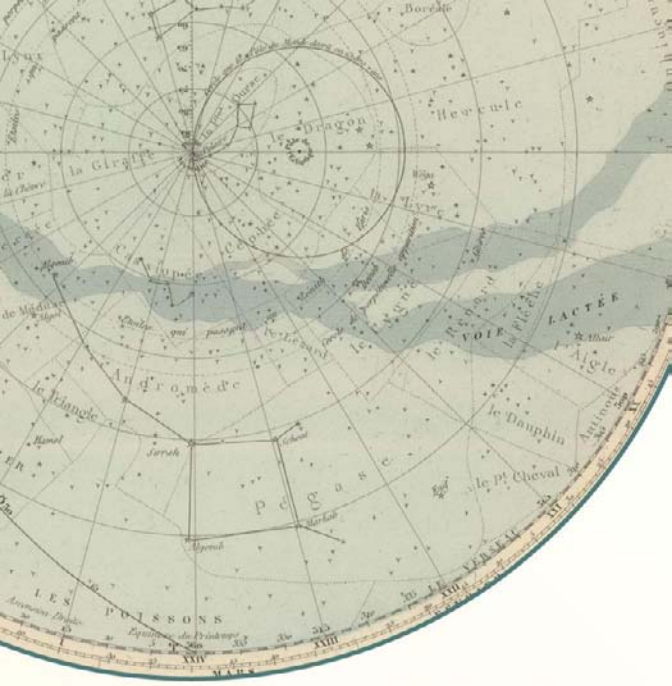

John Hawthorne
and David Manley

The Reference Book

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Contents

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PART I

Against acquaintance

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1

Introduction: reference and singular thought

Our first aim in this book is to critically examine some widespread views about the semantic phenomenon of reference and the cognitive phenomenon of object-directed thought. In this chapter we provide an initial case in favor of *liberalism*—the thesis that neither of these phenomena is tied to a special relation of causal or epistemic acquaintance. And in the two chapters that follow, we consider and reject various arguments against liberalism.

In the second part of the book (Chapters 4–6) we turn to an investigation of various noun phrases in natural language. In particular, we challenge the alleged semantic rift between definite and indefinite descriptions on the one hand, and names and demonstratives on the other—a division that is often motivated by appeals to acquaintance. Drawing on recent work in semantics, we explore a more unified account of all four types of expression. We conclude by drawing out some implications of this account for the traditional categories of reference and singular thought.

1.1 Preliminaries

The discovery of the twin categories of *reference* and *singular thought* is widely felt to be one of the landmark achievements of twentieth-century analytic philosophy. On the one hand, there is the distinction between a genuinely referential expression of natural language and one that is *about* an object only in some looser sense. On the other hand, there is a corresponding distinction between a thought that is loosely about an object, and one whose bond with an object is robust enough for it to count as genuinely 'singular' or 'de re'. We hope to shed light on these two ideas in this chapter.

Two procedural points should be stressed.

First, we are, like most of our readers, philosophers who have become acclimatized to habits and trends in philosophy that make use of the terms 'reference' and 'singular thought'. Our project is not to survey how these and related terms are used in the tradition, as though we were anthropologists studying the practices of a community from the outside. Neither would it serve our purposes to insist on our own quasi-stipulative definitions. Our project is one of critical examination from within. The working assumption of much contemporary philosophy is that the relevant terms carve

meaning and psychological reality at the joints—that is, they are intended to express a semantic natural kind and a cognitive one, respectively. As such, even a critical inquiry would do best to approach them, not by nominal definition, but by carefully investigating candidate kinds and clusters of kinds, to identify what (if anything) best answers to talk of reference and singular thought.

Second, our inquiry will take place primarily within the philosophy of language. But why focus on language when one of our topics is singular *thought*? To begin with, the category of referential terms affords us with a preliminary grip on a certain kind of content: *singular* contents are those that are expressed by sentences containing referential terms. And the special category of singular *thought* is usually taken to involve bearing a cognitive attitude towards a singular *content*. Moreover, the contents of our thoughts can be studied to some extent by attending to the language with which we ascribe those thoughts to each other. If there are object-directed thoughts of an importantly distinctive type, our reporting practices would seem to offer *prima facie* good guides to their presence. From this perspective, referential terms give us a window into a certain kind of content, and attitude reports that use them reveal a distinctive kind of mental state. By the end of our inquiry we will have qualified the preceding ideas; but for now they will serve as our springboard.

1.2 Themes from Russell

By way of introducing the relevant tradition, let us begin with two themes from Bertrand Russell.

(i) *Logically proper names*. We all have a rough and ready notion of aboutness according to which the phrases 'a certain president', 'the president of the U.S.', and 'Barack Obama' can all be used to make claims about a particular individual.[1] And aboutness seems to connect straightforwardly with truth, at least for simple subject-predicate sentences.[2] In the simplest cases, the result of concatenating an expression that is about an object *o* with a monadic predicate will yield truth iff the predicate is true of *o*. All three expressions just mentioned pass this test; no real gap is yet opened up between a special category of reference and the ordinary notion of being about an object.[3]

But Russell held that some such expressions can figure in true and false sentences even if there happens to be no object for them to be about.[4] For the moment, let us call

[1] Here we suppress Russell's denial (in 'The Philosophy of Logical Atomism') that there is, in reality, a particular corresponding to 'Socrates': 'the names that we commonly use, like "Socrates", are really abbreviations for descriptions; not only that, but what they describe are not particulars but complicated systems of classes or series' (Russell, 'The Philosophy of Logical Atomism', pp. 200–1).

[2] See Evans, *The Varieties of Reference*, p. 49.

[3] At least reading the 'iff' as a material biconditional.

[4] E.g. Russell, 'On Denoting', pp. 479–84.

an expression *meaningful* if it can combine with other expressions to generate variously true and false claims. The object that 'the president of the U.S.' happens to be about does not enter into its meaning in any constitutive way; indeed according to Russell it can be meaningful without being about any object at all, as in a case where the U.S. has no president.[5] The crucial mistake of the Meinongian, from a Russellian perspective, is a failure to grasp the complex relationship between *meaningfulness* and *being about an object*.

At the same time, Russell held that there is a category of expressions—that of logically proper names—whose meanings do crucially involve the objects they are about.[6] Such an expression's contribution to determining claims as true and false must be fixed by the object it is about. In fact, Russell held that the meaning of a logically proper name *just is* the particular that it is about. He also argued that the way in which a name means a particular object is different from the way in which a predicate means a quality.[7] This encourages us to think that there is a special binary relation—call it *reference*—that relates logically proper names to particulars. This relation differs from the ordinary notion of 'being about' and also from the relation at issue when we say '"red" expresses redness'. Thus, for example, while 'The famous ship that sank on April 15, 1912' is an expression about the *Titanic* and so 'refers' to it in some loose sense, it is not a logically proper name, and so the fundamental relation of *referring* does not hold between its occurrences and that ship.[8] In short, as Gareth Evans put it, Russell 'challenged the unity of the intuitive category of referring expressions'.[9]

(ii) *Knowledge and discrimination*. A further Russellian thesis about logically proper names is that thinkers who employ them must stand in an intimate epistemic relationship to the objects these names are about.[10] Russell used the term 'acquaintance' for the relationship involved here, but this is a term of art. The ordinary use of 'acquaintance' connotes no more than a shadow of the relation Russell had in mind, which must involve unmediated presentation. As a result, our Russellian acquaintances are few: they include universals and sense data—and possibly ourselves—but certainly not ordinary physical objects.[11] This thesis about logically proper names is an instance of a more general constraint: nothing can be a basic building block of thought unless one

[5] See 'Knowledge by Acquaintance and Knowledge by Description', p. 122. See also 'On Denoting', where he writes that 'The King of France is bald' is 'plainly false' (p. 484). We will return to this contentious claim in Chapter 5.

[6] See 'The Philosophy of Logical Atomism', p. 201; *My Philosophical Development*, p. 168.

[7] Ibid., p. 46.

[8] Rather than think of reference as a binary relation between occurrences of expressions and objects, one might instead think of it as a ternary relation between an abstract expression, a context, and an object. The latter would be truer to David Kaplan's style of presentation.

[9] Evans, *The Varieties of Reference*, p. 42.

[10] For example, he writes: 'A name, in the narrow sense of a word whose meaning is a particular, can only be applied to a particular with which the speaker is acquainted'. Russell, 'The Philosophy of Logical Atomism', p. 201. See also 'On the Nature of Acquaintance', pp. 130–1, 167–8.

[11] 'Knowledge by Acquaintance and Knowledge by Description', pp. 109–12.

is acquainted with it. A language reflecting the structure of thought would be one whose simple terms in a given lexical category correspond one-to-one with objects of acquaintance in a corresponding ontological category.[12] And every claim would be built up out of a basic lexicon of such simple terms.

One way to understand Russell's motivation for this strict constraint is to notice the apparent connection between linguistic understanding and knowledge. Russell held that 'Socrates' is not a genuine and logically proper name, because understanding the word 'Socrates' involves grasping some kind of description about the man; that is, knowing something *about* him. But a logically proper name cannot be understood by any kind of definition: it is understood by *knowing the particular itself*.[13] This in turn requires direct awareness of the particular: all other knowledge concerns the 'inferred world' rather than the world of 'data', which makes it descriptive and indirect.[14] The result, he hoped, is that there is no way to be *wrong* about which particular is at issue in thoughts involving proper names, because if one understands the name, one cannot be in error about what it is a name of.[15] But if understanding a logically proper name requires us to know which particular 'before our mind' we are naming, then it would seem that understanding two distinct proper names rules out the possibility that they refer to the same object (or different objects) without our knowing that they do.[16] As a result, if two genuine names 'a' and 'b' refer to the same particular, 'a is b' has no epistemic significance.[17] (And as an added benefit, Russell's requirement on understanding rules out the epistemic possibility that someone understands a logically proper name and yet it fails to refer.)[18]

[12] See 'The Philosophy of Logical Atomism', pp. 194–9; 'Knowledge by Acquaintance and Knowledge by Description', p. 117–8, and also *My Philosophical Development*, p. 169, where this principle is qualified with the remark: 'It is perhaps necessary to place some limitation upon this principle as regards logical words—e.g. *or*, *not*, *some*, *all*.'

[13] 'A proper name, if it is to fulfil its function completely, should not need to be defined in terms of other words: it should denote something of which we are immediately aware' (*My Philosophical Development*, p. 166).

[14] See for example ibid., pp. 22–7.

[15] As Russell writes: 'At any given moment, there are certain things of which a man is 'aware' . . . If I describe these objects, I may of course describe them wrongly; hence I cannot with certainty communicate to another what are the things of which I am aware. But if I speak to myself, and denote them by what may be called 'proper names', rather than by descriptive words, I cannot be in error' ('On the Nature of Acquaintance', p. 130).

[16] However, notice that there are important asymmetries of epistemic possibility here (where p is epistemically possible iff it is compatible with what one knows). Suppose we grant that, given strict acquaintance, one cannot understand two logically proper names that co-refer if it is epistemically possible that they fail to co-refer. Even so, this does not rule out wrongly *taking oneself* to understand two logically proper names, and taking them to be co-referential when in fact they are not. Without some supplementary principles, strict acquaintance does not guarantee the impossibility of unnoticed coreference—or unnoticed lack of coreference.

[17] Russell, 'The Philosophy of Logical Atomism', pp. 244–6.

[18] Though the sort of epistemic accessibility issue mentioned in fn. 16 applies here as well. The acquaintance requirement does not by itself rule out that one wrongly takes a given term to be a logically proper name that one understands.

However, the requirement that co-reference must always be discriminable in this way puts extraordinarily demanding constraints on what sorts of objects can count as the semantic values of logically proper names. One might have two encounters with an ordinary physical object and on each occasion perform a baptism, without knowing whether the resulting terms co-refer. In general, it seems that logically proper names cannot refer to objects for which one can have epistemically diverse perspectives: if, say, an object is the sort of thing that one can look at from the front as well as from the back, that object will be rendered unsuitable as the referent of a logically proper name.[19]

Given Russell's assumptions about understanding, then, his acquaintance constraint seems inevitable. But—as we will see in Chapter 3—some sort of epistemic acquaintance requirement can be motivated with less contentious premises about understanding. For example, it would seem that to understand an expression requires knowing what it means. So if the meaning of a proper name is its referent, understanding a proper name would seem to require at least being in a position to know *that it refers*. Now suppose, for reductio, that one has a proper name whose meaning is an epistemically distant object like the black hole Cygnus X-1. Knowing what 'Cygnus X-1' means will require knowing that it refers to Cygnus X-1, and hence that Cygnus X-1 exists. But insofar as one does not *know* whether Cygnus X-1 exists, it appears to follow that one does not really understand the name.[20] (We will return to such arguments in Chapter 3.)[21]

Since most philosophers have abandoned the radical Russellian form of epistemic acquaintance as a constraint on understanding, our concern in the following three chapters will be to address some of its far less stringent successors in vogue today. However, a small current of contemporary philosophy shares some of Russell's original motivations and—as a result—some have attempted to craft a notion of semantic value that satisfies his extreme acquaintance desiderata.[22] They posit a kind of meaning ('primary meaning') such that it is always available to *a priori* investigation whether two things share a meaning of that type. In short, equivalence of primary meaning must always be open to view. It is therefore no surprise that facts about primary meaning are supposed to be fixed by facts wholly internal to the mind.[23]

[19] Thanks to David Kaplan for this way of expressing it.

[20] Russell would not himself put things in exactly this way, as he denies that where 'N' is a logically proper name, 'N exists' can be a meaningful sentence. (See 'The Philosophy of Logical Atomism', p. 252–3.)

[21] Note that the epistemic requirement that one needs to know that x exists in order to understand an expression that refers to x does not obviously deliver the epistemic requirement that one must be in a position to know that two referential expressions co-refer when they do. Even if there is some x such that someone knows that 'Hesperus' refers to x and that 'Phosphorus' refers to x, it may not follow that she is in a position to know that 'Hesperus' and 'Phosphorus' both refer to x.

[22] See, for example, Chalmers, 'The Foundations of Two-Dimensional Semantics'; Jackson, *From Metaphysics to Ethics: A Defence of Conceptual Analysis*.

[23] However, even this would not suffice for the kind of transparency required; for example, the 'subpersonal-level whirrings and grindings' of the devices that underlie our recognitional capacities, while

Along with the majority, we hold out little hope for such a project. Not only are primary meanings often disconnected from ordinary ways of thinking and talking about meaning, but there also seems to be a problem *in principle* of crafting primary meanings so that the epistemic desiderata that moved Russell are met. For one thing, we adhere to the widely held view that the indiscriminability of phenomenal episodes is intransitive.[24] (Phenomenal episodes are the contemporary successors to 'sense-data'). This in turn suggests that two phenomenal episodes of different types may nevertheless be indiscriminable. Given this, even predicates whose meanings are phenomenal state types need not satisfy strict Russellian acquaintance conditions. Moreover, consider illusions of consciousness—beliefs that a phenomenal episode is present where it is not. If these are possible, one might fail to refer with a putatively logically proper name and not know it; and one might also refer without knowing that one has done so (there being a real danger of illusion). We postpone a proper engagement with reactionary Russellianism to another time.[25]

Russellian acquaintance, then, has been largely jettisoned, and the category of 'logically proper names' has been vastly expanded. But acquaintance-theoretic ideology has lived on in various degenerate forms. Some retain the idea that there is something deep and important about Russell's requirement that to understand an expression whose meaning is an object, one needs to know *which* object it is. Others adhere to the idea that there must be a special causal connection between an object and a mental representation if the former is to serve as a *bona fide* referent of the latter. Our own view is that attempts to constrain reference or object-directed thought using some version of acquaintance have invariably been misguided. We aim to vindicate this pessimism in the next few chapters.

1.3 Reference after Russell

Let us now set out some semantic ideas connected with Russell's logically proper names that have been widely brought to bear on their successors.

(i) *Object-dependence*. First, Russell held that logically proper names are 'meaningless unless there is an object which they designate.'[26] That is, intuitively, a referring expression's very meaningfulness—again, in the sense of its capacity to successfully contribute to the generation of truth conditions—is somehow bound up with its successfully being about a particular object. However, we cannot simply identify an expression of the

internal to the mind, will not fit the bill. See Martin Davies, 'Reference, Contingency, and the Two-Dimensional Framework'.

[24] For exploration of the relevant issues see Williamson, *Identity and Discrimination*.

[25] Though for some critical discussion, see Hawthorne, 'Direct Reference and Dancing Qualia'; Schroeter, 'The Rationalist Foundations of Chalmers' Two-Dimensional Semantics'; and Yablo, 'Coulda, Woulda, Shoulda'.

[26] *My Philosophical Development*, p. 168.

relevant kind as one that is meaningless unless there is an object that it is about. For we may wish to allow—on some ways of individuating expressions—that one occurrence of an expression can be crucially about a particular object, while another occurrence of that expression is meaningful even though it is not about any particular object. (This is a common view about the pronoun 'he': to be meaningful when it is used 'deictically', there must be an object that it is about. But it is not being used in this way when someone says, 'Every boy wishes he did not have to go to school'.) To cordon off this issue, we can put the idea this way. An expression is *object-dependent for meaningfulness* on an occasion of use iff it is meaningful on that occasion by virtue of there being an object that it is about on that occasion.

(Can we state this idea without using a notion like *by virtue of*?[27] It will not quite do to state the idea counterfactually, as in: 'An expression is object-dependent on an occasion just in case: had there been no object that it was about, it would have lacked meaning'. This works for many cases. But it does not get to the heart of the matter. Suppose an expression is actually used in a fashion that is paradigmatically referential, but the closest possibilities where it is not about an object are possibilities where it is meaningfully put to a different use—one can easily construct such cases using 'he'. Then, by the counterfactual test, it would not be object-dependent for meaningfulness.[28] The situation is a familiar one: counterfactual tests are fairly well understood but can rarely play the role of real definitions—at best they are reasonable facsimiles.)

A related idea is that of an expression's having an *object-dependent meaning* (on some occasion of use). Let us say that an expression's meaning is object-dependent on *o* just in case no expression could have had that very meaning unless it were about *o*. Given the plausible assumption that no expression can be about an object unless the object exists,[29] this implies that when an expression's meaning is object-dependent on *o*, then no expression could have had that very meaning unless *o* existed.

[27] Some avenues are opened up if we follow Kit Fine in distinguishing facts that are merely semantic *as to topic*—they pertain to semantic features of things—and facts that are also semantic *as to status*—they are true 'wholly consequential upon the meaning of the expressions' which they concern (Fine, *Semantic Relationism*, pp. 43–5). We can then introduce a sentential operator 'It is a semantic-as-to-status fact that' (p. 135, fn. 7). Equipped with such an operator, we could (as Fine is aware) cash out the idea of object-dependence in terms of it: An expression *e* is object-dependent for its meaningfulness on an occasion iff it is a semantic-as-to-status fact that a sentence containing *e* is true on that occasion only if there is some *x* such that the expression *e* is about *x*. And a term has an object-dependent meaning on an occasion iff there is some object *x* such that it is a semantic-as-to-status fact that e is about *x*.

[28] One might try to improve things by blending 'occasion of use' ideology into the counterfactual in a suitable way. This is hard to do, however. For example, suppose, as is fairly standard, occasions of use are treated as world-bound. Then counterfactuals beginning 'Had there been no object it was about on that occasion of use, then . . . ', directed at a term that actually succeeds in referring, will have impossible antecedents.

[29] The consequence flows from the natural assumption that, in general, for a binary relation to be instantiated, its *relata* must exist.

Roughly, then, an expression is object-dependent for meaningfulness if *having any meaning at all* requires it to be about an object. And an expression has an object-dependent meaning if *having that meaning* requires being about the object that expression is actually about. There are expressions whose occurrences happen to be about objects and yet they are not object-dependent in either way. For example, 'The first president of the U.S.' is about George Washington; but it is widely thought not to be object-dependent in either sense. In contrast, Russell's logically proper names are object-dependent in both ways. Their meaningfulness, as well as the particular meaning they have, consist in their referring to particular private objects.

As noted earlier, the purported class of referential vehicles has expanded well beyond Russellian restrictions; ordinary proper names, demonstratives, and indexicals are now typically held to be referential vehicles. And it is still common to connect the idea of the reference relation with both kinds of object-dependence. But this connection is not inevitable. Some theorists, such as Gareth Evans, have defended views of reference on which referring expressions can fail to be object-dependent in one or even both ways. We will have occasion to examine such views in later chapters.

(ii) *Exhaustiveness and rigidity*. Another idea that has come to be associated with referential terms, especially since the work of David Kaplan and Saul Kripke, concerns their behavior in modal contexts. We can begin with the picture according to which a sentence can be evaluated for truth relative to ways the world might have been (or 'possible worlds'). Among other things, this procedure determines the truth-value of sentences that result from embedding the original sentence within a modal operator. For example, 'possibly *S*' is standardly treated as true just in case *S* is true evaluated at some (accessible) possible world.

Within this framework, the notion of sentences being true relative to worlds will give rise to the notion of expressions being about objects relative to worlds. Recall the contrast between 'The first president of the U.S.' and 'George Washington'. The former picks out (it is, loosely speaking, about) different presidents at different worlds, while the latter picks out the same individual at every world, regardless of whether he is president—or even called 'George Washington'—at that world. As a result, the truth of 'George Washington played chess', evaluated at a given world, will always turn on how things stand with respect to that individual at that world. But the truth of 'The first president of the U.S. played chess' evaluated at a world will turn on how things stand with whomever is the first president at that world.[30] And what this shows is that

[30] Not everyone will prefer a metalanguage involving worlds and truth at worlds as the preferred semantic framework for describing modal language. Those who treat modal operators as quantifiers that can bind variables may prefer to treat the semantic contribution of an atomic sentence when unembedded as true simpliciter or false simpliciter, and the semantic contribution of those words within a modal operator as open-sentence-like. (For more on this see Chapters 5 and 6.) Those who prefer a metalanguage of modal operators will not use the apparatus of worlds to illuminate the semantic workings of a modal object language. But all of these approaches will have something like the non-rigid/rigid distinction—after all, they will likely all agree

the contribution of 'The first president of the U.S.' to determining the truth or falsity of claims is not fixed by the object it is about. And so, in vindication of Russell, it will not do to think of the meaning of that expression as the man, George Washington.

A *rigid* use of an expression is dedicated to being about a certain object—it is not about any other object relative to any world. The *obstinate* kind of rigidity requires a term to be about that object at every world, regardless of whether that object exists at that world.[31] For example, consider the claim 'George Washington fails to exist'. This claim is standardly taken to be about Washington relative to every world of evaluation, so that relative to a world where Washington does not exist, the sentence is true. (This is why 'Possibly, George Washington fails to exist' is true.) But there are weaker forms of rigidity. An expression (on an occasion of use) will be rigid but not obstinately rigid iff there is some object *o* such that it is about *o* relative to some worlds, and relative to every world, it is either about *o* or about nothing at all.

There are at least two reasons why an expression might—in principle—be rigid without being obstinately rigid. First, it might pick out *o* at every world where *o* exists, but fail to pick out anything at worlds where *o* does not exist. Call this *moderate rigidity*. For example, take the expression 'the man identical to Socrates.' Now consider a world where Socrates fails to exist. On the standard Russellian treatment of definite descriptions, the proposition expressed by 'The man identical to Socrates fails to exist' is false evaluated at that world—since it claims existence with the determiner 'the' and denies it with the predicate.[32] It is thus natural for the Russellian about definite descriptions to conclude that 'the man identical to Socrates' is only moderately rigid. A second way a term might be rigid but not obstinately rigid is by failing to pick out *o* even at certain worlds where *o* exists. For example, one way of treating an expression like 'Professor Hawthorne' is to think of it as picking out John only at worlds where he is a professor, and nothing otherwise. Call this *weak rigidity*.

A further distinction is worth noting.[33] Insofar as an expression rigidly picks out *o*, it may be that it does so by virtue of the kind of expression it is; or instead thanks partly to extra-semantic facts. Thus 'the successor of 2' obstinately rigidly picks out the number 3 thanks to the fact that numbers exist necessarily, but not simply because it is a definite description that picks out the number 3. By contrast, the story goes, it is a semantic rule for '3'—at least when it is used as a name—that it is obstinately rigid. In the first case, the rigidity has a metaphysical explanation (this is '*de facto*' rigidity); in the second case it has a semantic one (this is '*de jure*' rigidity).

that '∃x (x is not the president of the U.S. but could have been)' is true but '∃x (x is not Nixon but could have been)' is false—though they will articulate that distinction in rather different ways.

[31] See Kripke, *Naming and Necessity*, p. 48ff, Kaplan, 'Demonstratives', pp. 492–3, and fn. 16; Kaplan, 'Afterthoughts', p. 569ff.

[32] We do not, of course, intend for this sentence to be read as though 'fails' somehow becomes an operator and takes wide scope over the definite description.

[33] See the Forward to the 1980 edition of *Naming and Necessity*, p. 21, fn. 21.

How does referentiality relate to rigidity? We can identify two ideas that, working together, would render all referring expressions obstinately rigid.

The first idea is that, regardless of linguistic environment, the meaning of an expression exhausts what is relevant to its contribution to the truth of a sentence. Call this *compositionality*. The second idea is a Russellian one: the meaning of a referring expression is exhausted by the object that it is about.[34] Call this *exhaustivity*. (Following the usual practice, when *o* exhausts the meaning of *e*, we shall say that *o* is the semantic value of *e*.) If we put these ideas together, we get the following picture. Even when an occurrence of a given referring expression *e* finds itself within the scope of a modal operator, the fact that *e* picks out *o* will be its only contribution to what is considered at worlds of evaluation when the resulting sentence is assessed.[35]

In less picturesque terms, the idea is that a compositional semantics for *e* will proceed simply by assigning to any occurrence of *e* the object that it is about. No further information need be encoded. Thus, the fact that the occurrence of *e* is about *o* will exhaust *e*'s contribution to compositional semantics. In particular, the interaction of a modal operator with a sentence containing an occurrence of *e* will be sensitive only to the fact that it is about *o*. This in turn will generate intuitions of obstinate rigidity for referring expressions. (This is a special instance of a more general phenomenon. Let a *rigid predicator* be a predicate that expresses the same property relative to all possible worlds. Suppose one thought that the semantic life of a predicate consisted entirely in its expressing a property. Then it will turn out that all predicates are rigid predicators. Similarly for the definite article 'the': if it has a certain relation between properties as semantic value, then there will be a perfectly good sense in which it is rigid with respect to that relation.)

Of course, insofar as the semantic life of an expression varies from context to context, the idea of exhaustivity will require refinement. The phenomenon of context-dependence raises the question whether, in principle, a referring expression might be about one object when it occurs in an atomic sentence, but about another object when it occurs within the scope of a certain operator. This is consistent with a contextualized version of exhaustivity—that the semantic contribution of *a given occurrence of e* is exhausted by its reference.

(Consider an example. Suppose we introduce an operator 'plossibly', which behaves like 'possibly' except that in the scope of 'plossibly', any name refers to Plato. The truth-conditions of 'Plossibly Socrates is identical to Plato' could be generated in a way that is perfectly compositional, and it would turn out true even though the

[34] If we think of predicates as being about the properties they express, and as having those properties as their meanings, this will certainly not be a sufficient condition for being a referential expression. This point is reminiscent of Russell's insistence that the way a predicate means a quality is different to the way that a logically proper name means a particular.

[35] Of course, there are other packages that deliver obstinate rigidity. Even those who reject exhaustivity can hold that modal operators are blind to trans-referential aspects of meaning.

semantic contribution of one of its parts is a little out of the ordinary.[36] But on standard assumptions about the semantics of natural language, 'plossibly' is highly anomalous, since it disallows 'Socrates' from having the referent that it normally enjoys. Insofar as one holds that ordinary names always pick out whatever they refer to in unembedded uses, one must insist that natural language modal operators are not like 'plossibly': there can be no special principles governing the reference of referring expressions within their scope.[37])

(iii) *Variables.* Philosophers have sometimes characterized reference by pointing to the semantic behavior of variables and treating it as paradigmatically referential. Of course, it can hardly be said that 'x' in an occurrence of '$\exists$x(x is happy)' simply stands in a binary reference relation to a particular object. (Which object would that be?) Instead, the point is that *relative to an assignment function*, a variable behaves much like a referential vehicle. To begin with, there is the following structural similarity. An occurrence of an atomic sentence formed by concatenating a referential term with a monadic predicate is true iff the predicative occurrence is true of the object referred to by the referential occurrence. And an occurrence of an open sentence formed by concatenating a variable with a monadic predicate is true relative to an assignment iff the predicative occurrence is true of the object assigned to the variable by that assignment.

The similarities may run deeper. Consider a sentence containing a referring term that refers to *o*, and then the result of substituting that term for a variable. Those who see a deep affinity between variables and referential vehicles may think that every claim about the semantic life of the referring term is also true of the variable, relative to an assignment of *o* to that variable. Hence, insofar the original sentence has a semantic content, the open sentence will be considered to have that very content relative to that assignment.[38]

These reflections provide another standard route to the notion of singular *contents*: they are contents of the sort expressed by open sentences relative to assignments of objects to their variables. Relatedly, suppose one holds that any belief attribution with a referential term in its complement clause attributes a belief in a singular content. The corresponding variable-theoretic idea is this: an open sentence of the form 'John believes that *x* is F' will attribute to John a belief in a singular content about Socrates relative to an assignment that assigns Socrates to '*x*'. Coordinately, if a predicate of the form 'believes that *x* is F' is true of John relative to an assignment of Socrates to '*x*', then John will be deemed to believe a singular content about Socrates. Given the interaction

[36] Note that this would not make 'plossibly' a monster in David Kaplan's sense. A monstrous operator is one that operates on the Kaplanian character of an expression (Kaplan, 'Demonstratives', p. 511).

[37] This further idea precludes, inter alia, Frege's view that in the context of attitude verbs, names refer to that which is their sense in ordinary contexts.

[38] Here we are thinking of 'Relative to assignment F' as functioning roughly as a sentential operator.

of existential quantifiers with variables, it follows within this framework that '$\exists x$(John believes that x is happy)' will be true only if there is some x such that John believes a singular content about x, to the effect that x is happy. (However, as we will see, some will want to deny the further step that being belief-related to a singular content is sufficient for having a genuinely singular *thought*.)

This route to the notion of singular contents has certain advantages over our earlier characterization of them as contents of the sort that are expressed by sentences containing referential terms. First, the latter idea leans very heavily on the locution 'of the sort'. After all, there may be plenty of objects in the world for which we do not have referential terms, but we may not want to disallow singular contents about those things. This problem is less serious for the variable-theoretic formulation, since for any object in the world there will be an assignment that assigns the variable in 'x is happy' to that object.

For some readers there may also be a second advantage. We have in mind those who are unsure about whether any of the putatively paradigmatic referential devices—like names—actually function as such. Such readers may feel more secure about the ternary relation holding between an object, a variable, and an assignment than about the alleged binary relation holding between an object and a referring expression. For them, variables may be preferable as a point of departure for theorizing about singular content.[39]

(iv) *The metaphysics of propositions*. Discussions of reference and singular thought are typically undertaken within a framework of realism about propositions, according to which there are abstract objects that people believe and that utterances express. This seems to open up another way to characterize singular contents. Perhaps they are propositions with a special kind of metaphysical structure; indeed, following Russell's lead, perhaps they literally contain objects as constituents.[40] Given that the semantic life of a referential term is especially bound up with a particular object, it is tempting within this framework to say that all and only expressions that refer to Socrates will contribute Socrates himself to a proposition, and the resulting proposition will contain Socrates as a constituent.

One who tries to provide a direct characterization of singular contents in metaphysical terms has a number of complications to confront. First, constituency cannot be thought of merely as parthood, because parthood is transitive. If Socrates is part of a proposition, then so his left kidney. But proponents of the relevant vision do not think

[39] However, it is not inevitable that a language use variables, nor even that a lack of variables would make its expressive power impoverished. (See Quine, 'Variables Explained Away', pp. 343–7.) Suppose it were to turn out that natural languages do not in any sense contain variables, and that variables occur only in artificial languages. It would then be *prima facie* embarrassing to rely on variables to anchor our theorizing about singular content.

[40] See for example: Russell, 'Knowledge by Acquaintance and Knowledge by Description', p. 116; *My Philosophical Development*, p. 152.

of the proposition that Socrates is tall as, in the relevant sense, containing Socrates' left kidney as a constituent. This can *perhaps* be handled by thinking of propositions set-theoretically and of constituency as set membership, though some will wonder if it can ultimately be metaphysically satisfying to think of propositions as sets.[41] Second, a thing can appear as a constituent in the content of a sentence even if it is not *referred* to by any element in that sentence. For example, it is natural to think of tallness as a constituent of the content of 'Someone is tall' as well as of the content of 'Tallness is a property'. But only the second sentence is usually treated as singular in content, because only the second contains an element that refers to tallness. Thus, the simple constituency test is too blunt an instrument to characterize singular content, especially if we hoped to characterize referring terms in turn as those that semantically contribute objects to singular contents.[42]

Perhaps these challenges can be met. We have no principled aversion to realism about propositions or to the possibility that they may be structured in interesting ways.[43] But we doubt that metaphysical speculations about the structure of propositions are a promising place to start when thinking about the referential structure of language and singular thought. Perhaps, with the best final theory in hand, a directly metaphysical characterization of singular contents will suffice. But we do not want to begin with any such expectation. Still less do we want to rely on any particular metaphysical picture of singular content.

1.4 Singular thought after Russell

We have encountered several interconnected themes about referential expressions. In what follows we will begin by adopting—along with philosophical orthodoxy—the working hypothesis that there is a single semantic natural kind on which most or all of these themes converge. (By the end of the book we will be in a position to reconsider this hypothesis.) Accordingly, 'referential expression' will serve as a placeholder term for expressions of the envisaged kind—and 'reference' for the relation that holds between such terms and the objects they are about.

[41] We say 'perhaps' because the reduction of constituency to facts about membership is not straightforward. Suppose one construed 'Socrates teaches Plato' as expressing a set that is given by some set-theoretic reduction of the ordered triple <Socrates, teaching, Plato>. Standard set-theoretic reductions of ordered triples will not make either philosopher a member of the resulting set. So if constituency is membership we get the wrong results. Suppose instead we make constituency the ancestral of membership. Then we risk making the number five a constituent of the proposition that Socrates adores Josephine, where 'Josephine' is a name for the set of natural numbers. (Thanks to Tim Williamson here.)

[42] One fix would be to claim that a proposition p is a singular proposition about o iff (i) o is a constituent of p and (ii) p is the content of some open sentence relative to an assignment of o to some first-order variable in that open sentence. But then we would be no longer characterizing singular propositions simply in terms of their distinctive metaphysical structure: in fact, condition (i) becomes redundant given usual assumptions.

[43] For an engagement with issues of this sort, see King, *The Nature and Structure of Content*.

We intend to approach the special category of *singular thought* in a similar fashion, so let us begin by sketching some of the usual ideas with which it is associated.

(i) *Content*. One common desideratum for the relevant psychological kind is parasitic on the notion of a singular *content*—a singular thought involves (at least) bearing a cognitive attitude to a singular content. A singular content, in turn, can be understood as a content of the sort expressed by sentences containing referential terms, or by open sentences relative to assignments. This idea is connected with some standard ways of *detecting* the presence of a cognitive attitude towards a singular content. First, if someone understands and sincerely utters a sentence containing a referential term, that is *prima facie* reason to think she believes the singular content that she expresses. Second, suppose we assume that an ordinary attitude report expresses (at least) a cognitive relation between the subject and the proposition expressed by the complement clause. Then a cognitive attitude towards a singular content would be signaled by a true attitude report with a referential expression in its complement clause, and also by a true report that 'quantifies in' (where a variable within the report is bound by a quantifier outside it). That is, we regiment 'Someone is believed by John to be happy' as $\exists x$(John believes that x is happy), which in turn is true iff the open sentence is true relative to some assignment.

(ii) *Tags or files*. Another way to characterize singular thought involves appealing to the cognitive mechanisms whereby we entertain contents.[44] If one adopts a model on which our token thoughts have linguistic structure, it is natural to hold that singular thoughts are those involving mentalese analogues of referential expressions—call them 'tags'. On such a picture there are simple unstructured object-representations in our language of thought that refer to particular objects. Another common picture ascribes far more internal structure to the object representations: an object is represented by a 'file' that contains various items of information associated with that object.[45] On this view, a file differs from a mere conjunctive description in that a file can represent an individual even if much of the associated information is incorrect. As John Perry puts it: the file gets to be about the source of the relevant information even if it does not satisfy

[44] Appeals to mental files or 'dossiers' go back at least to Grice, 'Vacuous Names', see pp. 141–4. See also Bach, *Thought and Reference*, pp. 34–44; Perry, 'A Problem About Continued Belief', pp. 70–4; and *Reference and Reflexivity*, especially pp. 54–7, Forbes, 'Cognitive Architecture and the Semantics of Belief'; Recanati, *Direct Reference: From Language to Thought*, chs. 5–6; and Lawlor, *New Thoughts About Old Things*, ch. 4. The metaphor of files has also been put to a distinct but related use in theories of dynamic semantics as a way of modeling how an object may be represented over an entire discourse. (See for example, Heim, 'File Change Semantics and the Familiarity Theory of Definites'.)

[45] Not only does the 'file' view differ from the 'tag' view in characterizing object representations as complex; it might also be less sanguine about the linguistic structure that the tag view seems to impose on thought tokens. However, these theories are typically entertained and discussed in very schematic form. For example, it remains very unclear whether, for example, there is anything at stake in the decision whether to regard a complex file itself as the object representation, or instead some simple tag within the file. And one might also posit unstructured object representations (with the tag view as we have described it) and yet (against that view) deny that thought tokens have anything like syntactic structure.

that information.[46] If there turns out to be an important natural kind of representation here, then arguably that which best deserves to be called a 'singular thought about x' will be a cognitive file dedicated to representing x.

There are various motivations for characterizing singular thoughts by means of tags or files. For some, the appeal to cognitive mechanisms simply takes the place of an appeal to singular contents. One might, for example, have a non-hyperintensional picture of contents that does not distinguish the content of a belief that 1 is odd from the content of a belief that the smallest prime is odd. On such a view it is natural to hold that what makes a thought singular is a matter of how the content is represented, as opposed to the nature of the content itself. Others might accept a singular/non-singular distinction at the level of content but hold that the most interesting distinctions concerning object-directed thought are marked by the presence or absence of the key cognitive mechanism and not by the bearing of propositions attitudes to singular contents.[47] Here the motivation might be the idea that something like tags or files will have to be appealed to for the purposes of perspicuous psychological explanation: inspired by Frege puzzles, one might hold that the best such explanations will often employ a very fine-grained way of individuating object-directed thoughts. Thus it is not sufficient for two distinct thought-tokens to count as 'the same singular thought' that they have the same semantic content. They must also involve the same mental tag or file.[48]

(iii) *Satisfactional vs. relational.* Still another idea associated with singular thoughts—one that can be combined with one or both of the foregoing ideas—involves the contrast between *satisfactional* and *relational* object-representations.[49] This contrast has been characterized by reference to the behavior of indexicals, the use of which can exploit a relation between an indexical token and the referent without the speaker having to represent that the relevant relation holds. Kent Bach puts it this way: '*De re* modes of presentation . . . determine the contextual relation that something must bear to a thought to be the object of that very thought'.[50] They determine 'the object one is thinking of' not by some imposed descriptive condition, but by means of a relation to that very token representation, whether immediate or remote. Of course, we may be able to provide a descriptive *characterization* of the token-reflexive constraints at work: for example, we might say that the internal analogue of 'here' is constrained to pick out the place of the thought token. But, crucially, in exploiting this relation to pick out its

[46] See 'A Problem about Continued Belief', p. 73.

[47] One might deny that all singular thoughts have singular content if one holds that a thought can be made singular by containing the mental analog of an empty referential term. (See Jeshion, 'Acquaintanceless De Re Belief'.)

[48] For more on the importance of such semantic interconnections among thoughts, see Taylor, 'The Psychology of Direct Reference' and Fine, *Semantic Relationism*, chs. 3–4.

[49] Bach is explicit that the presence or absence of relational representation of an object does not line up with the truth or falsity of belief reports where a referential device to that object occurs in that that-clause. (In particular, he rejects the principle of HARMONY, discussed in our Chapter 2; see 'Getting a Thing into a Thought', p. 53.)

[50] Bach, *Thought and Reference*, p. 13.

object, the thought token 'does not have to represent its [own] being in that relation to the object but merely has to be in that relation'.[51] By contrast, a satisfactional object representation involves thinking of something 'under a description,' the satisfaction of which determines the object of the representation.[52]

Bach goes on to insist that the relation exploited by a relational representation must be 'causal-historical' and involve 'a chain of representations originating with a perception of the object'.[53] One way of understanding this causal condition is that it is a mere stipulation about Bach's use of 'relational' or 'de re'. In that case, the only question is whether this way of dividing things up is explanatorily useful, or explicates a distinction that was pre-theoretically important and intuitive. As will become clear in what follows, we are doubtful on both points. Alternatively, Bach may be making a substantive claim to the effect that all object-representations that exploit relations (in the way sketched in the previous paragraph) must as a matter of fact exploit *causal-historical* relations. In that case, we see no reason to accept the claim. For example, one might well imagine that our primary internal representations of *here* and *now* are anchored by spatio-temporal rather than causal-historical relations. Or we might imagine that an internal representation can be *of* a particular place by disposing its bearer to move to that place given various conative attitudes. And so on. (We discuss causal constraints on singular thought further in the next two chapters.)[54]

Here is another concern. It is far from clear whether all object-representations fit smoothly into the relational/satisfactional taxonomy as described. First, consider a mental name introduced by way of a reference-fixing description. This name will pick out the object it does thanks to the description's being satisfied, and it does not exploit a relation, so it will not count as 'relational'. On the other hand, arguably a given thought token that *deploys* that name need not itself represent the crucial descriptive condition—so in that sense it is not clearly 'satisfactional' either. And if we go on to suppose that the relevant description actually involves a relation to tokens of the name in question—but one that is not causal-historical—then it seems to have even more claim to being relational, but would not quite fit the bill if the 'causal-historical' nature of the relation is *criterial* to being 'relational'.

One could say instead that relational object-representations are those that pick out objects without the need for *any* descriptive conditions represented by the thinker of the thought. But it is far from clear that any of our object-directed representations pass this test. Consider our object-directed representations of Socrates. It may be that causal-historical relations play a crucial role in explaining how such representations pick out Socrates and also that thinkers need not represent such causal-historical relations as obtaining in order for them to do their work. Still, it is plausible that

[51] 'Getting a Thing into a Thought', p. 55.
[52] *Thought and Reference*, p. 12.
[53] 'Getting a Thing into a Thought', p. 55.
[54] Thanks to Rachel Goodman for helpful conversations about this contrast.

such tags pick out Socrates rather than Socrates' flesh owing to the categorial constraints governing them that are internally represented: we intend to be thinking about the man and not the lump of flesh. More generally still, many metasemantic theorists hold that referential facts are fixed by a delicate balancing act of descriptive associations, causal connections, the relative naturalness/non-gerrymanderedness of candidates, and so on. Such factors together will determine, for example, when and whether any reference shift occurs in a given chain of object-representations. If this is right, failure of any given descriptive association may be quite compatible with referential success. But at the same time, referential success is hardly ever purely relational.

(iv) *'Believing of', etc.* A final approach characterizing singular thought is one with which we have very little sympathy: namely, that of invoking locutions like 'believing *of x* that it is F' or 'having *x* in mind'.[55] Insofar as these express ordinary notions, their acceptability does not track the presence or absence of the kinds of thoughts that theorists typically take to be singular. For example: using the ordinary sense of 'having in mind' it made perfect sense for Thurgood Marshall to say: 'When the Founding Fathers used this phrase ["the People"] in 1787, they did not have in mind the majority of America's citizens.'[56] But he was hardly pointing out the fact that the Founding Fathers did not have singular thoughts (plural or otherwise) about everyone in the country. Likewise, if he had said 'The Founding Fathers did not believe of all Americans that they deserved equal rights', the truth of his claim would have nothing to do with the whether the founders had singular thoughts about all Americans.

Unfortunately, as we will see, philosophers often surreptitiously employ such locutions as terms of art tied to the notion of singular thought. The result is that the line between the ordinary and theoretically-laden uses of these locutions has become hopelessly blurred.[57] (For more on this, see §§2.5 and 3.1.)

1.5 Acquaintance after Russell

The history of the notion of acquaintance has, since Russell, been marked by steady liberalization. The original picture was that genuine reference requires a kind of revelation or unmediated presentation. This extreme requirement is usually weakened in one way or another by contemporary theorists, though most still posit a special relation of epistemic or causal *rapport* that is necessary for reference and/or singular

[55] For particularly heavy use of the notion of 'having an object in mind' see Devitt, *Designation*. For an account that leans on 'believing of', see Soames, *Philosophical Analysis in the Twentieth Century, Vol 2: The Age of Meaning*, pp. 414–6.

[56] From Marshall's speech, 'Reflections on the Bicentennial of the United States Constitution'.

[57] When these terms are not explicitly introduced as terms of art, the suggestion is that they are simply used as expressions of natural language, and that readers should exercise their pretheoretic understanding of those expressions. But in fact it often seems that terms of art are in play whose artificiality is masked by the existence of similar expressions in ordinary speech. We recommend assessing the relevant philosophical texts while replacing these expressions with complete neologisms.

thought. (Dissenters include Ernest Sosa, Robin Jeshion, and David Kaplan in some of his later work.[58]) We have been told, variously, that the right relation to some object *o* requires that one 'knows who/what *o* is';[59] that one can recognize or individuate *o*;[60] that *o* has left a 'vivid mark' on one;[61] or that one can employ a singular term whose reference to *o* is 'determined solely . . . by (appropriately shaped) causal chains' grounded in *o*.[62] Unfortunately, characterizations of these relations seldom go beyond the offhand and picturesque.[63] One gets the sense that theorists are not quite happy to leave such a significant notion unexplored, but at the same time they have not found anything very precise to say about it.

Still, we can divide these requirements into two broad categories: those that are epistemic, and those that are causal.

(i) *Epistemic acquaintance*. One leading proponent of an epistemic constraint has been Gareth Evans, who argued that singular thought requires *discriminating knowledge*: 'the subject must have a capacity to distinguish the object of his judgment from all other things'.[64] Such a capacity might take the form of being able to identify an object in one's perceptual field, being able to recognize the object if presented with it, or else (perhaps) being able to distinguish the object descriptively from everything else. An inability to discriminate the relevant object from every other would rule out having a singular thought about that object (even if, for example, the subject had a memory deriving from the relevant object).[65] And while one can master the use of a proper name merely by picking up a social name-using practice, one does not thereby 'come to a proper understanding of what is said' in one's own remarks using the name. Acquiring the object's name and thereby acquiring a distal causal link to the object is not sufficient for entertaining singular propositions about it.[66] (We focus on the epistemic approach to acquaintance in Chapter 3.)

