seem that I am sufficiently well acquainted with the individual who has committed these crimes to utter “That robber has struck again!” and thereby say something genuinely referential.

Cases like these prompted Evans to try to extend the notion of acquaintance beyond the perceptual model, through a concern with the transfer or preservation of information. Thus, just as the memory of a perceptual encounter with an object may serve to ground a later referential act to that object by the same agent; so a perceptual encounter with an object by one agent might serve to ground a later referential act to that object by another agent. In a way
analogous to our use of perception as a mechanism for gathering information about our surroundings, Evans suggests that we can utilise the testimony of others as a means of disseminating information throughout a community and discriminating objects prior to reference to them. For Evans the key to widening Russell’s approach beyond the confines of perception was the notion of identification:

[The knowledge which Russell’s Principle requires is what might be called discriminating knowledge; the subject must have the capacity to distinguish the object of his judgement from all other things...We have the idea of certain sufficient conditions for being able to discriminate an object from all other things: for example, when one can perceive it at the present time; when one can recognise it if presented with it; and when one knows distinguishing facts about it.]

Much of The Varieties of Reference is spent trying to codify this constraint, expanding it from the perceptual case where we have a fairly good grasp of what it entails, into other less clear cases such as recognition and description.

As we saw above, Evans allows that object identification via perception and memory can be extended via identification of an object through the testimony of others. Furthermore, he was even willing to permit the identificatory knowledge necessary for reference to abstract objects (thus the worry derived from Dummett concerning ‘borderline’ cases is dissolved):

Is there anything corresponding to demonstrative identification in the case of abstract objects? Certainly it would have to be of a quite different character from demonstrative identification of physical objects, since the fundamental ground of difference of such objects is not spatio-temporal. Nevertheless, there are locutions which are suggestive of such an identification; for instance, ‘this colour’, ‘this song’, or ‘that point’ (said during a philosophical discussion)....We need a distinction between thinking of the object of a thought via a description like ‘the type of which this is a token’, and thinking of it as this type. The latter is a possibility only for someone who perceives the token clearly enough to be able to abstract the properties of the type. And this latter position may be a positive requirement for understanding.

So, although we must accept that abstract objects are not available for the same kind of ostensive demonstration as other objects, there seems to be no immediate move from this recognition to the claim that they are not objects of acquaintance and therefore not possible relata for the reference relation. Yet, despite the

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37 Ibid., pp.198-9.
potential extension of the notion to abstract terms, if we were to take the imposition of this enriched Russellian condition as constitutive of something’s being a singular term then we could still construct an argument against unification. In the schematic form of the ambiguity theorist’s argument which we looked at in §1, such a stance would take Evans’ ‘knowing which’ condition as condition \( C \); so that an expression, \( t \), is a singular term iff understanding \( t \) requires an agent to satisfy \( C \) - to know which object \( t \) picks out.

Once again, imposing this sort of condition on what it is to be a singular term would cast serious doubt on the veracity of unification. For we could have no guarantee that the class of expressions for which the syntax-independent constraint holds would form a homogenous syntactic category. Yet despite the apparent ease with which Evans’ conception of reference in thought lends itself to an argument for ambiguity, we should be very clear that no such move is made by Evans. Indeed, as we will see in the next section, he explicitly embraces what I am calling the ‘syntax-dependent’ view, which in turn lends itself to unification. Evans takes the semantic category of singular terms to be wedded to syntactic features of our language, and his strategy is then to consider whether this independently characterised semantic class can all be thought of as ‘Russellian singular terms’ (i.e. those which meet his individuating knowledge condition) or not. The Russellian singular terms are a class characterised by their relation to certain thoughts, but he does not think that such a grouping will necessarily find a natural home in the classifications of ordinary language. So, if we were to claim that what it is to be a singular term is to be an expression which requires an agent to know which object is being referred to in order to understand that expression then the unified stance would be undermined; but, to repeat, making such a claim would seem to diverge from Evans’ own stance here.