[58] Jeshion, 'Acquaintanceless De Re Belief'; 'Donnellan on Neptune'; Kaplan, 'Dthat'; Sosa, 'Propositional Attitudes De Dicto and De Re'. Though see also Kaplan, 'Afterthoughts', pp. 604–7, where he hedges his view. Mark Crimmins also rejects acquaintance at least in certain cases: e.g. Crimmins, *Talk About Beliefs*, §3.3.

[59] The 'knowing who'/'knowing what' test is common (though as we shall see in Chapter 3, the relevant knowing-wh expressions are sometimes being avowedly deployed with a quasi-technical meaning). For examples of this test see Russell, 'Knowledge by Acquaintance and Knowledge by Description', p. 113; Strawson, *Subject and Predicate in Logic and Grammar*, p. 47; Evans, *The Varieties of Reference*, ch. 4; Soames, 'Beyond Singular Propositions?', p. 518, fn. 5; Recanati, 'Singular Thought: In Defense of Acquiantance', p. 151. Others, such as Kaplan in 'Quantifying In', speak of 'knowing x' rather than 'knowing who *x* is'.

[60] Evans, op. cit., ch. 4.

[61] Kaplan, 'Quantifying In', p. 384.

[62] Boër and Lycan, *Knowing Who*, p. 128. This view is quite common: see fn. 67 below for some examples.

[63] One exception is the work of Igal Kvart: see Kvart, 'A Theory of Thinker Reference'; 'Mediated Reference and Proper Names'.

[64] Evans, *Varieties of Reference*, 89.

[65] Ibid., Chapters 4–6 and 9, and especially pp. 89–92, 115–19, 132–5. Evans argues that the subject cannot *exploit* the uniqueness condition afforded by his single memory unless he explicitly thinks of the object as 'the one from which his current memory derives' (90). We explore this and related issues in Chapter 3.

[66] Ibid., pp. 398–404.

(ii) *Causal acquaintance*. By far the most common way of characterizing acquaintance is that it involves some appropriate causal connection with the object of thought.[67] Obviously one could be more or less strict: perhaps only perception and memory suffice. But having allowed singular thought to extend beyond the Cartesian theatre, few philosophers want to deny that we can all have singular thoughts about (say) Kurt Gödel. As a result, many allow that the right sort of connection can be supplied by competence with a name that is linked causally, by way of a chain of name-users, to an initial baptism in the presence of the object.[68] Here Kaplan famously introduced the analogy of photographs: for a photo to count as *of* a particular person, 'the person must serve significantly in the causal chain leading to the picture's production'.[69] The idea is that names and even mental episodes are like photographs in this way: to count as representations *of* an object, there must be some causal connection to that object, however mediated.

On the other hand, it seems too strong to insist that one's use of a name be linked by earlier uses of that name to an initial baptism in the presence of the named individual. Take 'Homer': for all we know, this name was introduced as a name for the author of the two epic poems, at a time when they were his only remaining traces. But it is counterintuitive to think that whether or not we are actually referring with 'Homer'—or having singular thoughts about the poet of the *Iliad*—depends on whether someone actually named him 'Homer' in his presence before he died.[70]

As a result, many theorists have proposed even more liberal variants of the causal-acquaintance idea. For example, Nathan Salmon holds that, coming upon the scene of a murder, a homicide detective can form singular thoughts about the murderer. This is because the detective forms her thoughts using genuine causal traces of the entity in question, so that the 'entity enter[s] properly into the "genetic" account of how the speaker came to learn the term he/she uses to refer to it.' On the other hand, if Ralph

[67] Among many others, this view has been expressed by Donnellan, 'The Contingent a Priori and Rigid Designators'; Davies, *Meaning, Quantification, Necessity*, p. 97; Salmon, *Frege's Puzzle*, pp. 179–80, fn. 19; 'How to Measure the Standard Metre', pp. 199–214; Bach, *Thought and Reference*, part I; Neale, *Descriptions*, p. 18; Fitch, 'Thinking of Something'; Recanati, *Direct Reference: From Language to Thought*; Soames, 'Beyond Singular Propositions?', p. 518, fn. 5; *Beyond Rigidity*, pp. 92, 329, 339.

[68] While many of those who play up a causal chain picture of acquaintance are inspired by Kripke's view of the way in which names refer, there is no evidence of a *general* acquaintance constraint on reference in *Naming and Necessity* (Oxford: Blackwell, 1980).

[69] Kaplan, 'Quantifying In', pp. 198–201. Kaplan later changed his view: see Kaplan, 'Demonstratives', pp. 536, 560 n.76; 'Afterthoughts', pp. 603–7; and the hedged position in 'Afterthoughts' pp. 603–7.

[70] Kaplan makes a similar point about 'Aristotle' in 'Afterthoughts', p. 605. Of course, there are more complicated cases. Suppose, for instance, that the poet left his work unsigned and an otherwise unknown prankster inserted his own name at the head of each work. This is similar to the Ibn Khan case in Evans, 'The Causal Theory of Names', p. 19. Our intuitive verdict for these cases arguably contrasts with our verdict for Kripke's Godel/Schmidt case (Kripke, *Naming and Necessity*, pp. 83–4). Perhaps this is because, regardless of who proved the incompleteness of arithmetic, all the ordinary conventions that tie a name to an individual are still in place between the name 'Kurt Godel' and the individual who, in Kripke's example, is the imposter. (For example, one could look up official birth records for the individual with that name.) In the envisaged 'Homer' scenario, there is no intact and independent chain of name-usage connecting us to the imposter.

believes 'solely on the basis of reflection on the concepts, that whoever is shortest among spies is a spy', he is blocked from having singular thoughts involving the shortest spy, even if he introduces a name with a reference-fixing description.[71] In a similar vein, François Recanati allows that we can have singular thoughts about items known only by description, as long as the descriptions are *informative* as opposed to *reference-fixing* descriptions. For a description to be informative requires that it has a 'target' object that is 'determined independently of its satisfying the description'. The information (or misinformation) encoded in an informative description is 'anchored' in the target object by way of a causal relation, however indirect. It is for this reason that an informative description may *incorrectly* describe its purported target.[72]

This kind of view only posits a weak causal constraint; and the weaker the constraint, the fewer the potential counter-examples from which it will suffer. But two points are immediately worth noting.

First, to motivate a very weak constraint, one cannot appeal to the original motivations that were offered for acquaintance constraints. To begin with, one must obviously give up the Russellian motivations: certainty of successful reference and discrimination of co-reference. But other more popular motivations must also be abandoned. For instance, many appeal to a special kind of belief-reporting data to motivate acquaintance constraints. In the case just sketched involving Ralph, even if Ralph introduces the name 'Vladimir' for whoever happens to be the shortest spy, it sounds wrong to say, 'There is someone that Ralph believes is the shortest spy'. This fact could be explained by combining the idea that Ralph lacks acquaintance with the thesis that this sort of attitude report ascribes a singular thought. But weakening acquaintance will lead to many cases where the same problem arises. For example, suppose that in the detective case we allow the detective to have singular thoughts about the murderer through the latter's traces. We will then need some other explanation of the fact that it still sounds wrong to say, 'There is someone that the detective believes is the murderer'. We will examine these data carefully in the next chapter—but it is worth keeping in mind that as one liberalizes acquaintance in order to handle intuitions about some cases, one will thereby give up the ability to appeal to acquaintance when it comes to explaining our intuitions in other cases.

Another problem for weak acquaintance constraints is this. It is far from clear that thoughts connected to 'traces' or 'informational anchors' form a theoretically significant category of cognitive states or modes of epistemic access. Indeed, in many cases it is difficult to see how such a taxonomy would even apply. Consider 'Julius', whose

[71] Salmon, 'The Good, the Bad, and the Ugly', pp. 198–9. The original Smith's murder example is from Donnellan, 'Reference and Definite Descriptions', and the 'shortest spy' case is from Quine, 'Quantifiers and Propositional Attitudes' and Kaplan, 'Quantifying In'.

[72] Recanati, *Direct Reference: From Language to Thought*, pp. 111–2. This relatively liberal restriction also appears to be at work in the notion of a 'prompt' discussed by R. M. Sainsbury in 'Reference and Anaphora', §3. Sainsbury's plausible examples of anaphoric reference appear to generate pressure to reject any strict acquaintance condition on reference.

reference we stipulate to be fixed by 'the individual who invented the zip'.[73] Can we have singular thoughts about the inventor of the zip (assuming there is only one) because we have encountered a trace in the form of his creation? If not, would it be sufficient if we had learned that there was a unique inventor of the zip from someone acquainted with the inventor who nevertheless did not mention any name? Or consider Ralph and the shortest spy. Suppose that Ralph had learned that there is a unique shortest spy from the Spy Census, which would not have indicated this were it not for Ortcutt (there being a tie for second-shortest)? In this case, the source of Ralph's information is counterfactually dependent on Ortcutt and his height; but we doubt that proponents of even the weakest acquaintance relation would allow Ralph to have singular thoughts about him.

In short, the notion of informational anchoring is shaky at best. At worst it is an *ad hoc* gesture, invoked whenever a theorist wishes to deny the presence of singular thought, towards whatever tenuous causal relation would explain its absence. But why think there is any such relation in the first place?[74] We will focus on that question in the next chapter.

(iii) *Split acquaintance*. Another way of liberalizing acquaintance constraints is to apply them only to thought and not to language.[75]

On one way of fleshing out such a view, there are cases in which one can refer to an individual even if one is not in a position to grasp singular contents about that individual. For example, perhaps one can use 'Julius' to refer to the inventor of the zip without being able to token singular thoughts about Julius, because one does not bear the right causal relationship to him or her. But this has some initially unappealing features. To begin with, it appears to require that we give up the intimate tie between sincere assent and belief—a connection adumbrated by Kripke as follows:

> If a normal English speaker S, on reflection, sincerely assents to 'p', then S believes that p.[76]

In defense of split acquaintance, perhaps this could be replaced by a modified principle, in which the antecedent involves not only assenting to 'p' but *fully understanding* it. The

[73] Evans, *Varieties of Reference*, p. 31.

[74] After all, there may be no feature of object-representations at all (let alone a causal feature) that explains the range of intuitions related to singular thought. In particular, our intuitions about the acceptability of exported attitude ascriptions often seem more attuned to features of the ascriber's situation than features of the subject's situation. If they are context-dependent in this way, there may be no particular feature of the subject's thought that will suffice to explain the range of intuitions at play. (More on this in Chapter 2).

[75] See e.g. McGinn, 'The Mechanism of Reference', p. 167; Evans, *Varieties of Reverence,* §11.3 and §11.5, Salmon, 'The Good, the Bad, and the Ugly', p. 247; Soames, 'Beyond Singular Propositions?', p. 518, fn.5. Kaplan also expresses some sympathy towards a view like this in Kaplan, 'Afterthoughts', pp. 606–7.

[76] That is, as Kripke puts it, where 'p' 'is to be replaced, inside and outside quotation marks, by any appropriate standard English sentence', and where 'the sentence replacing 'p' is to lack indexical or pronominal devices or ambiguities that would ruin the intuitive sense of the principle' and where a normal English speaker 'uses the sentence to mean what a normal speaker should mean by it.' Kripke, 'A Puzzle About Belief', §2.

idea would be that one can utter 'Julius was inventive' without understanding it in an appropriately robust way, and nevertheless succeed in expressing a singular proposition. (We will have more to say in Chapter 3 about the notion of robustly understanding a name.)

A related problem is that this view complicates a natural picture of communication on which one expects one's interlocutors to understand the propositions one semantically expresses. Presumably, if the speaker does not fully understand 'Julius', then neither will interlocutors to whom he or she introduces the name. In fact it seems that a whole community of users might successfully employ a name without the requisite level of acquaintance. But the claim that people commonly express propositions that no one can grasp generates tension with the natural idea that meanings of utterances are—in some fairly direct way—parasitic on the contents they are used to communicate.[77]

Here is another variant on the split acquaintance view. Perhaps believing singular *contents* about Julius is easy but not sufficient for having *bona fide* singular *thoughts*. The latter require something additional, such as grasping a singular content *by way of* the right kind of cognitive vehicle—a file or tag, perhaps. The question then becomes: why would this latter step require causal *acquaintance* with Julius? Surely one can form the relevant cognitive vehicle, individuated internally, without the right causal connection to the purported referent. (This presumably happens in cases of illusion.) But it seems at least *prima facie* odd to deny that someone who both believes the relevant singular content about Julius and associates it with the right kind of internal vehicle to refer to Julius, nevertheless is in no position to have a genuine singular representation about Julius. We will return to this point in §2.4. For the most part, however, we will set aside concerns that are local to the split acquaintance view.

(iv) *Liberalism*. The thesis that there is no general acquaintance restriction on reference or singular thought we will call *liberalism*. Three points of clarification are in order.

First, liberalism is compatible with a variety of views about what sorts of cognition best deserve to be called 'singular thought'. Some liberals will hold that a singular thought is simply the bearing of a propositional attitude to a singular content. Others will hold that the most natural kind in the neighborhood is a type of thought involving a special class of internal vehicles like 'tags' or 'files'. Still others will hold that these distinctions coincide, or that they correspond to different joints of equal theoretical interest. What liberals have in common is that they think none of the important joints in the vicinity are governed by general acquaintance constraints. (That said, liberalism is

[77] Evans takes note of this issue in Evans, *The Varieties of Reference*, p. 400. For a useful discussion of the connection between the meanings of words and the meanings of speakers, see Grice, *Studies in the Way of Words*, ch. 6.

perfectly consistent with—and is indeed likely to accompany—the thesis that reference and singular thought *often* involve exploiting causal relations.)

Second, liberalism is compatible with various other constraints on singular thought in cases where one is *not* exploiting causal connections. For example, some may hold that one must in such cases exploit a reference-fixing description; others may allow the use of referential vehicles that do not exploit causal relationships *or* function like descriptive names; and still others may deny that singular thoughts must be realized by states involving any mental analog of a referential expression.[78]

Third, liberalism is compatible with various views on the truth of exported belief reports, such as 'The shortest spy is such that Ralph believes that he is a spy'. Thus, a liberal may insist that this report can be true only if Ralph has a singular thought about the spy. (Indeed, the liberal may think that the best candidate for 'singular thought' is a phenomenon *defined by* the truth of such ascriptions.) Or a liberal could deny any interesting connection between singular thought and such belief reports. We will look more closely at exported ascriptions in the next chapter.

1.6 Should auld acquaintance be forgot?

Our first goal in this book is to argue that there is no good reason to impose acquaintance constraints of any sort on reference or singular thought. (This will pave the way for our second goal, which is to promote a certain approach to the semantics of descriptions, demonstratives, and names.) Acquaintance, in our view, is a dispensable relic of a bygone era in the philosophy of language and mind.

In arguing for liberalism we will adopt the working hypothesis that the terms 'reference' and 'singular thought' do pick out a semantic and a psychological natural kind, respectively—and that each exemplifies to some extent the confluence of themes discussed in §1.3 and §1.4 above. (We will revisit this working hypothesis in the book's concluding remarks.) Of course, some theorists will emphasize one or another of these themes to a greater degree.[79] But our aim in the next few chapters is not to take a stand on which of these themes deserves emphasis. Our aim is to challenge the idea that acquaintance constraints apply to any kind of object-representation that is of sufficient theoretical interest to deserve the title 'singular thought'.

(i) *Caveats*. Here are some related claims that we are *not* making. (a) We are not denying that, for example, linguistic reference often exploits a causal or epistemic connection.

[78] A liberal could, for example, take her cue from Salmon (who is not a liberal) in holding that if one has a general belief of the form, 'The murderer is insane', one will automatically have a second and distinct belief in the singular proposition involving the murderer himself. (For him, this is modulo the requisite acquaintance relation.) See 'The Good, the Bad, and the Ugly'.

[79] Thus, in postulating constraints on singular thought, some are primarily making claims about the conditions for standing in various attitudes to singular contents, while others are primarily concerned with the conditions for tokening inner representational vehicles of a special type, such as 'tags' or 'files'.

(b) We are not denying that there are any acquaintance constraints when it comes to various subclasses of object-representation, delineated by a taxonomy of mechanisms or modules. For example, perhaps object-representations that occur in a particular vision module in humans always represent an object due, in part, to causal relations between it and the object represented. Or perhaps, more generally, causal interaction is a necessary condition on successful *perception*, and therefore on referential intentions mediated by perceptions.[80] We have no desire to argue with claims made at this level of specificity. (c) We are not rejecting anyone's right to announce that they will reserve the term 'singular thought' for cases where an appropriate causal or epistemic connection is at work.[81] We would simply point out that such a stipulation would trivialize the claim that singular thought requires acquaintance, and we see no reason to think that the stipulated term would delineate an interesting kind from the point of view of a general theory of meaning and representation.

Our target, then, is acquaintance proposed as a substantive and general constraint on meaning, thought, or understanding. This is the idea often expressed with (albeit vague) slogans like 'Reference and singular thought require acquaintance'.

(ii) *Burden of argument*. We are liberals primarily because we see no reason to accept an acquaintance constraint, and we have never encountered a specific proposal that seemed at all plausible.[82] In general, we are completely puzzled by the kind of policing or gate-keeping that goes on when philosophers makes speeches of the form, 'In order to have a genuine singular thought/have a genuine *de re* thought one must satisfy constraints X, Y, and Z.' Such claims are invariably either true and uninteresting—because some special use of 'singular thought' has been stipulated—or else false on any good precisification.

Those who postulate substantive acquaintance constraints are taking on an argumentative burden, and we will be examining their positive arguments in Chapters 2 and 3. However, we suspect that some of those who find acquaintance constraints plausible are not leaning very heavily on those positive arguments. They may simply find it natural to generalize from certain paradigm cases of reference in which causal or epistemic relations do play a significant role in securing reference: and certainly many ordinary uses of names and demonstratives are like this. But one should not fixate on a restricted range of cases. When one thinks through a sufficient variety of examples, a

[80] There may be exceptions. Perhaps one perceives a hole when only its lining is causally active; or perhaps one perceives a statue when only the lump is causally active; or perhaps one can perceive an absence of bananas without the absence exercising a causal influence.

[81] A natural way of reading Bach, for example, is that a causal acquaintance constraint is simply built into his conception of singular thought: see §1.4.ii above. Consequently, to avoid a terminological dispute, our disagreement with Bach may be thought of as concerning whether his taxonomy of thoughts is more theoretically useful and better cuts psychological reality at the joints than one on which the key notion is not burdened with a causal condition.

[82] We do offer some positive considerations in favor of liberalism in Chapter 2, at least for those who wish to retain a close connection between exported belief reports and singular thought.

general acquaintance constraint is not *prima facie* compelling after all. To illustrate this point, we offer in what follows a sample of cases where standard heuristics suggest that reference and singular thought are present, but where this or that candidate acquaintance relation is absent. For now we will be focusing on causal acquaintance constraints: we will set aside epistemic acquaintance until Chapter 3.

To detect the presence or absence of singular thought in the following cases, some readers will proceed via judgments about the truth of exported belief reports, or reports with referential terms in their complement clauses.[83] (We shall, for now, assume with semantic orthodoxy that names, demonstratives, and simple indexicals are referential terms.)[84] Others will proceed via judgments about whether subjects can use a referential expression and grasp the propositions they express with it. And still others will ask themselves whether tags or files are present in the subject's psychology, and whether these succeed in referring. Readers are free to consider their own preferred heuristics, as long as those heuristics do not import an assumption of causal acquaintance: we continue to assume that those who postulate an acquaintance constraint on singular thought intend to put forward a substantive claim. For this reason we recommend against diagnosing the presence or absence of singular thought by asking oneself whether the speaker 'knows who *x* is' or 'believes of *x* that she is F' or 'has *x* in mind'. As we mentioned above and will be arguing further in later chapters, these expressions have been hijacked for a theoretical use in the philosophy of language—and terms of art cannot be mined for diagnostic, pretheoretical intuitions. (Meanwhile, the original ordinary expressions homonymous with these terms of art are of no special use when it comes to identifying singular thought.)[85]

We have grouped our discussion of such cases, rather arbitrarily, into eight broad ways of achieving reference: by reverse causal chain, by decomposition, by character, by convention, by conspicuity, by proxy, by conjecture, and by depiction.[86] (As will be clear, many of our examples are variations on cases from the literature.) While we do not pretend that every case causes trouble for every causal acquaintance constraint that has been proposed, we can think of none so lenient it can properly handle them all.

(iii) *Reverse causal chains*. Those who take there to be a causal acquaintance constraint on singular thought typically suppose that the object of thought must in some way causally

[83] A special word of warning concerning belief reports in these cases. As we argue in Chapter 2, the acceptability of exported belief descriptions is heavily context dependent. As a result, in many of the cases that follow, it will be possible to construct exported belief ascriptions that are not acceptable as well as those that are. It serves our purposes well enough to notice that it is easy to flesh out the context in ways that generate acceptable reports. As we shall see, the negative data are of no special importance since they can just as easily be generated in cases where candidate acquaintance relations are present.

[84] The second half of this book will complicate this assumption significantly, but not in a way that threatens the thesis operative in the following examples; *viz*. that singular thoughts are typically expressed when sentences contain proper names and demonstratives, and that singular thoughts are typically ascribed when proper names and demonstratives appear in the complement clauses of attitude ascriptions.

[85] See ch. 2, §2.5, ch. 3, §3.1, ch. 4, §4.1.

[86] We by no means suppose that this taxonomy is exclusive or exhaustive.

impact the subject. But as Ernest Sosa and Robin Jeshion have pointed out, sometimes the causal chain runs in the opposite direction.[87] For example, in 1512, Henry VIII ordered the construction of a great warship to be called *Henry Grace à Dieu*. Suppose he knows that his order will be carried out on time, but is given no reports of the progress of the ship on the principle that no news is considered to be good news. After the expected date of completion, he makes plans to visit the harbor. Surely he succeeds in referring to the ship if he says 'I plan to see *Henry Grace à Dieu*.' Moreover, we would not withhold an exported ascription: there is a warship such that King Henry believes he will see it.[88] But his causal link to the ship leads in the wrong direction for him to satisfy a standard causal acquaintance constraint. Neither is any of his information about the ship 'derived' from it.

(iv) *Reference by decomposition*. In the ordinary sense of 'perceives', one can surely perceive an object even if parts of it are hidden. One can perceive a dog without perceiving its organs or hidden surfaces, and one can see a city without seeing many of the buildings of which it is composed. Moreover, when one is perceptually confronted with an object, it often seems that one can name—and have singular thoughts about—both the parts that are perceived and the parts that are not. For example, suppose a mechanic points at a car and says, 'Let me see that engine'. We would not want to deny that there is a particular engine such that the mechanic wants to see it. And yet there may be no causal relation here to speak of.

Might one suggest that it is sufficient for acquaintance with *o* to be causally connected to something that is mereologically related to *o*? This threatens to make the condition quite vacuous: if we are all both causally and mereologically related to the biosphere, it will follow that we are all acquainted with each other.

(v) *Reference by character*. Suppose we adopt a roughly Kaplanian account of indexicals. Then there is a linguistic rule for every indexical—its 'character'—that determines its reference with respect to a context. Must this kind of rule be restricted to specifying some *causal* relation between the referent and the speaker or the token of utterance?[89] If not, the anti-liberal who proposes a causal constraint will have to maintain that we are somehow barred from properly using these terms as vehicles for expressing singular thoughts in cases where we are not causally connected to the object determined by the character.

[87] They both describe examples where one names something before bringing it into existence. (Sosa, 'Propositional Attitudes De Dicto and De Re', p. 889; Jeshion, 'Descriptive Descriptive Names', p. 609; 'Ways of Taking a Meter', p. 300). Kaplan even mentions such examples in 'Quantifying In', 214. However, we do not wish to take a stand on whether it is possible to have singular thoughts about as yet non-existent objects: see the following footnote.

[88] Intuitions may waver a little as to whether Henry can refer to the ship *before* it is built. This is because many of us have presentist intuitions according to which, in the broadest natural sense of 'exists', only the present exists. (See see ch. 2, §2.5.) But presentism is no threat to liberalism. Meinongians aside, we can all agree that only existing things can serve as relata to the reference relation.

[89] For an affirmative answer, see Devitt, *Designation*.

The problem, as Colin McGinn pointed out decades ago, is that some indexicals refer to objects that have no causal effect on us.[90] For example, whatever linguistic rule determines the referent of a given utterance of 'tomorrow' cannot involve the speaker or the token being causally affected by the interval of time referred to. (In conversation, a proponent of acquaintance suggested—half in jest—that we can refer to tomorrow because it 'touches' today.)[91] One would need substantial positive motivation to accept 'today' but not 'tomorrow' as a pure indexical that can express singular contents.[92] Moreover, we have no hesitation using 'tomorrow' in the complement clauses of attitude ascriptions, or endorsing the relevant exported ascriptions. Related points can be raised for terms referring to other spatial or temporal regions.[93, 94]

At any rate, the proponent of a causal acquaintance constraint faces a difficult choice: she must either (a) cast about for an additional non-causal relation that suffices for acquaintance; (b) let semantic theory dictate on issues in speculative metaphysics, such as whether we are causally related to the current moment; or else (c) suspend judgment on whether we have thoughts about the present time or place, pending a consensus on the metaphysical issue. None of these options seems particularly appealing.

Finally, let us extend our inquiry to merely possible indexicals. Must the linguistic rules for indexicals *in principle* operate via those relations that are allegedly necessary for acquaintance? Imagine a language community containing many tribes, each of which has a fairly well delineated geographical region to call its own. They have a term, 'Cheef', which they use in a paradigmatically referential way. Its rules determine that it refers to whatever individual is chief of the location in which the utterance occurs. Just as 'today' and 'tomorrow' can suddenly shift their referents at midnight without one's knowing it, 'Cheef' shifts its referent as soon as one crosses the boundary from one tribe to another. (We can suppose that various tests on the linguistic intuitions of the community, having to do with embedding in modal and attitude contexts, bear out our classification of the term.) Is this *in principle* a defective term, so that such a community could not succeed in their referential intentions?

[90] McGinn, 'The Mechanism of Reference', p. 160. However, McGinn himself is a proponent of the split acquaintance view: see p. 167.

[91] Obviously, acquaintance with *o* had better not be conferred by the fact that *o* touches something with which one is acquainted, lest we thereby count as acquainted with everything touching the Earth.

[92] One might be attracted to treating 'yesterday', 'today', and 'tomorrow' as partly descriptive but involving reference to the present moment; e.g. they are elliptical for 'the day before the day it now is', 'the day it now is', and 'the day after the day it now is', respectively. However, we think it would be misguided to motivate this by the idea that 'yesterday' decomposes into 'yester-' and '-day'; compare the archaic use of 'yesteryear'.

[93] Do the referents of 'here' and 'now'—assuming these function as referring devices—have causal effects on us? Even the case of 'I' is not straightforward: what causal relationship does one bear to oneself? Both McGinn (op. cit.) and Wettstein have emphasized the oddness of the view that the linguistic rules that govern 'I' and 'now' would determine referents by way of causal relations (Wettstein, *Has Semantics Rested on a Mistake?*, p. 73).

[94] Consider also the second-person pronoun. Suppose that Smith knows on general grounds that he has a local Member of Parliament and writes her letters. Among other things he writes, 'You are not doing enough to prevent the takeover of small shops by large chains.'

(vi) *Reference by convention*. A similar point can be made about proper names. Consider a community that assigns every newborn a number, by way of a secret algorithm that takes time and place of birth as inputs.[95] Thereafter one is referred to by the corresponding numeral: say '9200386'.[96] Moreover, if the number is miscalculated it is assumed that one's *true name* would be the correct output of the algorithm. In short, the intention of the community is to exploit the algorithm to generate names, in *place* of baptism. There is no such thing as baptism, by their lights: there is a fact of the matter about one's true name, which is settled by the community's strong convention plus facts about the time and place. Surely a community with such linguistic conventions is *possible*. Now suppose a member of such a community is discussing a distant relative with whom she has had no direct causal contact. Instead of exploiting a causal chain of name-uses—as we would—this individual attempts to exploit a convention involving an algorithm. Does she succeed? On the one hand, it is implausible to insist that she cannot have a singular thought about that individual. On the other hand, it is implausible to suppose that she succeeds *despite* her linguistic intentions and those of her whole community, by unwittingly tapping into some kind of causal chain.

(vii) *Reference by conspicuity*. Paradigmatically, a speaker accompanies a demonstrative with an act of *pointing* at an object or otherwise rendering it salient by shaking it, gazing at it, or aiming a flashlight beam at it. But in a wide range of contexts no complement gesture is required. As Evans puts it, 'a speaker can exploit some extreme or heightened salience which an object has anyway (without his bringing it about)'.[97] An object can be made conspicuous in any number of ways.[98]

We need take no position on the question whether gestures and other salience cues themselves 'determine reference in the sense of making it the case that a certain [object] is being referred to' or whether they merely enable the audience to identify the referent that has been determined by the intentions of the speaker.[99] What concerns us is whether the mechanisms by which the reference of a demonstrative expression is fixed must involve a special *causal* relation to the object. We see no *prima facie* reason to think that they must.[100]

[95] A similar example—used to make a different point—can be found in Wettstein, op. cit., p. 5.

[96] A given numeral, of course, could serve both as the name of a number and the name of an individual, just as many individuals are named 'John'.

[97] This quote and flashlight example are from Evans, *The Varieties of Reference*, p. 312.

[98] Consider these pointing-free demonstratives:

i. This is beautiful (said with closed eyes during a musical performance).
ii. It is more impressive than I imagined! (as the speaker comes within view of Mount Everest).
iii. He really beat me (Jimmy Carter to Rosalyn, waking up in the night after his debate with Reagan).

The last example is from Wettstein, who notes that relevant cues 'are not limited to those provided by the context of utterance. . . . [and] can be provided by what the addressee knows about the speaker's interests, desires, history, and so on'. (Wettstein, *Has Semantics Rested on a Mistake?*, pp. 78–9.)

[99] Bach, 'Intentions and Demonstrations', p. 144. Bach defends the latter view, as does Kaplan in 'Afterthoughts'. See *inter alia* Reimer, 'Do Demonstrations Have Semantic Significance?' for the former view.

[100] *Contra* e.g. Devitt, *Designation*, pp. 42–3.

Suppose Jones learns in some indirect fashion that his old friend Smith is now engaged to a woman (perhaps via learning the general fact that everyone in a group to which Smith belongs is engaged) and that there is a virus afflicting women in Smith's town. Jones calls Smith and (before Smith speaks) says: 'Is she all right?' The simple fact that Jones knows that Smith's fiancée will be foremost on his mind at this time appears *prima facie* sufficient for Jones to be able to refer to her.

Here is a second case. John crosses over a summit to the other side—a location David has never seen. David calls out: 'Can you see the city from there?' John replies that he can indeed see the city 'from here', and they go on talking about that location. Must David be within sight of the location to have referred to it, or to grasp what John is saying? (What if he is blind: what would count as sufficient aural or tactile contact with a location?) A causal acquaintance constraint yields counterintuitive results.[101]

(viii) *Reference by proxy*. Deferred demonstratives—whereby one refers to an object absent from the perceptual scene by exploiting some salient prop—appear every bit as referential as ordinary demonstratives. On the face of it, a speaker expresses the same proposition when she says, 'That is my friend' whether she is (a) pointing at Bob; (b) pointing at a door through which Bob has just left; or (c) pointing at a photograph of Bob. Even if one somehow convinces oneself that the relevant linguistic device refers to the prop in (b) and (c), it remains natural—by the lights of standard heuristics—to think that there are associated singular thoughts directed at Bob that are being communicated.[102]

Does this phenomenon ever involve flouting acquaintance constraints? As we have seen, only the weakest sort of acquaintance restriction allows that the homicide detective is acquainted with Smith's murderer, or that we can come to have singular thoughts about someone just by seeing his footprints in the snow. But pointing to the grisly scene and the footprints, the detective can say 'He's insane,' referring to the murderer. (And as we will see in the next chapter, there will be plenty of contexts where subsequent exported belief ascriptions will be acceptable.) Similar examples abound. One points to a beautiful office and says, 'That person is lucky to have such a nice office'. Or one points to a heavily vegetated island and says, 'Those people never go hungry'. Again, *prima facie*, there seems no reason to deny the semantic well-functioning of referential terms and intentions in these cases. But, as we will see, the project of weakening acquaintance in such a way that it both accommodates these cases

[101] These cases bear some similarity to those in McGinn, 'The Mechanism of Reference', pp. 60–4.

[102] We are not ourselves very partial to the view that linguistic reference is to the prop. Here is Emma Borg: '[T]he sort of sharp distinction between deferred and nondeferred case . . . never really existed. Once we recognize that I can refer to you by pointing at your arm, or at just that part of you that is visible through a door that is slightly ajar, or at the tail of your coat as you leave the room, or at your image in the mirror, or at your photograph, or at your shadow, etc., the idea of drawing a semantic distinction at any point on this scale comes to seem quite hopeless' (Borg, 'Deferred Demonstratives', p. 226). Along these lines, one might say that reference by proxy is just a special case of reference by conspicuity: the prop helps make the relevant object conspicuous.

and still does the theoretical work that motivates it (see Chapter 2) appears quite hopeless.

(ix) *Reference by postulation*. We can begin with an example famously discussed by Kripke. In 1846, Urbain Leverrier reasoned that certain perturbations in the orbit of Uranus could be elegantly explained by postulating the presence of a new planet in a specific celestial location. He sent his results to the Berlin Observatory, which discovered the planet with a telescope in less than half an hour: Leverrier had predicted its location to within 1 degree.[103] Now let us add the fictitious supposition that before the planet had been seen, Leverrier stipulated that the name 'Neptune' would refer to whatever planet was the perturber. We might also imagine him pointing at the location where he had determined the planet should be, though unable to see it with his weak telescope, and saying, 'That is the cause of the perturbations!' There seems no *prima facie* reason to deny that Leverrier succeeds in referring to the planet with 'Neptune' or 'that', despite the lack of perceptual contact. As John Herschel put it in 1846, speaking before Neptune had been found with a telescope:

> We see it as Columbus saw America from the shores of Spain. Its movements have been felt, trembling along the far-reaching line of our analysis, with a certainty hardly inferior to that of ocular demonstration.[104]

The acquaintance lover might object that in this case the reference has been fixed in a way connected to causal traces, and insist that the perception of perturbations in the orbit of Uranus put Leverrier and Herschel in sufficient causal contact with Neptune. But there are other cases of reference by postulation where this point cannot be made.

Consider, for example, a variant on an example due to Robin Jeshion.[105] In 1870, Mendeleev stated that it was possible to predict the properties of certain elements even though no samples of those elements had yet been discovered. He made predictions for, among others, an element he called 'eka-aluminum'. Five years later, samples of eka-aluminum were discovered by Lecoq de Boisbaudran and named 'gallium'. Here again, it seems that Mendeleev succeeded in referring to the element in speech and in thought, and we are happy to say (for example): 'In 1870 there was a substance such that Mendeleev thought samples of it would soon be discovered'. Apparently, reference to a substance-kind requires no prior acquaintance with its terrestrial instances.[106]

[103] Similar calculations were made independently by John Couch Adams.

[104] From a speech given on the 10 September 1846, to a meeting of the British Association in Southampton. For more on Herschel, see Standage, *The Neptune File*.

[105] See 'Donnellan on Neptune', p. 113; 'Ways of Taking a Meter', p. 300.

[106] This example is more problematic for the anti-liberal than the fact that we can refer to abstract objects like numbers even though they have no causal connection to us; see e.g. Putnam, 'What Is Mathematical Truth', p. 59.) The anti-liberal's typical response to that point is to posit a kind of mental connection with abstract entities in order to promote an appearance of unity in the theory. But usually reference to natural substance-kinds like water and gold is thought to operate very much like reference to ordinary objects—paradigmatically, someone percieves an instance of the kind and introduces a referential device by ostension, and then others who pick up that term by way of a chain of uses can do so as well.

Finally, consider 'God', which is arguably a proper name. (If it were short for some definite description like 'the all-powerful, all-knowing . . . ' it would be hard to explain the controversy among theists about which among these attributes God enjoys.[107]) Atheists hold that 'God' fails to refer, while theists typically hold that humans have causally interacted with its bearer. But suppose it turns out that there is exactly one all-powerful, all-knowing, and completely benevolent spirit whom we will meet in the afterlife; and yet this spirit has not causally interacted with the universe. (Perhaps the universe has always existed, or was created by much lesser beings who have themselves have always existed.) It seems that on this scenario, 'God' refers to the great spirit, and theists have correctly held that God exists, but wrongly thought that God has interacted with the universe. Once again we have referential success unmediated by causation.

(x) *Reference by depiction.* Imagine Leverrier with a map of the fixed stars like that on the cover of this book, working out the path of the postulated planet and adding a mark with the intention of representing it in its current location. Suppose Leverrier points to the mark and says 'That is the perturber.' The mark then is a perfectly adequate prop for demonstrative reference. If there is no reason to deny that Leverrier's mark represents the planet, why deny that his demonstrative does so?

Here again the acquaintance lover may hold that this case involves causal traces that are sufficient for acquaintance. But consider another example. The seventeenth-century cartographer John Speed mapped the coastline of the British Isles. Suppose he is told by sailors about the coastline of a large, unexplored island. He draws an accurate map of the coastline of this island, then points at an area on his map representing an area within the island that is well beyond sight of the coastline and says, based on purely general considerations: 'It is windy here' or 'It is windy at that location'. Even if no one has had any causal contact with the place he's pointing to, it would seem odd to deny that part of Speed's map represents that very place, that he has a belief about it, or that he has just referred to it.[108] And yet this part of the island has not had even an indirect causal effect on him.

Of course, maps need not be set down on paper or pencil. People frequently make rough egocentric mental maps, using a few proximate landmarks to set the axes. We cannot think of any reason to deny that such representations could serve as devices allowing a sort of deferred demonstration.

[107] See, for example, Whitehead's *Process and Reality,* Hartshorne's *Omnipotence and Other Theological Mistakes*, and Kushner's *When Bad Things Happen to Good People*. One might propose that the definite description involved itself makes reference to descriptions or attributes, as in 'the best candidate for satisfying the description, "the all knowing, etc." ', or 'the being that has the most of the following attributes: being all-knowing, etc'. Such a proposal appears implausible enough for us to ignore it here.

[108] On using maps as props for deferred demonstration where acquaintance is not at issue, see e.g. Evans, *Varieties of Reference,* pp. 161, 162; Kaplan, 'Demonstratives', p. 491; Recanati, 'Are Here and Now Indexicals? ', §3.2.

An acquaintance constraint on reference can seem natural if one assumes that *any* representation of an object must be causally connected with that object somehow. And this in turn can seem tempting if one takes the case of photographs as paradigmatic. A photograph only counts as *of* so-and-so if that individual plays an important causal role in its production.[109] (Thus Kaplan called his view the 'photograph model' of naming.[110]) But why model mental or semantic representation after photography? Even among less technological types of graphic representation, there doesn't seem to be any corresponding constraint.

Consider what it takes for a given painting to count as a depiction *of* someone. An artist can, apparently, choose to depict anyone that she can uniquely identify. There need not be any particular causal link or relation of similarity between the portrait and its subject. Take, for example, Salvador Dalí's portrait of Juan de Pareja, assistant to Velázquez, What makes it the case that his painting is a depiction of Juan de Pareja rather than, say, Charles V? It is certainly not a matter of *resemblance*. Neither do we worry about the robustness of Dalí's informational link to the subject. The painting counts as a portrait of Juan de Pareja—simply because that is what Dalí intended it to be.

Just as a cartographer can represent regions with which he had no causal interaction, it seems that a painter can depict things based only on general information or even speculation. A forensic artist might piece together evidence to create a portrait of the culprit. Seeing a mountain, an artist can imagine and depict—however inaccurately—the other side. Another might portray an event from prehistory such as the discovery of fire,[111] or the emergence of a galaxy whose existence is inferred from a general theory of the formation of the universe. With the right intentions, these portrayals will all count as depictions *of* their intended subjects. And we see no reason to deny that the representational contents of these images—assuming they have contents—will involve the objects that are depicted, or that they can be used as props for deferred demonstratives.[112] If an artist can represent a subject on a cloth canvas, it would seem, she can also represent that subject on the canvas of imagination.

Why hold that our powers of representation are limited by the causal connections that photography exploits? The relatively artificial fashion in which objects are depicted by

[109] It would be a mistake to think that light bouncing off the relevant object is literally required: think of a silhouette in which the represented object serves only to block light from a distant source, but reflects no light of its own in the direction of the camera. The precise causal role that an object must play in producing photographs of it is unclear.

[110] Kaplan, 'Quantifying In', §9.

[111] While Magritte did not seriously intended to depict the historical event with his *The Discovery of Fire*, Piero di Cosimo's *The Forest Fire* has been argued to have a more serious intent in that respect. (Thanks to Tim Williamson here).

[112] Of course, since photographic representation involves a causal link, even a liberal should acknowledge that to demonstrate a person in absentia by way of a photograph is to exploit a causal relationship between the referent and the photograph; and reference would fail if there were no such causal link.

film is unlikely to be the best model for the way in which objects are represented by mental states—and the expressions we use to give voice to them. As Dalí expressed it: 'What is a television apparatus to man, who has only to shut his eyes to see the most inaccessible regions of the seen and the never seen, who has only to imagine in order to pierce through walls?'[113]

1.7 Gameplan

At the beginning of this chapter we presented a number of features associated with referential terms. Those familiar with recent traditions in analytic philosophy will recognize that these features are standardly associated with a cluster of putatively special expressions in natural language—among them names, demonstratives, and pure indexicals. Insofar as one takes the various features we have discussed to converge on these terms, one can very easily feel that a semantic natural kind is coming clearly into view. And many see an even richer and more dramatic confluence of themes: a natural psychological kind corresponding to the semantic kind, and an acquaintance constraint that governs both the understanding of referential expressions as well as the grasping of singular thoughts. To what extent is such optimism warranted? Our aim in this book is to undertake some critical self-examination.

(i) Procedural points. Let us be clear about certain ways that our inquiry is limited or conservative.

First, with the semantic mainstream, we assume that intuitions about the truth and falsity of sentences at contexts are a reasonable guide to their semantic content. We thus will be setting aside views that utterly divorce the truth conditions of sentences at contexts from ordinary judgments of truth and falsity: for example, views on which 'There is nothing in the fridge' is always false when there are atoms in the fridge.[114]

Second, we assume for the most part that declarative sentences, as uttered at contexts, are typically assessable for truth and falsity. We thus do not in any systematic way explore views that claim that the semantic contents of such utterances are fragmentary or skeletal, requiring extra pragmatic supplementation in order for questions of truth-value to arise.[115] However, much of what we say could be adapted to such frameworks. (In particular, our search in Part II for the semantically referential

[113] Janet Wasko, *A Companion to Television*, 9.

[114] See e.g. Cappelen and Lepore, *Insensitive Semantics*. For critical discussion see Cappelen and Hawthorne, *Relativism and Monadic Truth*, ch. 2.

[115] As Scott Soames puts it, the idea is that the semantic content of an utterance is frequently 'only a skeleton, or partial specification' of a proposition; but 'whether it is a complete proposition or not' it 'interacts with an expanded conception of pragmatics to generate a *pragmatically enriched proposition* that it is the speaker's primary intention to assert' Soames, 'The Gap between Meaning and Assertion', p. 5 of the ms. See also Bach, 'Conversational Impliciture' and the literature arising in connection with Sperber and Wilson, *Relevance*. There are many related views in the neighborhood, depending on how exactly one delineates the line between semantics and pragmatics.

expressions of natural language could arguably be adapted to a search for those expressions that we typically use to communicate singular contents: see §4.10.i.)

Third, we will be setting aside certain questions in foundational semantics that are pertinent to a fully satisfying story about reference. These include: What is the difference between the way a referential term is related to the object to which it refers, and the way a predicate is related to a property it expresses? And how must the metaphysical ground floor of reality be configured for a binary reference relation to arise between an object and an occurrence of a term? These are good questions, but they lie outside our domain of inquiry.

Instead, we aim to accomplish three tasks: (a) to exhibit the inadequacy of modern successors to Russell's ideas about acquaintance; (b) to challenge the standard taxonomy of referential terms in natural language by exploring a more unified semantic approach to several of the expressions we use to talk about particular individuals; and (c) to reconsider the categories of reference and singular thought in light of the foregoing.

(ii) *Synopsis*. Here is our plan for the rest of the book. In the next chapter we defend liberalism in the face of two general types of argument. The first of these claims that an acquaintance constraint is required to explain certain kinds of *belief-reporting data*, and the second uses acquaintance to appease our intuitions about certain cases of apparently unwarranted *epistemic advance*. In both cases we argue that upon closer examination the relevant data are actually better explained by liberalism. In Chapter 3 we turn our attention to various forms of epistemic acquaintance, arguing that none of them provides a plausible condition on reference or singular thought.

The liberalism defended in Part I does not provide much positive insight into which natural semantic relation best deserves to be called 'reference'. But it does fit nicely with a certain semantic picture of the various expressions that we use to talk about particular individuals—a picture we present in Part II. In Chapters 4–6 we examine a range of noun phrases in natural language, inquiring whether there is an interesting referential/non-referential distinction among them. In particular, we look at specific indefinite descriptions, definite descriptions, demonstratives, and names. We suggest that liberalism allows for a unified picture of all these expressions on which they single out objects by way of restricted quantification that is sometimes covert. If we are right, none of these noun phrases paradigmatically fits the profile of a referential term, though they all admit of *uses* that exhibit many of the traits associated with reference. On our preferred framework, this phenomenon is due to the presence of what we call a *singular restriction* on the existentially quantified domain.

In the Afterword, we re-evaluate our central questions, examining the possibility that no expressions of natural language are paradigmatically referential—the only dedicated vehicles of reference are cognitive object representations of a special kind. If this view is correct, it lends additional theoretical significance to the category of singular thought.

2

A defense of liberalism

Liberalism about singular thought rejects the following principle:

CONSTRAINT: To have a singular thought about an object, one must be acquainted with it.

This chapter addresses two important arguments for CONSTRAINT. The first appeals to the intuitive truth conditions of certain belief reports whose complement clauses contain either singular terms or variables bound from outside the clause. The second claims that denying CONSTRAINT leads to an absurd conclusion: namely, that introducing a name by way of a definite description can yield illicit epistemic advantages such as new contingent *a priori* knowledge. While these arguments are closely related, they are best addressed individually.

2.1 The spy argument

The first argument can be illustrated with an example of Kaplan's from 'Quantifying In'.[1] The ubiquitous Ralph—as he appears in this example—simply believes the general truth that there are spies, without suspecting anyone in particular. Moreover, he believes that there are finitely many spies and that no two spies are exactly the same size, since that would be very unlikely. He then deduces that there is a unique shortest spy who is a spy. Now compare:

1. Ralph believes that at least one person is a spy.
2. There is at least one person that Ralph believes to be a spy.

[1] See pp. 192–3. In that article, Kaplan does not himself endorse an argument exactly like the one that follows. For one thing, the expression 'singular thought' did not yet have a life of its own. The issue was simply to account for belief ascriptions that involve quantification-in. In explaining them, Kaplan appeals to 'genetic' connections between names and their bearers, a constraint that he later modified. (See fn. 69 of our ch. 1.) Note that Kaplan does not here treat 'There is someone Jones believes to be a spy' as having the logical form '$\exists$x (Ralph believes x is a spy)'. Rather his treatment involves quantifying over both an *object* and a *name* that (in a technical sense) represents that object to Jones, where this requires bearing the right sort of causal connection to the object. (We will set aside the Quinean approach challenged by 'Quantifying In', which relies on a purported ambiguity between notional and relational senses of 'believes', and which has—justly, in our view—fallen into disfavor.)

As Kaplan put it, an exported report like (2) seems to express a fact 'which would interest the F.B.I.' but 'we would not expect the interest of that organization to be piqued by Ralph's conviction that no two spies share a size'.[2] Likewise, we would not say to the shortest spy

3. Ralph believes that you are a spy.

Nor would we say, if the spy's real name were 'Ortcutt', 'Ralph believes that Ortcutt is a spy'. And things do not seem much different if we consider an example where Ralph goes on to introduce 'Sam' as a name for the shortest spy, and then exclaims, 'Obviously, Sam is a spy'. Even in that case, (2) and (3) seem unacceptable.

Another example illustrates the same phenomenon. Donnellan imagines that a detective at the scene of a murder introduces 'Vladimir' as a name for the murderer.[3] Presumably, even if the detective says to herself, 'Vladimir is the murderer,' she cannot, upon tracking down the murderer, say

4. I knew you were the murderer.

Our target is an explanation for this phenomenon that appeals to CONSTRAINT along with two other principles:

HARMONY Any belief report whose complement clause contains either a singular term or a variable bound from outside by an existential quantifier requires for its truth that the subject believe a singular proposition.

SUFFICIENCY Believing a singular proposition about an object is sufficient for having a singular thought about it.

Of course, there are anti-liberals who reject one or both of these principles; but such theorists are not in a position to make use of the argument we will be considering. For our part, we are happy to grant both principles for the sake of argument: indeed, they have a good deal of initial plausibility. Concerning HARMONY: it is natural to hold that the truth of (3) requires its complement to express a singular proposition (since it contains a singular term) and the subject to stand in the belief relation to the proposition so expressed. Likewise for (2): relative to an assignment, the open sentence 'Ralph believes x is a spy' relates Ralph by the belief relation to a singular content involving the assigned object. If we can regiment (2) as '$\exists$x (Ralph believes x is a spy)', then by the standard treatment of the existential quantifier, the result is true iff the open sentence is true relative to some assignment. Meanwhile, SUFFICIENCY is simply a consequence of a common characterization of singular thought, on which it is just a matter of bearing a cognitive attitude towards a singular proposition; see §1.4.

[2] Op. cit., p. 192.
[3] Donnellan, 'The Contingent a Priori and Rigid Designators', p. 20.

The anti-liberal can now combine these principles with CONSTRAINT to explain why (2) and (3) are unacceptable in the cases described above. By HARMONY and SUFFICIENCY, the truth of (2) and (3) will require that Ralph believe a singular proposition, which in turn will entail that he have a singular thought. Thus (2) and (3) are false if Ralph simply has a general thought about spies. And given CONSTRAINT, Ralph will be unable to form singular thoughts about the shortest spy (even assuming there is one) in the absence of acquaintance. So, for example, neither the belief that there is a unique shortest spy nor the act of introducing a name for the shortest spy will put him in a position to have a singular thought. Thus, the unacceptability of (2) and (3) in cases where Ralph is musing about the shortest spy is happily explained; and likewise for the detective and (4).

In short, the idea is that the *semantics* of exported belief reports (and those containing singular terms in their complement clauses) suggest that they are true of a thinker only if the thinker has a certain kind of singular thought. Meanwhile, the intuitive *acceptability conditions* of these reports require the thinker to be acquainted with the object of thought. But this suggests a nice explanation for the unacceptability of the relevant reports. Thus, CONSTRAINT is vindicated by a sort of inference to the best explanation; or so the reasoning goes. We shall call this 'the spy argument'.[4]

Aside from arguments of this kind for CONSTRAINT,[5] it is very common to encounter *appeals* to CONSTRAINT in explaining the unacceptability of the relevant attitude reports in such cases. The implication of such appeals is that CONSTRAINT provides a good explanation for this phenomenon. In what follows, we will argue that—even assuming HARMONY and SUFFICIENCY—CONSTRAINT has no explanatory value whatsoever when it comes to the acceptability of the relevant attitude reports.

[4] Note that an analogous argument can be run in the plural case. Suppose Ralph believes there are spies and attempts to introduce a plural demonstrative 'them' to plurally refer to all of the spies. Nevertheless, it would be unacceptable to use the exported belief report 'There are some people that Ralph believes to be spies'. This would be explained, given HARMONY and SUFFICIENCY, if attempting to introduce the demonstrative term does not put Ralph in a position to have a 'plural singular thought' about all the spies.

[5] For variants of this argument, see for example Donnellan, 'The Contingent a Priori and Rigid Designators', pp. 23–5; Devitt, *Designation*, pp. 222–9; Soames, *Philosophical Analysis in the Twentieth Century, Vol 2: The Age of Meaning*, pp. 414–6. In his famous paper, Donnellan argues that Kaplan is right that using a name to assert or form attitudes towards singular propositions about an object requires the object to be '(in the right way) a part of the history of one's use of the name', and that this would 'account for why the sort of stipulations we have been discussing do not put us in a position to assert and, thus, to know anything about [the object]' (25). We take it there are two strains of argument in this paper. One emphasizes the alleged ability to acquire (contingent *a priori*) *knowledge* by way of such stipulations; we consider this argument in §2.6ff. The other simply emphasizes the unacceptability of various attitude reports: 'Essentially the same considerations that were adduced for denying that there was knowledge of an entity just in virtue of the sort of stipulation that introduces a rigid designator by means of a description can be applied to the other propositional attitudes' (23). He goes on to say that in the case of Newman1, it seems to him just as incorrect to ascribe to the subject *beliefs* about the individual who satisfies the description as it does to ascribe *knowledge* about that individual. That is the sort of consideration we are addressing here.

2.2 Acquaintance and attitude reports

Our response to the spy argument is not particularly original. As we will see, a number of thinkers have offered examples of a sort that, taken together, undermine the explanatory power of CONSTRAINT. And some have also made the point that the standard ways of handling Frege puzzles can be used to explain much of the relevant data. But given the tenacity of appeals to CONSTRAINT, it seemed worth belaboring these points a bit. In this section we argue that these considerations are adequate to respond to the spy argument. In the next section we will argue that, in fact, those who wish to retain HARMONY and SUFFICIENCY have good reason to *reject* CONSTRAINT.

Let us begin by considering a case of Stephen Schiffer's. Someone snatches Thelma's purse, but Thelma does not catch a very good look at his face.[6] As she is chasing him, it is acceptable to point at him and say either of the following:

5. Thelma thinks that he is a thief.
6. That man is such that Thelma believes he is a thief.

So far, so good: after all, most would allow that Thelma has singular thoughts about the man. However, suppose that later Thelma is unable to pick him out of a line-up at the police station. In this context, even if we know that the third man in the line-up is the man she was chasing, we could not point at him and comfortably utter either (5) or (6). So what governs the varying acceptability of these sentences? Clearly, Thelma has singular thoughts about the third man in the line-up, so the problem is not that she does not satisfy CONSTRAINT. (If one doubts that simply glancing at the third man in the line-up is sufficient, we may let her poke and prod the suspects as much as is necessary.) It might be argued that by this time she has lost her singular thought about the man *that he is a thief*; but this does not square with the fact that in other contexts, even at this later time, (5) and (6) are felicitous. (For example, we would happily utter them while looking at a film of the incident.[7])

Of course, many theorists will approach this kind of case with whatever tool-kit they prefer to employ to handle apparent failure of inter-substitutivity of names in belief contexts. Here are two standard options:

(a) *The naïve approach.* Take the familiar 'naïve' view according to which the sentence 'Bill thinks that Jill is ill' *simply* ascribes to Bill the belief in a singular structured proposition built out of Jill and the property of being ill. On this view, the contribution of a simple proper name, even in a propositional attitude context, is merely to supply

[6] Schiffer, 'Naming and Knowing', pp. 65–6.

[7] Note that even if the line-up situation is very salient, it is fine to say 'There is someone such that Thelma is wondering whether he is in the line-up', and once one has said that it is not misleading to respond to 'And what does Thelma know about him?' by 'Well, she remembers that he stole her handbag'.

an object.[8] This in turn entails that co-referential names are interchangeable in propositional attitude contexts.[9] Meanwhile, apparent substitivity failures are handled pragmatically by pointing out that there are various ways of apprehending the same structured proposition, and a speaker may *call attention* to one of these modes of presentation by using one name rather than another in her belief report.[10] While this will make no difference to the truth-value of that report, it can make a great deal of difference to what is implied or communicated. Consider Lois Lane, of whom we are happy to say 'Lois believes that Superman can fly' but not 'Lois believes that Clark Kent can fly'. While these reports express the same proposition, the second can misleadingly suggest that Lois would accept the sentence 'Clark Kent can fly', or that she connects the ability to fly with the property of being a journalist.[11]

Proponents of this approach will also want to allow ways for a belief report to be misleading quite apart from misleading deployments of a proper name. Suppose someone points at Clark Kent at a time when he is working as a journalist in the office and says 'Lois believes he can fly'. On most ways of fleshing out the scenario, the report will be heard as infelicitous. The current approach will deem the report true but misleading, though its misleading character will not be rooted in the use of a name. Rather, the setting of the report gives the hearer expectations about a way that Lois believes the proposition. Suppose for instance that for the conversational participants it is common ground that Superman can fly. We expect speakers to be attempting to communicate useful information to us by their assertions. So on the assumption that the speaker is not violating conversational norms, the hearer can assume that the speaker is trying to communicate information along the following lines: If you were to point to this person in this kind of context and ask Lois 'Does he fly?', Lois would say 'Yes'.[12]

[8] Moreover, according to the naïve approach, there are no unarticulated constituents at play or context dependence in the verb 'thinks' that would allow neo-Fregean elements to be snuck in. According to the naïve approach, then, 'Bill thinks Jill is ill' will betray no context dependence that would be of interest to theorists of belief ascription. (Of course, it may inherit whatever context dependence is associated with unembedded uses of 'is ill'.)

[9] But the interchangeability-in-a-context thesis does not entail the naïve view. One might hold that, at a particular context of utterance, there is a certain mode of presentation requirement on Lois imposed by 'Lois believes Clark Kent wears glasses', but that, holding the context fixed, the same requirement would be imposed by 'Lois believes Superman wears glasses'. In short, one might hold that this requirement is not semantically generated by the name but by some other aspect of the context of utterance.

[10] The approaches described here have natural extensions to the predicative case: are 'ketchup' and 'catsup' interchangeable in belief contexts? See e.g. Salmon, 'How to Become a Millian Heir'.

[11] See Soames, 'Lost Innocence'; 'Direct Reference, Propositional Attitudes, and Semantic Content', §5; *Beyond Rigidity*, chs. 6–7; Salmon, *Frege's Puzzle*. See also Barwise and Perry, *Situations and Attitudes*, pp. 253–65, though the semantic framework of their 'innocent' theory is different in ways that are unimportant here.

[12] There are, however, ways of fleshing out this scenario in which the report is *not* misleading. Suppose there is a debate rife among the population as to whether 'Superman flies' is true. Some people say, 'Superman flies'. Some people say, 'Superman is held up by strings'. Suppose further that it is common knowledge among speaker and hearer that the journalist is the superhero, and also that Lois does not know that the journalist is the superhero. In this context, 'Lois believes he flies', even used at a time where a bespectacled journalist is demonstrated, may naturally be heard as a report on Lois's views on the debate as to

(b) *The notional approach.* Another standard approach, and one we prefer to naïve accounts, is exemplified by what we will call 'notional' theories. According to notionalists, a belief report often does more, semantically, than relate a subject to whatever complex of objects and properties is expressed by its complement clause. For instance, the ascription 'Lois believes that Clark Kent can fly' tells us *how* Mr. Kent is represented by her in the relevant belief. Thus in some settings we would speak falsely were we to say, 'Lois believes that Clark Kent can fly' or 'Lois believes that he can fly' even though she believes the proposition expressed by 'Clark Kent can fly' in relation to certain guises. On one standard version of such a view, different mental representations of Superman are actually 'unarticulated constituents' of what is semantically expressed by the belief reports—and so belief becomes a relation with an argument place for the subject, another for the proposition, and a third that provides information about the guise of representing.[13] On a second version of this view, the verb 'believes' (along with other attitude verbs) is itself context-dependent, expressing different binary relations in different contexts, each encoding different guise-theoretic information. On yet another version of this view, one that we shall revisit later, a that-clause expresses a semantic tree with both semantic objects and 'labels' at nodes, where each label plays a guise-indicating role (that is, it encodes information about how the object at that node is represented).

Now what bears emphasis is that both the naïve account and the notionalist account extend altogether naturally to the case of Thelma. She does have a singular thought about the man she chased to the effect that he is a thief; but she also has a singular thought about him, to the effect that he is the third man in the line-up; and she has not connected these two thoughts together. She has two modes of presentation of him, and the context of the police line-up makes one of these modes salient. Whether Thelma thinks of him as a thief *under that mode* appears to be what is governing the acceptability of the ascription in that context. Naïve theorists will treat this as a pragmatic phenomenon, and notional theorists will treat it as a semantic one. Either style of explanation will also have the resources to explain why many other singular-thought-requiring ascriptions to Thelma at later times seem perfectly felicitous. By contrast, an account of the infelicity data about Thelma in terms of CONSTRAINT fails to handle the felicity data.

whether Superman is held up by strings. Various people have noted this sort of case; e.g. Joseph Moore, 'Propositions without Identity'.

[13] Crimmins and Perry, 'The Prince and the Phone Booth: Reporting Puzzling Beliefs'; Crimmins, *Talk About Beliefs*. Thus, the role of 'Superman' in 'Lois believes Superman can fly' is twofold: semantically, it supplies an object, and pragmatically, it indicates the unarticulated constituent that is semantically in play. (Note, then, that this approach can agree with the previous one regarding the semantic contribution of a name in an attitude context.)

Crucially, this pattern generalizes to cases that motivate the spy argument. This point has recently been emphasized in particular by Robin Jeshion and Jonathan Sutton—concerning the naïve and notional accounts, respectively.[14]

(i) *The murderer.* As we have seen, even if he introduces the name 'Vladimir' for the murderer, the detective cannot later say:

7. From the first, I knew you were the murderer.

But this can be explained with standard resources that have nothing to do with acquaintance. To say 'I knew you were the murderer' would be to suggest that the detective was able to identify him in a canonical way *other* than as being the murderer—by sight, perhaps, or by name. Moreover, and crucially, proponents of CONSTRAINT can hardly complain about this explanation, because a slight shift in the example will force most of them to say the very same thing about (7). Suppose the detective had caught the murderer in the act, tousled with him, and even caught a good look at his face. And suppose that somehow the detective failed to recognize the murderer, who was in fact the Vice President. When, much later, the detective tracks the Vice President to his office and suddenly realizes that the murderer is the Vice President, it would be highly misleading for the detective to utter (7). (This case is in all relevant respects like the Thelma case.) Since most acquaintance theorists will have to admit that the detective is acquainted with the villain, they will have to explain the infelicity of (7) by appeal to the very kinds of resources that the liberal will use in the initial 'Vladimir' example.

(ii) *The shortest spy.* Again, there are variants of the case on which acquaintance constraints are clearly satisfied but where the felt infelicity of the singular-thought-ascribing report is equally strong. Suppose, for example, that Ralph was kidnapped, taken to an undisclosed location, and introduced to a masked man—'Ralph, meet the shortest spy'. All but the most stringent acquaintance constraints will allow that Ralph can now have singular thoughts about that individual. However, there will clearly be plenty of contexts in which it is unacceptable, and at best highly misleading, to say, 'There is someone Ralph believes to be the shortest spy'. After all, we may suppose that Ralph still does not have information about the shortest spy that would be of interest to the F.B.I. (He cannot even pick out the man in a line-up.) Here again the presence or absence of acquaintance is far too blunt an instrument to account for the range of intuitions about the acceptability of reports about Ralph. But both the liberal and the anti-liberal can employ the kinds of tools described earlier.

[14] See Jeshion, 'Donnellan on Neptune'; and Sutton, 'The Contingent a Priori and Implicit Knowledge', p. 276. They raise these points largely in connection with the Leverrier–Neptune case and the contingent *a priori* (see §2.6 below); but given our taxonomy of motivations for acquaintance, these points apply with special force to the 'spy argument'. (As we stress below, they do not by themselves rebut the idea that Leverrier should not be in a position to learn anything new from his stipulation, regardless of the truth or acceptability of particular belief reports about him.) See also Ernest Sosa, 'Propositional Attitudes De Dicto and De Re'.

The relevant belief ascriptions about Ralph are unacceptable because they suggest that Ralph has a more useful mode of presentation of the shortest spy than he does—just as, in the context of the police line-up, it would be unacceptable to say 'There is someone in the room that Thelma believes to be a thief'.

Admittedly, the original case involving Ralph is more dramatic because the sentence 'There is someone Ralph thinks to be a spy' is *almost inevitably* misleading in a case where the basis for this report is nothing more than a recognition of the fact that Ralph thinks that the shortest spy is a spy (and perhaps has named the spy 'Sam'). Why is this? A natural explanation suggests itself. When a belief report postures as providing useful information about someone's state of mind, we do not naturally hear it as reporting a trivial belief. So, for example, it would in nearly all contexts be highly misleading to say 'There is someone that Jones thinks is George Harrison' if the only basis for saying that is that Jones gives lip service to the trivial identity 'George Harrison is George Harrison'. Relatedly, it is rare to find a context where 'George Harrison' counts as a serious answer to the question 'Who does he think George Harrison is?' (The same points apply if we replace 'George Harrison' with 'the youngest of the Beatles' throughout these examples.) The presence or absence of acquaintance is simply not relevant to this phenomenon.

Now, the claim 'The shortest spy is a spy' is not quite trivial. After all, on standard assumptions it makes an existential commitment that may not be satisfied. But it is quite natural to think of this commitment as having a presuppositional part—that there is such a thing as the shortest spy, as well as an assertoric part—that the relevant thing is a spy. Let us say that a claim is *incrementally* trivial when the assertoric part is satisfied whenever the presuppositional part is satisfied.[15] While the claim 'The shortest spy is a spy' is not logically trivial, it is incrementally trivial. This gives it a genuine feel of triviality and, as such, it feels like an odd and pointless thing to assert or report as a belief. Correlatively, insofar as we try to give information about someone's state of mind it is very rare indeed to report beliefs of incrementally trivial claims. In a normal context, a hearer would hardly envisage that 'There is someone that Ralph believes to be a spy' is being used to communicate the presence of an incrementally trivial thought.[16]

In short, whether or not one accepts CONSTRAINT, one will have to appeal to these sorts of considerations for many cases of exported belief. So the appeal to CONSTRAINT for a subset of these cases is not only unmotivated, but amounts to a far less unified account of the data.

[15] We picked up the notion of incremental content from Stephen Yablo (in conversation).

[16] This is not intended as an analysis of 'trivial belief'. Suppose someone, having decided to think about the shortest spy, thinks to herself that the person she is thinking about is a spy. Her epistemic achievement is too trivial to form a natural basis for the report that there is someone that the person thinks to be a spy. But the content of the thought is not incrementally trival in this sense. Thanks to Elia Zardini here.

2.3 Turning the tables

We have seen that CONSTRAINT is irrelevant to the unacceptability of the belief reports that motivate the spy argument. Thus, the spy argument is a failure. In this section we will argue that, for those who accept HARMONY and SUFFICIENCY, the best explanation for many attitude reports actually requires us to reject CONSTRAINT. In the last section we focused on cases where certain attitude reports are unacceptable. But we will also need an explanation for the fact that, in some contexts, exported attitude reports are *acceptable* even though acquaintance is lacking.

Let us begin by illustrating this phenomenon with some examples.

(i) *Earlier examples*. In §1.6 we offered a number of examples of apparent singular thought without acquaintance. It is clear that—at least in plenty of contexts—it is acceptable to report the relevant beliefs using exported ascriptions and ascriptions containing singular terms in their content clauses. Here is a sample of such ascriptions:

8. King Henry expects to visit *that* ship (pointing).
9. There is an engine that the mechanic wants to see.
10. Yesterday, Fred thought the meeting would be held today.
11. David knows that I can see the city from here.
12. One substance is such that Mendeleev believed in 1870 that samples of it would soon be discovered.
13. There is a location on the island that John Speed believes will be windy.

The combination of HARMONY and SUFFICIENCY will require that in each case the subject has a singular thought.

(ii) *The murderer and the shortest spy*. As we saw, when the detective finally tracks down the murderer, she cannot say

7. From the first, I knew you were the murderer.

But a number of thinkers have pointed out that the acceptability of exportation in such cases is highly context-dependent.[17] Even in the same context, it is far more acceptable for her to say

14. From the first, I knew you were insane.

But however one explains the infelicity of (7), one is also faced with the challenge of explaining the relative felicity of (14). And this will be especially difficult for a proponent of all three principles, which together appear to entail that (14) is *false*.

Or consider Kaplan's example of Ralph and the shortest spy. Suppose Ralph pays a hit man to find and kill the shortest spy before the weekend. In that case, it is easy to imagine conversational contexts where it is acceptable to say

[17] Two early examples are Schiffer, 'Naming and Knowing', and Searle, 'Referential and Attributive'.

15. There is someone that Ralph wants dead.

Alternatively, suppose we are debating about whether the shortest politician, whoever that is, is likely to be a spy. Ralph thinks that the shortest politician is not only a spy but also the shortest spy. Here, 'Someone is believed by Ralph to be the shortest spy' is acceptable.

Such examples are easy to contrive if we note the connection between the exported description and various 'wh'-questions. Assume it is known that there is a shortest politician. If it is acceptable in a context to answer the question 'Who does Ralph believe to be the shortest spy?' by saying, 'The shortest politician', then it will also be acceptable in that context to claim 'There is someone Ralph believes to be the shortest spy'. (Likewise, if it is acceptable in a context to answer the question 'Who does Ralph believe to be a spy?' with a list that includes 'The shortest politician', it will be acceptable in context to report that there is someone that Ralph believes to be a spy.)[18]

(iii) *The lion.* Consider Quine's original example of the apparent ambiguity in

16. Ernest wants to find a lion.

Is there a particular lion he is after, or does he want to find just any lion? It is often thought that the two standard intepretations of this sentence involve permutations of quantifier scope, though we will question this assumption in Chapter 4. Our point here is that the analogs of HARMONY and SUFFICIENCY applied to desire will require that if 'a lion' takes wide scope in the relevant way, Ernest must have a singular desire about a particular lion. And there are cases in which a 'particular reading' appears *required*, even though Ernest does not have any acquaintance with the relevant lion. Suppose Ernest has just learned that exactly one lion escaped from the zoo in Chicago, and he forms a desire to catch that very lion. A speaker aware of this fact may use (15) in an attempt to get across that there is a particular lion Ernest is after—in which case the 'any old lion' reading is simply not the intended reading. Or to remove even the most tenuous informational link, suppose that rather than getting his information from the newspaper, Ernest knew yesterday that some villains were going to release exactly one lion from the Chicago zoo at midnight. And he now wants to catch whatever lion they released. Here again only the 'particular' reading of (15) will get the speaker's message across.[19]

[18] Parallel considerations would tell against a version of the spy argument that focuses on plural reference. It will inevitably be infelicitous to report 'There are people that Ralph believes to be spies' if one's sole basis is Ralph's assent to 'There are spies', but it is easy to contrive contexts where it is felicitous to report 'There are people that Ralph believes to be evil' when one's only basis is Ralph's assent to 'There are spies and they are all evil.'

[19] Or suppose Ernest is a time-traveler who knows that the world will end in the distant future and wants to meet the very last lion. Here it is again easy to generate contexts where the 'particular' reading is natural, even if Ernest fails in his ambition and so never achieves contact with the very last lion.

(iv) *'Newman1'*. We can now turn to a more difficult case. Kaplan imagines the introduction of 'Newman1' by way of the reference-fixing description 'the first child born in the twenty-second century'.[20] Suppose Ralph attempts this dubbing and is confident that there will be a unique first child born in the twenty-second century. He then says to himself, 'Newman1 is the first child born in the twenty-second century.' Still, it seems entirely unacceptable to say, 'There is someone Ralph believes is the first child born in the twenty-second century' or to say to that child when he or she arrives, 'Ralph believed you would be the first child born in the twenty-second century.'

This example introduces two additional complications. First, many philosophers have intuitions according to which reality consists in the present only ('presentism') or in the present and past only ('growing block theory'). On these pictures, Ralph cannot even truly think the existential proposition that there is someone who will be born in the twenty-second century. But then the data could not, even *prima facie*, motivate a constraint stronger than that which the liberal accepts. (Even the liberal can agree that there is no x such that x does not exist and we think about x.)[21]

The second complication is that there may be extra noise created by the choice of tense for the copula. Even someone who believes in the reality of the future may have difficulty with an utterance of 'There is someone Ralph believes to be . . . ' especially with focus placed on 'is'. (This effect is intensified if some but not all of the candidate babies have already been born.) The examples are ameliorated if we use: 'There will be someone that Ralph now believes will be . . . '[22]

If we control for these factors we can generate contexts where the relevant exported reports are acceptable. Suppose an institute wants to incentivize higher birth-rates and plans to give away a large sum of money as a prize for a child born in the future. However, they cannot decide on the criterion to employ in deciding upon a winner. Some argue that the billionth child in the nation should win the prize. Some argue that the largest baby in the next ten years should win a prize. Now, suppose that Ralph's solution is that the first child to be born in the twenty-second century should win the prize. And suppose we want to convey, in a general fashion, that Ralph has an opinion on the matter of the prize-criterion. Assuming metaphysical eternalism, we could easily utter

17. There is someone that Ralph believes should win the prize.

or answer 'Yes' to the question, 'Is there someone that Ralph believes should win the prize?'[23] All that we have done in specifying this context is removed the impediments discussed in §2.2 that usually make such a claim bizarre or misleading.

[20] Kaplan, 'Quantifying In', pp. 201–3.

[21] See McGinn, 'The Mechanism of Reference', pp. 184–5, fn. 31.

[22] As Sosa puts it, 'It can certainly be false that there is (now) a house that I hope will please us, even when there is to be such a house' Sosa, 'Propositional Attitudes De Dicto and De Re', p. 889.

[23] If that judgment needs reinforcing, imagine that (17) is uttered in a context where we have a list of candidate prize-winners: 'The largest baby in the next ten years,' 'The first child in the twenty-second century', and so on.

The examples just discussed all illustrate that exported reports can be acceptable even in cases where CONSTRAINT is not satisfied. Can a proponent of CONSTRAINT appeal to the naïve or notionalist tool-kits to explain our intuitions in these cases? Let us examine how things look from the perspective of each view of attitude reports.

(a) *The notional approach*. One important benefit of notionalism over the naïve theory is that on the latter view, people often sincerely utter false belief reports in order to communicate truths. A discomfort with this phenomenon has been one of the primary motivating factors for notionalism over and against the naïve theory.

Consider some examples. The naïve theorist must admit that 'Lois does not believe that Clark Kent is Superman' is false; that 'Thelma does not think *he* is the thief' (pointing at the third man in the line-up) is false, and so on. These utterances strike us as true. As we have seen, there is a pragmatic story that the naïve theorist will tell about why these are acceptable: for example, the speakers are conveying information to the effect that Lois does not think any one person is both a journalist and a superhero.

Granted, we sometimes utter falsehoods in order to communicate truths: for example, when we exaggerate, speak sarcastically, and so on. But in such cases we typically do not believe the falsehoods that we are uttering. At times we are not being sincere, at times we are not being careful, and at times we employ devices for rhetorical effect. But many of the utterances that the naïve theorist must evaluate as false are quite different. We utter them in complete sincerity, without any of the phenomenology or intent that accompanies exaggeration, sarcasm, and so forth. It is therefore not surprising that notionalists are driven to complicate the semantics of belief attribution in part to avoid just such a result.

However, this motivation is lost if we combine notionalism with HARMONY, SUFFICIENCY, and CONSTRAINT. For all of (8)–(17) strike us as literally true in their respective contexts above. Moreover, they are uttered with all sincerity, and their contents are apparently believed by those who utter them. But on this combination of views, they cannot be true. According to HARMONY and SUFFICIENCY they require certain singular thoughts, and according to CONSTRAINT, those singular thoughts are unavailable. Notionalism does nothing to block the conjunction of the three principles from yielding falsehoods in these cases. Of course, the notionalist can in these cases appeal to the naïve theorist's resources, but in doing so she significantly complicates her view and abandons a primary incentive of notionalism.[24]

[24] Should notionalists say that claims about whether Thelma has a singular thought about the thief are context-dependent because 'There is someone that Thelma believes to be a thief' is context-dependent? There are various options here (see §2.4 below). It is certainly possible for notionalists to hold that 'x has a singular thought' is not context-dependent. For example, if the belief relation is a three-place relation between a subject, proposition, and a guise, one might say that Thelma has a singular thought about x iff there is some singular proposition about x and some guise such that the three place relation *believing* holds between her, that proposition, and that guise. (Insofar as we accept this type of notionalism, we arrive at our notion of singular thought by existentially generalizing on the third argument place).

(b) *The naïve approach*. How do things look from the perspective of the naïve theorist? As we have seen, the naïve theorist must learn to live with the fact that we assert and even believe many false attitude reports, and with the need to explain away our propensity for false belief. (Perhaps it is just that the folk have the wrong theory of their own language.) Whatever explanation is forthcoming will have to include an account of why the various false utterances are communicatively useful despite being false. Such theorists will also want to explain why we are disinclined towards various candidate utterances that are true ('Lois believes Clark Kent can fly'), and why engaging in such utterances would be communicatively disruptive.

This is not the setting to evaluate the naïve theorist's explanatory tool-kit. We have urged that, assuming the naïve view, the data that motivated the spy argument are most elegantly explained without invoking CONSTRAINT. But the situation may be worse than that: sentences (8)–(17) sound felicitous, but also violate the conjunction of the three principles. Thus, combining those principles with the naïve theory generates an additional stock of sentences that are deemed false but felicitous. Unless the resources originally invoked to explain the false yet felicitous use of the old problem cases—such as 'Lois does not believe Clark can fly'—can be extended to handle these extra cases, there will be need for a new exercise in pragmatic apologetics, specially designed for the latter.

So, are the old tricks are adequate to the new task? The standard stock of false but felicitous sentences are all *negative* attitude reports. But the new stock would be replete with false yet felicitous *positive* attitude reports, such as (8)–(17). It is not immediately clear how the naïve theorist's typical form of explanation would go in such cases. To grant that the folk believe what they are saying when they utter 'Lois does not believe Clark can fly', the naïve theorist admits in effect that the folk are tacit Fregeans.[25] But to grant that the folk believe what they are saying with this new stock of belief reports, the naïve theorist will have to admit that the folk are also tacit liberals about acquaintance. This additional convolution further compromises our ability to draw on ordinary linguistic intuitions about sentences when doing systematic semantics. In contrast, naïve theorists who reject CONSTRAINT can simply avoid the need to explain away this new stock of positive belief reports. Admittedly, the benefits of liberalism arising from these reporting data are not as decisive for the naïve theorist as they are for the notionalist. But it is clear that, as far as these cases go, the naïve theorist who accepts HARMONY and SUFFICIENCY has nothing to gain from CONSTRAINT, and may have plenty to lose.

[25] For discussion, see Braun, 'Russellianism and Explanation'.

2.4 HARMONY, SUFFICIENCY, and impoverished cases

Our limited offensive in the previous section is, of course, based on the assumption that our opponent holds both HARMONY and SUFFICIENCY. But acquaintance theorists who do not rely on the spy argument may of course reject one or the other of those principles. In fact, it could be argued that regardless of one's position on CONSTRAINT, some of the examples just adduced provide reason to reject at least one of them.

Here is one way to advance such an argument. As we have seen, there are contexts where it seems we can make true claims of the form 'There is someone that S believes to be F' simply because S accepts a claim of the form 'There is a unique G that is F'. For example, in the hit-man case, the escaped-lion case, and the baby-prize case, it does not make any difference to the acceptability of exported belief reports whether the subject has introduced a special name, or uses any other term typically considered to be referential. (Call versions of these examples in which it is stipulated that no such referential vehicles are in play the 'impoverished' cases.) But suppose we have a picture of singular thought on which having a singular thought about x requires employing something like a referential term for x, whether in language or in some system of internal representations. Then surely it will be tempting to deny either that these exported reports ascribe cognitive attitudes to singular propositions (i.e. HARMONY) or that such attitudes are sufficient for singular thought (i.e. SUFFICIENCY).

We think these considerations do generate pressure for the proponent of CONSTRAINT to abandon one of the other two principles. But not so for the liberal—as we will see, she has no reason to reject the natural semantics of attitude reports enshrined in HARMONY or the natural connection between singular contents and singular thought enshrined in SUFFICIENCY.

(i) *Options for the liberal.* What then should the liberal who wishes to maintain these two principles say about the argument just sketched? There are a few options:

(a) First, she can argue that impoverished cases are far more rare than one might think: when people think there is a unique F, they routinely form a singular tag in thought that refers to the satisfier of the description. Such a mental tag could be held to function as the vehicle of a singular thought even if the thinker does not give voice to it with a name or singular term in the sphere of public language. Supposing this to be true, impoverished cases are not worth worrying about.

(b) Less contentiously, the liberal can stress the *easy availability* of referential vehicles in the impoverished cases. The idea is that if Ernest has a definite description that designates the lion in question, he is only a stipulation away from having a referential vehicle. (He need not actually name the lion—he may simply raise it to salience in his imagination and then employ the mental equivalent of a demonstrative: 'I want to catch *that* lion'.)[26] It could then be argued that this kind of state is good enough for the

[26] Similarly, in the plural case one can easily introduce a plural demonstrative on the heels of a plural definite description.

acceptability of an exported belief ascription. By analogy, we frequently ascribe to others beliefs in obvious consequences of their 'occurrent' beliefs. Whether one treats these ascriptions as actually true or just near enough to the truth will rest on one's general approach to the existence of 'tacit' beliefs. (Note that even if the liberal treats exported ascriptions in our impoverished cases as technically false, she nevertheless has a more straightforward account of their acceptability than does the acquaintance-loving naïve theorist.)

(c) A third approach denies any generalization to the effect that bearing an attitude towards a singular proposition requires publicly or privately accepting a sentence-like vehicle that makes singular reference to that object. Perhaps one can count as belief-related to a singular proposition even if one is not in a position to introduce such a vehicle. On the assumption that there can be thoughts not realized by any linguistic vehicle in the mind, there is no obvious incoherence in such a suggestion.

A variant of this view—one with which we are fairly sympathetic—allows for context-dependence in what sort of internal representation it takes to satisfy reports that ascribe cognitive attitudes towards singular propositions.[27] For example, the requirement that one accept sentence-like vehicles in order to count as grasping a singular proposition might hold in certain kinds of contexts, but not in others. It is also open to the proponent of such a view to allow that some contexts are *extremely* relaxed. For example, perhaps there are contexts where 'Ralph believes that they are F' and 'N is one of them' entails 'Ralph believes N is F'. Certainly there are contexts where such transitions seem felicitous. For example, there are contexts where one of us can say 'Phil believes I am engaged in a worthless activity' on the basis of Phil saying 'Philosophers are engaged in a worthless activity'.[28] It is worth emphasizing that this view is compatible with maintaining that both HARMONY and SUFFICIENCY are true at every context. Thus, for example, in the very relaxed context just described, one should also be willing to say 'Singular thought is very easy to come by'. (Note that if there is contextual variation of this sort, there will be no straightforward answer to questions like 'What does it take in general for a singular belief ascription to be true?')

We do not wish to adjudicate between these options here. If one has a range of intuitions about the acceptability of exported attitude reports (and those involving singular terms in their complement clauses), one might want to provide different explanations for some cases than for others. For example, one might choose to appeal to option (a) or (b) for the lion case—for which our intuitions of acceptability are quite strong—and appeal to (c) in the 'worthless activity' case—for which our intuitions are somewhat weaker. It may be that *typically* context requires that the subject has formed some kind of referential tag in thought (or could easily do so), but in special loose contexts

[27] For a detailed exploration of context dependence in singular thought ascriptions, see Dorr, 'De Re Apriori Knowledge'.

[28] Similar examples can be found in Sosa, 'Propositional Attitudes De Dicto and De Re'.

that is not required. We will touch on these issues again at a later point.[29] Suffice it to say that liberals are well-equipped to account for the exportation data while embracing both HARMONY and SUFFICIENCY.[30]

(ii) *Revisiting the principles.* The situation is different for anti-liberals. Because of the lack of acquaintance in the cases at issue in §2.3, the three explanatory options open to the liberal are not available to those who would add CONSTRAINT to HARMONY and SUFFICIENCY. After all, the first two options involve granting that singular thought is typically present or easily available in such cases. And even an appeal to context-dependence for exported attitude reports will not help unless one gives up CONSTRAINT for some contexts. Of course, in response to impoverished cases, the anti-liberal could give up HARMONY or SUFFICIENCY, and with them the spy argument. However, both of these principles have their own theoretical appeal.

To reject HARMONY involves departing from the natural semantics described earlier: a belief report ascribes (at least) a belief in the proposition expressed by its complement clause, and when the complement clause is an open sentence with a free variable in it, that open sentence expresses a singular proposition under any assignment of values to the variable. Those who reject this picture need an alternative account of how the truth-conditions for exported belief reports are compositionally generated.[31] Are we to deny that 'believes' expresses the relation *believing*, or are we to deny that 'Bill is happy' expresses a singular content? Pending some worked-out semantics of belief ascriptions or some novel criterion for when sentences express singular contents, HARMONY is an attractive principle.

What about SUFFICIENCY? One might hold that singular thought requires a special kind of inner object representation—but believing a singular proposition does not.[32] One could then retain HARMONY while denying that the truth of exported attitude reports is a good guide to the presence of singular thought. Such a view, of course, faces an initial argumentative burden: there is no *prima facie* reason for thinking these special representational vehicles would be governed by acquaintance. (Again, we are assuming that the notion of singular thought at issue is not stipulated to involve acquaintance—if that were the case, CONSTRAINT would turn out to be trivial.) To begin with, it seems implausible to hold that a cognitive token of the relevant internal type could only be formed in the presence of acquaintance.

[29] See the Afterword, and also §4.12.

[30] One fallback for a proponent of CONSTRAINT is to argue that there are some special contexts where the favored version of acquaintance governs *all* exported belief reports at that context. We have encountered no reason to think that there are such contexts.

[31] One might try to revive the currently unfashionable view that belief ascriptions with a free variable in the that-clause express not a two-place relation to a proposition, but rather a three-place relation between a subject, an object, and a concept. This view depends on an unappetizing ambiguity thesis for 'belief' that is not likely to fare well by standard ambiguity tests.

[32] This approach might seem especially natural for those who think it is context-dependent whether one counts as believing a singular proposition—it would seem preferable for singular thought not to be shifty in this way if it is to bear significant theoretical weight.

After all—setting aside Russellian acquaintance—a thinker may be in a situation internally just like one in which she is acquainted with x, but due to some unlucky external circumstances the acquaintance relation does not actually hold. Perhaps the idea would be that one may form the relevant internal token and also grasp the relevant singular proposition, but acquaintance is required to grasp the proposition *with* the internal token. But why hold that, in the Vladimir case, the detective forms the right kind of internal token for the singular thought, and believes the relevant singular proposition, but still does not have a singular thought? Acquaintance theorists are left with the question of how to detect the successful use of such vehicles, in order to test the hypothesis that their use is governed by CONSTRAINT. But as illustrated at the end of Chapter 1, all the typical divining rods for the presence of singular thought suggest that its presence does not require acquaintance. One begins to suspect that either (i) the relevant intuitions have been schooled by theory to be sensitive to acquaintance, or (ii) the very notion of singular thought is being stipulated to involve acquaintance, in which case CONSTRAINT turns out to be trivial.

2.5 'Believing of'

Here is a fall-back argument involving attitude ascriptions that could be endorsed by anti-liberals who reject either HARMONY or SUFFICIENCY. They could claim that while the truth of exported attitude reports is not governed by the presence of singular thought, there is another kind of attitude report whose truth is so governed: namely, what Kenneth Taylor has called 'fulsomely *de re*' locutions like 'David believes *of John* that he is F'.[33] After all, such locutions are commonly used by philosophers and semanticists when they wish to emphasize that a singular thought is at issue. The anti-liberal might claim that reports of *this* kind always ascribe singular thoughts, and yet are intuitively acceptable only when the subject is acquainted with the alleged object of thought. She might then claim that CONSTRAINT best explains these facts.[34]

In response to this line of reasoning, we would begin by asking whether the relevant ascriptions are being used as ordinary language locutions, or as expressions of art. It is not always easy to distinguish these possibilities, especially when an expression homonymous with (if not identical to) an ordinary language expression has been put to extensive theoretical use. The problem is particularly acute in this case because ascriptions like this are rare in ordinary language. In fact, we suspect that philosophers of language will encounter them far more often in philosophical settings than in ordinary settings.

[33] Taylor, 'Singular Beliefs and Their Ascriptions'
[34] Thanks to Nate Charlow for discussion here.

To illustrate this point, consider the fact that in the entire *Corpus of Contemporary American English* there are only twelve related uses of 'believe(s) of' and four related uses of 'believe(s) that of'. In the entire *British National Corpus*, the numbers were eight and four, respectively.[35] Moreover, taking both sources together, in only four cases is 'believe(s) of' followed by a sentential clause, as in the paradigmatic 'fulsomely *de re*' locution—and in three of these the setting involves a statement of religious belief. In contrast, 'believe(s)' has more than 180,000 occurrences in the two sources combined. Simple Google searches also illustrate this point: for example, the first fifty relevant, novel search results for the exact phrase 'believes of ⋆ that she' contained 49 results from work in contemporary analytic philosophy or semantics—the vast majority of those directly addressing the issues at hand.[36] In contrast, there was only one result from analytic philosophy or semantics in the first 50 results for the search 'believes that she'.[37]

We will not undertake a semantics of 'fulsomely *de re*' ascriptions here. But insofar as they genuinely belong to ordinary language, we see no reason to think their acceptability is governed by any acquaintance constraint. In fact, though some have claimed it is the purpose of these expressions to semantically ascribe singular thoughts, we very much doubt this is the case in ordinary language. In the corpus results, 'believe(s) of NP' is usually used without specifying the relevant belief, as in 'be careful what you believe of NP' and 'what can we believe of you?' Such expressions can be useful if one wants to make clear that certain beliefs involve a particular person, without stating what the beliefs are. Alternatively, the relevant belief has recently been specified in the discourse, and one picks it out anaphorically with a bare 'that', but wishes to emphasize that it involves NP, as in 'I can't believe that of you'. In both cases the relevant belief must be in some loose sense *about* the object(s) specified, but it is not obvious that they must be *singular* beliefs. For example, one of the few COCA results mentioned above involves a discussion of a survey finding that 1 in 5 librarians claim to have had sex between the stacks. This is followed by the comment:

18. I cannot believe that of librarians.

Other uses show up in Google searches and seem perfectly natural: 'Actually I believe that of every Republican alive', and so on. One might argue on theoretical grounds that these are 'loose' uses and that such expressions always semantically ascribe singular thoughts—that would be the analog of accepting HARMONY and SUFFICIENCY for these locutions. Still, we see absolutely no reason to think their acceptability is governed by any kind of acquaintance constraint.

[35] We have omitted one result of the BNC search, which was in a scholarly book by an analytic philosopher.

[36] We set aside irrelevant cases, like typos and 'believe, of course, that' and we stopped looking at 50. (Admittedly, academic websites are given high status in Google's search algorithm, so this result is not a reason to think that nearly all English uses of "believes of ⋆ that she" appear in works of philosophy or semantics.)

[37] Again, we stopped looking at 50.

There is, we suspect, one feature of ordinary uses of these locutions that can be misleading. In the majority of cases we found, the speaker is drawing attention to an assessment of the *character* of the object of thought. Here is a typical example from our searches. Having been accused of infidelity, the speaker says

19. How could you believe that of me, Ruth?

He could easily have left off 'of me', but it serves to emphasize that it is because of her view of his character that Ruth should not have the relevant belief, rather than (for example) because he has an alibi. Or again, consider

20. I could not believe it of Jesus, that he would say to little children, 'Depart, ye accursed, into everlasting fire in hell!'

Parsimony would favor 'I could not believe that Jesus would say . . . ', but the more elaborate locution emphasizes the role of the speaker's view of the character of Jesus. Of course, in many of the cases discussed in §2.3 the speaker does not have any relevant views about the character of the object of thought. And in such cases this kind of use would not be appropriate. But this is only accidentally related to the lack of acquaintance in those cases.[38] For example, the detective in the 'Vladimir' case may well have formed some opinion about the murderer's character. And if someone points to evidence that Smith's murderer committed some other atrocious crime with all the hallmarks of insanity, the detective might say

21. I can believe that of Smith's murderer.

Likewise, one might use 'believe of' to emphasize the relevance of one's beliefs about the character of a class of people. In fact, example (18) gets across precisely that the speaker's reluctance to believe the survey stems from her views about the character of librarians.

Another option for the anti-liberal is to acknowledge that 'believes of', as employed in this new version of the spy argument, is an expression of art. (And indeed, the way in which these locutions are introduced without argument as devices for explicitly ascribing singular thought often has the feel of stipulation. This coupled with the relative paucity of ordinary uses suggests that these expressions have a specialized theoretical use in semantics.) In that case, however, there is no bite to this version of the spy argument because there is no relevant pre-theoretical intuition for the theory of singular thought to explain. To claim that (21) is only true if the

[38] Another reason for this kind of locution appears to be to emphasize reflexivity. Thus, 'Everyone can truthfully believe of himself that he is a contemptible wretch' emphasizes the reflexive belief more than does 'Everyone can truthfully believe that he is a contemptible wretch'. The former also avoids any possible misinterpretation if there is another possible antecedent for 'he'. Obviously, it will turn out that in these cases the subjects are all acquainted with the objects of thought as well.

detective is acquainted with Smith's murderer is simply to register a theoretical commitment to CONSTRAINT.

In short, we find this version of the spy argument to be just as hopeless as the original.