To recap: we were in search of ways of conceiving of the reference relation which would throw doubt on the relation between syntax and semantics appealed to by unified accounts, and we have seen that there are many such models. For if the theory of reference is conceived of as, first and foremost, a
division of the theory of mind (whether this is treated naturalistically or not),
then it seems those features relevant for determining referential status, such as
the use an expression is being put to in the mind of the speaker, the causal
relations between agent and object, or the way in which an agent knows about an
object, need not be constrained by syntactic boundaries. Given a conception of
reference which is available prior to the study of the formal features of our
language we cannot expect the semantic category of singular terms to match up
with any (collection of) syntactic categories. This then is the major difficulty the
advocate of unification must face: prima facie, the search for a ‘mentalistic’
rendition of reference, which can then be brought to semantic theorising, might
seem quite appealing. Yet if we embrace this model our grounds for accepting
unification cannot but be undermined. However, I would like now to suggest
that, contrary to this prima facie appearance, no such conception of reference
fits our intuitive view of the relation. First we will see that, on closer inspection,
it is much harder to deliver any such candidate which seems a satisfactory
replacement for a linguistic conception of reference. Second, I will contend that
reflection on the kind of reference relation appealed to by natural language
speakers, and the kind of theoretical constraints we can expect on the notion,
shows us that it is the syntax-dependent semantic account (which is favourable to
the idea of some kind of significant syntactic-semantic relation) which should be
endorsed by theorists, as it already is by ordinary speakers.

(4) Problems with Syntax-independent Conceptions of Reference:

As we saw above, the only potential candidate so far for a non-semantic
reduction of reference is the causal theory of reference. Although Field notes
such an account may need appending with additional, physicalistically respectable
notions, since he offers us no account of what these might be, I think we are
justified in concentrating solely on causation. Yet there are difficulties with
treating this notion as able to explicate reference: on the one hand, as theorists
like Dummett, Evans and Føllesdal have noted, the account has problems with
“communitywide changes that make a term that referred to one thing at one time
While, on the other hand, as Evans objects, a purely causal condition seems to permit reference in some situations where intuition appears to prohibit it. This problem (which seems to play a significant part in supporting Evans’ epistemological condition despite the important role of causation to his account in general) is illustrated in the main by a certain kind of thought-experiment in *The Varieties of Reference*.

We are asked to imagine that one day a subject briefly sees two indistinguishable steel balls rotating around a middle point, so that he then believes nothing about one ball which he does not also believe about the other.

This is certainly a situation in which the subject cannot discriminate one of the balls from all other things, since he cannot discriminate it from its fellow. And a principle which precludes the ascription to the subject of a thought about one of the balls surely has intuitive appeal. Certainly, if one imagines oneself in this situation, and attempts to speculate about one of the balls rather than the other, one finds oneself attempting to exploit some distinguishing fact or other.

However, mere appeal to causation does not guarantee a subject cannot entertain genuine referential thoughts in such a case. For instance, imagine that, instead of a single experience of both balls, the subject instead sees one ball on one day and the other on the next. However, at some later date, it is only the latter experience which the subject retains a memory of (perhaps as a result of some very localised amnesia), and he now tries to entertain a thought about ‘that shiny ball’. Here, although again there is no discriminating conception the agent can employ, it is the case that only one ball is causally responsible for the agent’s current thought. So, we have a case where a causal constraint is satisfied, while the requirement for discriminating knowledge is not; and here, Evans suggests, contra the causal rendition, reference should be ruled out.

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38 Føllesdal (1995), p.63. We might here think of Evans’ (1973), pp.10-11, example of the name ‘Madagascar’, or Dummett’s (1973), pp.150-1, discussion of the names of German card games. A further possible objection is noted by Harman (1993), p.152, who highlights the problem of how we are to spell out an *appropriate* causal chain, and takes this to demonstrate that causation alone is insufficient: “Something more than mere causal relations has to be relevant to what a term names, since the term will have causal relations to irrelevant things. There are causal relations of various sorts between my use of the term ‘Van’ and my neighbour’s house (which I identify as ‘Van’s house’), his children (‘Van’s children’)…[But] I do not use ‘Van’ as a name for any of these other things”.

His reason for this is that such a thought would be unconnected to any of the cognitive abilities which indicate an individual's grasp of a referential thought. There is nothing the agent could do with a non-discriminating referential thought which would distinguish it from the entertaining of an ordinary descriptive idea.