2.6 The Neptune argument

A second major motivation for CONSTRAINT begins with an example from Kripke. Kripke's reflections on contingent apriority arguably raise a special puzzle. Assuming he could fix the referent in this way, it seems that Leverrier could know that (N) is a true sentence:

(N) If a unique planet is the perturber, it is Neptune

If Leverrier also grasped the proposition expressed by (N), he was not only in a position to know that it expressed a truth, but also to know that truth.[39] Given the semantic framework in which the puzzle is raised, the relevant truth is a singular and contingent proposition involving Neptune—knowledge that on some accounts would even count as a *priori*. But how could Leverrier gain a piece of knowledge like this merely by performing an act of linguistic stipulation? A very natural conclusion to draw is that he must *not* have been able to grasp the proposition that (N) expresses: he just was not acquainted with Neptune in the right way to have a singular thought about it. This type of argument has been offered by a number of thinkers including Donnellan, Blackburn, and Soames.[40]

It is important to be clear about the assumptions needed to generate this argument.[41] First, we need to assume that if Leverrier can introduce the name 'Neptune' by way of a definite description, he is in a position to know that (N) expresses a truth. Second, we need a premise to the effect that in the relevant cases, if 'S' means that *p*, then Leverrier knows that 'S' means that *p*. Third, we need to assume that in the relevant cases Leverrier knows that if 'S' means that *p* and 'S' is true then *p*. And fourth, we need a suitable epistemic closure principle for knowledge: in the relevant cases, propositions deduced from known propositions are also known. (We shall take this kind of closure principle for granted in what follows.) Finally, if the reductio is supposed to involve apriority, Leverrier's initial knowledge must be a *priori*, and that status must be retained through all of these transitions. Taken together,

[39] As Kripke puts it, for Leverrier 'such statements as "if such and such perturbations are caused by a planet, they are caused by Neptune" had the status of *a priori* truths'. Kripke, *Naming and Necessity*, p. 79, fn. 33.

[40] Donnellan, 'The Contingent a Priori and Rigid Designators'; Blackburn, *Spreading the Word*, pp. 333–6; Soames, *Philosophical Analysis in the Twentieth Century, Vol 2: The Age of Meaning*, pp. 403–16. In Blackburn's version, the subject knows *a posteriori* that the reference-fixing description denotes. This way of setting up the puzzle does not involve *a priori* knowledge but avoids the red herring of existential commitment, as discussed below.

[41] The auxiliary assumptions are not always brought out in expositions of this argument. For an exception, see Ray, 'Kripke and the Existential Complaint', especially pp. 128–30. See also the related principles in Soames, *The Age of Meaning*, pp. 403–16.

these premises will give us the counter-intuitive result, which is taken as a reductio either of the claim that Leverrier can successfully introduce a name with the relevant description, or of the idea that introducing that name puts him in a position to have singular thoughts about Neptune.

We want to begin by examining four replies to this argument that we think are not fully persuasive.

(i) *Naïve and notional accounts*. It may be tempting to assimilate the Neptune example to those we discussed in the previous section—so that the Neptune argument is simply an instance of the spy argument. Thus we could admit that Leverrier comes to know the proposition expressed by (N), but point out that it would be false or misleading to report this knowledge by saying

22. Leverrier knows that if a unique planet is the perturber, it is Neptune.

For, one might argue, this sentence suggests (or on the notional theory, entails) that Leverrier believes the relevant proposition under some guise associated with 'Neptune' that is in fact unavailable to him. Meanwhile, it seems far less infelicitous in certain contexts to say of Leverrier that he believed that Neptune had such-and-such a diameter, and this will be explained by claiming that in such contexts the guise constraint is less demanding.[42]

This reply is certainly helpful to a point—and it has been persuasively made by Jeshion and Sutton.[43] But those who focus on the Leverrier case often emphasize that Leverrier should not have ability to acquire *a new piece of knowledge* by stipulation. Nothing like that was at stake in the original spy argument. In other words, even if we can explain why (22) is invariably false or misleading, there remains the problem that a stipulation apparently placed Leverrier in a position to know a contingent planetary fact that ought to be a matter of substantial empirical inquiry. And this result, specified with whatever circumlocution, appears *prima facie* unacceptable.

(ii) *Assumption of free logic*. Here is a second unsuccessful reply to the Neptune argument. Gareth Evans and others have pointed out that in Kripke's example, Leverrier did not know whether there was a unique perturber: so he could not know whether any referent had been fixed for 'Neptune'. On the assumption that sentences with empty names are not truth evaluable, it follows that he was not in a position to know that (N) was true. (For all he knew, (N) lacked truth-value.) But then, Evans concludes, the puzzle does not get off the ground:

[42] To say, 'Leverrier believes of some planet that it is the pertuber,' in a context where we are considering this case, will almost always be at least misleading. This is likely due to our awareness of the *a priori* connection (for Leverrier) between 'Neptune' and 'the perturber' coupled with our reluctance to ascribe thoughts that are (or are derived from) incrementally trivial beliefs. (See §2.2.ii.)

[43] See fn. 14. Jeshion implements the naïve strategy, and Sutton the notional strategy.

> *There simply is no puzzle unless the use of free logics is accepted*. Unless a sentence concerning the name 'Julius' can be formulated which is free of existential commitment, there is not even a candidate for the status of the contingent *a priori*.[44]

Now Evans himself advocates free logic for names that are descriptively introduced, thereby denying a rule of Existential Generalization for proper names. (We shall return to his views on that topic in Chapter 3.) But is he right that the puzzle dissolves on the assumption that free logic is rejected?

There are two reasons that the proponent of classical logic cannot rest content with rejecting the puzzle in this way.

First, there is a closely related puzzle concerning uncontroversially *a posteriori* knowledge. Suppose that Leverrier performed all kinds of reliable calculations on the orbits of other planets that amounted to conclusive evidence for the existence of a unique perturber. Then, given our assumptions, he could know—albeit *a posteriori*—that (N) is a true sentence. Moreover, he could know the proposition that it expresses, and since he would know the antecedent, he could conclude that Neptune is the perturber. Those who feel uncomfortable ascribing Leverrier singular knowledge in the original case should also be ill at ease in ascribing singular *a posteriori* knowledge to Leverrier in this case.[45] The idea that stipulation can be a source of astronomical knowledge is puzzling, whether or not the resulting knowledge counts as *a priori*. (This point has also been compellingly argued by Jeshion and Sutton.[46]) As Kripke put it, it is hard to allow that Leverrier 'thereby *learned* some (contingent) information about the world, some new *fact* that he did not know before'.[47]

Second, there are other examples that overcome the issue of reference failure. Here is one due to David Cowles.[48] Suppose we introduce 'Alpha' by way of the reference-fixing description 'the number of planets'. There is no fear that the term will fail to refer, since if there are no planets, 'Alpha' refers to 0. We can now reconstruct the original puzzle: we appear to be in a position to know that the sentence 'Alpha is the number of planets' is true, and thus, arguably, we can know the truth it expresses. But this does not appear to be a way of knowing the proposition that nine is the number of planets.

(iii) *Empirical linguistic knowledge*. A third response to the Neptune argument involves denying that even the Alpha case is an example of the contingent *a priori*. For it would appear that one can only know that the sentence 'Alpha numbers the planets' is true by

[44] Evans, 'Reference and Contingency', p. 172. Emphasis in the original.

[45] We might reinforce this unease by imagining that his charts were inconclusive on the question whether the perturber was a planet invisible to him (as Neptune was) or a visible planet like Mars or Venus. It sounds terrible to say that Leverrier knew it was *Neptune* causing the perturbations.

[46] See Jeshion, 'Ways of Taking a Meter', p. 302; 'Donnellan on Neptune', p. 113, and Sutton, 'The Contingent a Priori and Implicit Knowledge', p. 257.

[47] Actually, he is discussing the meter-stick case in this quote: see *Naming and Necessity,* p. 63, n.26. More on that case, which involves certain complications, later.

[48] Cowles, 'The Contingent a Priori: An Example Free of Existential Worry', p. 140. See also McGinn, 'Review of *Studies in the Philosophy of Language*'.

remembering an *empirical* fact about the *word* 'Alpha', namely that it was introduced by way of a certain description. Since the memory of this stipulation enters into the justification of the belief that the sentence is true, any knowledge that results must be *a posteriori*.[49]

So goes the objection. But it is worth stressing in this connection the distinction between experiences that play a *causal* role in one's knowledge of a proposition, and those that play a *justificatory* role. While one's ability to grasp the proposition that no bachelor is married may derive in part from one's learning (through experience) how to use 'bachelor' and 'married',[50] that sort of reliance on experience has not traditionally been taken to impugn the *a priori* status of one's knowledge that no bachelor is married. Might it not be argued that the experience of fixing the referent of 'Neptune' serves in a *causal* but not a *justificatory* role for Leverrier's knowledge? We may suppose that his reference-fixing act inculcates a disposition to believe that Neptune is the perturber, without the belief being justified in any way by his memory of the stipulation. (The belief may or may not be justified by a premise about his current dispositions.)[51] What this all suggests is that there are perhaps versions of the Nepture example where metalinguist facts about the relevant words or representations do not serve as premises in *a priori* arguments, but instead form the causal basis for an *a priori* known belief.

At any rate, as we have seen, the issue of apriority is not essential. There remains the problem that his act of dubbing seems to have given Leverrier an epistemic advantage. In what follows we will be concerned with this puzzle, which sets aside apriority, and the best-explanation argument it allegedly provides for CONSTRAINT. Call this the 'epistemic advantage argument'.

(iv) *Linking requirements*. A fourth response is due to Thomas Ryckman, who offers the following variant on the original example. Suppose Leverrier calculates that a planet is causing perturbations in the orbit of Mars—and in fact the planet is Earth, though Leverrier does not realize this. Next, Leverrier introduces the term 'Spock' by way of

[49] See McGinn, 'Review of *Studies in the Philosophy of Language*' and Ryckman, 'Contingency, a Prioricity and Acquaintance', p. 342. Soames agrees but considers the point about a priority inessential to the motivation these examples provide for acquaintance: Soames, *Philosophical Analysis in the Twentieth Century, Vol 2: The Age of Meaning*, pp. 407–9, 414–8,

[50] We are not suggesting that it would have been impossible for one to grasp that proposition without learning any words; just that as a matter of fact one's grasp of that proposition is causally dependent on one having learned those words. (And surely, left to our own devices like Mowgli, we would individually never have achieved the conceptual richness afforded by our participation in the vast and ancient practice of speech.)

[51] Thomas Ryckman agrees that when it comes to experiences required to *understand* sentences like 'all bachelors are unmarried', we often exempt them from counting against our *a priori* knowledge (Ryckman, 'Contingency, a Prioricity and Acquaintance', p. 342). But he argues that since Leverrier's experiential knowledge of his stipulation is not knowledge of the *meaning* of the name 'Neptune' (on the Millian theory), it *should* count against the apriority of any knowledge for which it is required. However, we think that the distinction between causal and justificatory role best explains which experiences are exempted from undermining apriority.

the reference-fixing description 'the unique Mars-perturbing planet'. Clearly the very same puzzles arise in this case as in the Neptune case; and yet Leverrier is very well acquainted with Earth. So, Ryckman concludes, appealing to CONSTRAINT does not help.[52] (A similar point can be made about the 'Alpha' case: surely the subject was already sufficiently acquainted with the number nine, whatever that requires.)

At least two replies are available to the proponent of CONSTRAINT. First, it could be argued that, while Leverrier has successfully introduced the name 'Spock', he is not in a position to *know* that he has done so. Perhaps knowing that 'Spock' refers requires him to know that he satisfies CONSTRAINT. Or, more plausibly, perhaps knowing that 'Spock' refers requires him to satisfy CONSTRAINT in a fashion that is non-accidental. But the way in which he satisfies CONSTRAINT is highly accidental. Thus, he is not in a position to know that 'Spock is the unique Mars-perturbing planet' is a true sentence, and the puzzle does not get off the ground.

Another reply is to modify CONSTRAINT in a way designed to fix the problem. Roughly: to understand a name introduced by a description, the subject must already be acquainted with the object in a manner somehow *linked* to that description. In a paradigm case of perceptual acquaintance, the mode of presentation under which an object is mentally represented simply *arises* from one's acquaintance with it. Perhaps some such link between acquaintance and guise is required for the successful use of descriptive names. Scott Soames has implemented this idea as follows:

> To successfully introduce a name with the reference-fixing description 'the F', one must have an *antecedent* singular belief involving the object denoted, to the effect that it is the F (Soames 2003: 414).[53]

Call this the 'linking requirement'. It blocks Leverrier from introducing 'Spock' as a genuine name, because he does not independently believe of the Earth that it causes the perturbations in Mars. Similarly for the 'Alpha' case: the subject does not antecedently believe of nine that it numbers the planets, so the introduction of the name is blocked by the linking requirement.

There are plenty of potential complications here. To begin with, there are related cases in which the linking requirement (as stated) does not block the introduction of a name. Suppose that, unbeknownst to us, 'Twoface' and 'Harvey Dent' corefer. Suppose we assent to 'Spiderman is the killer of Twoface'. But we still proclaim, 'It is a mystery who killed Harvey Dent'. The linking requirement does not block us from introducing the

[52] See ibid., 330.

[53] Soames is not here especially concerned with the kind of case Ryckman raises, but finds this principle compelling in its own right: 'A description cannot semantically fix the referent of a name for a speaker unless the speaker independently believes of the object which is denoted by the description that the description applies to it' (Soames, *Philosophical Analysis in the Twentieth Century, Vol 2: The Age of Meaning*, pp. 414). And, of course, the requisite 'believing of' requires 'sufficient contact with the object', whatever that amounts to (416).

term 'Bill' by way of the reference-fixing description 'the killer of Harvey Dent'. (After all, we have known all along *of* Spiderman that he killed Twoface—that is to say, from the naïve theorist's point of view, we have known of him that he killed Harvey Dent.) But this seems like the sort of introduction that proponents of the Neptune argument would not wish to allow, because of the potential for deriving new knowledge about Spiderman; to begin with, that he is denoted by 'the killer of Harvey Dent'.

In response to these concerns, one could jettison the linking requirement and try another way to implement the idea that, in order to introduce a name by way of a description, the subject must already be acquainted with the object in a way that is linked to that description. For instance, one could semantically ascend: to introduce 'N' by way of 'the F', the subject must have an antecedent singular belief of the would-be referent of 'N' that it satisfies 'the F'. (On the other hand, we suspect the counter-examples will also semantically ascend.)[54] We will suppose for the sake of argument that a successful 'linking' requirement can in the end be crafted to handle iterations of the Ryckman case.

2.7 The irrelevance of CONSTRAINT

We must, then, directly address the felt oddity that a stipulative act should bring knowledge of new astronomical facts. The structure of our response will be similar to our response to the spy argument: (i) we will illustrate some equally puzzling cases of apparent epistemic advance that arise even for the proponent of CONSTRAINT; (ii) we will explore a range of explanations for the various puzzling cases of epistemic advance; and (iii) we will argue that in fact the best suite of explanations is not even open to proponents of CONSTRAINT.

To begin, let us consider some cases of epistemic advance in the field of astronomy where acquaintance is not at issue—ones that ought to raise a suspicion that acquaintance is not at the heart of what is puzzling about the Neptune case.

(i) *Conjunction*. Consider a community that possesses the connectives 'or' and 'not' but does not—even in thought—possess the connective 'and'. However, they go on to introduce 'and' via stipulating the standard introduction rules and elimination rules for that connective. With the connective in place, they infer the truth of 'There are galaxies and there are black holes' from the truth of 'there are galaxies' and 'there are black holes'. On the plausible assumption that the content of a conjunction is different

[54] Suppose John sees a description inscribed on a page but does not discern its lexical structure. David demonstrates and says, 'That description is true of Spiderman'. John trusts David and comes to believe of that description that it is true of Spiderman. Suppose in fact the description is 'the killer of Harvey Dent'. Then John *does* believe, of the description 'the killer of Harvey Dent', that it is true of Spiderman. This yields the unwanted result that John can introduce a genuine name for the killer of Harvey Dent after all. The challenge of stating the relevant 'linking' requirement in a way that generates the desired result is thus rather more challenging than it may initially appear.

to that of a complex of negation and disjunction, it appears that their new stipulation has put them in a position to know a contingent astronomical fact that was previously beyond their ken.

It might be objected that in this case there is no epistemic advance in the following sense: every intension that they now accept was also an intension that they originally accepted. (By 'intension' we mean a function from worlds to truth-values.) And, the objection goes, there is nothing objectionable about stipulative epistemic advances that are intensionally equivalent to something already known. But this fails to get to the heart of the matter. After all, there are plenty of Leverrier-style scenarios where the advance is merely hyperintensional. Suppose Leverrier already had an expression like 'actual' in his language—with the semantics usually given to it by philosophers. Then the intension of

23. Neptune is the perturber.

is equivalent to the intension of

24. The actual perturber is the perturber.[55]

Thus, if Leverrier had 'actual' as a term in his language, the original Neptune example is one in which Leverrier does not make an intensional advance on what he knew before. So the proponent of the Neptune argument must tell us what makes it so bad to pull this particular astronomical rabbit out of the stipulative hat.

(ii) *Yesterday*. Next, imagine a community living on a very slowly turning planet: indeed, the whole community has evolved in a single day. Now presumably such a community might find enough in the way of causal traces about the previous day to count as acquainted with it. (We have avoided using 'tomorrow' because some diehard causal acquaintance lover might deny that anyone can refer to future times.) Next, suppose a community has no device for directly referring to the day before the day of a given circumstance of utterance, though they do have a device—'Today'—for referring to the day of the circumstance of utterance. Thus, if y is the day before x, they do not have the resources to affirm singular propositions about y. Now suppose that on day x they acquire the knowledge that on the day before x a star exploded, and they subsequently utter 'The day before today a star exploded.' They then introduce a device 'Yesterday' for directly referring on any given day to the day before that day: that is, they stipulate the standard Kaplanian character for 'Yesterday'. This puts them in a position to know that the sentence 'Yesterday a star exploded' expresses a truth, and presumably also know the truth it expresses, which is an astronomical fact they were not previously in a position to know.

[55] There is some wiggle room if one thinks that these claims behave differently relative to worlds where Neptune does not exist. Obviously this wiggle room disappears in the Cowles case.

(iii) *Distances*. Let us turn to Kripke's other famous example of the contingent *a priori*. Someone says: let the length of stick S be named 'one meter': can he thereby come to know the length of stick S? Kripke's discussion is short on details, and in particular he does not say whether the individual is in sight of the stick upon dubbing its length 'one meter'. Perhaps the implication is that it does not matter much whether the individual can see the stick—and we agree. But the acquaintance lover should think it makes all the difference. According to Soames, in the version of the puzzle where the subject does not see the stick, the knowledge is blocked because the subject is not acquainted with the length of stick S. And in the version of the puzzle where the subject does see the stick, there is no puzzle because the individual *already knew* the precise length of the stick by being visually acquainted with its length. The relevant piece of knowledge is *a posteriori* and is acquired by perception before the introduction of the term.[56]

We agree with Soames that this is not a case of the contingent *a priori*. But a puzzle remains. To illustrate, suppose Leverrier wants to know the current distance between Mars and Venus. Here are two continuations of the story: (a) He looks briefly at the planets and the distance between them, and he dubs that distance 'one schmile'. As it turns out, the distance he has dubbed a schmile is 102 million miles.[57] (b) Alternatively, suppose Leverrier does not have perceptual contact with the distance. Instead, he asks a friend who in fact knows the relevant distance—not only perceptually but also under the canonical guise '102 million miles'. (She has done all the necessary astronomy to achieve this knowledge.) However, she is not feeling very helpful, so she dubs that length 'one schmile', tells Leverrier about her dubbing procedure, and then adds, 'Of course, the current distance between Mars and Venus is one schmile.'

Now, a causal version of CONSTRAINT does nothing to block Leverrier's ability to know—in either of these cases—the precise distance between the planets. He will not, of course, accept the sentence 'The distance is 102 million miles'; so our theory of attitude reports may tell us that it would be misleading or false to say, 'Leverrier knows that the distance is 102 million miles'. But he does—regardless—know the relevant proposition, whether he perceptually dubbed the length, or his friend dubbed it and passed on its name.

[56] Here is Soames' discussion of the second case: 'In this scenario, we have seen stick s at t, and formed an idea of its length, prior to introducing the term 'one meter' with the reference-fixing description 'the length of stick s at t'. As a result, we have a perceptually justified true belief, of a certain length l, that it is the length of stick s at t. Call this proposition about l that we believe on the basis of perceptual evidence 'p'. When we introduce the term 'one meter' with the reference-fixing description, our knowledge of p is part of the knowledge required to understand the sentence 'The length of stick s at t is one meter (if s exists at t)'. Since we have this knowledge, we understand the sentence. Moreover, our knowledge of the sentence guarantees not only that we know that it expresses a truth, but also that we grasp the proposition it expresses, and know it to be true . . . Nevertheless, this knowledge is *not a priori* knowledge, since it rests on our knowledge of p, which is justified perceptually. Note, it is not just that we happened to acquire our belief in p as a result of perception; p is a proposition that can only be known on the basis of such evidence' Soames, *Philosophical Analysis in the Twentieth Century, Vol 2: The Age of Meaning*, pp. 416–7.

[57] The example could easily have involved, say, the length of a campus seen from a distance or the area of a city seen from the air.

(iv) *Magic*. Here are two more variations on the original Leverrier case: (a) Leverrier becomes a magician and casts a spell that causes his arm to extend magically into space and his hand to come to rest on the perturber. After having prolonged tactile contact with Neptune, Leverrier says, 'I hereby dub thee "Neptune"'. (b) Leverrier summons a magical fairy and orders her to fly to the perturber, acquaint herself with it, and call it 'Neptune'. She returns and confirms that the dubbing has been performed, adding: 'Neptune is the perturber'. She offers no further information.

Again, in both cases, proponents of a causal acquaintance constraint will want to allow that Leverrier is in a position to acquire the relevant piece of astronomical knowledge: that is, he can know the very proposition we express by 'Neptune is the perturber'. But while these stories add certain causal channels absent from the original, they do very little to assuage whatever original discomfort one feels about Leverrier's ability to achieve epistemic advance by linguistic stipulation.

2.8 Sources of confusion

What these cases have in common with the original Leverrier cases is that they all involve epistemic advance due to a kind of semantic good fortune that might seem like it should be irrelevant to one's stock of knowledge. Why do such cases seem puzzling? There are at least four possible sources of confusion at work.

(i) *Knowing which*. A tempting line of thought about the original example is this. If Leverrier did not know *which planet* was the perturber, then he could not know *which planet* is referred to by 'Neptune' or even *which proposition* is expressed by 'Neptune is the perturber'. But if he does not *know which* proposition that is, he can hardly *know* that proposition.

It is worth emphasizing that the same doubts will arise in the magical cases. All we need to do is maintain a cognitive setting where appropriate answers to 'Which planet is he referring to?' involves some way of picking out the planet that would be useful for him to write down in his astronomy book.[58] Likewise, in the distance case we will deny that Leverrier knows *how long* a schmile is. Clearly then, as we will stress further in the next chapter, ordinary intuitions about *knowing which* do not in any way line up with any going proposal about acquaintance. In fact, unless we are proponents of a direct revelation constraint, like Russell, we will have to accustom ourselves to the idea that a subject may have singular thoughts about x, even though there are contexts where we cannot say that the subject knows which object x is. (For example, although Lois Lane has singular thoughts about Clark Kent, there are plenty of contexts where she does not count as knowing which person he is.) We shall in the next chapter look to other and possibly more promising ways of putting *knowing which* to theoretical use in this area.

[58] After all, we can imagine that he does not even know whether the planet is the one usually called 'Mars' the one usually called 'Venus', and so on—supposing that his arm is insensitive to massive differences in temperature.

(ii) *Close possibilities and phenomenal duplicates*. Here is another temptation that should be resisted. It is tempting to suppose that if S *knows* that p then there cannot be close and phenomenally indistinguishable worlds in which *not-p*. For example, in the distance case, Leverrier is supposed to know the proposition concerning 102 million miles, that it is the current distance between Mars and Venus. But there are close possibilities—ones not ruled out by Leverrier's narrow phenomenal state—where 103 million miles is the current distance between Mars and Venus. Thus assuming the epistemic principle connecting knowledge to phenomenal indiscriminability, we are forced to conclude that Leverrier does not, after all, know the relevant singular proposition. (Neither will Leverrier know that his utterance means *p*, since there are close and phenomenally matching worlds where the utterance does not mean *p*.)[59]

Now it is clear that if this principle is accepted, the 'epistemic puzzle' that results has nothing to do with acquaintance and everything to do with semantic externalism. Indeed, given semantic externalism this kind of principle had better be false. Suppose Ned is on the demonstration platform, 'nude, clean shaven, and bathed in light' (to borrow an image from Kaplan).[60] David points at Ned and says 'He is on the platform'. There may be a close, experientially indistinguishable world in which Ned's identical twin Ted is on the platform instead. This means that in some contexts a belief report like 'David thinks that *Ned* is on the platform' will be inappropriate, because it may at least convey that David is aware there are twins and he is trying to distinguish between them. But we should not deny that David has a singular belief—and even singular knowledge—about Ned. David is not in any danger of error, because in the nearby world where Ted is on the platform instead, David has a true belief about *him*.

Admittedly, this diagnosis is not very charitable, since it suggests that the puzzlement with the Leverrier cases arises because of a derelict epistemic principle. Nevertheless, we do suspect that principles of this sort can be seductive if not brought to light, and are often tacitly in play.

(iii) *Linguistic stipulation*. A more important source of confusion is this. It is often tacitly assumed that Leverrier's alleged epistemic advance required the introduction of a proper name.

[59] In this connection it is worth looking at a case of Donnellan's:

I close my eyes and say (pointing), 'I will call the color of that 'Murple'. I do not know what I am pointing to, if anything. Let us suppose I am pointing to something of a definite color. Have we not set up an indefinite number of sentences, for example, 'Murple is the color of my true love's hair,' each of which expresses something true or false? But while my eyes remain shut we do not believe we know what they express (op. cit., p. 57).

It is true that, with his eyes closed, he cannot individuate these propositions in any useful way; i.e. by associating them with a phenomenal feel or with a canonical color name. But there are plenty of contexts in which he would not count as knowing which color 'Murple' refers to, even if his eyes were open! After all, he may not be able to distinguish the color from various other salient colors, the light may be a little off, he may not know its canonical name, etc.

[60] Kaplan, 'Dthat', p. 390.

But why? We have been given no reason to think that in order to grasp the singular proposition in question, Leverrier had to introduce a name. Leverrier could have brought the perturber to cognitive salience and referred to it by a demonstrative instead. Or, if there are such things, he could have used a privately introduced tag in Mentalese. If this is right, none of the linguistic stipulations we have been considering produced a capacity for singular thoughts about Neptune that was previously unavailable. Leverrier needed no extension of vocabulary if he had referring devices as flexible as demonstratives to hand—whether audibly or mentally employed.[61] He had only to think about the perturber and then demonstrate it.

Of course, as we discuss further below, there is an important sense in which knowing the relevant proposition in this way is epistemically uninteresting. But at least we can avoid the strange idea that use of a voiced linguistic item was necessary for Leverrier to have this piece of knowledge, however boring. In fact, the liberal is actually better off than the proponent of CONSTRAINT in this respect. For example, consider the case where Leverrier uses 'Neptune' in a way that is parasitic on the fairy's act of dubbing. Suppose we insist that Leverrier could not grasp the relevant proposition before picking up the name. On this view Leverrier could know (presumably in a boring way) singular propositions about Neptune only *after* hearing the fairy use the name 'Neptune'. On the liberal view, he could know those propositions in a boring way before *and* after picking up the name. If anything, it is CONSTRAINT that gives the acquisition of the name a counterintuitive epistemic significance.

Relatedly, it is open to the liberal to say that a new astronomical belief is not an interesting epistemic advance if it is *a priori* accessible in an utterly obvious way to anyone who has the original astronomical knowledge. By this criterion neither the 'and' introducers nor the 'Neptune' introducers make an interesting epistemic advance—that is, given liberalism about singular thought. But given the typical requirements for acquaintance endorsed by proponents of CONSTRAINT, the conversation with the dubbing fairy really did put Leverrier in a position to know a proposition he could not otherwise have known.

Having said all this, two qualifications are in order:

First, there may be contexts where the use of 'Neptune' in an attitude ascription communicates or requires that the subject actually thinks about Neptune *under the guise of that proper name*. In that case, of course, the availability of the proper name 'Neptune' is important to the truth of 'Leverrier knew that *Neptune* was the perturber. And so for example, if we were considering an overseas astronomer who had introduced the name 'Poseidon' for the perturber, there may be contexts where it is at least misleading to say 'That astronomer was thinking that *Neptune* was worth investigating', even if it was acceptable to say that there was a planet that the astronomer thought was worth investigating. (To make such a context vivid,

[61] One could go so far as to argue that his stock of singular terms—private or public—is irrelevant, because he could think the relevant singular thought without the help of any singular vehicle whatsoever.

imagine that he has read that Leverrier is interested in something he has dubbed 'Neptune' but has a sufficiently low opinion of Leverrier as to doubt whether anything Leverrier dubs is worthy of investigation.)

Second, we have been proceeding as if thinking singular propositions about Neptune requires at least some referential device in thought. But if ascriptions of singular thought are context-dependent in the fashion discussed at the end of §2.4, then at some contexts far less still might be involved. To take an example, one might hold that there are contexts in which 'belief' expresses a relation that can hold between members of the community and various conjunctive propositions even if the community lacks a conjunction operator in their system of representations. In such relaxed settings it will be wrong to say 'The capacity to mentally token an operator like "and" is required to know that A and B'. There may similarly be relaxed settings where 'S knows that the actual perturber is F' entails 'S knows that Neptune is F'. At such contexts it will be false to say 'The presence of a referential device for Neptune is crucial to the astronomical knowledge that Neptune is F.'

If this is right, then at contexts where referential devices are irrelevant, we can without hesitation say, 'There is something that Leverrier knew all along to be the perturber—namely, the planet whose size and mass he had been calculating'. But at more demanding contexts we may say, 'Leverrier did not come to know that Neptune was the perturber until he exercised his ability to refer to Neptune.' For in such contexts, Leverrier's mind must be suitably configured to token referential vehicles before he counts as thinking or knowing the relevant truths. Likewise, *mutatis mutandis*, for the other examples described in §2.7.

(iv) *Epistemic momentousness*. One lesson to draw from the examples of §2.7 is that even supporters of causal acquaintance will have to tell some story about why *some* token pieces of knowledge that *p* may be significant epistemic achievements, while others are not. After all, even a proponent of CONSTRAINT will have a hard time avoiding the conclusion that for various astronomical propositions *p*, Leverrier can come to know *p in one way* without making an interesting astronomical discovery, while knowing *p* in certain other ways *would* count as a significant astronomical discovery.[62] Suppose Leverrier can order his fairy to go and dub whatever object he needs dubbed. He then goes on to learn all kinds of singular propositions in this way: for example, he comes to know the proposition we express by 'Venus is the hottest planet' by asking the fairy to dub the hottest planet 'Fornax'. The fairy goes off, acquaints herself with the hottest planet, and performs the dubbing, returning only with the predicable report: 'Fornax is the hottest planet'. Clearly, this procedure does as little for genuine discovery on Leverrier's part as the procedure of directly dubbing the planet by using a reference fixing description.

What, then, explains the difference between cases where coming to believe a singular proposition counts as a momentous achievement, and cases where it does

[62] This point is well made in Jeshion, 'Ways of Taking a Meter'.

not? We will not dwell on detailed explanations here, but the answer in these cases will have nothing to do with causal connections. It is tempting to begin with the fact that Leverrier's knowledge in these cases is largely *useless* due to the observational selection effect inherent in the procedure used to introduce the name. Relatedly, Leverrier's new belief about Venus (for example) lacks interesting *connections* with his other beliefs about Venus, both singular and otherwise.[63] At any rate, surely anyone who claims that 'Now is now' expresses the same proposition as 'Now is Tuesday' must acknowledge at least the need for an explanation of the vast difference in cognitive payoff between the two ways of accessing that proposition. (The same goes for other pairs, like 'Hesperus is Hesperus' and 'Hesperus is Phosphorus'.) Whether or not such an explanation can easily be provided,[64] the need for one is not a special problem for the liberal.

2.9 Conditional reference fixers

Let us consider a final salvo from the acquaintance lover. We have so far been considering cases where names are introduced by unconditional reference-fixing descriptions like 'the shortest spy' or 'the perturber'. But one might argue that the case against the liberal is especially forceful in cases where the reference-fixing description itself is conditional.[65]

First, suppose David is very confident that the horse Archipenko won the Epsom Derby, but in fact the winner was Authorized. David says 'Let 'Dobbin' name Archipenko if he won; otherwise let it name my sick dog Rover.' Since David is convinced that Archipenko won, he now asserts

25. Dobbin won the Epsom Derby.

If we allow this kind of stipulative dubbing, 'Dobbin' refers to the sick dog. But it certainly sounds terrible in this case to say:

26. David believes that Rover/his sick dog won the Epsom Derby.[66]

[63] See Fine, *Semantic Relationism*, chs. 3–4.

[64] The matter is far from trivial. One wants an explanation of the proposed epistemic benefit of believing a proposition *p* under a guise associated with a sentence S (for example, 'Venus is the hottest planet'). But given our desiderata, the Millian explanation cannot be of the form 'Accepting *p* in this way involves believing *q*', since whatever the *q*, one might already believe *q* in an unhelpful way, even if it is a metalinguistic/metaconceptual proposition! (See fn. 54.) As in the case of Achilles and the Tortoise, adding further beliefs that are subject to the original problem will not help. This is one reason to prefer accounts that appeal to interconnections among beliefs, such as that given in Fine, op.cit.

[65] Soames uses such cases to mount a *reductio ad absurdum* in his *Philosophical Analysis in the Twentieth Century, Vol. 2*, pp. 412–3.

[66] Admittedly, as a matter of human psychology, it is very hard indeed to allow certain conditional reference fixers to govern one's use of a name for very long. Even supposing that 'Dobbin'—true to the stipulation—initially names Rover, in many cases semantic drift would quickly occur. (Consider, by analogy, the semantic drift that arguably occurs in baby switching cases where, unbeknownst to the parents, a newly christened baby is switched for a lookalike.) None of this shows, of course, that a genuine name cannot be introduced by a conditional reference fixer.

Does not liberalism of the sort we have been defending lead to the truth of (26)?[67]

We do not think such examples raise important concerns beyond those already considered. Clearly nothing about CONSTRAINT will keep David from introducing 'Dobbin' after casting a conditional arm-extending spell that causes his hand to be placed on Archipenko if he won, but otherwise on his sick dog. (Imagine he cannot distinguish their coats by touch.) Nor will it keep David from asking the dubbing fairy to dub Archipenko 'Dobbin' if he won, but otherwise dub his sick dog with that name. Neither procedure helps our intuitions about (26).[68] And again our misgivings about those sentences can easily be mollified if we reflect on the general mechanisms of belief reporting. Naïve theorists will say that these sentences are true but wildly misleading in nearly every context; notional theorists can insist that (26) expresses a falsehood in nearly every context. But these strategies involve no appeal to CONSTRAINT.

Alternatively, the anti-liberal might stress the unbridled epistemic advance that is apparently achievable through conditional reference fixing. Suppose David knows that either Archipenko or Authorized won the race, but has no opinion on which. So he stipulates that 'Donkey' will refer to Archipenko if Archipenko won, and otherwise it will refer to Authorized. Surely, one might complain, this does not put David in a position to know that Authorized won the race. But again, CONSTRAINT is irrelevant, because we get the same counterintuitive result if the dubbing results from conditional arm-extension spells or conditional instructions to dubbing fairies. (Moreover, there is nothing special about the conditional nature of the introductions, since David could simply have said, 'Let the winner be named "Donkey"' or 'Let whatever I'm touching be named "Donkey"').[69] So again, in defusing the concern of epistemic advance, both

[67] It would be ad hoc to simply ban conditional reference fixers while keeping everything else in place, allowing 'Let "Dobbin" name the winner of the race' as an acceptable means of introducing the name, while disallowing 'Let "Dobbin" name Archipenko if he won or Authorized if he won'. Modulo the concerns of the previous footnote, the liberal should stand her ground or else engage in a more thoroughgoing retreat.

[68] Again, semantic drift of the sort mentioned in fn. 66 might eventually override the causal-based dubbing—a fact that reinforces the irrelevance of CONSTRAINT.

[69] If one can also introduce *predicates* via conditional reference fixers, knowledge can run more rampant still. Suppose John does not know whether 'Shaq is tall' is true. He introduces 'is schmall' by the reference fixer 'Let "is schmall"' express the property of being tall if Shaq is tall and the property of being not tall if Shaq is not tall. He then thinks to himself, 'Shaq is schmall'. Assuming a naïve theory extended to predicates (something we do not ourselves recommend any more than we recommend it in the case of names), coupled with liberalism about reference fixers for predicates, we get the result that John now knows that Shaq is tall. It is worth noting that it is not entirely clear how even CONSTRAINT and the linking requirement would apply to a case like this: after all, (i) we still do not know what being acquainted with a property like tallness amounts to; and (ii) it is unclear what sort of belief one would have to have about the property of being tall to satisfy the linking requirement. (Where does the conditional element come in?) At any rate, since there are varying modes of presentation of properties, we suspect that regardless of how one interprets the linking requirement, its proponents will also face a predicative version of this puzzle.

Meanwhile, if the Millian accepts that knowing *p iff q* and knowing *p* always puts one in a position to know *q*, there is a slingshot argument to make knowledge run rampant (thanks to Tim Williamson here). Suppose we stipulate that 'Jones' is to name 1 if *p* and 0 if not-*p*. Then we know that Jones = 0 iff *p*. Suppose in fact that *p* is true. Then, in fact, Jones is identical to zero. But we already know that zero is zero. So assuming the relevant Millianism, we know that Jones is identical to zero. Further, assuming the relevant closure principle,

proponents and opponents of CONSTRAINT will have to appeal to considerations like those adduced in §2.8.

In conclusion, then, we doubt that there is much prospect of giving new life to the spy argument or the epistemic advantage argument by playing up the example of conditional reference-fixers.

we are in a position to know *p*. However, this closure principle is one that the Millian will not typically accept. One may know that Hesperus is big and Phosophus is pretty via being told 'Hesperus is big and Phosphorus is pretty', which by Millian lights is tantamount to knowing that Hesperus is big and Hesperus is pretty. And one already knows that if Hesperus is big and Hesperus is pretty, then something is big and pretty. But one is not, by standard Millian lights, in a position to deduce and come to know that something is big and pretty.

3

Epistemic acquaintance

As noted earlier, acquaintance theorists tend to divide into those who give acquaintance a causal gloss, and those who give it an epistemic one. In this chapter we address the latter approach.

In the most abstract terms, an epistemic acquaintance constraint will require that, to think a singular thought about an object, one must stand in a certain relation R to that object, where R involves some positive epistemic status. Some proposals of this form will describe R using familiar concepts—knowledge, for example. Others may invoke new theoretical primitives with no obvious synonym in ordinary language: this is arguably the case with Russellian direct awareness. We will not try to anticipate all the possible ways to flesh out R, or attempt a general argument against them all. Instead, we will look at some examples—beginning with the well-known view of Gareth Evans—and illustrate along the way many of the challenges and pitfalls facing such views.

There are, broadly, two kinds of account that we will be considering. In the first part of the chapter we will consider a type of approach on which *discriminability*—of objects, thoughts, or truth-conditions—is necessary for singular thought. In the second part we will consider the idea that singular thought requires knowledge of the *existence* of the object of thought.

3.1 Knowing-which and discrimination

Let us begin with an examination of the following thesis:

> Russell's Principle: To have a singular thought about an object, one must know which object one is thinking about.

This idea has been appealed to by a number of philosophers.[1] However, it is not always clear whether the 'knowing which' construction at play is that of ordinary language or

[1] This principle is the topic of Evans, *The Varieties of Reference*, ch. 4. For other examples of appeals to 'knowing which/who' see Russell, 'Knowledge by Acquaintance and Knowledge by Description', p. 113; Strawson, *Subject and Predicate in Logic and Grammar*, p. 47; Taylor, 'Accommodationist Neo-Russellianism'; Soames, 'Beyond Singular Propositions?', p. 518, fn 5; Soames, *Philosophical Analysis in the Twentieth Century, Vol 2: The Age of Meaning*, p. 413; Taylor, 'The Syntax and Pragmatics of the Naming Relation', §2.2; Recanati, 'Singular Thought: In Defense of Acquaintance', p. 151.

one that is more theoretically laden. As we have seen, Russell chooses to employ 'acquaintance' and 'knowing which' in a way that departs from ordinary usage. So too does Evans, who is the most important defender of an epistemic acquaintance constraint in recent decades.

Nevertheless, it is worth explicitly addressing the idea that 'knowing which' in Russell's principle can simply be understood as the expression of ordinary language. Here we are in agreement with Quine: 'The notion of knowing or believing who or what someone or something is, is utterly dependent on context. Sometimes, when we ask who someone is, we see the face and want the name; sometimes the reverse. Sometimes we want to know his role in the community. Of itself the notion is empty.'[2] (Many others have also noticed this degree of context-dependence.[3])

To illustrate, suppose that (in the '80s) John sees a man on stage under a banner that says 'The King of Pop'. John asks his friend who the man is. The friend cannot simply say, 'It's *him*!' (pointing), or 'It's the King of Pop!' These ways of individuating the man would not count in this context as avenues for 'knowing who he is'; but the name 'Michael Jackson' would do. Contrast a case where John is introduced to Michael Jackson by name in an elevator, without knowing that he is a musician or that he is a celebrity. In many contexts we will describe John in this situation as 'not knowing who he met'—this time a suitable piece of knowledge by description is required. (Or suppose Michael Jackson has a sudden bout of amnesia—if he forgets enough about himself, we will describe him as 'not even knowing who he is'). The same type of context-dependence, of course, applies to ⌜knowing which N⌝ something is, for any common noun N.[4]

Likewise, 'knowing which proposition a sentence expresses' is subject to the same kind of variability—assuming we have a pre-theoretic grasp on 'knowing which' applied to such cases.[5] For example, suppose John says, 'Water is wet', but is not sure whether water is H_2O or some other chemical compound. And suppose the range of epistemically possible chemical constitutors (relative to S) is salient and we use canonical chemical terms to specify the various relevant propositions about those kinds:

[2] Quine, 'Intensions Revisited', p. 10. See also the discussion in Kvart, 'Quine and Modalities De Re: A Way Out?' p. 309.

[3] Boër and Lycan, *Knowing Who*, ch. 1–2. Kaplan also admits: 'I have been convinced that knowing-who, in its most natural sense, is utterly dependent on context': Kaplan, 'Opacity', p. 259. In 'Afterthoughts' he says he is 'not entirely unsympathetic' to the idea that in order to bear cognitive attitudes to singular propositions we need to have 'knowledge of the components' (p. 606). Presumably, 'knowledge of' is intended as an expression of art here.

[4] Suppose a house contains two dogs—one belongs to John and the other to David, and one is vicious but the other is kind. In one conversational context, to count as 'knowing which' dog is in the hallway requires one to discern whether it is David's dog or John's dog; but in another context it requires one to discern whether it is the vicious one or the kind one. In general, then, 'knowing who' and 'knowing which' ascriptions are context-dependent, where the crucial parameter has to do with which of the competing ways of individuating the thing is pertinent.

[5] Thanks to Jeff King for discussion. For some appeals to 'knowing which/what' proposition is expressed, see Donnellan, 'The Contingent a Priori and Rigid Designators', p. 24; Soames, 'Beyond Singular Propositions?', p. 518; *Philosophical Analysis in the Twentieth Century, Vol 2: The Age of Meaning*, p. 413.

that H_2O is wet, that XYZ is wet. In such a context we shall be inclined to deny that John knows which substance is referred to by 'water', and thus to deny that he knows which proposition is expressed by 'Water is wet'.

Is it open to those who adopt the ordinary language version of Russell's Principle to take this context-dependence in stride? Such a move would yield the result that attributions of singular thought are context-dependent.[6] (That result we can certainly live with; see §2.4.) But it also has the far more worrisome result that the legitimacy of such attributions tracks the peculiar vicissitudes of knowing-which constructions. Virtually all parties to these debates agree that when a competent English speaker in an ordinary situation is perceptually confronted by a man wearing a bright shirt, she can sincerely say 'He is wearing a bright shirt', and thereby express a singular thought about the individual she perceives. Whether or not we count her as expressing a singular thought does not depend on whether we are in a conversational context in which an ordinary use of 'She knows who that person is' would be felicitous. (The latter might turn on, for example, whether or not it is required for 'knowing who' in this context that one knows he is the chair of the Rutgers philosophy department).[7]

This point can be replicated even at the level of the Cartesian theater. Suppose David is told that at some point in the near future he will experience a pain that results from a delayed reaction to procedure A, and at another point (perhaps first) he will experience a pain that results from a delayed reaction to procedure B. He experiences a pain and declares 'This is a terrible pain.' It is easy to imagine a context in which he says 'This is a terrible pain, but I don't know which pain it is.' No party to the debate wants this contextual effect of 'knowing which' to have any bearing on whether in such a context David can say that he has a singular thought about his pain.

In short, the cluster 'knowing who/which/what' as they are ordinarily used seem ill-suited to bear any theoretical weight. Philosophers who do appeal to something like Russell's Principle no doubt have in mind a more theoretical gloss on 'knowing which'; but rarely is any insight provided into the notion that is at work. A shining exception to this trend is Gareth Evans, who provides a rich and intricate investigation of just such a notion in his book *Varieties of Reference*. In what follows we shall look at some key problems for his account, some of which we predict will generalize to many other kinds of epistemic constraint.

[6] There are other options, but none seems very helpful. One is the idea that, when we speak as theorists, 'knowing which' is not context-dependent. But this is implausible unless we have specified in advance what we as theorists are going to mean by 'knowing which', since what is interesting or salient to a theorist can shift in the relevant ways. Relatedly, one might claim that there is a single privileged theoretical context, and Russell's Principle is true at that context. It would be hard to evaluate such a claim without having a handle on this special context.

[7] Note that these points only become reinforced if one takes exported ascriptions to be good diagnostics of the presence of singular thought. There are plenty of contexts where constructions like 'There is someone that he thinks is F but he does not know who/which person he/she is' sound perfectly acceptable.

3.2 Evans on acquaintance

First, an overview of his position. Evans gives Russell's Principle a foundational role in his theory;[8] but he realizes that it cannot be understood in terms of the workaday notion of 'knowing which'. Instead he situates it within a more general account of understanding that it is driven by the following principle:

> Truth-Conditions: In order to entertain the thought that *p*, one must know what it takes for *p* to be true.

Evans admits that this principle too can be taken in an insubstantial, even 'truistic', way.[9] After all, we could read it as saying nothing more than that, in order to grasp the thought that *p*, one must know that the proposition that *p* is true iff *p*. Even those with an extremely thin conception of understanding can accept this version of the principle. In contrast, Evans is reaching for a much thicker notion of knowing what it takes for it to be true that *p*—one that cannot be accommodated by mere appeal to the disquotational properties of truth.

Turning to the case of singular thought, we must ask what it takes to be in a position to know the truth-conditions for singular thoughts about a given object. (Let us assume the relevant thoughts ascribe properties of which we already have a conception.) Evans believes we can get important mileage out of

> The Generality Constraint: 'If a subject can be credited with the thought that *a* is F, then he must have the conceptual resources for entertaining the thought that *a* is G, for every property of being G of which he has a conception'.[10]

As Evans conceives of this principle, it follows that to know the truth conditions of any singular thought that *a* is F, one has to know what it would be for every thought with the structure ⌜A is ϕ⌝ to be true; where A is one's idea of the object, and ϕ is any predicative idea. Thus we can think of knowing which object *a* is, in the theoretically loaded sense, as a condition that can subserve knowing the range of truth conditions demanded by the Generality Constraint.

In his efforts to spell out a condition that can play this role, Evans turns to yet another principle:

> Discrimination: To have a thought about an object, a subject must have the capacity to distinguish the object of his thought from all other things.

This, he says, 'only makes things a little clearer'. To illustrate why this is problematic as it stands, consider a modified version of a case that Evans discusses in a different

[8] His formulation of the principle is this: 'In order to be thinking about an object or to make a judgment about an object, one must *know which* object is in question—one must *know which* object it is that one is thinking about' (p. 65).

[9] Ibid., p. 106.

[10] Evans, *The Varieties of Reference*, p. 104.

connection.[11] Suppose that David sees the prow of a boat through one window, and sees the stern of a different boat through another window. But for all he knows, they are the same boat. We presume that Evans would want to allow that David can think about the first boat, even though he is not in a position to know that it is not identical to the second boat. But what then could be required by the demand that one be able to distinguish the first boat 'from all other things'? Once again the ordinary notion—in this case the ordinary notion of 'distinguishing an object from all other things'—is of little use and stands in need of theoretical refinement.

At this stage Evans brings to bear a two-tiered account of what it would take to have discriminating knowledge of the object of a judgment. The first tier involves a set of metaphysical commitments. Evans supposes that for any object in the natural world that exists at a given time t, there is some *account of what makes it different from other objects at that time*. What he calls a *fundamental idea* of an object at t will be a concept which encodes a property that is had uniquely by that object at that time and which explains what makes that object different from all other objects at that time.[12] On the simplified version according to which it is assumed to be impossible that objects are co-located, the fundamental idea of an object at a time could simply be the idea of an object exactly occupying a certain location. If co-location is possible (recall statues and lumps), the fundamental idea will need to combine this locational condition with some other qualitative feature that divides the co-located objects in a way suitable to explaining what makes each the thing that it is.[13]

When we grasp a singular thought about an object, we have some idea or other of that object. For Evans, that idea need not be a fundamental idea. Instead, in a very special sense, the idea must bring with it discriminating knowledge. What this means is that one must know what it would take for any thought built out of that idea, a fundamental idea, and an idea of the identity relation, to be true.[14] (That is, where A is one's idea of the object, and α is any fundamental idea, one must know what it would be for any thought with the structure ⌜A is identical to α⌝ to be true.) For example, consider a demonstrative idea of an object *o* that one expresses with 'That object'. Then take any fundamental idea—say, one expressed by 'The thing *there*'.[15] To grasp a singular thought about *o* requires that one knows what it would be for the thought expressed by '*o* is identical to the thing *there*' to be true, and so on for every other such thought connecting one's idea of *o* to fundamental ideas.

[11] Ibid., p. 84.

[12] Ibid., pp. 107–8.

[13] Evans also presumes that there is a substantive story to be told about what makes an object at a given time t, the same or different as an object at a different time t′: identity over time is not primitive. A fundamental idea of what distinguishes London at this time from other things, along with a grasp of a criterion of identity, is presumed to be sufficient (though obviously not necessary) for grasp of a proposition to the effect that London is F, for any F for which one has a conception.

[14] Ibid., pp. 109–11. Note that this is not a thought *about* the ideas, but a thought that *employs* them.

[15] Here we are suppressing the co-location problem and taking Evans' cue that ideas specifying an object's location can be fundamental.

In requiring that one knows what it would be for all these thoughts to be true, Evans cannot have in mind a thin conception of knowing truth conditions. For instance, to understand the truth conditions of the thought expressed by '*o* is identical to the thing there', it is not enough to know that this thought is true just in case *o* is identical to the thing in that place. Instead, the truth conditions of the relevant identities must be understood in terms of some non-trivial criterion of identity that has the structure ⌜α is β iff α bears ρ to β⌝, where ρ is the fundamental idea of some relation. If this is the case, then, one must also satisfy whatever conditions are required for knowing what it would take for thoughts involving ρ to be true.

The relevant way of identifying the object will involve some admixture of practical abilities and articulation of descriptive conditions—the strength of mixture varying according to the kind of idea in question. Insofar as a conception of the object's location is integral to one's idea of the object, that conception will be often manifested not by some descriptive articulation of the conception but in some dispositional connection to that location: one can know where a location is by being disposed to move there should one want to. It follows that ideas are thus not always 'in the head': John and his duplicate may have different ideas because one of John's locational ideas disposes him to move to his left, while the duplicate's corresponding idea disposes the duplicate to move to *his* left: one's actual location can make a constitutive difference to one's locational ideas.[16] Meanwhile, certain descriptive names need not have a conception of location as integral at all. Consider the descriptive name 'Julius', introduced by way of the description 'the unique inventor of the zip'; it may express a passable idea because it is *a priori* associated with being the unique inventor of the zip, which in turn (according to Evans) allows one to grasp what it would take for any given identity claim involving Julius and a fundamental idea to be true.

Some features of the resulting view are worth stressing.

First, there is no causal constraint on singular thought. For example, he allows that in some cases one has a singular thought about *o* without having been causally impacted by *o*, but instead by being dispositionally connected to *o*. One can have thoughts about various places with which one has never been causally engaged, as long as they are represented on one's cognitive map—a map hooks on to real space thanks to the dispositional profile that it subserves. And one can have thoughts using a term whose reference is fixed in an entirely descriptive way; e.g. 'Julius', which has its reference fixed by 'The inventor of the zip'. These satisfy the epistemic criterion and so count as ideas of objects in Evans' taxonomy.

Second, Evans endorses a distinction between object-dependent referential terms and non-object-dependent referential terms. While he is quite happy to advocate a

[16] Evans has similar things to say about recognitional ideas—the fact that an idea is an idea of a particular sheep may be grounded in the fact that it enables one to recognize a particular sheep—the existence of a duplicate sheep far away will not impugn this recognitional ability. (See p. 282.) By analogy: the existence of distant barn facades does not destroy one's knowledge that there is a barn nearby.

referential rather than a quantificational treatment of 'Julius', the idea associated with it would be available for use in truth-evaluable claims even in the absence of referential success. In this way the idea of Julius contrasts with ideas that would not be expressible unless they were ideas *of* something. An example of the latter sort would be John's dispositional idea of a location discussed above. In the example given, John's idea is unproblematic; but suppose instead that despite seeming to have the relevant dispositions, he actually lacked them altogether. (Evans gives the example of a brain in a vat.)[17] In that case, he would fail to express thoughts with certain sentences involving 'there'.

There are other cases in which, according to Evans, someone might attempt to have a thought about something but fail. One of his most famous examples is one in which a subject witnesses two steel balls in succession, and has his memory of the first destroyed by amnesia. Many years later, the subject reminisces about 'that shiny ball' in a way that is in fact causally linked to the encounter with the second ball. We are to suppose that the person cannot 'produce any facts which would discriminate the two' and in particular does 'not think of distinguishing the ball he is thinking of as the ball from which his current memory derives'.[18] (If the subject were thinking of the ball in this latter fashion, he would have some descriptive means for identifying the ball, and hence grasp some descriptive test for whether thoughts of the form ⌜That ball = α⌝ are true.) In this case, Evans concedes that it is natural to talk as if the subject is speaking and thinking of the second ball. However, his view has the consequence that the subject does not in fact succeed in thinking a genuine thought by the mental episode he would express by 'That ball was shiny'.

Another point worth noting about this case is that, by Evans' lights, the subject would not succeed in thinking about the ball even if he attempted to distinguish the ball as the ball referred to by the expression 'That ball'. This attempt would fail for at least two reasons. First, the associated idea, so construed, could not explain how 'That ball' gets to pick out the ball that it does; but for descriptive associations to subserve discriminating knowledge they should play this explanatory role. Second, Evans is not willing to allow that we have a primitive grasp on what it takes for an expression to refer to an object, so we cannot presume an understanding of what it takes for it be true that the ball is referred to by 'That ball'. Such an understanding has to be earned.[19]

[17] Ibid., p. 153.

[18] Ibid., p. 90.

[19] Here are two further examples of what, by Evans' lights, are unsuccessful attempts at singular thought: (a) Suppose someone says 'This is heavy' when feeling a strong tug at the end of his fishing line. In fact there is both a statue and a lump at the end of the fishing line. Here the person may succeed in associating a location with 'This'. But if he does not have in mind a pecking order for reference in cases of multiple co-location, then he cannot be credited with having referred to one particular object with the idea expressed by 'This'. (b) According to Evans, one cannot coherently think that upon having one's brain divided one would survive as one of the hemispheres if 'no fact of the kind normally relevant to judgments of identity can discriminate between the two resulting persons' (p. 16). Given the above, his reason for saying so is predictable: in such a case one would not know what it would take for judgments like 'I am identical to Lefty' to be true.

As this example vividly illustrates, Evans is not afraid to diverge from ordinary belief ascriptions. After all, it seems true to say, 'The subject is thinking of the second ball that it is shiny.' This raises the question: how would he evaluate such ascriptions for truth? Two possible answers are available. First, he could claim that the ascription is simply false. Second, he could distinguish between the fundamental relations in the vicinity of thought—thinks+, entertains+, and so on—and the somewhat more gerrymandered and liberal relations expressed by the ordinary predicates 'thinks' and 'entertains'. The idea would be that while it is true that the subject thinks of the ball that it was shiny, he does not think+ of the ball that it was shiny.

On these matters, Evans is somewhat slippery. Certain of his comments suggest the first view; for example, when he claims that in such cases 'the deliverances of untutored linguistic intuition may have to be corrected in light of considerations of theory'.[20] In contrast, he elsewhere says that while 'such a person could sensibly be described as having a belief', this kind of belief ascription is closely tied to the subject's disposition to utter sentences of a certain sort; and therefore 'the substantive question of whether the speaker can entertain thoughts about the referent' is left untouched.[21] This, of course, suggests something more akin to the second treatment of ordinary ascriptions; or perhaps he has in mind a third view according to which, in some contexts the ordinary term 'thinks' expresses the theoretically crucial relation thinks+, but in others a more lenient and less interesting relation.

3.3 Objections

While Evans's discussion is rich and suggestive, we shall now outline some severe misgivings about its cogency. (We do not suppose that the brief reflections that follow will suffice to convert Evans' disciples; but they will at least serve to demarcate the key philosophical pressure points.)

(i) First, his view is antithetical to the idea that we can think thoughts about objects or properties by exploiting referential mechanisms that are not somehow constituted by epistemic capacities.[22] For instance, he would not allow that one could think about a particular object thanks to one's thought standing in the right kind of causal relationship to that object, unless one was realizing that such a relationship obtained. It is precisely for this reason that Evans must deny that there is any steel ball that the subject is thinking about in the example above. This is one of a whole class of counter-intuitive results that can be obtained by reflecting on cases where an extra-cognitive causal connection is at play.

[20] Ibid. p. 76.
[21] Ibid. p. 401.
[22] In this way, we think he does not adequately distance himself from Dummett's assumption that a 'robust' account of the truth conditions of a sentence must require that a speaker 'manifest' his grasp of those truth conditions. See e.g. Dummett, *Elements of Intuitionism*, pp. 373–6. A full discussion of the relevant issues is beyond the scope of this monograph.

For instance, suppose David walks into a crowded restaurant in which there is a very clear mirror along one wall. Looking into the mirror, he wrongly takes himself to be looking at another area of the restaurant, and he sees a waiter with a red shirt. He forms a demonstrative belief that he expresses by 'that waiter with the red shirt is annoying'. (As with the two balls case, let us assume that David does not think of the referent as causally linked in a certain way to his thought.) In this case it is highly implausible to deny that he is thinking about the waiter in the red shirt. And yet Evans' criteria for demonstrative identification risk disallowing that the would-be singular thought is successful: the cognitive skill in which the demonstrative identification is grounded requires a subject to keep track of an object spatially (174). Thus, demonstration requires the subject to properly *locate* an object in space, lest he fail to know what it would take for the thought that *that* object is the object *there* to be true. In the mirror case, for example, David would move in the wrong direction if he intended to approach the waiter. He will thus not count as knowing which man he is seeing in the mirror, and thus the waiter in the red shirt is not an object of David's thought. The problem, by Evans' lights, is that the mirror introduces an extra causal step between the subject's cognitive tracking system and the object, without a corresponding adaptation in the system itself.[23]

(ii) Aside from the counter-intuitiveness of such cases, there are more general reasons to doubt that this banishment of extra-cognitive referential mechanisms can be plausibly sustained. Consider our thoughts about characteristics such as shape and color. Evans takes recognitional dispositions to play a vital role in an account of how our concepts of such features get to appear at the level of judgment. But, as Kripkenstein has emphasized,[24] such dispositions will not—unless specified in a way that trivially presupposes that one is thinking about a particular feature—suffice for cognizing that feature as opposed to myriad features whose extensions also 'fit' one's dispositions. It is doubtful that anything like a cognitive skill could fill the gap, since the very same objections would apply. But a semantically externalist solution that is skill-transcendent will, by Evans' lights, mean that ordinary folk do not count as knowing what it takes for, say, something to be red. (For example, it has been speculated by David Lewis and others that there is a fundamental principle of reference that *ceteris paribus*, peoples' thoughts are 'magnetized' to the most metaphysically natural of a number of reference candi-

[23] It is a delicate matter to discern, on Evans' view, in which cases the available discriminatory capacities in play suffice for singular thought. Obviously, the demand cannot be too stringent lest the theory turn out utterly bizarre. For example, it is important that one can think singular thoughts about a telemarketer with whom one is speaking. (Though admittedly, it would be nice if one could always truly say in such a case, 'Sorry, I just cannot think about you right now'.) Evans would no doubt wish to say that one has a non-fundamental idea of the telemarketer such that one grasps the truth conditions for propositions relating that idea to fundamental ideas. It is by way of such an idea that one does succeed in having singular thoughts about the telemarketer. Since the relevant sense of grasping such truth conditions is—as we shall urge—rather elusive, we find it hard to make judgments on Evans' behalf.

[24] Kripke, *Wittgenstein on Rules and Private Language*, especially pp. 20, 26–37, 58.

dates, regardless of any knowledge on their part about naturalness. This sort of reference-constituting mechanism is utterly anathema to the spirit of Evans' approach.)

(iii) Another doubtful assumption of Evans' framework is that social aspects of meaning are not utterly pervasive. Suppose it turns out that which feature is picked out by one's idea of redness depends on semantically relevant facts about one's community. So, for example, whether something close to the borderline of orange counts as satisfying that idea is settled by the dispositions of the community as a whole. Then it is hard to see how one's ability to make judgments about redness is to be explained in terms of one's ability to distinguish red things, or any other cognitive skill.[25] One might attempt to cordon off this phenomenon by separating out 'deferential' terms whose meaning is somehow fixed by thoughts like 'Let "red" refer to what most of the color experts . . . ' But the social determination of meaning may extend even to what is meant by 'my community' and so on. If this phenomenon is pervasive enough, the idea that an individual's ability to have thoughts about a feature must be grounded in his discriminatory capacities rests upon a mistaken picture. A better picture would be that the ability to have thoughts about a feature rests on some complex interplay of capacities of the individuals in the community.[26]

(iv) Next, we are skeptical about several of Evans' metaphysical presuppositions. He seems to be committed to the incoherence of two objects of the same basic kind being in the same place at the same time.[27] But armchair prohibitions of this kind seem rather fantastic to us. Physicists are open to the possibility that certain kinds of fundamental particle might pairwise inhabit a certain location (thanks to the spin statistics theorem)—but surely, as philosophers we do not want to legislate on this matter.

Similar remarks apply to the diachronic case. Suppose two duplicate point particles begin at points A and B, then coincide for a while, then end up at points C and D respectively, where the laws allow both that it is A that ends up at C and also that B ends up at C. In a case like this it would be absolutely hopeless to try to contrive a qualitative criterion for what it takes for the particle at C to be identical to the particle that was at A. But it seems like posturing indeed to prohibit the thought that the particle at A is the one at C on account of our inability to 'know what it takes' for the particle at C to be identical to the particle at A.

[25] Let us not forget the problem of the many; whenever we demonstrate, there are myriad objects with slightly different boundaries forming a cloud of candidates for reference. On an epistemicist account of vagueness, there is a fact of the matter about which object is demonstrated, but that obviously cannot be grounded in cognitive skills in the way demanded by Evans' vision. Even leaving that aside, subtle social forces may bear on the range of reference candidates.

[26] Another worrisome development for his approach would be the success of a teleological theory of meaning on which conceptual content was at least partially grounded in evolutionary ancestry. On such a view, many of the facts that determine which objects or features one is currently thinking about are facts about one's distant biological ancestors. Short of resorting to the idea of skills and capacities that are partially individuated by their evolutionary history, such a view would be fatal to Evans' account.

[27] 'For any object whatever, then, there is what may be called the fundamental ground of difference of that object (at a time)' (p. 107).

(v) This brings us to the yet more foundational problem of getting a grip on the purported 'thick' understanding of knowing what it is for a thought to be true. Evans makes clear certain things that he does not mean by this. He is no verificationist—knowing what it takes for a thought to be true is not a matter of being able to divide perceptual movie reels into the ones that verify a thought and the ones that falsify it. Nor does it amount to being able to translate the thought into some canonical language that describes various possible worlds in a perspicuous way. After all, Evans is after a systematic account of what it is to grasp any thought, which will include giving an account of grasping the thoughts of the putative canonical language. Here a translational model would inevitably break down when it comes to an account of understanding since, by hypothesis, thoughts expressed in this language are the first link in the chain of understanding.

Evans is right not to rely on either of these models. But once one realizes that neither will do, it becomes clear that the relevantly thick notion of 'knowing the truth conditions' is desperately hard to nail down. So, for example, Evans seems to be open to the idea that one's understanding of a term might be grounded by some idea like 'the thing causally responsible for such and such'. Here he does not much question our grip on the concept of causation—he takes it that our basic recognitional and inferential capacities give us a grip on what it takes for *x* to cause *y*—a conceptual capacity that we can then combine with others to give us an understanding of what it takes for causal phrases of the form 'the thing responsible for such and such' be to true. But he takes a very different attitude to 'identical to' and 'different from'. If he were willing to allow that our recognitional and inferential repertoire gave us a handle on the concepts '*x* is identical to *y*' and '*x* is distinct from *y*', then he would have to allow that we can understand such thoughts as 'The person in the room today is identical to the person in the chair tomorrow' without having to ground such an understanding on any qualitative criterion of personal identity. But it is rather unclear how Evans is ultimately sorting between concepts whose understanding requires no further grounding in yet more basic concepts (like that of causation), and those whose status is sufficiently insecure as to require such a grounding (like those of identity and difference).

The putatively thick notion of 'knowing what it takes for p to be true' becomes yet further problematized when we take stock of the rich and complex factors that determine the semantic profile of a predicate. Take 'red'. Plenty of complicating noise enters into the application of 'red': things might be red on a certain percentage of their surface but not all; since indiscriminability of color does not entail identity of color, some things that are red will be indiscriminable from some things that are not; what shade something looks to have will depend on the objects that surround it and the medium (water, air, and so on) in which the object is presented. A picture that assumes 'red' is context-insensitive, and has its extension set by an emergent paint that users are able to recognize will do scant justice to the true complexity at work. In the face of these data, what exactly is the suitably thick test for 'knowing the truth conditions' that

an ordinary individual passes? We confess to being very much in the dark as to what the relevant test comes to.

(vi) Evans intends his account of understanding to generate an account of thoughts that makes their sameness and difference luminous in the following sense:

> Discrimination of Thought: If the *same* proposition is grasped via two presentations in thought, then one is in a position to know via reflection that they are presentations of the same proposition; and if two *different* propositions are grasped via two presentations, then one is in a position to know via reflection that they are presentations of different propositions.

Evans takes it that if ideas are used to individuate thoughts, then since one is in a position to know by *a priori* reflection whether two presentations are of the same or different ideas, then something like the discrimination principle above can be sustained. But it is far from clear that he succeeds in providing hope for this principle.

Consider, for example, his story about observational ideas, the grasping of which is grounded in recognitional capacities. Is there any reason to suppose that one is always in a position to know by reflection whether recognitional capacities match? Suppose there are two tribes A and B. A has a word 'warm', while B has a word 'chaud'. And the terms have ever-so-slightly different extensions and ever-so-slightly different associated recognitional capacities. Consider a bilingual person who acquires both capacities, and as a result acquires slightly different dispositions for 'warm' and 'chaud'. Must that person be capable of recognizing the difference between thoughts expressed by 'chaud' from those expressed by 'warm'? Of course she could try to run through cases in imagination, asking herself whether anything could be warm without being chaud or vice versa. But there is no *a priori* guarantee that one's actual dispositional capacities will match one's dispositions in imagination. The subject may not be in a position to recognize that the associated concepts issue from slightly different recognitional capacities; and thus even on the supposition that thoughts are individuated by 'ideas', she may not be able to distinguish the thoughts.[28] The point, as Fodor and others have noted, is that Frege puzzles can reoccur at the level of ideas/sense, pretty much whatever one's conception of sense.[29]

In sum, if the thick conception of understanding is being employed largely to save discriminability principles for thought, then we suspect the project is misguided because the goal is unachievable.[30] This consideration, coupled with the difficulty of

[28] Similar stories can be told for locational ideas. Suppose an idea of a place in egocentric space is tied to some real world location by my associated dispositions to move. One can construct cases where two egocentric demonstratives are tied to slightly different places without me being in a position to recognize this; and cases where they are tied to the same place without me being in a position to realize this.

[29] See e.g. Fodor, *Concepts: Where Cognitive Science Went Wrong*, pp. 17–21.

[30] Note that the liberal need not object to Evans' notion of immunity to error through misidentification. The basic idea is this. Suppose one judges that a is F by way of a thought of the form $\ulcorner a$ is $\phi\urcorner$. If this judgment was arrived at by two prior thoughts, one of the form $\ulcorner a$ is $\beta\urcorner$ and one of the form $\ulcorner \beta$ is $\phi\urcorner$, then one's error can stem from being mistaken in either of these thoughts. But if the thought that a is F is not based on any identity judgment, then any error in that thought cannot be traced back to a mistaken identity judgment

crafting a clear notion of thick understanding and grounding it in epistemic capacities, leaves us no less suspicious of the epistemic acquaintance approach.

3.4 Knowledge of existence

Leaving Evans' ambitious project behind us, we turn now to two more lightweight acquaintance requirements. Both requirements involve knowledge of existence. The first version links having a singular thought with knowing that its object exists. The second links understanding a referential term with knowing that its referent exists.

Consider the following argument:

A1. If one has a singular thought that *p*, one is in a position to know that one is thinking that *p*.

A2. If that *p* is a singular proposition about *x* and one knows that one is thinking that *p*, then one is in a position to know that *x* exists.

Therefore:

1st Existence Principle: In order to entertain a singular thought about *x*, one must be in a position to know that *x* exists.[31]

We do not find this argument very persuasive, primarily on the grounds that it fails in the face of the safety-theoretic consequences of knowledge.

The idea that knowledge involves safety is roughly this. If one's belief could easily have gone wrong, then it does not constitute knowledge. In particular, if there are close situations in which one has a suitably similar false belief, then the original belief is not a piece of knowledge.[32] But the near danger of false belief is not the only kind of

about *a*. Thus, such a thought is 'immune from error through misidentification'. Evans then introduces a narrower category of judgments that are immune 'in the narrow sense' by adding the additional requirement that the judgment be grounded in perceptual information channels from the object. He then points out that singular knowledge that is immune in the narrow sense has a foundational status in our epistemic lives. (Note that immunity is a property of individual judgments, not of contents.)

As liberals about singular thought, we are free to accept all this. Rather obviously, beliefs that are not formed by way of some type of inference are immune to errors stemming from a mistaken inference of that type. And given that there are perceptually-based singular thoughts not derived from identity judgments that play a foundational role in our epistemic lives, such thoughts will be immune to errors due to false identity judgments (in the narrow sense). Nothing about liberalism vitiates this reasoning. (For example: suppose we hold that in the shiny ball case the amnesiac does succeed in thinking thoughts about a ball using 'That ball'. Then those judgments are immune to error through misidentification in both the wide and the narrow sense.)

[31] We will set aside issues involving the tense of 'exists', and address only the weaker form of the conclusion, in which 'exists' is treated as tenseless.

[32] The relevant dimension of similarity will be sensitive to the way in which the beliefs are formed. For some further discussion on safety and knowledge, see Cohen, 'Contextualism and Skepticism', pp. 94–107; DeRose, 'Solving the Skeptical Problem', pp. 1–52; Sosa, 'Relevant Alternatives, Contextualism Included', pp. 35–65; and Williamson, *Knowledge and its Limits*.

danger that can undo knowledge. Suppose John thinks that what David is saying is true, even though he does not hear what David is saying. Suppose further that David nearly said 'What John is thinking is false'. The threat of paradox in near beliefs is just as destructive to the positive epistemic status of John's actual belief as the threat of falsehood. Or suppose that in a scenario where there is an epistemologically relevant risk of total hallucination, one sees a chicken and says 'That chicken exists'. As a matter of fact, one believes something true. We may also suppose that the subject could not easily have believed something *false* with a counterpart of this thought. But if one might easily have tokened a paradoxical or semantically *empty* counterpart thought, that suffices to deprive the actual belief of the status of knowledge.[33]

Let us call a counterpart of an actual belief a 'failed belief' if it is false, empty, or paradoxical. What we have just seen is that if there are relevantly similar scenarios where the counterpart of an actual belief is any kind of failed belief, then the actual belief is not a piece of knowledge. If this is so, the argument for the first existence principle collapses: one or the other of the premises is false, depending on how one treats attempted singular thoughts that fail to refer.

To see this, consider a case where one thinks a singular thought about some x in a situation where one might easily have employed a counterpart thought that fails to refer. For example, one successfully thinks 'That is a chicken' where one could easily have been hallucinating. Then we face the question whether such a counterpart thought would have been semantically empty.

Suppose first that it would have been. In that case, even though one actually succeeds in thinking the singular proposition expressed by 'That is a chicken', one's belief is not safe in the relevant sense because it has failed counterparts. For the very same reason, the belief one expresses by 'I am having the thought that *that* is a chicken' will likewise not be safe. For in close worlds where nothing is demonstrated by 'that', this more complicated thought will not have any semantic value either. Thus, premise (A1) is false, because one can have a singular thought but be unsafe in the belief that one is having that thought.[34] (It does not follow that if one's singular thought could easily have been *about something else* without one's noticing the difference, the belief

[33] For further discussion, see Manley, 'Safety, Content, Apriority, Self-Knowledge', pp. 403–23. See also the excellent discussions in Sainsbury, 'Easy Possibilities', pp. 907–19, and Weatherson, 'Luminous Margins', pp. 373–83. Both argue that safety should not merely rule out close worlds where the very same proposition is believed falsely. For further discussion of cases involving content-switching and demonstratives, see Brown, 'Reliabilism, Knowledge, and Mental Content', pp. 115–35, and Pryor, 'Comments on Sosa's 'Relevant Alternatives, Contextualism Included'', pp. 67–72.

[34] If one *is* safe in the meta-belief, will this put one in a position to conclude that *that* chicken exists? In other words, is (A2) true on this view, even if (A1) is false? We have chosen not to address this issue here, as it does not bear on the question whether there is a general epistemic constraint on singular thought. However, if introspection typically yields the relevant sort of meta-knowledge about one's singular thoughts, (A2) leads to a puzzle. Much ink has been spilled on related puzzles for 'semantic externalism'. See Manley, 'Safety, Content, Apriority, Self-Knowledge', sec. 4 for a safety-theoretic treatment of this version of the puzzle. The seminal papers raising the relevant puzzles are: McKinsey, 'Anti-Individualism and Privileged Access' and Boghossian, 'What the Externalist Can Know a Priori'.

that one is thinking that P is unsafe. If David points to someone on a podium and says 'I am having that the thought that *that* man is on a podium', nearby situations where a duplicate of that man is on the podium do not constitutive a safety-theoretic threat. This is because David's counterpart beliefs in such situations are *true*.)

Suppose instead that one adopts a view where close counterparts of a singular thought can be contentful even if there is no associated object. (Set aside whether one chooses to call those counterparts 'singular thoughts'.) One might hold, for example, that 'Atlantis' is contentful even though it fails to refer; so that one can truly say that someone is thinking that Atlantis is Atlantis, even though there is no place to serve as the referent of 'Atlantis'.[35] On such a view, if (A1) is true, then (A2) will be false. For it will follow from (A1) that in the near-hallucination case one can know one is thinking that *that* is a chicken. On the view we are currently considering, this can be treated as safe on the grounds that in close worlds where one is hallucinating, one nevertheless truly believes what one expresses at that world by 'I am thinking that *that* is a chicken'. But deriving the belief expressed by '*That* chicken exists' will not yield a safe belief. Had there been no chicken, then even on this sort of semantics, the latter belief would have been false. Or again, suppose that thoughts employing 'Julius' succeed in referring to the inventor of the zip. Then if (A1) is true, one is in a position to know that one is thinking about Julius, even if in a close world 'Julius' fails to refer. However, the actual belief that Julius exists will not be safe, since in close worlds where 'Julius' fails to refer, it will be false. Thus, (A2) is false.

3.5 Understanding and knowledge

A more subtle argument connects *understanding a referential term* with knowledge that the referent exists:

B1. If *t* is a contentful referential term, then to understand *t* (as it is used on some occasion) requires that, for some *x*, one understands that *t* refers to *x*.
B2. If, for any *x*, one understands that t refers to *x*, then one knows that t refers to *x*.
B3. If, for any *x*, one knows that t refers to *x*, then one is in a position to competently deduce, and thereby come to know, that *x* exists.

Therefore:

2nd Existence Principle: One can understand a referential term *t* (as it is used on some occasion) only if, for some *x*, one is in a position to know that *t* refers to *x* and that *x* exists.

[35] One source of inspiration might be free logic, which allows that sentences containing non-referential terms can express truths. Or one might combine the view that ordinary uses of 'Atlantis' have a sense but no reference with Frege's idea that when 'Atlantis' appears within the scope of an attitude ascription, the ordinary sense of 'Atlantis' now functions as its referent.

Two things are important to note about this principle straightaway. First, it is not an epistemic constraint on singular thought, but an epistemic constraint on understanding a referential term. Thus, the conclusion is not incompatible with liberalism.[36] Second, the argument does *not* show that one is in a position to know, with respect to any term one uses, whether or not it is a referential term. The conclusion does not rule out cases where t is referential and one wrongly takes oneself to understand it; or where t is not referential and one wrongly takes it to be so.

One way of challenging this argument is to postulate a category of referential terms that can be contentful even if they fail to refer—so called 'non-Russellian referential terms'. Evans provides a model for such a category in his account of descriptive names. He proposes the following semantical clause for 'Julius':

∀x 'Julius' refers to *x* iff *x* is the unique inventor of the zip.[37]

Suppose that understanding 'Julius' merely requires knowing the truth of that clause. Then (B1) would not seem plausible for 'Julius'. After all, one could know the truth of the crucial clause while remaining quite agnostic about whether there was any *x* such that 'Julius' referred to *x*.[38] We will for the moment set aside semantics that are conducive to free logic in this way.[39] So let us assume, for the sake of argument, that there are at least some terms whose very contentfulness requires that they refer, and evaluate the argument as applied to that category of terms.

[36] Is there an argument from the second existence principle to the first? This would require a premise to the effect that, in order to have a singular thought about an object, one would need to understand a term that refers to that object. If there can be singular thought without language of any sort—even mental language—such a premise is doomed. But even given a pervasive Mentalese, it is far from obvious what it would be to understand a Mentalese term.

[37] As Evans is well aware, this clause allows for a free logic with bivalence. Assume that 'Julius is happy' is true iff there is an *x* such that *x* is referred to by 'Julius' and 'is happy' is satisfied by *x*, and false otherwise. Then we get the result that 'Julius is happy' is false if it turns out that there is no unique inventor of the zip. Note though that if bivalence is to be maintained across the board, one will need to give a compositional account that will generate truth values for the various kinds of embeddings for 'Julius'. Modal contexts and belief contexts are important starting points: what truth conditions are we to assign to 'Jones might have believed that Julius was Jerry Fodor', 'Julius might not have invented the zipper' and so on, on the supposition that 'Julius' does not refer?

[38] Note further that while Evans is quite restrictive about the range of non-Russellian referential terms, one might be tempted to extend their ambit once one breaks free of other aspects of his program. Suppose David says 'You are late' in a situation where he is hallucinating an addressee. Consider the following semantical clause for 'you': ∀x 'you' refers to *x* on an occasion iff *x* is the addressee on that occasion. We might then combine this with the rule: 'You are late' is true iff there is something referred to by 'you' that 'is late' is true of, and false otherwise. From these we can conclude that in this case 'You are late' is false. (We are pretending that 'you' is never used to refer to more than one person.) We suspect Evans would complain that David does not, in the relevantly thick sense, *understand* what he is saying on that occasion. But this kind of objection will not move those who are suspicious of the demand for thick understanding (though they may be potent objections of a different sort).

[39] Here is one challenge of many that can be offered. Suppose that, in a Montagovian fashion, one treats semantic truth as the compositional output of function-argument application, and the semantic values of predicates as function from objects to truth-values. Then, unless one supplies a semantic value for a name, the tree of function argument-application would break down at a node where the empty name combines with a predicate—the name having supplied no argument for the function expressed by the predicate. We touch on this and related issues in Chapter 5.

Let us begin by discussing the premises to which we are sympathetic: namely, (B2) and (B3). Premise (B2) is intuitively appealing in its own right, but can be additionally strengthened by noting that it uses 'understanding' to express a factive stative propositional attitude. We are persuaded by Timothy Williamson's case for the general principle that all such attitudes entail knowledge.[40] Meanwhile, (B3) articulates the idea, standard in epistemology, that competently deducing a conclusion from a single known premise is a surefire way of coming to know that conclusion.[41]

Both of the transitions enshrined in these premises, however, are of a sort that tend to make epistemic danger more salient. Take the transition involved in (B2), from understanding that *p* to knowing that *p*. If we ask whether someone understands that the train is coming at six, we typically want to rule out some sort of confusion on the part of the subject—hence the use of the specialized epistemic verb. If we revert to the more general epistemic state, and ask whether someone knows that the train is coming at six, we are more likely to pay attention to a more general range of possible epistemic failures.

This sort of phenomenon is noticeable in the case of several other factive stative attitudes. For example, if John says he is happy that life is not a dream, one is far less likely to have skeptical doubts in the forefront of one's attention than if John says he knows that life is not a dream. This is likely because in the first context much of one's attention is drawn to contrast cases in which John would instead prefer life to be a dream. What John says would still be falsified by epistemic failure—it would be false if he did not know that life is not a dream—but such possibilities form a less interesting and less salient set of the worlds that are being excluded by the utterance. The same thing can happen with 'remembers that'. If someone says, 'I remember that David likes tequila', we tend to pay special attention to the speaker's emphasis on the *source* of her present knowledge. If she says instead, 'I know that David likes tequila', this is more likely to bring the possibility of knowledge failure into salience—if only because it is the only situation incompatible with her claim. This phenomenon is not, to our mind, a compelling reason to doubt that factive stative attitudes entail knowledge.

Next, consider the transition involved in (B3), from knowing that *t* refers to an object, to knowing that the object exists. Here again the transition may make us uneasy. Why is this? The first and more specific piece of knowledge concerns a connection between a term and an object. In many contexts, the most salient scenarios

[40] Williamson, *Knowledge and Its Limits*, ch. 1.4.

[41] We are not fussing about the small logical gap between the principle that competent deduction extends one's knowledge and the principle in the text. The principle in the text, while excellent when taken as a generic, is arguably false when taken as a strict universal generalization: if one is deductively incompetent, then knowing the relevant premise might not put one in a position to competently deduce the relevant conclusion, because of the fact that such knowledge does not fix one's incompetence. We are setting this issue aside because we do not think that this gets to the heart of what is wrong with line of thought expressed by the argument.

in which a belief about such a connection goes wrong are scenarios in which the term and object are present, but the relevant connection does not hold. If the subject has averted significant epistemic dangers concerning cases of the former kind, the more specific belief may seem quite safe. But when we move to a simple belief about the *existence* of one of the relata, a new set of threats becomes most conspicuous. In short, while we take ourselves to know the first proposition, it entails another proposition that, when reflected upon, makes skeptical doubts much more salient.

Such entailments are, of course, extremely common. The epistemological literature is rife with them: that one has hands entails that one is not a brain in a vat; that one will be at the movies tomorrow entails that one will not have a sudden fatal heart attack today; that one will be unable to afford a certain vacation entails that one will not win the lottery. But whatever one says about these cases ought to carry over to the present case.[42] The skeptic concludes that, although the original premise in each case seems obvious, we do not actually know it. The conservative invariantist sticks to his or her guns and muscles through the skeptical doubts. The contextualist attempts a middle way by invoking context-dependence. And some reject epistemic closure. We will not reiterate this literature here. The point is that the situation is no different for the case of (B3). Thus, all those who accept (B1) and (B2) together with the relevant version of epistemic closure—whether skeptics, or contextualists, or conservative—will be committed to the argument's conclusion. But they will differ in their gloss on this result. The skeptic will add: 'So we do not ordinarily understand referential terms even though we think we do.' The contextualist will add: 'So there are contexts in which it will be false to say that people understand many ordinary Russellian referential terms.' And the conservative will add: 'We do usually understand referential terms and hence are in a position to know of some entity that it exists and is the referent of that term.'

This leaves (B1), which connects understanding *t* with understanding, for some object, that *t* refers to that object.

This connection does typically hold. Even if one encounters a name for the first time in conversation, we take it that one is typically in a position to know that the name refers, by way of a kind of testimony. Note that it is often conversationally unacceptable to employ a name discourse-initially that one's interlocutor has never heard before. The name must be introduced by saying something like, 'I have a friend named 'John''.[43] In such cases, one's knowledge that 'John' refers is straightforwardly grounded in testimony. But imagine a case where the speaker uses 'John' discourse-initially, but where the hearer is unfamiliar with it. In such a case, the speaker will typically be presupposing that the hearer already knows that there is a certain person called 'John'. The 'accommodation' of this presupposition by the hearer will, from an

[42] See the related discussion in Manley (2007), section 4.
[43] This phenomenon is discussed further in Chapter 6.

epistemic point of view, be very much like the acceptance of a claim through testimony.[44]

However, there are also counter-examples to (B1). Here it is helpful to notice a general asymmetry between conditions we describe with ⌜David Vs that S⌝, where V is a verb expressing a stative factive attitude, and related conditions we would describe with ⌜David Vs NP⌝. For example, contrast *seeing that there is a dog over there* with the related condition *seeing the dog over there*. The first condition appears to entail *believing* that there is a dog over there, while the second does not. Moreover, consider a case where David is perceptually confronted with a real dog, but unbeknownst to him he could easily have hallucinated a dog instead. (He is under the influence of a drug that induces dog-hallucinations.) And had that occurred, David would have falsely believed that there was a dog in the relevant location. Now, if we grant that knowledge is incompatible with epistemic danger of this sort, we must deny that David knows that there is a dog over there. And if *seeing that* entails *knowing that*, we must also deny that David sees that there is a dog over there. (This denial may seem less intuitive; but this fact can be explained by the considerations invoked in our discussion of (B2).) On the other hand, as long as things are actually going well with one's perceptual faculties, seeing the dog over there does not seem to be undermined by nearby cases of epistemic failure. If this is correct, seeing the dog does not entail *any* state of seeing that—because states of the latter sort can all be undermined by nearby cases of epistemic failure.

This contrast appears to generalize to related verbs: remembering or perceiving an object does not appear to entail, for any *p,* remembering that *p* or perceiving that *p*. We might therefore suspect that understanding a term *t* will not entail, for any *p*, understanding that *p*. And this is in fact borne out by similar examples. Suppose that David in the previous example dubs the dog he sees 'Rover'. Later he may say to John, 'I saw a dog yesterday and dubbed him "Rover". Rover was a nice-looking dog'. It is hard to deny that either David or John understands the name 'Rover'. But because of the close epistemic possibility of a failed belief, they do not know that 'Rover' refers to Rover, or even that 'Rover' refers. And since *understanding that* is a species of *knowing that*, they do not understand that 'Rover' refers to Rover either.[45] (Likewise, suppose David says 'That is a nice dog'; it is implausible that he does not understand 'that' as he uses it on this occasion.) It follows that understanding 'Rover' cannot require understanding—or knowing—that 'Rover' refers to Rover, or even that 'Rover' refers.[46]

[44] Of course, if the hearer is a mere eavesdropper, the speaker will not be presupposing that the hearer is familiar with the referent. Even here, it seems, the hearer will often be put in a position to know that the term refers, though not always. (If, for example, the eavesdropper cannot even tell whether he is merely listening in on a story, then arguably he cannot thereby come to know that the term refers.)

[45] Again, if the denial of understanding seems less intuitive than the denial of knowledge, see the potential explanation in our discussion of (B2).

[46] If this is correct, we must jettison at least one straightforward interpretation of the maxim, 'Understanding a term requires knowing what it means', applied to singular terms.

Here it may be tempting to offer a weaker existence principle. Perhaps understanding *t* requires, for some *x*, a *belief* that *x* exists, rather than a piece of knowledge to that effect. In the case just described, for example, the subjects believe that Rover exists (if only tacitly). However, we are doubtful even about this principle. Consider a skeptic about numbers who does not think that 'two', used as a name, refers. Such a skeptic does not believe of any *x* that 'two' refers to *x*. Neither does she believe that there is some *x* such that 'two' refers to *x*. Even supposing that she is wrong and 'two' is a Russellian referential term, are we to think that she does not *understand* it? It is hard to take seriously the suggestion that, for example, Hartry Field does not understand the arithmetical part of natural language.[47] So even an existence principle in terms of belief appears to be overkill.[48] (Note that an analogous belief principle is hopeless for *seeing NP* and *remembering NP*. For example, one can obviously see a dog while believing that one is hallucinating.)

In conclusion, we are skeptical of the idea that understanding a referential term requires knowing (or even believing) of some object that it exists. But this is not because we are liberals; after all, the principle concerns what it takes to understand a referential term, not what it takes to have a singular thought. As we have seen in the rest of this chapter, the prospects for an epistemic constraint on singular thought are even more dire. We conclude that liberalism escapes unscathed from attempts to spell out acquaintance in epistemic terms.

[47] This point is made regarding alleged epistemic constraints on understanding logical terms in ch. 4 of Timothy Williamson's *The Philosophy of Philosophy*.

[48] None of this is to deny that understanding a referential term puts one in a position to *think about* its referent—though one may not actually do so—if only by exploiting some public or private tag for that referent which one then uses to think about it. (Split acquaintance theorists will deny this claim if they hold that we *understand* the terms we use to refer in the absence of singular thought.)

PART II

Beyond acquaintance

In Part I we rejected acquaintance constraints on singular thought. We turn now to natural language semantics and ask: as liberals, what should we take to be the genuinely referential elements in language? In Part II we will examine some positive semantic proposals that become natural once we have given up acquaintance-theoretic constraints.

We will focus on four kinds of noun phrases that are used to talk about particular individuals: indefinite descriptions, definite descriptions, demonstratives, and proper names. All of these expressions, we will argue, admit of uses that bear some of the hallmarks of reference sketched in the Introduction, as well as uses that do not. In fact, for each of these expression-types, an ambiguity theory has been proposed on which some instances are paradigmatically referential tags, while others are quantifier expressions (or parts thereof). Nevertheless, we will be exploring a picture that offers not only a unified treatment of the various uses of each expression type, but a surprising degree of semantic uniformity among the various expression-types themselves. On the hypothesis we will be defending, specific indefinites, definite descriptions, and demonstratives are all alike in their truth-conditional contributions, differing only in their presuppositional profiles. And while proper names must be treated somewhat differently, their so-called 'predicative' and 'referential' uses are not as unrelated as philosophical orthodoxy would have it.

Here is the plan for the rest of the book.

In Chapter 4, we look at the phenomenon of specificity for indefinites and consider three views about it. Our preferred view is that specific uses of indefinites involve a special class of domain-restricting elements that we call *specific restrictors*. In some cases, these restrictors cause indefinites to exhibit some of the characteristics of referential terms.

In Chapter 5, we note that definite descriptions require specific restriction as a matter of convention, and explore the consequences of this fact for three major theories of definite descriptions. We argue for a view on which definites are much like specific indefinites: they are existential quantifier phrases whose domain is presupposed to be restricted to a single individual (or plurality). That is, they are what we

call *specific existentials*. In fact, definites differ from specific indefinites only on the precise nature of the relevant presupposition.

In Chapter 6, we consider demonstratives and proper names. We begin by arguing for a semantically unified treatment of demonstratives on which they are also specific existentials with their own distinctive presuppositional profile. We then turn to the category of proper names and their various uses. While we reject a predicative view of all proper names, we propose an intermediate view that achieves more semantic uniformity than the orthodox view. In doing so we will emphasize issues that are of special importance to philosophers—such as acquaintance, belief attribution, and modality.

There are various things we do not aim to do in this book. First, we will not be presenting entirely new semantic theories for these expressions. For the most part, we will be refining and building upon views that have already been proposed individually for each type of expression.[1] Second, though we will weigh our preferred view of each expression against some natural alternatives, we do not aim at an exhaustive overview of the available views. Nor do we intend to tie up all the loose ends that inevitably arise for such accounts, or to answer every objection that might be made. Instead, we have two main goals. The first is to make a modest case in favor of a largely unified semantic picture of all four types of expression. The second is to rethink philosophical orthodoxy about reference and singular thought in light of the emerging semantic picture of the expressions we use to talk about particular individuals. We think the orthodox taxonomy of referential expressions rests on shaky foundations, as does the popular emphasis on overt referential devices in the communication of singular thoughts. For those who have abandoned acquaintance-theoretic constraints, there is a more natural way of carving the semantic and cognitive joints.

[1] In particular, on specific indefinites our account builds on that of Roger Schwarzschild, 'Singleton Indefinites'; on definites we combine ideas from various theorists including Paul Elbourne, Stephen Neale, Craige Roberts, and Zoltan Szabó; and on demonstratives we are heavily indebted to Jeffrey King, *Complex Demonstratives*.