[Our subject's supposed idea of that ball is completely independent, not only from any possible experience, but also from everything else in his conceptual repertoire. There is no question of his recognising the ball; and there is nothing else he can do which will show that his thought is really about one of the two balls (about that ball), rather than about the other. The supposed thought - the supposed surplus over the ex hypothesi non-individuating descriptive thought - is apparently not connected to anything.]

In the case of the amnesiac, there is nothing which possession of the non-discriminating idea of the object adds to the agent; he will not know, faced with any other ball (which he can identify), whether this ball is the same as the one he thought of earlier (indeed, Evans' suggests that he would not even really know what it would be for the answer to such an identity query to be 'yes' or 'no'). So, none of the abilities which seem so fundamental to ascriptions of genuine reference are preserved by allowing reference where discriminating knowledge is absent. If the supposed singular thought is isolated from everything else in the agent's conceptual repertoire, it also seems that it will fail what Evans' calls the 'Generality Constraint'. This tells us that, for any singular thought 'Fa', entertained by an agent, A, A must also be able to entertain thoughts of the form 'Ga' and 'Ha' (i.e. thinking of the object as possessing other properties in her conceptual repertoire), and the form 'Fb' and 'Fc' (i.e. thinking of other objects she can identify as satisfying the predicate). Yet, in the case envisaged, where the speaker cannot identify which object she is thinking about, Evans seems to suggest that the first part of the Generality Constraint will be contravened. Since the subject cannot identify which object is named by 'a', he cannot, it might seem, consider alternative propositions in which the object picked out by 'a' figures. Therefore positing a singular thought in such cases is explanatorily

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40 Ibid., p.115.
41 Ibid., pp.100-5.
unmotivated. Nothing the agent is capable of doing could manifest an understanding of anything more than a descriptive proposition.

So there seem to be problems with taking appropriate causal relations as giving a satisfactory account of our intuitive conception of reference; what can we say of the other accounts? Turning to Evans’ own preferred suggestion, the ‘knowing which’ condition, I would like to suggest that here again there are certain *prima facie* worries; for it may seem that such a condition comes too close to specifying what it is to *verify* a referential statement, rather than appealing to what is *constitutive* of reference itself. That is to say, we should be careful here to distinguish two distinct claims: first, the claim that for an object to be the referent of a thought/expression the agent must be appropriately related to it; and second, the claim that for an agent to *be sure* or *know* which object she is referring to she must be appropriately related to it.\(^\text{42}\) A singular term referring to x might be thought to become a useful piece of cognitive currency only when an agent is related to x in precisely the ways outlined by Evans; yet this is not to say that, when the term is not useful, when uses of it are not as we might say ‘knowledge-invoking’, its referential status must be revoked. The worry is that in canvassing a condition which holds in the vast majority of referential cases we have been blinded to the possibility of reference without these conditions. As Crimmins notes:

> [This] argument makes the following mistake: we canvass *typical* cases in which beliefs really are about specific individuals...and we notice that in each of them the agent stands in a somewhat intimate relation to the individual in question, leading us to suspect that this sort of relation is what makes the belief truly about the individual. All we are entitled to conclude is that we typically form beliefs truly about individuals only when we are related to them in an intimate manner. The right way to think about this fact is as arising from a constraint on the *usefulness* of forming a notion about an individual.\(^\text{43}\)

To judge a referential act successful the satisfaction of certain contextual features, such as an appropriate causal connection or identificatory ability, is necessary. However, contra this attack on the unified stance, there is no

\(^{42}\) As De Souza (1974), p.454, notes: “Knowing who” is a context-dependent notion: it is knowing ‘how to get to’ in a sense that can vary according to opportunity and interests. Referring, on the other hand, is either done or not done.”

\(^{43}\) Crimmins (1992), p.86.
immediate move from features which are contextually required to know that the exercise of an ability has been successful to a claim about constitutive features of that ability.