4

From the specific to the singular

4.1 Indefinites: preliminary observations

An indefinite description such as 'a cat' will often exhibit just the semantic behavior one would expect if its meaning were entirely captured by the idea that 'a' expresses existential quantification and 'cat' expresses cathood (or the closely related idea that 'a cat' expresses cathood and existential quantification can be supplied by an unvoiced quantifier).[1] But indefinites can also exhibit behavior that does not fit well with that picture—a fact that has fostered dozens of papers and an abundance of semantic proposals attempting to account for it. We will not be reviewing that literature here; but we will begin with a brief exposition of three types of 'exceptional behavior' that indefinites can exhibit. (We will for the moment set aside modal and attitudinal environments.) Though our primary interest is in the first two kinds of behavior discussed below, we describe all three because of possible theoretical connections among them.

(i) *Plain specific uses.* Sometimes, in using an indefinite, there is a specific individual whom the speaker is talking about—at least in some broad sense of that phrase. Suppose someone says:

1. A friend of mine is absent

in a setting where it is perfectly obvious that some of her friends are present and some are absent. She is clearly talking about a specific friend, and it is perfectly in order to ask, 'Which friend?'. Indeed, she might have followed up (1) with '—namely, Maria'. In contrast, there are plenty of settings in which indefinites are not being used in this way. For example:

2. One day I will meet an astronaut—maybe even two or three!
3. Have you ever killed a man?[2]

[1] Just as there are unvoiced quantifiers accompanying bare plurals. (Existential: 'Birds are singing on the roof'; generic: 'Birds have scales on their feet'.) See §4.10.ii.

[2] Also: 'John has never met an astronaut'. This is not to say that it is absolutely impossible to find contexts where these indefinites might be heard as specific.

In a typical case, there is no astronaut being discussed when someone utters (2), and no particular man at issue when someone utters (3). The question, 'Which astronaut/man are you talking about?' would be out of place.

We might take this a step further. Sometimes, in using an indefinite, the speaker puts her audience in a position to assume that she intends to be talking about a specific individual. Suppose someone says

4. Yesterday at the bar I ran across a guy I know, and we discussed politics.

And suppose further that we happen to know that she ran across three guys she knows, and talked about politics with each of them. This by itself does not make (4) problematic. We can ask, 'Which one are you talking about?' But suppose that in fact the speaker had not in any way settled on one guy to be talking about. She simply wanted to communicate the existential truth that there is at least one guy she knows whom she ran across yesterday, and so on. So she says, 'Oh, I wasn't talking about any one of them in particular.' In this case, something has gone wrong in our communicative exchange. We took ourselves to be in a position to assume that the speaker was talking about a specific individual, and to the degree that her utterance licensed that assumption, it was misleading.

Additionally, one's sense that the speaker is talking about a specific individual can survive when the indefinite is embedded in a wide range of linguistic environments. Thus:

5. Is a certain friend of mine absent?
6. If a certain friend of mine were absent, I would be shocked[3]
7. It is not the case that a certain friend of mine is absent.

These will typically convey not only that the speaker has at least one friend, but that the speaker is talking about exactly one friend.[4] (We will return to the question of what role, exactly, 'certain' is playing here.)

It can be tempting to hold that a speaker's intention to talk about exactly one individual is reflected in the truth conditions of such utterances. Suppose that in uttering (1), the speaker is talking about Maria, but Maria is present. If a bystander knows this, she can reply by saying, 'Actually, she is here: you just didn't see her'. Moreover, many will intuit that the original speech is false.[5] Likewise, suppose the speaker of (6) is talking about Maria. In that case the truth-conditions of her utterance intuitively concern her degree of shock at the closest worlds where her actual friend *Maria* is absent.[6] (Notably, in neither case do we get the relevant truth conditions by

[3] Cf. Fodor and Sag, 'Referential and Quantificational Indefinites', p. 369.

[4] We say 'typically' because we doubt that (6) will always convey that the speaker has an actual friend. See §4.6.ii.

[5] That is, the bystander is actually disagreeing with what David said, and not simply rejecting what he takes to be the evidential grounds for David's assertion. For more on such intuitions see Donnellan, 'Speaker Reference, Descriptions, and Anaphora' and the discussion in King, 'Are Indefinite Descriptions Ambiguous?'.

[6] We will later return to the issue of when the predicative material in a specific indefinite is actualized. (See §4.11.)

treating the indefinite as an unadorned existential quantifier, though we will later consider a pragmatic explanation of the relevant data.)

Theorists will sometimes describe a speaker as 'having someone in mind' while using an indefinite.[7] This is a suggestive locution, but we offer two caveats. First, the ordinary notion of *having x in mind* should not be tied to the philosophical notion of *being acquainted with x*. Thus one can say

8. A brave Union soldier is buried here, along with many others

and count as 'having in mind' the first Union soldier to die in the Battle of Shiloh, even if one bears no acquaintance relation to the soldier. Second, we suspect that the notion of 'having in mind' is too contextually shifty to bear much theoretical weight. For example, suppose a detective is investigating a serial killer, but does not have any suspects. She comes upon the scene of a bank robbery and decides that it was the serial killer who robbed the bank. She says:

9. A (certain) criminal is responsible for this robbery.

Does she have someone in mind as responsible for the robbery? If we are focusing on the fact that she has connected the killings to the robbery, we want to say 'yes'. But if we are focusing on the fact that she has no useful way to identify the criminal—she has no suspects—we may be reluctant to describe her as having someone in mind. But regardless of whether we would describe her that way, it is clear that in (9) she intends to be talking about a specific criminal: the serial killer. In this respect, Her use of the indefinite is not in this respect any different from those in (1) and (4)–(8).

(ii) *Functional uses*.[8] Consider the following utterances, in settings where the speaker would give the reply in parentheses to the question 'Which F are you talking about?':

10. During every year in the last century, a (certain) government official has lived in the White House. (The president that year.)
11. Each husband had forgotten a certain important date.[9] (His anniversary.)
12. Every one of those teams undervalues a key player. (Their goalkeeper.)

Here we cannot say that there is a particular individual that the speaker is talking about in each case. But something similar is going on: in each case there is clearly a sense in which the speaker is talking about exactly one individual *relative* to each year/husband/team. (One might say the speaker has a particular *function* in mind—though we would

[7] Many of the papers cited in this chapter make use of this kind of expression. See e.g. Donnellan, op. cit., Fodor and Sag, op. cit., Ioup, 'Specificity and the Interpretation of Quantifiers' Kasher and Gabbay, 'On the Semantics and Pragmatics of Specific and Non-Specific Indefinite Expressions'; Kratzer, 'Scope or Pseudo-Scope? Are There Wide-Scope Indefinites?'.

[8] For a discussion on the distinction between functional uses and those on which it simply seems as though the indefinite takes wider scope than superficially indicated, see Schwarz, 'Two Kinds of Long-Distance Indefinites'.

[9] The example is modified from Hintikka, 'The Semantics of *A Certain*'.

not want to say the speaker is *talking about* the relevant function.) Moreover, insofar as one intuits that the truth of (1), in the context described, requires Maria to be absent, one will also intuit that the truth of (11) requires each husband to have forgotten his anniversary.[10]

There is also another respect in which functional uses resemble plain specific uses. Both intuitively involve a kind of coyness. One is tempted to say that (1) conveys that it is not obvious to the audience which friend the speaker is talking about; and an utterance of (11) conveys that it is not obvious to the audience which dates, relative to each husband, the speaker is talking about. In what follows, this way of putting things will be modified in various ways—not least because of its reliance on the highly context-sensitive notion of *knowing which*.[11] For now we simply note this suggestive similarity.

(iii) *Scope issues*. Suppose we insist on treating the indefinite as a simple quantifier phrase. Recall:

6. If a certain friend of mine were absent, I would be shocked.

Again, the answer to 'Which friend?' is 'Maria'. If the indefinite takes scope within the antecedent of the conditional, we get altogether the wrong truth-conditions. For then the speech is true just in case the speaker is shocked at the closest worlds where there is a friend of hers—any friend—who is absent.[12] Moreover, in the setting described, even the actual world is such a world. Better to treat the indefinite as taking scope outside of the conditional, which makes the speech true just in case there is a friend such that, at the closest worlds where that friend is absent, the speaker is shocked. (This would at least be an *a priori* consequence of what we take to be the intuitive truth-conditions of the speech: namely, that the speaker is shocked at the closest worlds where her actual friend *Maria* is absent.) But for the indefinite to take scope outside the conditional would require the indefinite to escape an environment widely considered to be a syntactic 'scope island': that is, an environment that blocks internal elements from taking external scope. (For example, we cannot hear 'If every friend of mine had been absent . . . ' as 'Every friend of mine x is such that if x had been absent . . . ')[13]

[10] Someone might argue that the intended object is a kind, rather than an ordinary particular, and try to sketch ways in which, say, a team can undervalue the kind *goalkeeper* in some derived sense. However, it is consistent with the intent of (12) that each team places a high value on various other goalkeepers, such as potential candidates to replace their own goal-keeper. So the kind would have to be something like *one's own goalkeeper*, just as for (11) it would have to be *one's anniversary*. Even setting aside issues of intrinsic plausibility, the project of accommodating all the apparently troublesome binding data in this way seems very much uphill.

[11] See §3.1.

[12] Here we assume a closest world approach to the semantics of counterfactuals, though the contrast noted in the text would surely carry over to other approaches to counterfactuals.

[13] See Fodor and Sag, op. cit. p. 369. For more on the relevant evidence, see e.g. Abusch, 'The Scope of Indefinites'; Reinhart, 'Quantifier Scope: How Labor Is Divided between Qr and Choice Functions'.

It is worth noting a complication involving 'any'. Consider:

i. If I were to meet any astronaut, I would be happy

Functional uses can also appear in such environments:

13. Every linguist has looked at every analysis that solves a certain problem.[14]

In the kind of setting we have in mind, the speaker would answer 'Which problem?' with 'The problem at issue in her dissertation'. If we treat the indefinite as a bare existential that takes scope within the relative clause, the truth of (13) requires every linguist to have looked at every problem-solving analysis in the domain of analyses. Better to construe the indefinite as taking 'intermediate scope'—outside of the relative clause but still under 'every linguist'. This gives us: 'For every linguist x, there is some problem y such that x has looked at every analysis that solves y'. (Again, this is at least an *a priori* consequence of the intuitive truth-conditions, which we would argue require that in each case y is the problem at issue in each x's dissertation.) The problem is that, like conditionals, restrictive relative clauses are usually considered to be scope islands.

Finally, there may also be a non-functional intermediate-scope reading of indefinites in sentences similar to (13).[15] A common example is:

14. Most linguists have looked at every analysis that solves some problem.[16]

Here, especially with an emphasis on 'some', there is arguably a reading where 'some problem' seems to be straightforwardly taking scope outside of 'every analysis'. (Note that keeping 'some problem' *in situ* would require most linguists to have looked at every problem-solving analysis there is.) On the relevant reading, the question 'which problem?' would be out of place because no particular function from linguists to problems is in play.[17] Likewise, consider:

15. My friends are selectively knowledgeable about cinema. Everyone can name every actor who stars in some classic film.

One might think that this forces a wide scope reading of 'any': after all it is not good enough that at the closest possible worlds where one meets some astronaut or other one is happy. (It might be that at all such worlds one meets Astronaut Smith, but the truth of the claim seems also to hinge on one's level happiness at some more distant worlds—at least if some of them are reasonably close—where one meets other astronauts.) One might thus conclude that the island hypothesis over-generalizes. But scoping 'any astronaut' out of the conditional does not give quite the right result either. For suppose one is not happy at a close world where one goes out with someone who is an astronaut there but not at the actual world. Then the sentence is naturally heard as false. So this feature of 'any' is not simply to be handled by scope. One might also hold that there is a reading of 'If I were to meet an astronaut, I would be happy' which is tantamount to this 'any' reading; if so, it is to be handled neither by appeal to the machinery of specificity nor to that of scope.

[14] This example is based on one from Reinhardt, op. cit, p. 346. We are emphasizing a 'functional' reading with context and with 'a certain' instead of 'some'.

[15] Examples of such sentences can be found in Farkas, 'Quantifier Scope and Syntactic Islands'; King, 'Are Indefinite Descriptions Ambiguous?'; Abusch, 'The Scope of Indefinites'; Reinhart, 'Quantifier Scope: How Labor Is Divided between QR and Choice Functions'.

[16] Reinhardt op. cit., p. 346.

[17] One is tempted to postulate existential quantification over such functions, an idea that is formalized in the choice function approach we discuss in §4.4.ii.

16. There are always a few students who barely show up to class. Every professor will be amazed if SOME student of hers passes the exam.

One can arguably hear 'some classic film' and 'some student of hers' as having a non-functional intermediate-scope reading. And while one can think of relevant functions here, such as *x's favorite film* or *the student who showed up least to x's class*, it does not seem that any such one-to-one function must be in play. In answer to 'Which classic film?' or 'Which student?', the speaker might well say, 'None in particular.'

Two points are worth noting about these three kinds of cases involving scope islands.

First, suppose we were to postulate some formal mechanism—such as existential quantification over 'choice functions'—to satisfy the letter of the scope-island law while achieving an interpretation that effectively gives the relevant indefinites exceptional scope (see §4.4.ii). This would still leave many things unexplained. Most importantly for our purposes, it would not by itself explain what is going on with plain specific uses and functional uses. After all, one can distinguish plain specific uses from non-specific uses even in cases where there is no issue of scope permutation—as witnessed by (1)–(4).[18] Likewise, the difference between functional and non-functional (but not widest-scope) readings of the indefinites in (10)–(12) cannot be explained simply by appealing to scope. Even in (6) and (13), merely allowing for exceptional scope possibilities only takes us into the neighborhood of the intuitive truth-conditions—hence the notable contrast between the natural functional reading of (13) and the existential reading just sketched for (14). (Moreover, it is worth pointing out that merely allowing for the possibility of exceptional scope readings for indefinites does not explain why they are so much easier to hear with 'some F' than with 'an F'—witness the difficulty in hearing a non-functional intermediate-scope reading of the indefinite in (13), even in the absence of 'certain'.)[19]

Second, syntactic scope islands are not yet well-understood. Consider, for example, the following analogues of (15) and (16):

[18] We are setting aside the possibility that a sentence like (1) contains additional unvoiced scopal elements—like an ASSERTION operator, outside of which an indefinite might take scope. (Thanks to Nate Charlow.)

[19] Rothschild, 'The Elusive Scope of Descriptions' claims to detect what we would call a non-specific exceptional-scope reading in:

i. I doubt that if a relative of John's dies then John will be rich.

Rothschild writes: 'On the most natural reading what I doubt is that *any* relative of John's is such that if that relative dies John will be rich'. Let us begin by freeing the example of a distraction. As a matter of fact, there are no close worlds where any relative of John fails to die because everyone dies at all close worlds. To screen off this kind of issue, let us look at

ii. I doubt/deny that if a relative of John's dies in the next six months, then John will be rich.

Here we are dubious about Rothschild's claim about the natural interpretation. Consider also a case where 50 relatives are playing Russian roulette: 49 are poor, and only one rich. This seems like an excellent basis for asserting (ii)—but not if the most natural reading is Rothschild's. (Thanks to Sarah Moss for the example.)

17. We watched a lot of obscure movies, but my friends are experts. Everyone could name most actors who starred in each movie we watched.
18. I would be sad if my student JERRY failed after working so hard. In fact, I would be sad if A LOT OF my students failed.

In the most natural reading of (17), 'each movie' appears to take scope out of the relative clause[20]—we can suppose there were no actors each of whom starred in every movie that was watched—and in (18), there is arguably a reading where 'a lot of my students' appears to take scope out of the conditional. There are plenty of reasons to continue viewing these environments as scope islands—though some recent work denies this assumption at least in the case of restrictive relative clauses[21]—but there may also be explanations for this kind of phenomenon that are not local to indefinites.[22]

In short, while we will briefly return to apparently non-functional exceptional-scope uses of indefinites, our primary focus will be what we have called 'plain specific' uses and 'functional' uses. On the grounds that both kinds of uses in some sense involve an intention on the part of the speaker to talk about a specific individual—either *punkt* or relative to objects in the domain of a higher quantifier—we will use the term 'specific' to cover just those two kinds of use. And we will use the term 'specificity' for the associated phenomenon of being used to talk about a specific individual, either *punkt* or relative to objects in the domain of a higher quantifier. (These stipulations fit nicely with our view that plain specific uses and functional uses are closely related, but it does not encode an assumption that they should be treated as such.)

4.2 Specificity: the bifurcated view

In 1982, Janet Fodor and Ivan Sag argued that indefinite descriptions are ambiguous between a quantifier interpretation and a paradigmatically referential one.[23] Used non-specifically, 'an F' has the meaning of an existential quantifier phrase, and the property expressed by 'F' is part of the truth-conditional content of the proposition expressed. Used specifically, 'an F' functions as a referring device for the intended object of reference. If the intended object of reference is Bill, the indefinite refers to Bill just in case he satisfies the descriptive conditions expressed by the predicate 'F'; if he does not, the indefinite will lack truth-conditional content altogether. On a specific use, then, 'F' does not contribute to the propositional content at all, but simply constrains whether the intended object of reference is contributed. Coupled with a semantics where

[20] In the right context, we can also hear this reading for 'every' in place of 'each'.

[21] See, for example, Hulsey and Sauerland, 'Sorting out Relative Clauses'. See also Sauerland, 'Dp Is Not a Scope Island'.

[22] We raise a suggestion for (17) in fn. 100 below, thought it is not adequate to the data. Another proposal that might apply at least in the case of (18) is the situation-quantifier proposal discussed in Keshet, 'If Most Quantifiers Were in This If-Clause, They Couldn't Escape'.

[23] See Fodor and Sag, 'Referential and Quantificational Indefinites'.

reference failure induces a truth-value gap, a failure of the intended object to satisfy the predicative material will induce such a gap.[24] (On an alternative version of the view, one analogous to Keith Donnellan's view of definite descriptions, the intended referent is actually the referent even when it does not satisfy 'F'.)[25]

Because of the stark ambiguity being postulated, we will call this *the bifurcated view*.[26] On this view, the truth of

1. A friend of mine is absent

in a case where the speaker intends to be talking about Maria and she is in fact a friend of the speaker's, will simply hinge on whether or not Maria is absent. Moreover, as Fodor and Sag emphasize, their view has no trouble with plain specific uses in scope islands, as in:

6. If a certain friend of mine were absent, I would be shocked.

If the indefinite is referential, the truth of this utterance will require the speaker to be unhappy at the closest worlds where *the friend she is actually referring to* is absent. Thus if the speaker is referring to Maria, whether other friends of hers are absent will be irrelevant.

As Fodor and Sag are aware, their ambiguity hypothesis would have to be expanded beyond indefinites if it is to avoid *ad hoc*ery.[27] After all, their (1) and (6) seem to be of a piece with:

19. Certain friends of mine are absent.
20. If three (particular) relatives of mine were to die this year, I would inherit a fortune.[28]

'Certain friends' and 'three relatives of mine' can exhibit the very kind of behavior that motivated Fodor and Sag's view about indefinites. This suggests that postulating a referential semantics for certain uses of indefinites would not get to the heart of the issue: we would need to posit a systematic ambiguity for bare plurals and for numerical determiner phrases as well. In fact, there appears to be an extra motivation here. An exceptional-scope construal of 'three relatives of mine' would predict a distributive wide-scope reading, one equivalent to 'Three relatives of mine x are such that, if x were to die this

[24] Meanwhile, it is natural to think of the specific indefinite as triggering a presupposition that there is an intended object of reference satisfying the condition expressed by the descriptive material in the noun phrase, where a presupposition failure induces a lack of propositional content (op. cit., p. 389).

[25] See Donnellan, 'Reference and Definite Descriptions'.

[26] This view is importantly distinct from a view that would treat specific indefinites along the lines of what we call 'neo-Fregean definites' (see §5.5ff).

[27] On p. 355 they note that there is similar behavior with numerical determiners like 'three', though they deny that an analogous point holds for the null plural determiner.

[28] This example is based on one in Reinhart, 'Quantifier Scope: How Labor Is Divided between QR and Choice Functions', p. 367, which cites a manuscript by E. G. Ruys. As we will see, it is significant that (20) allows only for a non-distributive reading.

year, I would inherit a fortune'. But worlds where just one relative dies this year are clearly irrelevant to the truth of (20).

Let us turn to several responses that have been made to the bifurcated view. Though we think the force of each can be at least somewhat mitigated, in the end we agree with the near-consensus that there is a better account to be had of plain specific uses.

(i) *Ambiguity*. All things equal, it seems unpalatable to hold that indefinites are starkly ambiguous.[29] However, it is widely agreed that posited ambiguities are much more palatable if the purported ambiguity is linguistically marked in other languages. And it could be argued that at least something like the contrast Fodor and Sag have in mind really *is* linguistically marked in a systematic way in some languages.[30]

(ii) *Explanatory limitations*. Fodor and Sag's view has no distinctive proposal when it comes to functional uses of indefinites like those in (10)–(13), or non-functional exceptional scope indefinites like those in (14)–(16). For example, to treat the indefinite in

11. Each husband had forgotten a certain important date

as a referential indefinite of the type described by Fodor and Sag would require that the speaker intends to refer to one particular date. There is no way for the type of referential tag they describe to vary with respect to the objects in the domain of a higher quantifier. Worse, Fodor and Sag accept that conditionals are scope islands—indeed they use that assumption to promote their view when it comes to plain specific uses that appear within conditionals. So by their lights, the indefinite in

13. Every linguist has looked at every analysis that solves a certain problem

[29] There are ways of tweaking the bifurcated view so that, in some sense of 'the meaning' of a term apart from its contribution to the proposition expressed, indefinites have the same meaning whether they are used specifically or non-specifically. For example, one could begin by denying that the indefinite article ever has the meaning of the existential quantifier. Instead, the existential quantificational force of 'A bird is singing' is due instead to a covert determiner or the absence of any determiner—a view that is natural for bare plural nouns, as in 'Birds are singing'. This allows one to hold that 'a' combines with a property expressing expression to generate a new property-expressing expression. One could then hold that when 'a friend' is used non-specifically in subject position, an existential quantifier is in play, and the property supplied by 'a friend' enters the proposition as a restrictor. When 'a friend' is used specifically, some other element of meaning—inspired by Kaplan's *dthat*—is at play, combining with 'a friend' in such a way that the combined result simply delivers the intended object of reference to the propositional content. (The function of 'a friend' in that case would be to 'complete the character' of the combined expression, but its contribution is 'off the content record': see Kaplan, 'Afterthoughts', p. 581). Another approach, though one more distant from Fodor and Sag's vision, would hold that the predicate contributes equally to content in both cases, and treat specific uses analogously to the 'neo-Fregean definites' discussed in Chapter 5. See also fns. 38 and 59 of this chapter.

[30] Some relevant evidence is discussed in Geurts, 'Specific Indefinites, Presuppositon, and Scope'. Also, Hebrew's 'xad' appears always to function as a specific indefinite (Ionin, '*This* is definitely specific', pp. 219-20). In this respect it seems very much like the indefinite (informal) 'this' of ordinary English: see fn. 95 below.

must be interpreted as a bare existential indefinite *in situ*. But for the relevant reading that would yield entirely the wrong truth-conditions.

This last point is something of an *ad hominem*, of course. It is far from clear that a single explanation will suffice for the various data about indefinites we have considered. One could theoretically adopt the bifurcated view to explain plain specific occurrences, while explaining all the other data in some other way. It may, after all, turn out that not all the relevant kinds of occurrences can be explained in the same way. (In fact, none of the three theories of specific uses we will be examining in this chapter provides, all by itself, an explanation for non-functional intermediate-scope occurrences like that of the indefinite in (14).[31]) But in functional uses like (11) there is something *very much like* a specific intention on the part of the speaker—she intends to be talking about a specific date relative to every husband. (Moreover, 'a certain' can be used to stress either kind of use.) We will later encounter a view that can take this natural connection entirely at face value.

(iii) *Acquaintance*. In typical cases where a plain specific indefinite is used, the audience does not count as 'knowing who' the speaker is talking about. However, it does not follow that the audience is not in a position to grasp the singular proposition that, according to the bifurcated view, is expressed. As we have been at pains to argue in the last few chapters, all but the strictest of Russellians must acknowledge that there are cases where we grasp singular propositions in ways that are not very cognitively useful, and that are not connected to various canonical methods of individuation that may govern whether one 'knows who' at some context.

Thus we think Fodor and Sag are selling their own view short when they write that on their own view, 'in the typical case the hearer will not know exactly what the speaker is asserting'.[32] They go on to argue that this is not a fatal problem for their view; but others disagree. For example, Peter Ludlow and Stephen Neale point out that in many cases where a specific indefinite is used, the audience does not 'know which individual' is at issue. And yet, they argue, the audience appears to be in a position to grasp the proposition expressed. Thus if specific indefinites were referring terms, this would violate the Russellian principle that 'In order to understand an utterance of a sentence with a referring expression as subject, one must know which object the expression refers to'.[33]

As we have seen, acquaintance principles of this sort are ultimately groundless. But there is an additional point worth stressing here. Notice that there is no bar to using a name in a sentence like

[31] Thus one might want to combine one explanation for what we are calling specific uses with an alternative explanation to handle non-specific exceptional scope, such as the existentially bound choice-function approach discussed in §4.4.ii. One theorist who recognizes the apparent need for two mechanisms at work is Bernhard Schwarz: see Schwarz, 'Indefinites in Verb Phrase Ellipsis', pp. 349–50.

[32] p. 382.

[33] Ludlow and Neale, 'Indefinite Descriptions: In Defense of Russell', p. 178.

21. A friend of mine, John, is coming to dinner

when the audience has no other means of identifying the referent. Ludlow and Neale explicitly take proper names to be genuinely referential, so the idea must be either that the audience in (21) does not grasp the proposition expressed, or that the audience counts as 'knowing who' the speaker is talking about. In the former case, it would appear that failing to grasp the proposition expressed by a speaker is not a severe obstacle to felicitous communication. In the latter case, one wonders why acquaintance would be present when the speaker utters (21) but not when he utters

22. A philosopher friend of mine who lives in England is coming to dinner.

The idea must be that using (21) simply *brings about* acquaintance with John on the part of the audience, while using (22) does not. But why would that be?[34] The answer had better not be, 'Because only (21) contains a referential expression'—that would assume the alleged conclusion! In fact it seems for all the world that (22) just as effectively puts the audience in a position to go on to talk about John in a referential way, by using 'he' and 'that friend'. We will return to a version of the Ludlow-Neale objection aimed at the view of specific indefinites we favor; see §4.8 below.

(iv) *A character problem*. An additional worry concerns the inflexible approach that the bifurcated view adopts to the role of the predicative material in specific uses of indefinites. Recall Kaplan's notion of 'character': roughly, the character of an expression is given by rules that describe how the content of that expression is determined by various features of the context of use, but which do not enter into the truth conditional content of the relevant sentence.[35] Now part of the Kaplanian vision—call it *character-confinement*—is that for the purpose of compositional truth-conditional semantics, character-level features should be ignored: sentential operators, for example, will be blind to the character of expressions within their scope. Another aspect of that vision—*character-constancy*—is that the rule applies no matter how the expression is embedded. To take a paradigmatic bit of Kaplanian doctrine: the rule for 'I' is that that 'I' refers to the speaker, and this rule holds whether 'I' occurs as the subject of a simple subject-predicate sentence or else deeply embedded within a complex sentence.

The birfurcated view holds that there is a rule that lives at the level of character: namely, that a referential indefinite 'an F' refers to an object at a context only if the object has the property expressed by 'F' at that context.[36] But on reflection, it is does not seem that this view can be sustained. Suppose Bill thinks that Betty admires him and that she is going to ask him out for dinner. Meanwhile, we know that Bill has no admirers

[34] If anything, one could argue that specific indefinites transmit acquaintance, while names do not! After all, using the unfamiliar name discourse-initially in (21) without the indefinite would be unacceptable. A better explanation for the data appeals to the presuppositions of names: see §6.7.iii.

[35] See Kaplan, 'Demonstratives'.

[36] Fodor and Sag, op. cit., pp. 385–7.

and that Betty is not going to ask him out for dinner. Nevertheless there are contexts where we can truly say

23. Bill thinks a certain admirer of his is going to ask him to dinner

using the indefinite specifically to talk about Betty. Now, if the rule just sketched really lived at the level of character, it would require that the referent of the indefinite must be an admirer of Bill's. Since Bill has no admirers, that rule induces reference failure in this case—a result entirely contrary to intuition.

In short, the bifurcated view proceeds as if the requirement that the referent of a specific indefinite satisfy its predicative material has the constancy of Kaplanian character. But this prediction is not borne out.

(v) *Recovery*. Treating the predicative material in a specific indefinite as living at the level of character arguably does not sit well with certain systematic interactions between the property expressed by that material and other elements that may be at work in a sentence. Consider:

24. A certain student went to the park, and another one went with him.

Here 'one' anaphorically picks up the content of the predicate, and the sentence is perfectly felicitous. Contrast this with the following:

25. John (who is a student) went to the park, and another one went with him.

This sentence is much harder to compute. A tempting explanation for this fact is that in (25) 'student' does not contribute the property of being a student to the main proposition expressed and that 'one'—which is contributing something at that level—is primed to be anaphoric on something that lives at that level of content. Now consider:

26. He went to the park, and another one went with him.

Here 'one' simply cannot retrieve the property of being male from 'he'. Arguably this is because the property of being male is only involved at the level of character, and so not contributed to any proposition expressed by (26). But this explanation would also predict that (24) would be hard to compute if the bifurcated view were correct.[37]

(vi) *The upshot*. Taken together, these points are not utterly decisive against the idea that at least plain specific uses function *à la* Fodor and Sag. But there is concern enough her to motivate looking at alternative accounts—especially if they can treat plain specific and functional uses as instances of the same phenomenon, while avoiding the

[37] Jeffrey King makes this point against a predicative view of names in King, 'Singular Terms, Reference, and Methodology in Semantics', p. 149.

kind of ambiguity postulated here.[38] We will begin with a simple view on which specificity for indefinites is entirely a matter of presupposition.

4.3 Interlude: presupposition

We will be using 'presupposition' very broadly, to express the rough-and-ready notion of taking a proposition for granted in making an utterance.[39] (We therefore do not reserve the term for information the speaker treats as 'old' or previously known.[40]) Cases in the broad category of presupposition tend to fall into two main groups: (i) cases where the speaker takes *p* to be common ground already between speaker and hearer, and (ii) cases where the speaker assumes that the hearer will quietly add *p* to his or her belief stock upon recognizing that the speaker is taking *p* for granted. (This taxonomy is not exhaustive. For example, the speaker might believe that no one *ought* to dispute *p* and for that reason signal that she takes *p* for granted even when she knows full well that the audience may protest.[41])

We offer neither a theory of presupposition nor a survey of the dizzying variety of views about it; but it is worth noting three important distinctions.

[38] One view that is somewhat in the spirit of the bifurcated view but avoids most of these objections is that of Kratzer, 'Scope or Pseudoscope? Are There Wide-Scope Indefinites?'; see fn. 59 below for discussion. A related alternative would be to treat specific uses analogously to what we call 'neo-Fregean' definites (see §§ 5.5–5.7). On one variant of that view, 'a' is ambiguous; sometimes it has an existential quantifier meaning, and at other times it functions like a neo-Fregean 'the'. On another variant, 'a friend' simply expresses a property: non-specific uses involve unvoiced existential quantification, and specific uses involve a covert element of meaning that combines with a property to yield an object, akin to the neo-Fregean 'the'. Since most of what we say about neo-Fregean views in Chapter 5 will apply, *mutatis mutandis*, to such a view of specific indefinites, we omit a full discussion of such a view here. But notably it would require an apparatus of 'specific restrictors' similar to that posited by our preferred view; see §4.6.

[39] We do not wish to get drawn into further attempts at analysis here. One *prima facie* plausible idea is that one takes *p* for granted iff one treats *p* as uncontroversial. (For an epicycle of this idea, see Soames, 'How Presuppositions Are Inherited: A Solution to the Projection Problem', pp. 485–6.) But the trouble is that in certain contexts even a flat-out assertion that *p* might signal that one treats *p* as uncontroversial—consider a setting where it is understood that one is simply asserting the uncontroversial premises of a proof. Thankfully, our discussion does not turn on niceties about just what it takes to take something for granted.

[40] That is, known or knowable by the audience prior to one's utterance. As we use the term 'presupposition', it covers a broad range of 'non-proffered' or 'not-at-issue' meaning that is often projective but nevertheless need not be treated as old information. See for example Levinson, *Pragmatics*; Abbott, 'Presuppositions as Nonassertions'; Simons, 'Presupposition and Relevance', Potts, *The Logic of Conventional Implicatures*, and Beaver *et al.*, 'Presupposition, Conventional Implicature, and Beyond: A Unified Account of Projection'. For discussion applied to particular cases, see the treatment of non-restrictive relative clauses in Chierchia and McGonnell-Ginet, *Meaning and Grammar: An Introduction to Semantics*, of approximatives in Horn, 'Assertoric Inertia and Npi Licensing', and of the prejacent of 'only' in Roberts, ''Only', Presupposition and Implicature'.

[41] For example, a speaker might ask 'Have you stopped wasting your time?' on this basis, with the very intention of upsetting her interlocutor. Or a speaker might ask, 'Did John fail again?' knowing that the audience would dispute John's previous failure. In these cases the speaker genuinely presupposes that the addressee had been wasting time or that John previously failed, but she intentionally violates a conversational norm: namely, do not take *p* for granted unless it can reasonably be supposed that *p* will be accepted without controversy by your interlocutors.

First, in some cases it is an aspect of the *meaning* of an expression—in some broad sense of 'meaning'—that triggers a recognition in the audience that *p* is being taken for granted. That is, as Kai von Fintel puts it, there is sometimes 'a presuppositional component of meaning hardwired in the semantics of particular expressions'.[42] (We will leave it open at this point how the relevant aspects of meaning relate to truth-conditional content.) For example, it is arguably due to a meaning-feature of 'again' that in uttering ⌜S again⌝ one represents oneself as taking it for granted that previously, S. (This has various consequences for conversational norms. For example, unless one has the right to take for granted that David previously lost, one ought not to say 'David lost again' or to ask 'Did David lose again?') We will call this subspecies of presupposition *meaning-triggered* presupposition.

The second distinction is this. In a wide range of cases, when the use of an unembedded declarative sentence involves a presupposition that *p*, that sentence continues to communicate *p* even when negated, transformed into a question, or embedded as the antecedent of a conditional. To take a standard example, an utterance of

27. Jane stopped smoking

not only presupposes that Jane smoked at some previous time, but it continues to do so in the linguistic environments just mentioned. Let us call this a *projective* presupposition. A plausible and common hypothesis is that if a presupposition is meaning-triggered, such as in (27), it will also be projective. But there are arguably also presuppositions in our very broad sense that do not project as a matter of course. For example, in uttering, 'I won't have enough money to buy a Ferrari any time soon', the speaker may be presupposing that she will not shortly receive a huge unexpected influx of money, and also that Ferraris are expensive. But if in the same context she had negated that sentence or transformed it into a question, it may not have involved those presuppositions at all.[43]

A third distinction concerns the relation of presupposition to bivalence. Suppose a declarative sentence *s* as uttered on an occasion presupposes that *p*, but *p* is false. How does this constrain or connect with the truth-conditional content of *s* as used on that occasion? Here things become far more tendentious:

(a) On a *gap-happy* approach to presupposition (sometimes called the 'semantical' or 'Strawsonian' approach), the falsehood of *p* induces a truth-value gap in *s*. For some sentences and their presuppositions, this yields the result that both the sentence and its negation entails *p*, at least in the following sense: there is no occasion of use where either the sentence or its negation is true but *p* is false.

(b) A *gap-hostile* approach denies that the falsehood of *p* induces a truth-value gap. Thus a sentence (on an occasion of use) might be true (or false) even though it presupposes something false.

[42] von Fintel, 'What Is Presupposition Accommodation, Again?', p. 138. We have also borrowed the lingo of 'quietly adding' from von Fintel.

[43] In this respect, the notion of presupposition we are working is somewhat broader than what has variously been called 'non-proffered' or 'not-at-issue' content.

Clearly, not all presuppositions need to be treated uniformly along this axis. A gap-happy approach will, at most, be adopted selectively. (For example, one might hold that all and only *meaning-triggered* presuppositions induce gaps when false.)

These three distinctions will suffice for our purposes. But we should emphasize—if only for aficionados—that our use of 'presupposition' covers a broad range of 'non-proffered'/'not-at-issue' meaning, from information conveyed by the phi-features of pronouns, to the contrastive implication of 'but', to various conversationally triggered pragmatic presuppositions.

4.4 Specificity: the simple view[44]

Suppose for the sake of argument that facts about whether the speaker is talking about a specific individual have no impact on the truth-conditional semantics of indefinites. Then, in the case of an utterance like (28), there is only one 'reading' of the sentence from a truth-conditional point of view:

28. Susan lives near an ex-boyfriend of mine.

On the present view, the utterance is true iff Susan lives near at least one ex-boyfriend of the speaker's. Nevertheless, there is a contrast between two kinds of cases in which a speaker might express this content: in one kind of case, she has a specific ex-boyfriend 'in mind' and the audience will take her to have a ready answer to questions like 'What line of work is he in?'. In another kind of case, the speaker may utter (28) because Susan lives in Manhattan, and the speaker has so many ex-boyfriends in Manhattan that she feels it is inevitable that Susan lives near one of them. In such a case, the question 'What line of work is he in?' would indicate that a kind of communicative breakdown has occurred.[45]

How can this contrast be explained if there is no difference in truth-conditional content between the two uses? Here is a first pass. At some contexts, but not others, the speaker pragmatically gets across the proposition *that there is a specific ex-boyfriend somehow at issue*—though the sense in which he is 'at issue' cannot be cashed out

[44] In this section we do our best do flesh out a plausible view on which the phenomenon of specificity does not affect truth conditions. Something like the view we will be discussing here is briefly suggested, for what they call 'specific uses', by Ludlow and Neale, 'Indefinite Descriptions: In Defense of Russell'; however they do not go into detail about how to taxonomize the pragmatic phenomenon of specificity. (In particular, they do not use the expression 'presupposition'.) A related view is also briefly sketched in Higginbotham, 'Priorities in the Philosophy of Thought', §IV. And finally, compare the view of Geurts, 'Specific Indefinites, Presuppositon, and Scope', though his view is (a) aimed at explaining exceptional scope rather than what we here call specific uses; and (b) cashed out in terms of a DRT framework and a particular account of the relationship between presupposition and scope.

[45] Even the answer 'I don't know' is unavailable, as it would mislead the interlocutor about the original point of the sentence.

semantically.[46] This proposition counts as presupposed in our broad sense, though in this case it is not meaning-triggered: it is generated by some combination of: (i) the boring truth-conditional content of the utterance; (ii) the audience's knowledge of the bases that people typically have for making such a claim; (iii) particular clues provided by the conversation or the speaker; and so on.[47]

According to *the simple view*, this kind of presupposition is all there is to the 'specific use' of indefinites like the one in (28). In particular, the truth-conditional content of the utterance is unaffected by the presence or absence of the relevant presupposition—even in cases where the presupposed content turns out to be false. We will in the end be arguing that this view is *too* simple. But it does have some explanatory power. To begin with, the presence of such a presupposition would seem to put the audience in a position to assume that the speaker can answer questions like 'What line of work is he in?'[48] And given the liberalism defended in previous chapters, there would be no obstacle to the hearer's introducing a referential device for talking about that boyfriend, simply by using a descriptive condition like 'whichever ex-boyfriend is at issue'. Nor would there be any obstacle to the hearer's having, in every interesting sense, singular thoughts about the individual at issue.

Finally, in many cases the presence of such a presupposition would help the audience ascertain which of various scope-taking possibilities are available for an indefinite. For example,

29. Susan will never meet a friend of mine

[46] Ludlow and Neale characterize 'specific uses' as those in which the speaker has 'singular grounds for an assertion of the form 'an F is G', but no intention of communicating a singular proposition'; op. cit. p. 532–3. This is clearly too broad: even an assertion of (28) involving a completely non-specific use of the indefinite will typically have grounds that are singular—if only because they are about *Susan*.

[47] We will set aside issues about how the relevant presuppositions might be transformed or accommodated in, for example, intentional and modal environments. (For example, consider 'John believes that a certain ghost is haunting him' or 'If I had had children, then certain children would have been very good-looking.') We will assume for the sake of argument that the simple theorist can make moves similar to those we make in §4.6.ii and §4.11.

[48] Abusch and Rooth, 'Epistemic NP Modifiers' mention a truth-conditional treatment of 'certain' involving the ability of the speaker to answer such questions. (The idea is attributed to Lauri Carlson.) We suspect this would overstate the connection. In a suitable context, one might respond to 'Which ex-boyfriend?' with 'I don't know. Frank just told me that Susan lives near a certain ex-boyfriend of mine. But I'm still trying to figure out which one.' More generally, if one's basis for saying 'A certain F is G' is testimony involving the phrase 'A certain F', one may not be well placed to give a decent answer to the question 'Which F?', since in many contexts 'Whoever the speaker was talking about' does not count as a felicitous answer. (Likewise, one can use a specific indefinite in a context where one explicitly flags one's inability to answer such questions. The question 'Which friend are you talking about?' is completely bizarre in response to 'I've just learned that a certain friend of mine that Frank knows is telling lies about me, and I'm determined to figure out which friend it is.') In cases like these, it may only be that someone at the beginning of the testimonial chain can answer such questions. What remains true is that such questions do not, in these cases, induce conversational breakdown in the way they would if the speaker were not talking about any particular individual.

can be treated as having at least two different interpretations involving different scope positions for 'a friend of mine':

29a. ∃x (x is a friend of mine and Susan will never meet x).
29b. It will never be the case that: ∃x (x is a friend of mine and Susan meets x).

At a given context, one misunderstands the claim if the speaker means (29a) and one interprets her as meaning (29b). But given the presupposition that a specific friend is at issue, one can ascertain which relative scope is intended, namely (29a).

What should the simple theorist say about functional uses? There may be settings where a speaker says

11. Each husband had forgotten a certain important date

and just one date is at issue—June 7th, perhaps—but in the relevant setting the speaker is talking about a different date for each husband. In such a case, giving the indefinite scope over 'each husband' yields wildly incorrect truth-conditions. So, from a truth-conditional point of view, the simple theorist will treat (11) as an unadorned narrow-scope existential. But as we have seen, in the relevant setting the question 'Which date are you talking about?' is in order, and the speaker would answer by characterizing a function from husbands to dates. (Though not just any function will do—this use of (11) would be misleading if the speaker could only provide a highly gerrymandered function or one that yields an uninformative answer like 'The date he forgot'.) The simple theorist might therefore argue that the presupposition in play is that a function of this sort is somehow at issue—or, to avoid the implication that ordinary speakers intend to communicate propositions about functions—that a specific date is at issue relative to every husband, such that each date is related to each husband in a similar way. (We do not find this answer particularly satisfying, but it is the best we can do on behalf of the simple view.)

The general picture of specificity that emerges is this. In uttering a sentence containing 'an F' used specifically, the speaker asserts a general claim about a wide range of individuals but presupposes that some more narrow range of individuals is somehow at issue—either exactly one, or one relative to each assignment to a variable of some higher quantifier—a range of individuals that can typically be recovered by an informative answer to 'Which F?'[49]

Finally, what about the role of 'certain'? Clearly, it would be wrong to hold that 'certain' indicates widest possible scope for the indefinite—it shows up in sentences with no issues of scope, like (1)–(4), and can accompany indefinites that take narrow scope, like (11). A better suggestion is that the presence of 'certain' signals a presupposition of one or the other sort sketched above. This in turn will incline the hearer to interpret the intended scope as maximally wide, where that possibility exists. For

[49] *Modulo* the qualification of the previous footnote.

example, this would be the effect of adding 'certain' to (28), yielding a presupposition that clearly projects:[50]

30. Does Susan live near a certain ex-boyfriend of mine?
31. It is not the case that Susan lives near a certain ex-boyfriend of mine.
32. If Susan lives near a certain ex-boyfriend of mine, she should be careful.

Each of these not only involves the presupposition that the speaker has at least one ex-boyfriend, but also that the speaker is talking about exactly one of them. And if one thought that this sort of presupposition is always triggered by 'a certain'—a claim that may overstate things—it would make sense to hold that it *meaning-triggers* the relevant presupposition.[51]

The view we have just sketched is satisfyingly minimalist, and will be especially appealing to those who are averse to hidden semantic structure of the sort frequently postulated by semanticists. But it also has its drawbacks.

(i) *Being 'at issue'*. A major challenge for the simple view is to spell out the relevant notion of being 'somehow at issue', and it is far from obvious that this can be done in a plausible way. Intuitively, we want to say that in (30)–(32) there is a particular ex-boyfriend that the speaker is *talking about*—but the simple theorist cannot cash out this notion semantically. So what is it for a specific friend x to be 'at issue' in the relevant sense? It cannot be for the speaker to have x in mind, since these utterances could be made with various people in mind—including Susan herself. And it cannot just be for the speaker's utterance to be based on a belief (or occasioned by a question) that the speaker has about Susan living near x.[52] After all, the speaker may have learned that Susan lives near x by way of a complicated chain of reasoning involving Susan's also living near various other people, even other ex-boyfriends.

It may well be that the simple theorist can tell a plausible story about the notion of being somehow at issue; but the task does not seem trivial.[53] And, of course, the story will have to extend to functional uses—there will need to be a plausible sense of 'at issue' in which what is pragmatically at issue can vary according to the domain of a quantifier that is present at the level of truth-conditional content.

(ii) *Exceptional scope*. Recall the sentences

[50] For an extended discussion of presupposition and indefinites, see the chapter 'Presupposition Projection and Topicality' in Cresti, 'Indefinite Topics'.

[51] We mention a reservation about this idea in §4.6.ii.

[52] See fn. 47 above for Ludlow and Neale's attempt to pragmatically characterize specific uses.

[53] Perhaps there is a way to spell out the notion of the topic of the conversation in such a way that x can be the topic even if x plays no distinctive role in the truth conditions of any utterance in the conversation. One might then say that 'a certain F' serves as a signal that a particular F is a topic of conversation. But the relevant notion of topic would have to be tied to the noun phrase in some way—otherwise in cases like 'a certain friend of mine is in Rome and a certain friend of mine is in Paris', the second use of 'a certain friend' will be signaling something that has already been signaled by the first.

6. If a certain friend of mine were absent, I would be shocked.
13. Every linguist has looked at every analysis that solves a certain problem.
15. Everyone can name every actor who stars in some classic film.