Finally, then, we come to the general approach which seemed to underlie all of the above accounts: the idea that we could approach reference independently of a formal semantic theory for a language, specifically through a theory of thought. Now, however, we might begin to wonder whether such an approach can indeed be as plausible as first supposed. For the claim is that we can regiment our language with respect to the classifications in thought; yet reflection seems to show that the kinds of classifications we can draw in thought are not of the right kind to impose on language. For instance, though Evans goes to great lengths in The Varieties of Reference to explicate and understand the many different ways in which an agent can come to entertain a singular thought about an object, he does not suggest that this nebulous and heterogeneous class can be used to regiment language. There is a discrepancy between the formal, static features of language as a means of representation and communication, and the complex, rich and varied ways in which objects can figure in the thoughts underpinning language production. Tokens of exactly the same sentence type may be correlated in the minds of language users with a plethora of different kinds of thoughts; in a way which gives us no leverage in our attempt to capture the systematic meaning properties of our language if we begin solely with our theory of mind.

To put matters crudely, there are just too many and too varied linguistic items which can come with Strawsonian referential intentions attached for such intentions to hope to demarcate a semantic kind in natural language. For instance, recall the kind of indefinite description highlighted by Chastain, which we looked at in Chapter 5; here an utterance of ‘a man’ or ‘an apple’ was thought to be referential if used to draw attention to one particular object. Yet, although some theorists have argued for referential semantic status for indefinites, in practice this is a line few theorists wish to take. Rather, ordinary
speakers and theorists seem to agree that expressions of this form (and others like ‘some girl’) are not to be intuitively aligned with referring terms; yet equally such expressions can come with Strawsonian referential intentions in place. What this reveals is that such intentions are not paramount in assessments of linguistic meaning. If we are trying to capture the semantics of noun phrases then we need to look to the role and the form of the expression-types, not to the heterogeneous aims with which they may be uttered. To repeat: if we want to give the meaning of a sentence, or the semantic status of a subsentential item, we should look to the language it is a part of and not the vagaries of the intention it may come with.\footnote{We might relate this point back to our discussion of the formal semantic approach versus communication theoretic accounts in Chapter 1, where we noted the difficulty of spelling out the notion of a ‘speech act’ in any adequate way which did not presuppose some element of the formal approach; we should now be in a better position to see why this is the case.}

So, it has been suggested that there are serious worries with the general project of conceiving of reference as independent of the formal properties of our language; for none of the particular candidates so far suggested seem satisfactory and furthermore the whole approach seems ill-conceived. To conclude, in the final section of this chapter, I would like to suggest that the attempt to find a feasible, syntax-independent conception of reference, by which we might characterise our semantic category of referential expressions, is not something we need to embark on anyway. For it seems that the conception of reference ordinary language speakers are committed to, and which accords best with general methodological and theoretical aims, is the syntax-dependent notion, which offers us no threat to unification.

(5) The Syntax-dependent Conception of Reference:

The conception of reference I wish to advocate instead of the kind of approach put forward above is the \textit{syntax-dependent} account first outlined in Chapter 1. This position is perhaps best given in a passage from Evans:

\begin{quote}
It seems to me reasonable to hold that the semantical relation of reference (between singular terms and objects in the world) is empirically anchored by its connection with the concept of truth as applied to atomic sentences (sentences in which an \(n\)-place concept-expression is combined with \(n\)
singular terms). The most elementary form of the principle connecting reference with truth is

\[ (P) \quad \text{If } S \text{ is an atomic sentence in which the } n \text{-place concept expression } R \text{ is combined with } n \text{ singular terms } t_1 \ldots t_n \text{, then } S \text{ is true iff } \{ \text{the referent of } t_1 \ldots \text{the referent of } t_n \} \text{ satisfies } R. \]

...(P) may be regarded as simultaneously and implicitly defining reference and satisfaction in terms of truth....This is all you know, and all you need to know by way of a definition of reference...Given this characterization of reference, it seems to me to be correct to regard as a referring expression any expression whose contribution to the truth-conditions of sentences containing it is stated exclusively by means of the relation of reference which is found in (P).\textsuperscript{45}

A syntax-dependent conception of reference such as this is exhausted by all the correct instances of our referential axiom; there is nothing more to know about reference than is supplied by clauses of the form ‘the referent of “t” = t’ (or parallel constructions, such as Burge’s more complex biconditional reference clause ‘(\forall x) \text{Ref (“t”) = x iff x = t}’).\textsuperscript{46} Such a ‘theory of reference’ seems to echo one of Davies’ conceptions of a theory of meaning, which we examined in Chapter 1, whereby the theory provides all the correct instances of a schema like ‘x means m’ (or some equivalent), even though it may not offer any reductive or deep explanation of the property of meaning itself.\textsuperscript{47}