Each indefinite here is embedded in a scope island and yet (in the intended settings) the first is a plain specific use, the second is a functional use, and the third—at least arguably—is an exceptional scope use that exhibits neither kind of specificity. The simple theorist cannot simply treat these as unadorned existential quantifiers *in situ*: as we saw in §4.1.iii, this would yield truth conditions that are incorrect. For example, the simple theorist wants the truth of (6) to require that there is some friend x such that she is shocked at all the closest worlds where x is absent—rather than that she is shocked at all the closest worlds where at least one friend is absent, including the actual world. After all, the simple theorist will not want to saddle (6) with a content that the speaker believes to be false, that she does not intend to communicate, and that (if things go well) the audience does not come to believe.

Some may be tempted simply to allow indefinites to escape these alleged scope islands. (This might be especially tempting given that other determiner phrases sometimes appear to be able to scope out of such environments, as we saw with (17) and (18).) But the issue is not so simple.[54] For example, suppose that on the basis of his views about President Obama, John says:

33. In 20 years, a certain African-American ex-president will still be an important figure in civic life.

In this case, treating 'a certain African-American ex-president' as though it had widest scope patently gives us the wrong truth conditions. For at the time that John is speaking, there are no African-American ex-presidents.[55] Or suppose a childless speaker were to utter:

[54] Aside from the issues mentioned in the text, there is a problem with verb-phrase ellipsis that has been illustrated by Fodor and Sag (op. cit., 376):

i. John had seen a certain movie. David had, too.

The most natural reading is specific and requires that there is a movie that both John and David had seen. But, they claim, 'a verb phrase cannot be deleted if its antecedent contains a quantified phrase whose scope is wider than the verb phrase'. See also Kasher and Gabbay, 'On the Semantics and Pragmatics of Specific and Non-Specific Indefinite Expressions'.

Bernhard Schwarz has argued that similar ellipsis data illustrate cases where (what we would call) non-specific uses take exceptional scope:

ii. Tom ate the cookies some woman had brought. Bill did, too.

The idea is that there an interpretation of this speech on which it says, in effect, that there was a woman such that Tom ate the cookies she brought, and a (possibly different) woman such that Bill ate the cookies *she* brought. On this reading 'some woman' is non-specific but neither is it an unadorned existential taking scope inside the relative clause. (That would require that Tom ate all the cookies brought by women.) See Schwarz, 'Indefinites in Verb Phrase Ellipsis', pp 350–1.

[55] Nor do we get the right truth conditions simply by allowing covert quantification over the future to accompany scoping out. 'There will be a time t and an individual x such that x is an African-American ex-president at t and in 20 years x will still be an important figure in civic life' can be made true by a person who

34. If I had had some children and a certain grandparent of theirs had died, I would have inherited lots of money.

Here it would do no good to scope out the indefinite, because there is no actual grandparent: we need the indefinite to be controlled by 'if', and 'theirs' to be bound by 'some'. But giving the indefinite narrow scope would create the same issues with truth conditions that we had with (6).[56]

There are other semantic mechanisms a simple theorist might appeal to in order to achieve the effect of exceptional scope. One approach that has frequently been discussed denies that indefinites themselves have the force of existential quantification. Instead, along with whatever property is supplied—for example, *being a friend*—indefinites introduce a *choice function* variable, where a choice function delivers exactly one individual for each non-empty set in its domain. Thus, if 'f' is the choice-function variable introduced by 'a friend', we get the combination 'f(friend)'.[57] This in turn yields, for each assignment of a function to 'f', the unique individual selected by that function from the domain of friends. The crucial idea for achieving exceptional scope is that this choice-function variable is bound by an unvoiced existential closure operator that can be inserted at various positions in the structure of the sentence. (This sort of view has been proposed by Tanya Reinhart).[58] As a result, for (6) we get the interpretation:

6a. $\exists$f:CF(f)[f(friend of mine) is absent > I am shocked]

Here the contribution of 'a friend of mine' remains *in situ*, with its choice function variable bound from outside of the conditional by a choice-function quantifier. Allowing for existential closure from intermediate positions in more complex sentences is also

does not become ex-president until 30 years from now. Of course, there are also more complex hypotheses. One might scope out the indefinite NP and also add covert material: 'A certain individual who will in 20 years be an African American ex-president will in 20 years still be an important figure in civic life.' We take such an approach to be relatively unpalatable. (Thanks to Paul Elbourne for discussion.)

[56] There are plenty of examples that illustrate this point. Consider:

i. Some time in the future, a certain man who will have already killed by then will kill you.

For such cases the simple theorist might try a proposal on which, in effect, '$\exists$x' moves but the rest of the noun phrase stays behind along with a trace of the quantifier. (Thanks to Ted Sider for discussion.) This is not a reading generated by standard accounts of quantifier raising, but has been suggested by Chomsky to handle certain sentences involving weak-crossover effects. (See Chomsky, 'A Minimalist Program for Linguistic Theory' and the discussion in Ruys, 'Weak Crossover as a Scope Phenomenon'; see also Bonomi, 'Transparency and Specificity in Intensional Contexts' for such a proposal regarding intensional contexts.) This is the same truth-conditional effect that proponents of the choice-function approach discussed below are trying to achieve.

[57] One option is that 'a friend' as a whole picks out the set of friends; another is that 'a' itself plays the semantic role of a choice function variable.

[58] Reinhart, 'Quantifier Scope: How Labor Is Divided between QR and Choice Functions'. See also Winter, 'Choice Functions and the Scopal Semantics of Indefinites'.

supposed to yield the right truth-conditions for cases of apparent *intermediate* exceptional scope.[59]

This kind of view faces a number of initial complications, including worries about over-generation of interpretations and problems arising within attitude contexts.[60] To take one of the latter issues that may stand out to philosophers: proponents of structured propositions may worry about having to conclude that a sincere speaker of (6) is expressing a belief about the existence of choice functions, and that belief attributions containing indefinites in their complement clauses are attributing beliefs about choice functions. But even if such issues can be adequately addressed, the proponent of the simple view enhanced with existential quantification over choice functions no longer has the right to complain about other views of specific indefinites simply on the grounds that they postulate hidden semantic mechanisms at work. (For example, our own predilections lie in the direction of a view on which specificity is a special case of covert domain restriction.)

The issue will then turn on which of the various theories has the best ratio of theoretical cost to explanatory power. To assess the cost, one must ask to what degree the proposed apparatus can be independently motivated within one's larger semantic theory. And to assess its explanatory power, one must ask how well a given view actually accounts for the pertinent data about indefinites—both facts about readings that are available and facts about readings that are not. In the end, while the simple view enhanced with some mechanism for exceptional scope may achieve the right

[59] An alternative choice-function approach is that of Kratzer, 'Scope or Pseduo-Scope?'. Her picture is not, however, amenable to the simple view, because it posits a truth-conditional ambiguity between specific and non-specific uses of indefinites. In fact, Kratzer characterizes her view as 'a slightly modified version of the . . . Fodor and Sag proposal' (166). Kratzer's idea is that in some cases indefinites 'are interpreted as generalized quantifiers', but in others the indefinite article instead denotes a contextually-determined choice function 'often intended by the speaker, but not revealed to the audience' (p. 167). The domain of the relevant choice function, she argues, can vary according to assignments to an implicit argument. When the implicit argument 'x' is bound by a higher quantifier, the result is what we have been calling 'functional' uses. But often 'x' is simply assigned by context to the speaker, and the relevant choice function delivers whoever x has in mind, yielding what we have been calling 'plain' specific uses (p. 169). Note that on Kratzer's view, there is no existential quantification over the relevant choice functions, in part because 'it is hard to see how a syntactic mechanism like the insertion of existential closure operators could be blocked in just the right class of cases' (166).

The result of this approach is in many respects similar to that of the domain-restriction view we prefer (see §4.6ff). Both are aimed at handling specific uses rather than cases of apparently non-specific exceptional scope. And at least in unembedded cases of specific uses, there will be no truth-conditional divergence between the two uses. However, we do think the domain-restriction view benefits by avoiding the sort of ambiguity Kratzer postulates between quantificational uses and those denoting choice functions. It is also worth nothing that her view about specific 'a' is similar to the neo-Fregean view of 'the' we discuss in Chapter 5, §5.5ff: both treat the article as expressing a function that combines with the domain supplied by the predicate to yield an object, and both are well-suited to the sort of extensional semantic framework, enhanced with world variables, that we address there. (One difference is that 'the' is not treated as context-dependent by the view we discuss.) And though we have reservations about that sort of framework, and we prefer the greater semantic uniformity afforded by the domain-restriction approach, we have no great quarrel with Kratzer's view of specific indefinites. It would certainly be in keeping with the theme of this volume: viz. that by abandoning acquaintance one can explore elegant semantic treatments of various noun-phrases on which they are frequently referential in context.

[60] See e.g. Geurts, 'Indefinites and Choice Functions' and Kratzer, 'Scope or Pseudoscope? Are There Wide-Scope Indefinites?'.

truth-conditions in the case of non-functional intermediate-scope uses of indefinites, we do not think it does so in the case of plain specific uses or of functional uses. That is the point to which we now turn.

(iii) *Specificity and truth-conditions*. Let us grant for the moment that the simple view can find some way to deal with the problem of exceptional scope in the complex examples we have just been discussing. So let us instead consider only sentences where the simple theorist will not want to postulate any movement on the part of the indefinite. This leaves us with the question whether the pragmatic story offered by the simple view is adequate to explain the phenomenon of specificity: viz., the fact that a specific individual is sometimes (but not always) 'talked about' or 'at issue', whether *punkt* or relative to objects in the domain of a higher quantifier.

Here is a simple example. Suppose it is obvious to all the interlocutors that some problems were discussed at the meeting, and some were not. Someone later says, with the budget problem 'in mind':

35. A certain problem was discussed at the meeting.

But suppose it turns out the budget problem was *not* discussed. The simple view reckons the speech true, since it expresses the obvious truth that some problem or other was discussed at the meeting. However, this seems to be the wrong result, as has been argued by Roger Schwarzschild.[61] Suppose one happens to know both that the speaker is thinking about the budget problem, and that it was *not* discussed. Now consider the following two speeches one might make:

35a. That is false. It was not discussed at all
35b. That is obviously true. But the problem you are thinking of was not discussed.

The first of these is preferable.[62] To say 'That is obviously true' suggests that a kind of communicative breakdown has occurred: for example, the interlocutor does not realize the speaker is using the indefinite specifically. (Perhaps she did not hear the word 'certain'.) This is the inverse of the sort of breakdown discussed earlier, when someone attempts to use a pronoun that is anaphoric on a merely existential indefinite.

The same point applies in the case of functional uses. Recall:

11. Each husband had forgotten a certain important date.

Suppose it is obvious in context that, for each husband, there is one important date that he had forgotten. But the speaker has in mind each husband's anniversary. Now

[61] Schwarzschild, 'Singleton Indefinites', p. 300–1.

[62] We wish to leave open a one-many view on which the speaker asserts *two* propositions in uttering (35)—one about the budget problem (such a proposition will be generated by our preferred view), and one a simple existential generalization. On that view, only the former proposition is being added to the common ground, so naturally that is the one engaged by the more cooperative reply.

suppose one knows that some husbands had in fact *not* forgotten their anniversaries. Instead, the dates forgotten by the various husbands were actually unrelated. In such a case, again, 'That is false' is clearly preferable to 'That is obviously true, but . . . '

How exactly are these data to be explained by the simple view? One decision-point is whether to treat the utterance of (35a) as itself false. Surely in uttering (35a) one does not *take oneself* to be uttering something false, negating the boring existential truth that was common ground at the outset. The idea that we communicate truths by way of literal falsehoods that we do not believe—even in cases where we speak with all apparent sincerity and no hyperbole—is much more radical than the idea that we communicate more specific truths by way of more general truths. As discussed in §2.3, it is a serious cost for a semantic theory to claim that in a wide range of cases, apparently sincere assertions of speakers have contents that they believe to be false and that (if things go well) their audiences do not come to believe.

At any rate, whether (35a) is false and communicates a truth, or simply expresses a truth, we must ask what the relevant truth is. Presumably it is a truth about the falsehood of something—but the falsehood of what? According to the simple view, the proposition presupposed by the speaker in uttering (35) is a true proposition, namely *that there is a specific problem at issue in the utterance*. (Contrast this with the idea that, in uttering (35), the speaker presuppositionally communicates a proposition *about the budget problem itself*. We are much more amenable to the latter sort of view—see §4.10.i[63]) So it must be the speaker's *belief* about the budget problem that one is claiming to be false by uttering (35a)—a belief whose existence one has inferred from the two propositions communicated, along with some background knowledge. But it is in general quite difficult for claims like 'That is false' to be heard as applying to some background belief of the speaker's, however relevant that belief is to what the speaker is saying.[64] To begin with, suppose that in the very same setting the speaker had uttered a different sentence whose content was common ground: namely

[63] A proponent of this variant will want to insist that the audience may grasp this proposition about the budget problem even if they do not count in that context as 'knowing which' problem the speaker is talking about.

[64] Even in cases where the speaker is intending to *communicate* a false proposition by uttering a true content it is often unacceptable to say 'That's false'. (Keep in mind that this is not what is going on with (35) according to the simple view—it holds that both propositions communicated by (35) are *true*.) Suppose that after being asked whether Fred is a good philosopher, someone says:

i. He is punctual and has good handwriting

Here—assuming everyone beliefs that Fred is punctual and has good handwriting—no one can respond with 'That's false.'

The simple theorist might be better off if there were a false proposition straightforwardly presupposed by (35)—as the variation we will sketch in §4.10.i would have it—but even then the data are delicate. Consider:

ii. He is poor but honest.

Even if one denies that there is any contrast between poverty and honesty, one cannot respond to (ii) with 'That's false'.

36. Not every problem was ignored at the meeting.

In the relevant setting, the speaker may be manifestly taking for granted that he is thinking about a specific problem—even that he is thinking about the budget problem. Nevertheless, one still cannot say:

36a. That is false. The problem you are thinking of was ignored.

Or suppose that the speaker has heard that the budget problem and the recruitment problem were both discussed at the meeting. With these problems in mind, he says:

37. More than one problem was discussed at the meeting

But again, assuming several problems were discussed, the fact that the two problems he has in mind were not discussed does not license one to say

37a. That is false. The two problems you have in mind were not discussed.

This kind of sharp contrast is at least a *prima facie* difficulty for the simple view.[65]

We find it suggestive that our truth-conditional intuitions here are reminiscent of those in cases of contextual domain restriction. Suppose someone utters

38. There is something in the fridge.

Typically it will be obvious to the interlocutor that—to use a completely unrestricted quantifier—there is *something* in the fridge: air molecules, shelves, and so on. Still, the speaker makes it clear that she has in mind edible things, or things suitable for the next meal. Now suppose one knows that the speaker is talking about food but she is wrong: the fridge contains no food at all. Compare two responses one might make to (38):

38a. That is false. There is nothing in the fridge.
38b. That is obviously true. But there is nothing edible in the fridge.

These responses mirror (35a) and (35b). The first is clearly preferable, though sometimes people who are deliberately being conversationally uncooperative will ignore the contextual effect of domain restriction and give answers like (38b). A cooperative speaker will only utter (38b) if there has been some kind of communicative breakdown.

This kind of phenomenon is one reason to think that contextual domain restriction involves an element of truth-conditional content that is supplied by context, rather than simply a presupposition about which domain is somehow 'at issue'. Moreover—as we shall see—domain restrictions can vary with respect to different items in the domain of a higher quantifier, just as though an element of the restriction itself could be bound by that higher quantifier. And this—at least according to one contemporary line of

[65] The interlocutor in some of these cases can arguably say 'No', but that fact is not as telling because 'no' appears to have a metalinguistic use, as in 'A: She's smart. B: No, she's brilliant.' See Horn, *A Natural History of Negation*.

thought—is another reason to think that domain restriction happens at the level of truth-conditional content. But in this way too, domain restrictions are like specific indefinites! After all, in what we have been calling the functional use, which individual is at issue varies in just this way.

All of this suggests that, insofar as there is a good case to be made for the presence of contextual domain restriction at the truth-conditional level, there is also a case to be made for treating specificity as truth-conditional. In fact, one powerful extant account of specificity simply treats it *as an instance* of contextual domain restriction. Given the various concerns about the simple view we have described, it is surely worth investigating such an alternative.

4.5 Interlude: covert domain restriction

Before we turn to our preferred account of specific indefinites, it will be useful to survey some of the motivations behind postulating elements in semantic content that are unvoiced at the level of overt utterance, and then to examine the case of domain restriction in particular.

(i) *Covert elements*. Consider an utterance of

39. It is raining.

We typically hear this as saying of a particular location that it is raining there. If Jane utters (39) in a context where she and her audience have in mind the weather in Paris, but it happens to be raining in London and not Paris, then her utterance is intuitively false. By contrast, if Jane says

40. Tom is on a date with Betty

thinking that the couple is together in Paris when in fact the couple is in London, her utterance is intuitively true. In both cases, it may be *conveyed* that the action takes place in Paris, but only in the first case does this appear to affect the truth conditions of the utterance itself. More generally, (39) appears to be true relative to a context c just in case it is raining at the location provided by c as operative; and this is not necessarily the location of c. Thus a location (in this case, Paris) seems to enter into the proposition semantically expressed by (39).

Some details are worth noticing. First, the *size* of the relevant location can vary a great deal from one context to another. It could be a city, a country, or a whole planet. 'Tomorrow it will rain' is ordinarily heard as having a restricted context around the location of the speaker. But if someone says 'Sometime in the 1400s it rained frogs', she can be heard as talking about the surface of Earth in a completely unrestricted way.[66]

[66] Similar examples can be found in Recanati, 'It Is Raining (Somewhere)', which compares views appealing to implicit arguments of the sort we are about to discuss with those appealing to 'free enrichment', a pragmatic procedure affecting truth-conditional content. Recanati opts for the former for 'He's finished' and the latter for 'It's raining'.

Even 'Tomorrow it will rain' might be heard like this, if it has not rained anywhere on Earth for centuries. Next, the relevant location need not include the location of the context of utterance. If another location is salient, then (39) can be about a place very distant from the context of utterance.

For the purposes of our investigation, we will be assuming that (39) is semantically context-dependent, and that its truth-conditions on the relevant occasion of utterance turn on the weather in Paris. Of course, the idea that (39) is semantically context-dependent also has its detractors. Some are happy to posit bizarre semantic truth conditions—for example, the relevant utterance of (39) is true iff it is raining anywhere in the universe—and account for our ordinary intuitions about truth-value in other ways.[67] Others take (39) to semantically express something that is not truth-evaluable at all—a propositional matrix that must be saturated by pragmatics for truth conditions to be applicable.[68] In contrast, we will assume that it makes sense to speak of a sentence on an occasion of use being true or false, and we will assume that intuitive judgments about such truth values should be taken seriously. However, much of what we say could be adapted to those who posit non-truth-evaluable matrices or bizarre truth conditions. For them, our discussion will matter to the category of thoughts communicated, though perhaps not semantically expressed. What we treat as a search for semantically referential elements in language could be appropriated as a search for expressions that are typically used in the communication of singular propositions. We will return to this point shortly.

In addition to treating (39) as semantically context-dependent, we will assume that the relevant contextual parameter of (39) is realized by some unvoiced vehicle of representation.[69] There are various ways to implement this idea, and we do not intend to commit ourselves to any of them. On one view there is a deep level of syntax at which (39) contains a pronominal tag that can refer, at a context, to a particular location.[70] Moreover, this pronominal element can also function as a bound variable rather than as a referential tag, which in turn would explain why the relevant location can apparently vary according to the elements of the domain of a quantifier, as in

[67] See e.g. Cappelen and Lepore, *Insensitive Semantics: A Defense of Semantic Minimalism and Speech Act Pluralism*.

[68] For more on the idea of propositional 'matrices' or 'radicals', see Bach, 'Conversational Impliciture'; Soames, 'Naming and Asserting'; 'Drawing the Line between Meaning and Implicature– and Relating Both to Assertion'.

[69] We realize that some philosophers eschew talk of inner representations altogether and with it the idea that there is any compositional system of representation in which the richer content of (39) is articulated. We are not particularly sympathetic to such a perspective, though it is beyond the scope of this work to defend our choice of framework. We leave it as an open question how much of what we say could be captured by even more neutral language.

[70] The postulation of unvoiced elements of content that get grammatically realized at some deeper level of syntax (perhaps 'LF') has a distinguished history in mature linguistics. One standard and well-explored case is the covert pronominal ('PRO') in 'John wants to eat'. In other cases, the question of whether unvoiced semantic elements have a syntactic realization is rather more contentious—as with the question whether there is a covert generic operator at LF.

41. Everywhere I go, it is raining.[71]

An alternative view treats Paris as included in the content of (39) but denies that this aspect of content is syntactically articulated. Instead, it is represented at a deeper level of inner representation, such as a language of thought whose vehicles are not always lexicalized for the purposes of the natural language organ.[72] Despite our neutrality on issues of implementation, it will sometimes be useful to choose a concrete view for ease of exposition. In such cases we will talk as though there is a syntactically realized, covert pronominal element involved.

(ii) *Acquaintance*. Our willingness to use (39) to talk about a place in context has nothing at all to do with the presence or absence of acquaintance with the place we are talking about. To felicitously utter (39) there must of course be a location that one is talking about, so one will have available *some* answer to the question, 'Where?' But this will frequently have nothing to do with standing in a special causal or epistemic relation to the relevant place.[73] In a context where the conversation concerns what is going on in the middle of the Amazon rainforest, we can utter (39). A straightforward application of the analysis will assign the middle of the Amazon as the referent of the pronominal element, so that the utterance expresses a singular content about that location. (Even those who prefer an account in terms of what is pragmatically conveyed should at least acknowledge that in this case the subject is *conveying* a singular thought about the middle of the Amazon.)

Some friends of acquaintance may insist that in this context (39) must have a more complex semantic analysis: even though it typically involves an unvoiced pronominal element that is bound or contextually assigned, in this case it involves an unvoiced definite description free of any referential vehicle. But with acquaintance discarded we have no need to resort to such maneuvers and are free to recognize that the speaker expresses a singular proposition about the middle of the Amazon. (Likewise, no one who posits a time variable as an obligatory argument place would hold that, in the

[71] For relevant discussion, see Partee, 'Binding Implicit Variables in Quantified Contexts', p. 218; Stanley, 'Context and Logical Form', Neale, 'On Location'. Elsewhere one of us has argued that the semantics runs rather more smoothly by positing a slightly different hidden structure where the relevant hidden restriction is on an event quantifier: see Hawthorne and Cappelen, 'Locations and Binding'. Many of the relevant points could be rearticulated in that setting, but our expository purposes are better served by sticking to the simpler version of the hidden variable view. Not surprisingly, many of the relevant data can also be recovered using situation quantifiers: see Elbourne, 'The Argument from Binding,' §§3–4 for further discussion.

Note that if (a) 'it is raining' does not implicitly contain something bindable as it occurs in (41); and (b) natural language quantifiers are variable binders—an assumption that is far from straightforward—then (41) risks containing vacuous quantification, as in: ∃x (John is happy). But that, of course, does not establish that a hidden variable is ever present when 'It is raining' occurs alone—still less that it is *always* present.

[72] For example, see Sperber and Wilson, *Relevance*. Note that if the vehicle lives at the level of thought representation but not LF, then it may turn out to be misleading to call it 'part of the syntax'.

[73] The answer must simply pick out the location one is talking about, if only in a very 'thin' way. Depending on context, this answer may not intuitively put one in a position to count as 'knowing where the speaker claimed it to be raining'.

absence of acquaintance with whatever time would otherwise be assigned by context, the time variable is displaced by a definite description.)

Analogous considerations extend to expressions like 'is an enemy' and 'is an uncle'. Here the proposal would be that, whether at some level of thought or of syntax, there is a structure of the form 'is an enemy of x' and 'is an uncle of x', where 'x' is sometimes bound, and sometimes refers to an individual. And again there appears to be no acquaintance constraint on the use of such expressions. In a context where we are talking about the first soldier to cross over no-man's land, we can say, 'Enemies opened fire' or 'I wonder if a rich uncle was rendered proud enough to change his will.' These sentences, applying the analysis to the case, will in context express singular propositions about the relevant individual. (We are saying that *his* enemies opened fire, and wondering whether an uncle of *his* changed his will.) Our purpose here is not to argue again for the failure of CONSTRAINT; the point is that once CONSTRAINT has been discarded, there is no obstacle to giving a uniform reading to the semantic content in these examples, whether or not acquaintance is present.

(iii) *Domain restriction*. Consider the way in which quantifier domains are restricted in context. For example, 'Every room is dark' would not be true on a given occasion of use unless the domain of the quantifier were further narrowed down. We will suppose that such a sentence *can* literally be true on an occasion of use, and so the phenomenon of quantifier domain restriction is a semantic one.

It is tempting to suppose that in cases of quantifier domain restriction, a class of individuals is somehow supplied by context, the way a place is supplied for 'It is raining'. But a richer process is called for when we notice examples like this one, a variant on an example due to Heim:[74]

42. In every class, every student failed the exam.

The adverbial phrase 'in every class' modifies the verb, telling us where the students failed. This gives us: 'In every class, every student failed the exam *there*'. Of course, it is not the case for each class that every student in the whole world failed the exam there. But because different students take different classes, we cannot simply limit the domain of students to the union of all the sets such that each set contains all the students in one class. That would yield truth conditions for (42) requiring that a student who took just one of the classes failed in all of the classes. Thus, the restriction on the domain of 'every student' must vary with elements in the domain of 'every class'. It must, in effect, supply a different restriction on students relative to each class.[75]

One approach to contextual domain restriction postulates a covert element of meaning that—in combination with the overt material in the predicate—expresses a

[74] Heim, 'Artikel Und Definitheit'.

[75] See ibid., Westerståhl, 'Determiners and Context Sets', von Fintel, 'Restrictions on Quantifier Domains' §2.2, Cooper, 'The Role of Situations in Generalized Quantifiers', Stanley and Szabó, 'On Quantifier Domain Restriction'.

property with a narrower extension than that expressed by the overt material.[76] But in order to account for the way in which the domain of the lower quantifier varies relative to each element of the domain of the higher quantifier, some have postulated an element of the covert restriction that can be *bound*. This idea can be implemented in a variety of ways. For example, Jason Stanley and Zoltan Szabó have argued for a covert structure of the form 'f(i)', where 'f' is assigned a function at a context and '(i)' is a pronominal element that either refers to an object at a context or else gets bound. Thus, the pronominal element in (42) is treated as bound by 'every class'. Meanwhile the relevant function takes each class assigned to the pronominal element as argument and, together with the property of being a student, yields the property of being a student in that class. As needed, (42) gets to be true iff in every class x, every student in x failed in x.

Stanley and Szabó say that the relevant function 'maps objects onto quantifier domains', where the resulting domains are then intersected with the extension of the overt predicate (pp. 251–523). However, if we want the covert element of the restrictor to combine with the overt element in a function-argument fashion, it would be better to think of the relevant function as taking an object as argument and yielding a property of properties as value—that is, it is a function from objects to the semantic value of a predicate modifier like 'in this class' as it occurs in 'student in this class'.

This is especially helpful in a sentence such as 'Every friend was wearing a hat', where the speaker is talking about John's friends and so the covert pronominal element refers to John. If 'f' takes John as argument and yields a domain that is in turn intersected with the set of all friends, what is that domain? It cannot be the set of things somehow related to John, as that would not intersect with the set of all friends to yield only the friends of John. Presumably Stanley and Szabó must say that when 'f' takes John as argument it simply yields the friends of John—but then the semantic contribution of the overt noun 'friend' would be superfluous. This problem is avoided if the function takes John as input and yields a function that takes *being a friend* as input and returns *being John's friend*. (Alternatively, it could take *being a friend* as input first, and yield a function that takes John and returns *being John's friend*.)

Stanley and Szabó go on to argue that this kind of 'f(i)' structure is realized at the level of syntax.[77] And they argue that it lives at the same syntactic node as 'student',

[76] For example, see Westerståhl, op. cit., von Fintel op. cit., and Stanley and Szabó, op. cit. Contextually-supplied domain restrictions have been put to work in plenty of semantic proposals in the last several decades: for a helpful list of related works, see Chapter 2, fn. 21 of von Fintel op. cit.

[77] Op. cit. Sentences like (42) should be contrasted with one of their favorite examples, which turns out to do very little in support of their view:

i. In every class, John failed three Frenchmen

There is a reading according to which, in every class there were three Frenchmen that John failed in that class, and there is no requirement that it be the same three Frenchmen. Stanley and Szabó use the availability of this reading to justify positing an unvoiced restrictor on the nominal 'Frenchmen' that is bound. But, whatever else is going on, the adverbial phrase at the beginning of this sentence modifies the verb, giving us

rather than co-habiting with the determiner or occupying its own syntactic node.[78] (Note that these options should be sharply distinguished from a thesis accorded to which the unvoiced elements of the restrictor are to be understood in terms of syntactic deletion.) We will set aside discussion of these further theses.

Our own assumptions about quantifier domain restriction are comparatively minimal. We assume that it involves a covert truth-conditional contribution capable of combining with the overt predicate to yield a property that restricts the domain of the quantified noun phrase. And we will assume that this contribution is not only context-dependent, but capable of varying relative to elements in the domain of a higher quantifier. Finally, although we make no assumptions about whether this element of meaning is realized in syntax or simply at some deeper level of mental representation, we will treat it as involving the 'f(i)' semantic structure sketched above. (In fact we suspect this picture will have to be complicated to handle various cases involving more than one higher quantifier, as in

43. Every year, in every class, every student failed.

As one of us has argued elsewhere, consideration of such examples may motivate an event-based approach where the relevant hidden restriction is on an event quantifier. Nevertheless we will stick with the simpler picture for ease of exposition.)

4.6 Specificity as domain restriction

With suitable background material now in place, we turn to a third and more promising approach to specific uses of indefinites that has been developed by Roger

'In every class John failed there three Frenchman'. (The modification required to get the reading is the same as that needed for 'In every class, John coughed/yelled/jumped', where there is not even a direct object around.) But this is enough to recover the relevant reading, given that it seems very hard indeed to fail someone in a class if that person is not in the class! All we need is: In every class x there were some ys such that the ys were three Frenchman such that John failed in x the ys. Consider further the sentences:

(ii) In every class, John mentioned three Frenchmen.
(iii) At every tourist site, John sent letters to three relatives.

In these cases too, it is quite obvious that the initial modifier modifies the verb and, indeed, it is next to impossible to hear (ii) as requiring that whenever three Frenchman were mentioned they were in the class, and (iii) as requiring that whenever three letters were sent to relatives, the relatives where at a tourist site. Thanks to Barry Schein here.

[78] For further discussion of some available options, see Elbourne, 'The Argument from Binding', Cappelen and Hawthorne, 'Locations and Binding', Collins, 'Syntax, More or Less', the 'Postscript' of Stanley, *Language in Context*, especially p. 249, and Ostertag, 'Review of *Language in Context*'. Note that assuming the approach in Stanley and Szabó, the relevant mechanism is only 'quantifier domain restriction' in a special sense. For the covert material refines the restrictor property; it need not shrink the domain of discourse. Consider an utterance of 'Some cats are on the mats' as used to make a remark about cats in a certain room R. Supposing the restrictor property is being a cat in room R and the domain is the universe of everything, no violence is done to our intuitions about truth conditions.

Schwarzschild, based on an idea due to Kai von Fintel and Uli Sauerland.[79] The fundamental idea is to make use of the notion of covert quantifier domain restriction just introduced. And as we shall see, this approach can also be extended to cover specific uses of other existentials.

(i) *Singleton restrictors*. We have already encountered the idea that in a typical utterance of 'Every room is dark', the quantifier is restricted by a property determined by the overt noun 'room' in combination with some covert material. Another common application of contextually-supplied domain restriction is to cases of incomplete definite descriptions, at least if we treat them along quantificational lines. For then

44. The chair is red

must be evaluated relative to a restricted domain if it is to have its intuitive truth conditions. (Moreover, as we will see in the next chapter, the relevant restriction must also be capable of varying relative to elements in the domain of a higher quantifier, as in 'In every workstation, the chair was red.')

Is there a similar phenomenon in the case of specific indefinites? Recall:

1. A friend of mine is absent.

It does not seem sufficient for an utterance of (1) to be true in the relevant context that not all of the speaker's friends are present. Just as in (44) there are all sorts of chairs that are irrelevant, in (1) there are all sorts of friends that are irrelevant. In fact, the only relevant friend is the one that the speaker 'has in mind': namely, let us suppose, Maria. Thus, if we are to provide (1) with its intuitive truth conditions, it appears we must somehow restrict the domain of the quantifier all the way down to Maria.

For now we can think of the overt material and implicit restriction associated with a quantified noun phrase as each contributing a property.[80] Call the combination of the overt predicate and covert material the *restrictor* and the property they combine to express the *restrictor property*. The extension of the restrictor at a world is given by the intersection of the extension of the property expressed by the overt material with the property expressed by the implicit modifier. If the restrictor property has a singleton extension, call it a *singleton restrictor property* and the material that expresses it a *singleton restrictor*. Schwarzschild thinks of a specific indefinite as a special case of domain restriction: there is unvoiced material that

[79] See Schwarzschild, 'Singleton Indefinites' and von Fintel, 'Quantifier Domain Selection and Pseudo-Scope'. Schwarzschild credits von Fintel with an early version of this idea, and von Fintel in turn credits Uli Sauerland. See also a related view, at least for cases involving 'certain', in Breheny, 'Exceptional-Scope Indefinites and Domain Restriction'.

[80] It might be more appropriate on some semantical approaches to think of the implicit restriction as contributing a function from properties to properties, but such details are somewhat immaterial here.

combines with the voiced component of the restrictor to determine a singleton property restrictor.[81]

What sort of property, exactly, is contributed by the covert material? We will address this question in a moment, but first it is important to appreciate the shape of the view and its power to handle various uses of specific indefinites. First, as we have seen, it gives face value to the intuition that specific uses differ truth-conditionally from non-specific uses. Second, it allows us to shun ambiguity and always treat the indefinite article as a determiner whose semantic role is that of existential quantification. Third, when it comes to plain specific uses, we need not posit unusual scope possibilities for indefinite noun phrases.[82] Recall

6. If a certain friend of mine were absent, I would be shocked

On the assumption that the covert material, in combination with the overt, restricts the extension to Maria at all the close worlds, then the conditional can only be made true by certain facts about Maria being counterfactually true.

We should acknowledge that this account does not in itself provide us with a failsafe diagnostic concerning when a singleton restrictor is semantically in play. In some cases we have fairly clear intuitions of truth-value that, if trusted, dictate the presence of covert material. But in other cases this is not so. Take cases where someone says 'An F is G' with a particular F in mind, and as a matter of fact that F is not G but some other F is G instead. In some such cases—though not others—we feel ambivalent between 'That's false' and 'That's true, but not the F you are thinking of'. (Thus, for example, the continuation 'True, but not the guy we all know and love that you are thinking of' would typically be strange in response to 'A guy we all know and love is absent'; but the response 'True, but not the student you are thinking of' would typically be less strange in response to 'A student is planning to blow up the school'.) One might argue that hidden representational facts always straightforwardly settle the issue of specificity in such cases, even though other conversational factors can influence the acceptability

[81] Some tweaking of the proposal may be necessary depending on subtleties about logical form. Various hypotheses about the logical form of sentences containing specific indefinites are perfectly consistent with this picture, but we intend to stay neutral on these here. Again, one relevant decision point is whether the syntactic slot for the implicit restrictive material is contributed by the nominal or by the determiner itself. Other versions of the idea can arguably be accommodated by more dramatic departures, such as the idea that the implicit restrictive material is not realized at all at the level of logical form, but instead at some level of thought representation, or that domain restriction is semantically real but not realized by any covert representation. (Schwarzschild himself is somewhat neutral about the precise nature of the covert material; see, for example, fn. 8, p. 297.)

[82] There is a class of apparently plain specific uses for which even a proponent of Schwarzschild's view may feel pressure to engage in special scope pleading. Consider 'If a certain king had failed to exist . . . ' If the existential is given narrow scope we are being invited, it would seem, to consider worlds where a particular king does and does not exist. However, for the reasons indicated in Chapters 5 and 6, we are somewhat dubious of a scopal resolution, even in this case.

of our choice of continuation. But there may instead be a considerable area of vagueness between the two kinds of use.[83]

It is natural to extend Schwarzschild's account to the case of other specific existentials.[84] The basic idea is that the specific use of 'three philosophers', for example, involves a restrictor that determines a single plurality as its extension. This is the plural analog of a singleton restrictor, which determines a single object as its extension. Let us use the general term *specific restrictor* to indicate a restrictor of either type: where the covert pronominal element is singular, this amounts to there being exactly one x of which the restrictor is true, and where the covert pronominal is plural, this amounts to there being exactly one plurality such that the restrictor is true of them.

For example, suppose a party-goer says:

19. Certain friends of mine are absent

to explain why she is disappointed. On the most straightforward reading, the truth of this claim would not be guaranteed by the fact that not all of her friends are present. For those who believe that covert quantifier restriction is common, it is natural to think that the quantifier is being restricted here to certain friends that the speaker has in mind. But if we assume that (19) involves ordinary singular (as opposed to plural) quantification, we still do not get the right reading. Suppose she has in mind Billy, Rachael, and Gabe. If the singular quantifier is restricted to a domain including only these three people, the result is that (19) is true just in case at least one of Billy, Rachael, and Gabe is absent. But intuitively (19) requires that all three of them are absent. We would do

[83] Here are two alternative options. (i) The original content in a range of cases is vague but nevertheless can get precisified according to the kind of response advanced by the interlocutor—as long as that response is conversationally accepted. (ii) A more radical option is a one-many approach to semantic content according to which uses of indefinites typically express both the unadorned content and the singular restricted content, both being then available to the interlocutor with neither having the unique privilege of being *the* semantic content. (Thanks to Cian Dorr here.)

[84] As Rothschild notes, it would be nice if we could explain why certain determiners—such as 'more than one'—make specific readings more difficult to access: see Rothschild, 'The Elusive Scope of Descriptions'. In some cases there may be a simple explanation. For example, if there were a covert singleton restrictor associated with 'dog', then 'more than one dog is F' would be trivially false (just like 'more than one tallest man is F'), so a general presupposition of informativeness may explain the unavailability of an interpretation on which it has a covert singleton restrictor. Perhaps of more interest is that 'more than one' cannot easily be heard as having a restrictor that ties it to a particular *plurality*. We can hear 'Certain friends failed to show up' as false if the friends that the speaker is thinking of did not in fact show up—even if a few friends did show up. But it is harder to hear an analogous reading of 'More than one friend failed to show up' under these circumstances. On the other hand, arguably the boring fact that 'friend' is grammatically singular prevents it from being part of a restrictor that picks out pluralities.

Another case is 'many'. It is hard to hear the truth of 'Many dogs are mean' as turning on the meanness of any specific plurality of dogs, even though the domain of dogs may be covertly restricted to nearby dogs. One possible explanation: 'many dogs' is short for 'many of the dogs'. In that case, one would expect that 'the dogs' could contain a specific restrictor (see Chapter 5), but that there could be no additional covert restriction on 'many' for the same reason that one cannot insert overt restricting elements before 'of the dogs', as in 'many nearby of the dogs' or 'many schnauzers of the dogs'.

better to take (19) to involve plural quantification, and the restrictor (determined by 'friend' plus a covert element) to be true of exactly one plurality.[85] Then the truth of the sentence at this context will turn on the doings of the relevant plurality.

Likewise, recall that both the wide-scope and the referential approach to specificity ran into trouble with the specific reading of 'three relatives' in:

20. If three relatives of mine were to die this year, I would inherit a fortune.

The present account allows us to treat the specific reading as involving a (partially covert) restrictor that specifies a single plurality. The result is that to evaluate the truth of (20) we examine only close worlds where all three members of the plurality have died. This gets us the relevant truth conditions without denying that 'three relatives of mine' is a quantifier phrase in this setting.

(ii) *Presupposition and specificity*.[86] Here is one drawback of the account so far. A singleton restrictor can be used in the absence of the phenomenology of specificity. Suppose there is only one black hole in the universe. Then 'black hole' counts as a singleton restrictor by our earlier definition. But if Jane thinks there are many black holes and says 'I would not like to be sucked into a black hole', her use of the indefinite does not have the hallmarks of specificity. Conversely, there may be cases where a speaker takes herself to be supplying a singleton restrictor but fails to do so. Suppose Jane thinks there is one prince of country Y but in fact there are two. She says, 'I would like to meet a certain man from country Y', intending to speak about the unique prince. This time the phenomenology of specificity is present, but unbeknownst to the speaker the restrictor in play is not a singleton restrictor.

Here is a more careful taxonomy. Let us call a use of the indefinite article 'specific' when the speaker *presupposes* that the indefinite has been restricted to yield a singleton extension. To express it in less theory-laden terms: the speaker presupposes that there is exactly one object that her use of the indefinite *is about*. (Notably, this presupposition is metalinguistic; but there is also a related presupposition that can be stated in the material mode. Supposing that the restrictor property of an indefinite noun phrase used specifically is *being F*, the speaker presupposes that there is exactly one thing that is F. In what follows, we shall generally be focusing on the metalinguistic presupposition—we suspect that it has explanatory primacy.)[87] In the case of the black hole, Jane's indefinite has a singleton extension, but she does not presuppose that it does; so on this taxonomy her use of the indefinite does not count as specific. In contrast, in the case of the prince her indefinite counts as specific even though the indefinite is not adequately restricted, because she (wrongly) presupposes that it is.

[85] Note that the relevant property will have to be non-distributive, or else the plurality made up of any two of the three friends at issue will also satisfy the restrictor.

[86] Thanks to Sarah Moss for discussion on several of the points in this section.

[87] In §4.11 we will look at the behavior of these presuppositions when the indefinite occurs within the scope of an attitude ascription.

Is this really presupposition? As we have seen, it certainly projects, surviving various kinds of embeddings. Consider:

45. Does a certain friend of yours have cats?

Suppose the speaker is confused. She thinks, because of various bits of misleading evidence, that the addressee has a new boyfriend. And she intends to be restricting the domain to the addressee's new boyfriend. Now suppose the addressee happens to know that the speaker has this intention. Then the addressee cannot straightforwardly answer 'no' as though the question were, 'Does there exist someone who is your new boyfriend and has cats?' Nor can she answer 'yes' as though it amounted to 'Does at least one of your friends have cats?' Both 'yes' and 'no' involve accepting the presupposition that there is a unique individual that the speaker's indefinite is about. Likewise for negation. Suppose the speaker in this context says

46. A certain friend of yours does not have cats.

The addressee will not find it easy to assign a truth-value to this utterance. Likewise if negation is clearly given wide scope, as in:

47. It is not the case that a certain friend of yours has cats.

The false presupposition that there is a unique individual at issue makes it difficult to hear these utterances as clearly false or clearly true, despite the truth-conditional content assigned to them by the present view of specific indefinites.

Of course, this does not mean that it is always hard to assign truth-values to utterances involving presupposition failure. There are systematic ways to generate 'non-catastrophic presupposition failure', and in this respect as well, specific indefinites pattern with paradigm cases of presupposition. For example, as Strawson wrote:

> Suppose, for example, that I am trying to sell something and say to a prospective purchaser *The lodger next door has offered me twice that sum*, when there is no lodger next door and I know this. It would seem perfectly correct for the prospective purchaser to reply *That's false*, and to give as his reason that there was no lodger next door.[88]

Exactly the same response is in order for 'A certain lodger next door has offered me twice that sum', uttered in Strawson's context.

Our proposal so far will have to be refined for settings where various non-actual possibilities are relevant. In such cases it may neither be necessary nor sufficient for one's use of an indefinite to be specific that one presupposes that the restrictor picks out exactly one thing in the actual world.

[88] Strawson, 'A Reply to Mr. Sellars'; see also Yablo, 'Non-Catastrophic Presupposition Failure'.

First, it is sometimes not sufficient. Suppose it is common ground that there is exactly one professional baseball team called 'the Marlins'. Consider the speech

48. It could have been that both the American and National leagues had a professional baseball team called 'the Marlins'.

It may be clear that the speaker takes for granted that as a matter of fact the predicate 'professional baseball team called "the Marlins"' has a singleton extension. Still, her use of the relevant indefinite in this modal speech does not count as a specific use. Roughly speaking, when a range of possibilities is relevant to evaluating a speech, a specific indefinite will generate the phenomenology of specificity only if it is presupposed that, *relative to each relevant possibility*, the restrictor has a singleton extension.[89] (One can bring ordinary non-modal speeches under this generalization either by claiming they are limiting cases where only the actual world is relevant or else by claiming that in those cases the relevant possibilities are delimited by common knowledge of speaker and hearer.)[90]

Second, in some contexts it is not necessary that one presuppose that exactly one object actually satisfies the restrictor. Suppose a childless speaker says:

49. Suppose I had had girls. Then a certain child would have inherited my diamond ring.

And suppose that in answer to 'which child?', she would say 'the oldest girl'. This is a specific use even though it is clear that the restrictor does not pick out anyone in the actual world. As some would put it, the presupposition that exactly one thing is F has been 'locally accommodated'.[91] (This kind of thing is typical for presuppositions: the normal presupposition for 'Fred stopped smoking' can be locally accommodated in a 'modal subordination' sequence like 'Fred might have been a smoker. He would have stopped smoking when he got married.') This need not mean that such cases are a kind of *exception* to the presupposition accompanying specific indefinites; instead, we can think of that presupposition as concerning only relevant possibilities to begin with—and sometimes the actual world is not relevant. More carefully, an occurrence of 'an F'

[89] Note that on a view that treats modal claims as having a deep structure involving world variables, modal discourse using specific indefinites is a special case of a phenomenon described earlier, namely of a restrictor varying in content according to variable assignments to a higher quantifier. If as one treats 'There could be an F' as having the form '$\exists$w(there is an F at w)', then the restrictor will have an extension only relative to assignments to the variable 'w'. We discuss the world variable approach to modal discourse in more detail in Chapter 5.

[90] If one adopts an approach that appeals to epistemic possibilities, one may need to be careful not to think of them as a subset of metaphysical possibilities, due to the epistemic necessity of propositions of the form 'P iff Actually P'. Further discussion of these subtleties would take us too far afield.

[91] For further background on the phenomenon of local accommodation, see Heim, 'On the Projection Problem for Presuppositions'; 'Presupposition Projection and the Semantics of Attitude Verbs'; Karttunen, 'Presuppositions and Linguistic Context'; Geurts, 'Presuppositions and Anaphors in Attitude Contexts'; van der Sandt, 'Presupposition and Discourse Structure'.

is specific just in case the speaker presupposes that her restrictor picks out exactly one object at every possibility that is relevant at the local context of the noun phrase.[92]

Here is a final issue to be raised in connection with the presuppositions of specific indefinites: are they ever meaning-triggered in the sense introduced in §4.3? Clearly, 'an F' all by itself does not meaning-trigger a specificity presupposition. Far more plausible is the idea that 'a certain' does.[93] However, one source of doubt stems from questions like

50. Did every professor fail A CERTAIN student, or did different professors fail DIFFERENT students?

There is arguably a reading of (50) on which 'a certain student' has neither a plain specific nor a functional interpretation. We will set aside the question how best to explain this; for us little hinges on whether 'a certain' meaning-triggers specificity.[94]

One indefinite that does meaning-trigger a specificity presupposition is the non-proximal, indefinite 'this' of contemporary informal English. Notably, all of the plain specific uses of 'an F' we have encountered can seamlessly be replaced by 'this F'—and arguably some of the functional uses too.[95] But where the indefinite is used non-specifically, 'this' cannot be used; and the fact that it does not admit of non-functional exceptional scope readings like those in (15) and (16) is additional reason to treat specificity and exceptional scope as distinct phenomena.