The thought is that we can offer a theory of reference of this kind \textit{without} ever having to assume that there is a deep or substantive property, autonomous from our understanding of the form and function of certain linguistic items, upon which the reference relation deployed in these kinds of clauses ultimately depends.\textsuperscript{48} Yet, embracing a conception of reference which eschews the demand for any kind of reduction or restatement of the relation in terms from outside our formal semantic theory does not mean that we cannot seek to impose constraints on the occurrences of singular terms. Instead, the idea is that any such conditions will come from wider concerns (like what is required to verify a referential act, the conditions under which we can usefully say referential things

\textsuperscript{45} Evans (1982), p.49.
\textsuperscript{46} Burge (1974b), p.192.
\textsuperscript{47} Davies (1981), pp.3-6.
\textsuperscript{48} I thus reject claims like that made by Nelson (1992), p.100, when discussing Field’s (1972) analogy with theories of valence, that: “A useful definition of ‘valence’ should tell us what valence is; and Field’s view (and mine) is that a theory of reference is hopeless without saying what it is, and this must include the constitutive user as agency of linkage and [purported] reference”.

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about an object and the empirical constraints on assigning a truth-theory to a language user in the first place), rather than being constitutive of the reference relation itself. As Resnik notes: “One might wish that a theory of reference should also explain what reference is or tell us how it is constituted. I have no clear conception of what such a theory would do besides answering [the questions of when a term refers to a particular object and how it comes to have that referent]”. To answer these questions it does not seem that we require a conception of reference which is independent of the formal features of our language; rather we can simply appeal to the syntax-dependent notion of reference picked out by the base clauses of our semantic theory. There is no substantive or deep answer to the question of how a term comes to have a particular referent beyond those constraints and connections to be found at the level of the whole semantic theory. This syntax-dependent notion of reference, sensitive as it is to the formal features of the language, coheres very well with our conception of semantic theorising in general. Reference will be a tool for generating the basic clauses of our theory, but beyond this, it will not stand in need of further theorising.

Furthermore, as McDowell points out, we have no reason to think, as Field claimed, that such an irreducible semantic notion conflicts with a scientific understanding of the world:

> The relations between language and extra-linguistic reality which a truth-characterization describes hold in the first instance between single expressions and things, and only meditately, via the laws of semantic combination set out in the truth-characterization, between complex expressions and the world. But from its being at the level of primitive denotation that relations between words and the world are set up within a semantic theory, it does not follow...that it is at that level that the primary connection should be sought between the semantic theory itself and the physical facts on which its acceptability depends.\(^5\)

Truth theories are empirically tied at the level of their theorems, via their satisfaction of Convention T and notions like the Principle of Charity. To think that the semantic notions to be deployed in such an account must be reduced to physical notions to be acceptable is to fail to see that “[a] discipline can be both

rigorous and illuminating without being related to physics in the way Field wants
semantics to be.\textsuperscript{51} Embracing a syntax-dependent semantic conception of
reference which is irreducible to any causal (or similar) relation is not, I would
argue, to reject the claims of physicalism properly understood.

Finally, it seems that this syntax-dependent view fits well with the kind of
conception of reference natural language speakers seem to deploy in their
dealings with language. For it seems both that there is a property of ‘being a
referential expression’ which speakers are able to latch on to and track through
communicative exchanges, and that they do not expect there to be any
substantial property answering to their recognition that something is a singular
term.\textsuperscript{52} The former point seems demonstrated by the ease with which we
introduced the technical notion of a referential term, as opposed to a descriptive
phrase, in Chapter 1, and the feeling that an explanatory theory must include a
class of singular terms (so that an account which made do with only quantified
noun phrases, though it could perhaps be made formally adequate, would not be
a theory of natural language, since it fails to take due note of speakers’ strong
intuitions about the form of their own language). It is also reinforced by looking
at how speakers treat pronouns, naturally accepting a division in kind between
deictic and anaphoric expressions, which in practice they can recognise and track
unproblematically.

Meanwhile, the fact that speakers do not necessarily envisage a deep
property being instantiated when something is a singular term seems to be
demonstrated by the fact that, prima facie, we simply do not expect any kind of
reduction of referential clauses for singular terms: referential axioms already
seem conceptually basic. It seems that we just do not expect a clause such as
‘the referent of “Aristotle” is Aristotle’ to be explained in any more fundamental

\textsuperscript{51} Ibid., p.128.
\textsuperscript{52} Such a conception clearly has no difficulty with singular terms purporting to refer to abstract
objects; yet the idea that ordinary speakers do understand reference to such objects simply via
the kind of linguistic mechanism used for talking about them seems plausible. As Blackburn
(1984), p.13, notes: “In one sense we know how we refer to numbers. We do so by using [the
arabic numeral] notation.”

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terms. Natural language speakers seem quite willing to accept reference as an *a priori* relation which does not await reduction; the base reference clauses containing an object-language term and the meta-language expression naming that term's referent are easily accepted as fundamental, without any promise of restatement in 'simpler' language or a vocabulary removed from that of the semantic theory for the language. Furthermore it seems clear that there would be no gain in theoretical simplicity or unification by restating instances of the referential axiom in other terms. Thus, as far as the category of 'referring expression' is concerned, I believe not only *can* we accept a class characterised in terms of a syntax-dependent notion, but that in practice we *do* work with just such a model.

To conclude: it seems to me that the way in which the debate around definite descriptions has grown up has led us, erroneously, to expect some very substantial, restrictive theory of reference. This is despite many theorist's willingness to accept far less substantive accounts of other semantic notions like meaning and truth. Yet if we can free ourselves of this entrenched view, widening our horizons to consider the question of semantic classification across the board for *all* noun phrases, then I think we will come to see that it is unwarranted. Natural language speakers seem happy to endorse what I have called a 'syntax-dependent' theory of reference (whereby our conception of reference emerges through our understanding of the grammar of our language, and the property of being a referential term does not stand in need of any substantial explanation in a vocabulary which is *independent* of our formal theory of meaning); such a conception accords well with the aims of semantic theorising and other methodological constraints. It is not, as some have suggested, a challenge to physicalism, neither will it be empirically unfettered (answering to empirical constraints at the level of theory application, and the conditions in which we can usefully deploy the mechanisms of reference). Yet unless we have some reason to push us toward a syntax-independent view of reference, and away from a syntax-dependent view, then we have no reason to doubt that a principled mirroring between syntactic properties and semantic categories might
exist. Given a syntax-dependent view of reference the mirroring condition upon which unification depends seems unexceptional; thus without an argument for a syntax-independent conception of reference the second and last challenge to unification fails.

(6) Conclusion:

In this chapter we were concerned with the second kind of objection to unification raised at the end of Chapter 3. The ambiguity theorist’s contention was that we might have a conception of reference arrived at quite independently of the study of syntax, which would give us little or no reason to expect the kind of principled relation between syntax and semantics imposed by unification to hold. If this were the case, then the pragmatic explanation of recalcitrant cases put forward in Chapter 6 would seem to be unavailable to the advocate of unification, for our conception of what it is to be a referring term would be likely to demand semantic level accommodation for non-standard occurrences. If we already have a conception of reference which throws into doubt the role of syntax in indicating semantic kind, then the existence of the recalcitrant cases looked at in Chapter 5 would seem to be sufficient to show that unification is incorrect as a model of natural language. To weigh up this objection, we began by looking at what might be required for understanding an utterance containing a singular term in subject position and the suggestion was that an agent had to entertain an appropriate singular thought, where this was a thought whose propositional content was individuated in terms of an object. However, this claim was seen to be quite consistent with the predictions of unification, so long as a singular thought was deemed available whenever a given syntactic item was entertained.

Yet it was suggested that many theorists advocated a more restrictive (or, at least, a syntax-insensitive) picture of singular thoughts which did undermine unification. To see this, we sketched the accounts of reference to be found in Strawson, Grice, Field, Russell and Evans, all of which were seen to cast doubt on the unified approach. On all these models the semantic category of
singular term was characterised independently of syntax and thus we had no reason to expect the mirroring condition of unification to hold. However, once we had these opposing conceptions of reference before us, certain problems were then noted and it was seen that none of the syntax-independent conceptions seemed entirely satisfactory as a construal of the reference relation. Finally, it was argued in the last section, that we should not continue the search for a feasible syntax-independent conception of reference by which to individuate singular terms, for the picture of reference actually endorsed by natural language speakers is not of this sort. Rather the account they deploy, and the one which accords best with the aims and endeavours of semantic theorising, is a syntax-dependent notion which gives us no cause to question unification. A syntax-dependent conception of reference, as I characterised it, is derived from, or is internal to, our study of the formal features of a language; it does not suppose that there is some deep property of reference awaiting reduction or naturalisation, prior to the individuation of the referential expressions of our language. This, I have suggested, is the conception of reference we should, as theorists, embrace, as it is the one ordinary speakers utilise; yet such a model leads us to expect the kind of mirroring between syntax and semantics which unification proposes, thus it gives us no reason to reject a pragmatic explanation of the recalcitrant cases we looked at previously. So, the second kind of objection to unification has, I hope, been seen to be unwarranted: the nature of reference does not undermine the claim that syntactic categories carve along semantic joints.
Conclusion:

The aim of this thesis has been to consider how we should construe the relation between common-sense syntactic categories and semantic kinds. My thought has been that, if we move away from too narrow a concentration on any particular kind of noun phrase (e.g. definite descriptions) we can begin to see that we have good general grounds for preferring what I have called the ‘unified’ stance. Unification consisted of four claims: first, that each common-sense syntactic category maps as a whole to a semantic kind; second, that for each syntactic category, the semantic allegiance of some member of that category is clear; third, that surface features can act as a guide to syntactic category; and, fourth, that the correct conception of reference is a syntax-dependent notion which is bound up with the grammar of a language. The precise form of unification defended in this thesis held that all definite descriptions are quantified noun phrases, while all bare and complex demonstratives are singular terms.

However two charges were then levelled at our favoured approach: first, that it was inadequate to account for all natural language noun phrases; second, that any attempt to offer a non-semantic account of recalcitrant cases would be undermined by a proper conception of reference. I hope to have shown both these objections unwarranted: armed with a well-motivated distinction between semantics and pragmatics (plus an understanding of how natural language speakers recognise and track syntactic kinds) a unified approach can be made to accommodate all noun phrase occurrences. Thus the recalcitrant or ‘non-standard’ cases which formed the ambiguity theorists first line of attack can be deflated by an appropriately appended unified account. Furthermore, the second objection can be rejected by showing that the kind of syntax-independent conception of reference appealed to by the ambiguity theorist is not something we need or want to embrace; for a satisfactory account proved difficult to deliver and the approach as a whole failed to correspond to the kind of perspective on reference adopted by ordinary speakers.
The aim of this thesis has not been to deny that there are occurrences of noun phrases in natural language which, *prima facie*, cause problems for unification. Rather what I hope to have shown is that these *prima facie* appearances are illusory: a properly equipped unified stance can accommodate all uses of noun phrases without the need for semantic ambiguity. Taking the term ‘syntactic criteria’ to mean ‘syntactic category’, I want to embrace Wright’s claim that there is “no good distinction to be drawn between an expression’s functioning as a singular term according to syntactic criteria and its being appropriate to construe its semantics referentially”. On the other hand, the move to semantic ambiguity from our pre-theoretical position, though perhaps also able to accommodate the natural language data, has been found to be entirely unmotivated. Arguments in favour of ambiguity have been seen to rest on misapprehensions about the nature of singular terms, which, I have suggested, stem in a large part from the way the debate about definite descriptions has grown up. Freed from an overly narrow concentration on just one kind of noun phrase, we are able to consider more generally what matters in questions of semantic categorisation; and we have found, I contend, that what really matters is syntactic form. The idea that we can carve along semantic joints by appealing to our common-sense syntactic categories, so that we ‘project out’ to *prima facie* borderline cases along the more robust lines of syntax, is, I believe, the most intuitively and theoretically appealing position. Furthermore, such a mirroring of semantics in syntax is not threatened by the nature of reference properly construed.

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