(iii) *Functional uses*. In our earlier discussion of contextually restricted domains, we noticed that they must be capable of varying with assignments to variables bound by higher quantifiers. For example:

[92] Much more will have to be said about what is meant by 'relevant' and 'local context' here: see for example Schlenker, 'Local Contexts', §1.2. Consider:

i. Either she has no girls or a certain child will inherit that diamond.

The thought is that by the time we have reached the right disjunct, we have set aside epistemic possibilities in which she has no girls: they are no longer relevant. After all, a world in which she has no girls will already verify the sentence because of the first disjunct; all that remains to check is whether the second disjunct holds in worlds where she does have girls.

[93] Is it an accident that the same lexical item seems to show up in indefinite noun phrases like 'A certain person' and in speeches that convey epistemic information like 'The date is certain'? Arguably not, given that German has a similar connection: 'a certain day' is 'ein bestimmter Tag', and 'He's certain to come' is 'Er kommt bestimmt'. We suspect that the source of the connection is something like this: 'The date of the party is certain' requires that someone relevant in context has settled which date the party will be held on; and a felicitous use of 'A certain person will come' requires that some person is such that someone (usually the speaker) has settled that he or she will come. Both are arguably connected to the ability of some relevant party to answer 'Which F?'—though see also fn. 48.

[94] It is also possible to claim that 'certain' has more than one meaning in the context of an indefinite noun phrase and that one of its meanings triggers the relevant presupposition.

[95] Tania Ionin, '*This* is Definitely Specific', treats indefinite 'this' as referential along the lines of Fodor and Sag's treatment of specific indefinites. It is crucial for this view that the indefinite 'this' cannot be bound; but we are not convinced. In at least some regions it is acceptable to say, 'Every man in the room forgot this one important date'. (Note that uses like this often occur as disguised questions on *Jeopardy*.)

51. At every time during the period, every town official was corrupt.

For very different time assignments, there will be different domains for the second occurrence of 'every'. The present account allows us to treat the phenomenon of functional uses of indefinites along the very same lines. Recall:

11. Every husband had forgotten a certain important date.

The relevant reading is different to that which would be obtained by simply scoping out the existential quantifier. But neither can we treat the existential quantifier as simply restricted once and for all to a special class of important dates—the men's anniversaries. In that case (11) might be true even if some of the husbands had only forgotten the dates of other men's anniversaries. The restriction must vary according to the variable assignments of the higher quantifier, and in each case it must supply a single date: for each man as an assignment, it supplies his anniversary.

The domain restriction view provides an elegant account of these cases if we allow the restricted domain of 'a certain important date' to vary with assignments to 'every husband'. In particular, the modifier can be understood in terms of an (f(i)) structure: Let the pronominal element be bound by 'every husband' and f denote a function from objects x to the property of being x's anniversary. The indefinite is thus specific in the sense that it is intended to have only one thing in its extension for each variable assignment to the pronoun bound by 'Every husband'. (Schwarzschild thus includes such indefinites under the category 'singleton indefinites'.)

(iv) *Exceptional scope.* Unlike the simple view, the domain-restriction view need not appeal to exceptional scope when it comes to any plain specific or functional uses. But neither view has a straightforward account of apparently non-functional intermediate scope, like 'some problem' on one reading of

14. Most linguists have looked at every analysis that solves some problem.

(Recall that one is to imagine the speaker not having any particular function from linguists to problems in mind.) But arguably this should not be treated as the same phenomenon as specificity anyway. For one thing, for the relevant reading one does not have the phenomenology of any specific problem being at issue, even relative to a given linguist; and asking 'which problem?' would be out of place. Moreover, we saw earlier that there are other cases of quantifiers apparently escaping relative clauses like this, as in (17) and (18). Thus, since the domain restriction theorist accounts for specificity without any appeal to exceptional scope, it is natural for her to treat the phenomenon exhibited by (14) as entirely unrelated.[96]

[96] For the simple theorist the connection will also be tenuous; in order to avoid radically incorrect truth conditions, she can appeal to something like exceptional scope in the case of some specific uses such as (6) and (20). But she also posits a special kind of presupposition that is in play in such cases, and a similar kind of presupposition for functional uses, neither of which will be present in (14).

However, Schwarzschild does propose recovering the intuitive truth-conditions of (14) by appealing to singleton restrictors. He writes:

> It is entirely possible that the indefinite in [(14)] has an implicit quantified restriction. Were we to spell out the implicit restriction, we might get something like the following:
>
> Most linguists have looked at every analysis that solves some problem *that they have worked on most extensively*.
>
> What we have now done is make apparent the bound variable in the restrictor of the indefinite. In so doing, we have revealed another singleton indefinite.[97]

On this approach, (14) involves a functional use of the indefinite after all, but the function involved yields truth-conditions that are similar to those of a wide-scope interpretation. Unfortunately, they are not similar enough. To begin with, the amount of work expended on a problem will not always correspond to the proportion of analyses solving that problem one has looked at. A tidied-up version would have the singleton restrictor specify, for a given linguist x, the unique problem such that x has examined a greater proportion of solving analyses for that problem than for any other problem.

But this is still problematic.[98] Suppose it turns out that in every case there is a tie among problems when it comes to the greatest proportion of solving analyses examined. This eventuality is completely unproblematic for the truth and felicity of the intended reading of (14). (For example, suppose that for most linguists x there are at least two problems y such that x has looked at every analysis that solves y—in which case the intended reading is both felicitous and true.) But in every case of such a tie, the restrictor just sketched will supply for each linguist a property that no problem has. The restrictor will therefore fail to be a singleton restrictor at all. So if the indefinite in (14) were a specific use, we would in fact predict a failed presupposition of specificity, making (14) at best infelicitous and at worst truth-valueless. Moreover, even if (14) is treated as having truth-value in cases of ties, it will often get assigned the wrong truth-value. Suppose that for every linguist x and problem y, x has looked at exactly half of the analyses that solve y. In that case (14) is clearly false on the intended reading. But that is not the result we get with the restrictor just sketched. After all, every linguist will trivially count as having looked at every analysis that solves the unique problem examined by her more than any other problem. Since there are no such problems, there are no analyses that solve them.

This difficulty generalizes. Whatever function one might use to specify a single problem relative to a given linguist will either face the problem of ties or be forced to introduce a tie-breaking condition that interferes with the intuitive truth-conditions of (14). In short, the intended reading of (14) cannot be recovered by treating it as specific

[97] 'Singleton Indefinites', p. 297.

[98] We set aside cases involving infinitely many solving analyses, which would cause complications for the notion of a proportion here.

on the current view—a result we embrace on the grounds that the indefinite in (14) does not have the phenomenology of specificity anyway.

This is not to abandon the idea that (14) involves a restriction on the domain of 'some problem'. Indeed, as Schwarzschild points out, if there were no restriction at all, the intermediate scope reading would be satisfied as long as there is a single obscure problem for which no analyses have been proposed.[99] But we can allow this restriction to vary with elements of the domain of 'every linguist' while giving up the idea that it must be a singleton restriction. In fact, this solves the problem of ties. Thus we might say that, for a given linguist x, the domain is restricted to exactly those problems such that x has not examined a greater proportion of solving analyses for any other problem.[100]

This approach to (14) is simple and appealing, but does face an initial challenge. Suppose that there are no problems and hence no analyses that solve any problems. In that case we intuit that the relevant reading of (14) is false, as would be predicted by a genuinely intermediate-scope reading. (Since it claims that for most linguists x *there is a problem* y such that . . .) But the domain restriction just suggested yields the result that every linguist will trivially count as having examined every analysis that solves some F-problem, regardless of the nature of condition F. In response, one might appeal to the idea that 'some problem' in (14) *presupposes* a non-empty domain, and claim that the relevant reading is not false but only unacceptable due to presupposition failure. (Of course, this in turn would generate a lack of truth-value on a gap-happy approach.)

We will set aside further investigation of the issue of apparent exceptional scope. We wish simply to emphasize that the relevant indefinite uses do not involve singleton restrictors, whether or not they involve non-singleton restrictions containing a bindable element. We think this rightly puts them in a category apart from plain specific and functional readings.

(v) *The upshot.* We think the domain-restriction view of specificity, supplemented with the presuppositional story we have offered, has a lot going for it. To begin with, it combines the best features of the bifurcated and simple views while avoiding their central flaws. Along with the bifurcated view, it gets the truth-conditions

[99] Ibid., p. 303. It would not help to appeal to unproposed analyses in the Platonic realm; we can simply replace 'analysis that solves some problem' with 'analysis that has been proposed for some problem'.

[100] Could this sort of thing be what is going on with 'each movie' in (17)?

17. We watched a lot of obscure movies, but my friends are experts. Everyone could name most actors who starred in each movie we watched.

Suppose we think of 'each movie' as involving a restriction with an (f(i)) structure. Let the pronominal element be bound by 'most actors' and f denote a function from objects x to the property of being a movie starred in by x. The result is the claim that everyone could name most actors x who starred in each x-starring movie we watched. Unfortunately, this does not quite get the truth conditions right. Suppose we watched exactly three films, each of which had exactly three stars. In each movie two of the stars were Katharine Hepburn and Spencer Tracy, but the third star was different each time, for a total of five stars. Now suppose my friends could name Hepburn and Tracy. In that case (17) seems true, but the current reading would treat it as false, since my friends could not name most of the actors who starred in some movie or other we watched (that they starred in). Thanks to Ezra Keshet here.

of plain specific uses right. But it also makes good on the intuitive connection between plain specific and functional uses. Along with the simple view, it avoids ambiguity and highlights the presuppositional aspects of specificity. And without relying on an obscure notion of being 'somehow at issue' it can avoid appealing to exceptional scope, at least in cases where *specific* uses are embedded. In short, we think it does the best job of explaining the data about specific uses, which come out just as one would expect from covertly restricted quantifiers.

Meanwhile, there is nothing revolutionary about positing covert elements in restrictors. They are frequently posited to explain the truth-conditions of utterances that intuitively involve quantifier domain restriction, and it has become standard to posit them to solve the problem of incomplete definite descriptions. The domain-restriction view of specific indefinites simply explains another set of data with the same independently motivated tools, by stressing the pervasiveness and semantic importance of the category of specific restrictors. The theoretical value of this approach will become even more apparent over the next two chapters, which argue that the category of specific restrictors has an even wider role to play in various other noun phrases.

4.7 Singular restrictors

What more can be said about the type of restrictors that are in principle acceptable for uses of specific indefinites? (We will set aside embedded cases for the moment.) Recall the semantic picture at play in our discussion of rigidity in the Introduction. On that kind of picture, an important division can be seen to arise between rigid and non-rigid specific restrictors. A *non-rigid* specific restrictor determines a single object at the actual world, but other singleton sets at other worlds. A *rigid* specific restrictor determines the same object at each world in which it determines an object. (Replace 'object' with 'plurality' for the case of specific plurals.)

Thus, for example, suppose David thinks that his daughter Mary is unhappy, and utters

52. A certain person is unhappy.

On the hypothesis we are considering, the overt noun and covert element together yield a singleton restrictor in a successful use of a specific indefinite. But what kind of property is the relevant restrictor? So far, the view is highly flexible. Perhaps the restrictor property in play is *being David's oldest daughter* or *being the long-haired girl over there*. In that case, the semantic content of (52) is true relative to those worlds where someone has that property and is also unhappy. Since a different individual has this property at different worlds, the restrictor is non-rigid. Alternatively, perhaps the restrictor at play is a property enjoyed by the same individual (and only that individual) at every world in which the property is instantiated. For example, the covert element might provide the property *being identical to Mary*, while the overt element provides the property *being a person*, and together they yield the conjunction of these properties as

the singleton restrictor. Since the same individual has this conjunctive property at every world where anyone has it, this would be a rigid restrictor. As we will see in subsequent chapters, related proposals have already been put to use when it comes to demonstratives and definite descriptions—for example, by Jeffrey King, Paul Elbourne, and Stephen Neale.[101]

There are a two *prima facie* reasons to think that singleton restrictors are sometimes—even typically—rigid.

First, David's utterance of (52) appears to be true relative to just those worlds where Mary is unhappy, rather than relative to worlds where (say) his first child is unhappy. This by itself would be achieved by the use of a 'rigidified' property like *being David's actual oldest daughter*. But we think this will often generate the wrong truth conditions. Consider a case where a speaker wrongly believes a certain pen to have been stolen: suppose for example, an act of borrowing was misperceived as a theft, where Bill is perceived as the thief. The speaker says

53. A certain pen is now in Bill's pocket.

One might think the event misperceived as a theft nevertheless formed the basis of a referential tag that can then be loaded into the restrictor to satisfy uniqueness. This will—rightly, we think—yield the result that the speech is true. But if it is qualitative restrictors that are typically in play, the covert material will be something like 'that was stolen by Bill' or 'that I saw Bill steal'; rigidified or not, this description will not be satisfied, even though the speaker thinks it is.[102] Thus, on this construal, the speech is false.

Second, from a representational point of view, it seems most natural to suppose that, when David must supply a restrictor property on the fly, he supplies a property like *being Mary* rather than some descriptive property that uniquely identifies her. For one thing, to employ a mental file or tag whose semantic value is Mary seems like a simpler cognitive process than casting about for some uniquely identifying description. (We can also smoothly accommodate the syntactic treatment of covert elements discussed in §4.5: the pronominal element *i* is assigned to Mary, and the function expressed takes an object as argument and delivers the property of being identical to that object as value.)[103] Moreover, introspection suggests that there is no particular description or bundle of descriptions that the speaker is supplying when he utters (52).

[101] See King, *Complex Demonstratives*; Elbourne, *Situations and Individuals*; Neale, 'This, That, and the Other', §§19–22.

[102] Consider also a case where there were two different occasions on which the speaker saw Bill stealing a pen, but the speaker remembers only one of them. In that case we would have a presupposition failure that does not seem to occur with (53) in this setting.

[103] There are, of course, alternative structural proposals for both levels of representation. Some will be suspicious of the idea that these supplemental contents are syntactically realized. Others may propose that the relevant covert elements have a different syntactic structure when bound, perhaps involving a simple referential tag or an atomic predicative device like 'Socratizes'. A similar variety of options is available for speculations about the structure of Mentalese. We will try for the most part to prescind from these details, though we lean towards the suggestions mentioned in the text.

Relatedly, when the *audience* represents what is being said, it seems most natural for them to craft a mental file or tag whose reference is deferential on the speaker's, rather than to try to guess which descriptive property has been contextually slotted in, or to craft a property representation that somehow inherits the content of the descriptive restrictor. In other words, if the speaker loads in a singular restrictor she has a reasonable expectation of the audience's coming to represent the very content that she expresses by a specific indefinite; whereas, except in cases where there are special cues, such an expectation may be less in order if the covert material is qualitative.

In sum, we take it to be an empirically promising hypothesis that the covert contribution to a singleton restrictor picking out an object *o* is frequently, in effect, the property of being identical to *o*. But how does this proposal fit in with the orthodox picture of reference sketched at the outset of this book? If we think of this effect as achieved by employing a device—whether mentally or in the underlying syntax—whose semantic value just is *o*, there does not appear to be any obstacle to conceiving of such devices on the referential paradigm. (Of course, we would urge against any acquaintance constraint on their use). But what about the entire indefinite noun phrase, used specifically: is it referential? Suppose John's utterance of 'a certain president' involves a singular restrictor picking out Obama. This specific use of the indefinite will satisfy only some of the criteria traditionally associated with referential terms:

(i) Is it rigid? Pending further argument, it appears to be only weakly rigid, since the combined singleton restrictor will be something like the property of *being a president identical to Obama*, and Obama is not a president at every world.

(ii) Is it *de jure* (weakly) rigid? The answer is not straightforward. Arguably *this use* of the indefinite essentially involves a singular restrictor, and any successful singular restrictor will by its semantic nature induce rigidity. On the other hand, John could have uttered the same words and employed a non-singular singleton restrictor instead.

(iii) Is it object-dependent? John's use of the indefinite appears to have an object-dependent meaning in the sense that having precisely its contribution to the generation of truth conditions requires being about Obama. But is it object-dependent *for meaningfulness*? What happens if the attempt to construct a singular restrictor fails? Suppose, for example, John thinks he is looking at a president and employs a mental demonstrative intending to speak about *that* individual—but either that individual is not a president, or there is no individual there at all. Then the matter is not clear: one might after all hold that in such a case the indefinite defaults to a non-specific existential claim and thus still has meaning (even if there is a presupposition failure).

(iv) Does the object exhaust its content? Here the answer is straightforwardly 'no'. The existential quantifier, the covert element, and the overt noun will each make its own semantic contribution to the content expressed.

We have so far considered singular restrictors only in connection to specific indefinites. But over the next two chapters, we will present a picture on which many expressions that are considered paradigmatically referential actually have a semantic structure like that of specific indefinites. The thesis that will emerge is that in natural language, much (if not all) of what we ordinarily call *reference* is in fact achieved by covert domain restriction. But as we have just seen, the traditional criteria of reference do not neatly apply to complex expressions involving singular restrictors. In the final chapter and the Afterword, we will evaluate the significance of this claim for the orthodox taxonomy of referential terms. We will also be in a better position to consider certain objections to the presence of singular restrictors even in the case of specific indefinites.[104]

First, however, there are two objections that we should address right away.

4.8 Acquaintance again

Suppose a speaker utters one of the following sentences, using the relevant noun phrase in a specific way:

1. A friend of mine is absent.
19. Certain friends of mine are absent.

On the proposed view, context supplies a covert element that joins with the overt restrictor ('friend' or 'friends') to specify a single object or plurality. And the resulting utterance is about how things stand with that object or plurality. But quite frequently, there is a sense in which the audience does not count as knowing who the speaker is talking about. As Schwarzschild himself puts it, his view seems to require the truth of what he calls the 'Privacy Principle':

> It is possible for a felicitous utterance to contain an implicitly restricted quantifier even though members of the audience are incapable of delimiting the extension of the implicit restriction without somehow making reference to the utterance itself.[105]

[104] Readers may have noticed the following concern about the singular hypothesis in connection with specific indefinites. Suppose someone utters

i. A certain even-tempered guy is the most powerful person in the world.

And suppose the restrictor in play is singular—in particular, the overt element in the indefinite provides the property of being an even-tempered guy and the covert element provides the property of being Barack Obama. Then, on the present view, (i) should be true relative to just those worlds where someone has both properties and is the most powerful person in the world. But consider the sentence:

ii. A certain even-tempered guy might have failed to be powerful.

There is a reading of this sentence on which its truth requires there to be worlds where Obama fails to be powerful, regardless of whether he is even-tempered. But it is arguably difficult to access a reading of (ii) on which its truth requires there to be worlds where Obama is both even-tempered and fails to be powerful. And yet given standard assumptions about the semantics of modal operators, if a rigid restrictor were at play in (ii), one would expect such a reading. Call this the problem of weakly rigid readings. An analogous point also arises in connection with our preferred accounts of definites and demonstratives. We address it in Chapter 6.

[105] Op. cit., p. 307.

We will consider two different kinds of objection to this idea.

First, the friend of acquaintance will no doubt object as follows. If a covert singleton restrictor has been supplied, and the audience does not know which restrictor has been supplied, how can they count as understanding what has been semantically expressed? And if the covert element somehow involves a singular tag but the audience does not know which individual one is talking about, how can they grasp the proposition expressed? (Recall Ludlow and Neale's appeal to Russell's Principle in their objection to the bifurcated view: 'In order to understand an utterance of a sentence with a referring expression as subject, one must know which object the expression refers to.'[106])

Our response to this objection will mirror the one given earlier in our discussion of the bifurcated view. It is true that when a speaker utters (1), in most natural contexts we will not count all interlocutors as *knowing which* implicit restrictor is being supplied, or as *knowing who* the speaker is talking about. But we should not conclude that the audience does not grasp the proposition expressed, and so does not understand the speaker. After all, our aim in this part of the book is to explore semantic proposals that become available once we have given up appealing to notions like 'knowing which' for the purposes of semantic theorizing.

Still, it may help to illustrate the point with other cases involving covert semantic content. Suppose John and David are talking on the telephone, and David says 'It's raining' in a way that makes it clear he is talking about rain at his own location. Suppose further that John's grasp on David's location is very 'thin': he knows only that it is the place David is currently in, but not under various paradigmatic guises—he cannot see it or point it out on a map, and he does not know any proper name for it. Moreover, because the acceptability of 'knowing where' reports require that John grasp the location under the guise salient in the context, he may not count as knowing where David is, or as knowing which location is supplied by context. But liberals about singular thought have no reason to deny that John can think about David's location, and thus no reason to deny that he is capable of grasping the proposition David expressed, understanding what he said, and so on. In this respect, it is just as though David had used an indexical or a newly introduced name to refer to his location. The fact that reference was secured with contextually supplied covert material is irrelevant to John's ability to grasp the proposition.[107]

It is useful to compare Kripke's account of the transmission of singular propositions by the use of proper names. Suppose a speaker says to the audience

54. There is a certain friend of mine whose name is 'Fred'. Fred is a really nice guy.

[106] Ludlow and Neale, op. cit., p. 178. (See 4.2.iii above.) They go on to write: 'It is quite unnecessary for a hearer . . . to establish exactly who I had coffee with last night in order to understand my utterance of ['A colleague I had coffee with last night did it']' (p. 182, fn. 19). We agree: but that is because *knowing who* is not necessary for grasping singular propositions. Therefore this is no reason to deny that the indefinite is a referential term (as the bifurcated view would have it) or involves a singular restrictor (as we would have it).

[107] See the related discussion in Schwarzschild op. cit., §6.

It may be that the audience only grasps the singular content in a way that exploits the speaker's connection to Fred. And we may even say 'The audience does not know who Fred is'. Nevertheless, this is no obstacle to their ability to grasp the relevant proposition: the vicissitudes of 'knowing which' and 'knowing who' are faulty guides to the presence or absence of singular representation. If we are happy allowing reference that exploits weak links of this sort, it is hard to imagine that it makes all the difference if a name is not explicitly used, as in

55. A certain friend of mine is a really nice guy.

Of course, some philosophers write as though the use of a proper name passes along the torch of *causal acquaintance*. (Perhaps they would even contend that no torch is passed if the speaker mentions but does not use the name—as in 'A friend of mine whose name is 'Philip' failed to show up'—as after all, this merely provides some descriptive information.) But even if there were such a torch, what reason is there to think it could not be passed along by the use of a specific indefinite, especially if a singular restrictor is in play? Why not allow that the audience is in a position to think about the individual at issue simply by exploiting the speaker's connection to that individual? It seems to make no difference whether a name is used, mentioned, or neither.

On our view, then, names play no crucial role in the chains of communication that Kripke describes in *Naming and Necessity*. It is indeed quite true that our ability to think and talk about a particular object often proceeds thanks to engagement with other members of a linguistic community who in turn have that ability thanks to further engagements of that sort, and so on; and where ultimately the chain of inheritance is anchored by some individual who thinks and talks about an object via direct encounter with that object (or its traces). But such chains of transmission need not include proper names. If a speaker forms a referential object-representation and uses a specific indefinite in connection with it, there is no obstacle whatever to an audience's forming an object representation whose reference is derived from that of the speaker.

4.9 Coy and candid restrictions

Here is a second kind of objection to the Privacy Principle applied to specific indefinites—one raised recently by Daniel Rothschild. In the case of domain restriction on 'every' there is a requirement that the hearer be able to 'know the domain restrictions being used', but on the current account there appears to be no such identification requirement for indefinites.[108] But the Privacy Principle itself does not explain this contrast. In a similar vein, Richard Breheny objects that on the current account, 'what the speaker says involves a determinate way of picking out this individual', one to which the audience is often not privy. As a result, 'the speaker can say something which the audience cannot grasp', but this contrasts with the fact that

[108] Rothschild, 'The Elusive Scope of Descriptions', pp. 918–19.

'normally, expressions of variable reference come with a presupposition that the audience could recover the referent—otherwise infelicity ensues'.[109]

This objection does not appear to be resting primarily on acquaintance considerations; instead, the authors are pointing out a real contrast that they can be stated without any appeal to the language of that ideology. Here is how we would put it. In the case of a domain restriction on 'every', there are all sorts of ways that audiences habitually pick up on the domain in question. Sometimes it is because the relevant group has been introduced in a previous part of the discourse: 'I came across some students in the park. Every student was smoking.' Sometimes one relies on cues from the perceptual scene, for example:

56. Every elephant looks sick

as uttered in front of a cage of elephants at the zoo. But it is infelicitous to silently introduce a domain restriction on 'every' for which there are no such guides, and where instead recovery of the restriction requires the audience to make reference to the speaker's use of that very expression. Thus, suppose one intends to be talking about a restricted class of villains but one's interlocutors have no independent guide at all as to which villains those are. One can say

57. Certain villains are in the room. They are dangerous.

But in such a setting one cannot, discourse-initially, say

58. Every villain is in the room. They are dangerous.

This contrast between 'certain villains' and 'every villain' is hard to deny.[110] In neither case could the speaker be intending to quantify over villains in a completely unrestricted way. But the audience's only access to the restricted domain is by thinking of it as *whichever villains the speaker is talking about*. In such a setting, 'certain villains' is fine while 'every villain' is not.

Let us introduce a bit of jargon. If the audience can grasp how a quantified expression is being restricted without having to access it in a way that is cognitively parasitic on that very use of the expression, call the restriction *candid*. Otherwise, call the restriction *coy*. In this sense, the restrictions on 'certain villains' and 'every villain' in these utterances are coy. And the difference in felicity they exhibit suggests that 'every F' conventionally requires a candid restriction—a rule that is boringly satisfied in cases

[109] Breheny, 'Non-Specific Specifics and the Source of Existential Closure of Exceptional-Scope Indefinites', pp. 7–8.

[110] Schwarzschild argues that the Privacy Principle applies beyond specific indefinites, and gives an example of an allegedly felicitous use of 'all of your relatives' where the speaker's grasp of the restrictor is only parasitic. However, we find the example somewhat strained and agree with Rothschild and Breheny that there is a significant contrast here. (Note that specific indefinites *standardly* involve what we call 'coy' restrictors, whereas even mildly felicitious cases involving 'all' or 'every' are difficult to come up with, at best.)

where the restriction is achieved entirely by the overt predicate.[111] Likewise, many other quantifiers appear to be subject to this constraint, such as 'most Fs' and 'the F'. In contrast, specific indefinites appear exempt from the candidness requirement—their use is felicitous even if the audience is not in a position to grasp how one is restricting the domain without exploiting that use of the indefinite.

It is worth stressing that this distinction does not mark any deep causal or epistemic difference in the way that the audience represents the restriction or the objects in its domain. After all, consider this variant of (57):

59. Certain villains are in the room. Every one is dangerous.

This time 'every one' is acceptable, and its restriction counts as candid, even though the audience's only access to the restriction in play is by referring back to whatever villains the speaker was talking about in the first sentence.[112] The point is that whether a given use of a quantifier phrase is being coyly restricted has only to do with whether the audience must exploit that very use in order to grasp the content. Meanwhile, use of 'every' is not permissible if the audience's only access to that content is parasitic on that very use.

A domain-restriction account of specific indefinites, we think, should embrace this difference in felicity conditions for a speaker's use of a restrictor. There is a conventional requirement of candid restriction on some determiners, but no such requirement on specific indefinites.[113] In fact, we will be arguing in the next chapter that this distinction provides an elegant account of the distinction between specific indefinites and definite descriptions. A conventional candidness requirement, we will be arguing, is all that distinguishes the two types of expression. Indeed, the decision not to use a definite—given the conversational rule *maximize your presuppositions*[114]—will convey that the speaker needs to avoid the presupposition of candidness associated with the definite, presumably because the restriction is coy.[115] (And this in turn, as we will argue

[111] If in (58) the speaker had literally been talking about the universal class of villains, the audience would easily grasp the content non-parasitically, assuming they understand the predicate 'villain'. That is, they can articulate the property of being a villain without needing to think of it as whichever property which the speaker picked out by that use of 'villain'.

[112] Note that in a sentence like 'Every villain that a certain man hates is in the room' there will be covert restrictive material for 'a certain man', but no further restriction is required for 'every villain'. For this reason the restriction on 'every' is considered candid even though, like the restriction on 'every' in (59), it exploits the covert restriction on the indefinite. (Thanks to Jeff King here.)

[113] We earlier described a style of theory on which (with Kratzer) specific 'a' is treated as expressing a choice function that is determined by context (see fn. 60). Proponents of such a view will similarly have to recognize that in this case, it is permitted for the audience's grip on the semantic value of that variable in context to be merely parasitic.

[114] See Heim, 'Artikel Und Definitheit'.

[115] Of course, *some* members of the audience may grasp it more robustly: consider cases where a child is party to a conversation among adults who do not want the child to know who is under discussion. (That is, as we would put it, they do not wish to provide the child a non-parasitic way of individuating the person under discussion.) What is key is that the speaker's way of individuating the object is not readily available to everyone in the conversation. (Thanks to Craige Roberts here.)

in §5.2, explains the inability, except in an arch way, to use a specific indefinite in cases where the overt material is *obviously* uniquely satisfied.)

Some may resist the idea that there can be coy restrictions by appealing to a more general prohibition against semantically expressing a component of content with a term t in cases where one's audience can cognitively grasp that content only by exploiting the speaker's use of t. (That is, as we have been putting it, their access to the content is *parasitic* on the speaker's use of t.) Why not lay down this kind of non-parasitic access constraint on semantic content, and derive a principled objection to any view of specific uses indefinites on which they frequently have singular content?

The proposed principle is subject to counter-example. If someone calls out, 'I am on fire', a hearer may well have to access the referent of 'I' parasitically—but there is no sense of infelicity here. (The guise *whoever the speaker is* will be parasitic in the relevant sense, since 'the speaker' is an incomplete definite description whose completion involves reference to the speech that has just been heard.) Consider, similarly, 'here'. If David hears his friend John say 'There is a rat near here', then David's access to the referent of 'here' need not be parasitic—the non-parasitic guise *wherever John is* will do the trick.[116] In contrast, if someone yells out 'There is a fire here,' then in the absence of any prior knowledge about the speaker one will lack non-parasitic access to the content expressed. But this does not make the utterance infelicitous. Thus it appears we cannot avoid a distinction between those expressions whose semantic content can felicitously be expressed even when the audience has only parasitic access to it, and those whose content cannot be expressed in such circumstances.

One could, of course, insist that the non-parasitic access rule applies only in the case of semantically covert elements in restrictors, effectively ruling out coy restrictions. But given that there is no more general requirement of that sort on semantic content, we would require further argument for preferring that thesis over the idea that determiners simply differ in whether they require candid restrictions. In fact, as we will be arguing further in Chapter 5, the latter idea turns out to be an empirically fruitful hypothesis.

4.10 Variant views

We can now briefly consider how some of the ideas we have introduced in our discussion of singular restrictors might be exploited by alternative views of specific indefinites.

(i) *The simple view revisited*. Consider two versions of the simple view about specific indefinites. Both hold that the semantic content of 'A certain astronaut died of a heart attack' is the boring existential content that some astronaut or other died of a heart attack. But they differ in their picture of the content communicated. On one

[116] Unless John is a hydra who can speak at all sorts of locales without moving: in that case *where John is* will not do the trick.

view, the content communicated is entirely general: a trusting audience will come to represent the proposition that there is an astronaut who died of a heart attack, and perhaps also that there is an astronaut x such that the speaker believes x died of a heart attack and that the speaker is currently thinking about x. (It will be recalled that we eschewed the responsibility of spelling out on behalf of the simple view exactly what is communicated.) On a second view, while the semantic content is the boring existential content, the additional communicated content is singular in nature. The speaker has an object representation of the astronaut in question. And thanks to the conversational exchange, the audience generates an object representation that is parasitic on that of the speaker and thereby comes to represent the relevant singular proposition.

As the audience might guess, our preference among these two views is for the second. With acquaintance constraints laid to one side, there is no good reason for the simple view to resist this picture of singular thought transmission. Whether or not a specific indefinite involves a singular restriction at the truth-conditional level, the fact that a hearer recognizes that a speaker intends to use it to 'talk about an object' can be a suitable basis for the hearer's introducing a parasitic object representation. Of course, this kind of move does not entirely evade our truth-conditional qualms about the simple view. But the picture of communication embraced by this version of the simple view is certainly closer to the one that we have sketched.[117]

(ii) *Non-quantificational approaches.* We have already noted the possibility of taking a non-quantificational approach to the indefinite article—one that departs from philosophical orthodoxy in holding that it does not in it itself carry existential quantification force. While such an approach is not a central focus here, it is worth pointing out that the ideas articulated in the last few sections can readily be adapted to it.

By way of illustration, let us consider a paradigm of that approach, an early version of which was described by Irene Heim.[118] (For our purposes it will suffice to focus on some of the very basic ideas, not their systematization and application to various logically complex constructions.) Heim takes a non-quantificational approach to both 'a' and 'the'. At a rough first pass, they work as follows. When we hear 'a' we introduce a file card with a new variable in our head, and when we hear 'the' we update information associated with an old variable. In particular, when we hear a sequence like

60. A (certain) man was sick. The man was very unhappy.

[117] As noted earlier, the truth-conditional intuitions against the simple view are more powerful is some cases than others. On these grounds one might motivate a mixed approach, acknowledging the presence of singleton restrictors in some cases but adopting this version of the simple view for others.

[118] Heim, 'File Change Semantics and the Familiarity Theory of Definiteness'; 'The Semantics of Definite and Indefinite Noun Phrases'. A closely related view published around the same time is that of Kamp, 'A Theory of Truth and Semantic Representation'. The basic idea has of course been refined by many proponents since.

We open a 'file card' in response to the first sentence with the information

x is a man and x was sick

and in response to the second sentence, we update the card to

x is a man and x was sick and x was very unhappy.

Assuming that the speech is over, we then bind the open sentence generated by conjoining all the information on the file card with an existential 'discourse' quantifier, which gives us the take home message of the speech, viz.:

∃x (x is a man and x was sick and x was very unhappy)

On this approach, it is wrong to think of individual sentences as the units of truth-theoretic information. Individual sentences play the role of information updaters. If we are to evaluate anything for truth, it is the whole speech.

Our most basic complaint here is a version of the earlier laxity complaint. At least in its most simplistic version, this does not capture the intuitive truth conditions of the speech. If someone in the world was a man and sick and very unhappy, that is not intuitively sufficient for making the speech come out true. However, the addition of specific restrictors into the picture helps capture the intuitive truth conditions. The specific use of 'a man' will require that the restrictor is true of a single object; for example, it may be a singular restrictor that picks out Jim that is added to the file card. In that case the speech as a whole will require for its truth that there is a man identical to Jim who is sick and very unhappy.

There is a natural extension of this view to cases involving anaphors on plural specific existentials; but the resulting view, in its simple version, also seems to get the truth conditions wrong. For example, there are two kinds of setting in which someone might utter

61. Certain dogs eat carrots. The dogs/they eat broccoli too.

In the first kind of setting, the speaker has in mind a particular restriction on dogs; let us suppose she is intuitively talking about the dogs belonging to David. In the second setting she had no restrictions in mind beyond the one she gives voice to; she simply intends to be talking about those dogs that eat carrots. On the simple version of the approach, as applied to plurals, the take-home message of this sequence will be:

∃Xs (Xs are dogs and Xs eat carrots and Xs eat broccoli too.)

But this gloss does not capture the intuitive truth conditions of the speech in either kind of setting. (In fact, we cannot think of any context in which the sequence in (61) has the truth conditions predicted by this account.) In the first setting, the truth of (61) intuitively turns on how things are with a particular class of dogs—in this case, *David's* dogs. In the second setting, the truth of (61) intuitively requires that *all* those dogs that eat carrots *also* eat broccoli—but that is not required on this account.

Again, specific restrictors help recover the intuitive truth conditions. The specific use of 'certain dogs' will require that the restrictor yield a single plurality. In the first case, the restrictor will be one that is true only of the plurality of David's dogs (something tantamount to the non-distributive 'are all of David's dogs'). In the second case, the restrictor will be one that is true only of the plurality of all of the dogs that eat carrots.

Now Heim writes of the 'anaphoric use of the pronoun' that 'the crucial factor in making the intended referent salient is the fact that it verifies a piece of immediately preceding discourse.' Consider:

62. A man was sick. He was very unhappy.

We agree that in this case an individual is cognitively salient both to speaker and hearer. But we doubt that what makes the intended referent of 'he' salient is that it satisfies the open sentence 'x is a man and x is sick'. For one thing, the speaker might be wrong about his being sick. The referent is salient because the hearer knows that the speaker associates an object representation with 'a man', the referent of which can then be accessed parasitically.

In short, the treatment of indefinites advocated by Heim benefits from the addition of specific restrictors. In this work we will not devote much time to the claim that 'a' and 'the' are non-quantificational, or the claim that speeches rather than sentences are the primary truth-conditional units. It will sometimes be convenient to talk as though those claims are false, but nearly all of what we say could be easily adapted for a framework that accepts them.

4.11 Specifics in attitude ascriptions

Let us turn to the use of specific existentials within attitude ascriptions. Suppose Ernest is crazy and believes that he is being followed by a devious CIA agent. You say:

63. Ernest believes that a certain person is more devious than anyone else.

On the relevant reading, you are not attributing to Ernest a banal thought that would be true so long as there are finitely many people and no tie for the most devious. And since you know that there is no existing person that Ernest's belief is about, it seems we cannot treat 'a certain person' as either wide scope or referential. This presents a puzzle for both the wide scope and the referential account of specific indefinites. (We do not, however, want to overstate the force of this point against the wide scope view: it may be that ordinary language is thoroughly Meinongian and so allows wide scope even in such a case; see §4.11.iv.)

(i) '*Local accommodation*'. What does the present account say about this example? In many cases it appears that a presupposition that *p* becomes, in the context of a belief ascription, a presupposition that the subject of the ascription believes that *p*. (Thus, in uttering 'John thinks he was abducted by aliens again' the speaker need not presuppose

that John was previously abducted by aliens.) This in turn seems to be an instance of the more general phenomenon often called 'local accommodation' that we discussed for the modal case in §4.6.ii.[119]

Here is an attractive way of thinking about what is going on. In the context of an attitude report, the presupposition of a sentence S is transformed: where an unembedded occurrence of S presupposes *p*, S now presupposes that the subject of the belief ascription believes that *p*. One natural idea in the background is that, in an unembedded case, it is the actual world that is relevant—so the presupposition must hold there. But in the embedded case, by the time we reach the content clause we are concerned with the world according to the subject's belief-state, whether or not it corresponds to the way things actually are. So the original presupposition must hold at the subject's *doxastic worlds* instead of at the actual world. (Some would say the presupposition must be satisfied by possibilities relevant at the 'local context' rather than the 'global context.)[120]

However, this way of putting it cannot be exactly right when it comes to the *metalinguistic* aspect of the presupposition we have assigned to specific indefinites.[121] If *p* is *that the speaker's use of the indefinite has a singleton extension*, we don't want (63) to presuppose that Ernest believes that p. After all, there is no presupposition that Ernest believes anything about the speaker's use of the indefinite. So it cannot be that the standard presupposition that the indefinite has a singleton restrictor is simply *transferred* to Ernest's belief worlds.[122] Instead, something closely related is going on. Recall how we stated the presupposition of a specific use in §4.6: it presupposes the presence of a restrictor that determines a singleton extension *at each relevant possibility*. If by the time we reach the complement clause of (63) we are concerned only with how things are according to Ernest's belief-state, then Ernest's doxastic worlds are the relevant possibilities. As a result the presupposition of (63) is that the speaker's (actual) use of the indefinite has a singleton restriction *at Ernest's belief worlds*. Thus, the effect of the attitude environment is not to shift the worlds at which the presupposition as a whole must be satisfied (after all, part of the presupposition concerns the speaker's actual use); it is to settle the worlds relative to which the actual use must have a singleton extension.[123]

[119] See fn. 91 for some relevant literature.

[120] See especially Schlenker, 'Local Contexts' for an extensive discussion of this idea.

[121] This is also an instance of a more general phenomenon: where an expression typically carries a presupposition about the speaker's use of words, that expression will not, when embedded in a belief attribution, systematically generate a presupposition about what the subject of the attribution thinks about the speaker's use of words. For example, the presupposition that 'I' refers to the speaker remains in play even when 'I' occurs in belief contexts, and likewise for the presuppositions of gender triggered by gendered pronouns. (See Cooper, *Quantification and Syntactic Theory*; Potts, *The Logic of Conventional Implicatures*; and recall that we are using 'presupposition' in our broad sense here: see §4.3.)

[122] Of course, one could isolate presuppositions in the neighborhood that can straightforwardly be thought of as transformed in this way—for example, that exactly one individual instantiates F-ness, where F-ness is the restrictor property. But we take the metalinguistic presupposition to be explanatorily prior.

[123] To put the point in terms of 'local contexts': the presupposition is not *satisfied in* worlds relevant at the local context: instead, it is satisfied in the actual world but *concerns* what the indefinite picks out at worlds relevant in the local context.

(ii) *Scope ambiguity?* One theme that we have already encountered is this: once we accept the importance of covert restrictors for the semantics of specific indefinites, we may find ourselves rethinking the role of scope in explaining various readings of sentences. This theme can be extended to various attitude constructions. Consider, notably, the view that the two most salient readings of

64. Ernest wants a car

are accounted for by a scope ambiguity. If 'a car' is taken to have narrow scope, Ernest merely wants relief from carlessness. If it has wide scope, he wants a particular car. But the preceding reflections should give us pause; after all, Ernest's desire might be to own the car belonging to the CIA agent he imagines is following him. In such a case, there is still a 'particular reading' of (64) that is appropriate—indeed we might even add 'certain' for perspicuity, while insisting that there is no such car. Of course, on the present view of specific indefinites, we can explain such a reading: 'a car' remains *in situ* and the speaker uses a singleton restrictor.[124]

There is another reason why one might not want to account for the particular reading by giving the indefinite wide scope. If one scopes out 'a certain car', one no longer semantically requires that Ernest thinks of the object of his desire as a car: 'car' becomes notionally neutral as a means of characterizing Ernest's state of mind. But it seems that in many contexts there is a specific reading that is not notionally neutral. This is particularly evident in some more complex examples. Consider an utterance of

65. Sally wants John to make peace with a certain person that he hates.

Here it is natural to think that the truth of the claim requires Sally to be thinking of someone as hated by John. And again this reading is easily explained by our view of specific indefinites.

The above considerations suggest at least that in many cases the intended 'particular' reading should not be explained by scope. We should therefore take seriously the possibility that the most salient ambiguity of (64) has nothing at all to do with scope. However, scope permutation may be the best explanation when a belief report with a specific indefinite in its complement clause has a notionally neutral reading and appears to require that the specified object actually exists. (Though see also section (v) below on notional neutrality.)

(iii) *Intensional anaphora.* It has been noted by Geach and others that specific indefinites license anaphoric pronouns within the scope of intensional verbs in a way that patterns with their behavior outside intensional contexts. Thus I can say

66. Ernest thinks that a certain crazy clown is following him. Ernest plans to trap him.

[124] Of course, it may turn out that a real-world car satisfies the restrictor in play, but the reading in question does not require this.

even if we do not think there are any crazy clowns. In fact, we may think it absolutely impossible that an object corresponding to the person's idea exists. Suppose we are convinced that it is absolutely impossible for there to be a disembodied mind. We can still happily say

67. Ernest thinks that a certain disembodied mind is haunting this building. He thinks that it can influence the temperature.

In this case the restrictor in the initial attitude report is singleton only with respect to what we take to be an impossible hypothesis, and yet it licenses an anaphoric pronoun.

There are also settings in which we may allow a pronoun within the scope of an attitude report about one individual to be anaphoric on a specific indefinite that occurs within the scope of an attitude report about another individual—shunning ontological commitment all the while. Thus we can say:

68. Hob thinks a witch blighted his crops. Nob thinks she cast a spell on his wife.

Such examples do not require even that Nob is familiar with Hob and his beliefs.[125] One can easily tell a story where Hob and Nob have not heard of each other but where their thoughts have their source in a faulty newspaper report about supernatural goings-on in their village.

On the present view of specific indefinites, one can account for (66)–(68) by holding (a) that the restrictor involved in the specific indefinite does not involve any singular tag in these cases, but merely a property-expressing description whose extension is a single object on the hypothesis that the world matches the belief being reported; and (b) that the anaphoric pronoun acts as a definite description that picks up on the restrictor from the indefinite. This appears to provide a *prima facie* elegant solution to attitude ascriptions of this sort, though in some cases it may be difficult to contrive, even vaguely, a suitable property.

However, we ourselves are inclined to another view of these cases: namely, that they involve singular-type restrictors. This would be to assimilate them to cases in which we use a singular restrictor in an attitude attribution with no thought of abjuring ontological commitment, but where it turns out that the target of our attitude report is not thinking about a particular individual after all. Thus, suppose David says 'If a certain aunt dies, I will be rich', and John reports, 'David thinks that if a certain aunt dies, he will be rich.' If our discussion in §4.7 is on the right track, both speeches will involve singular-type restrictors, with the second being deferential on the first. But suppose David has in fact hallucinated a rich aunt. What now are the truth conditions of John's attitude report?[126]

[125] See Elbourne, *Situations and Individuals*; Neale, 'This, That, and the Other'; 'A Century Later'.

[126] We note in passing that this and related issues have been explored at length in illuminating unpublished work by Ágnes Bende-Farkas and Hans Kamp ('Indefinites and Binding', unpublished). The situation just described is one where, on their ideology, an indefinite noun phrase introduces a discourse referent that is

(iv) *Failed singular restrictions*. Here there is a broad range of strategies from which one could draw. After all, those who wish to treat proper names as directly referential (perhaps along with any pronouns anaphoric on them) have a familiar playbook when it comes to cases where names have no worldly referent. Suppose David uses 'Bertha' to name his rich aunt, and John uses 'Bertha' deferentially in the report, 'David says he has a rich aunt named 'Bertha'. He thinks that if Bertha dies, he will be rich.' Similarly, there are cases where the reporter knows that the relevant name has no worldly referent, but is happy using it in a belief report. Consider:

69. Hob thinks Pegasus had huge wings.
70. The villagers believe there is a local witch named 'Hilda'. Hob thinks Hilda blighted his crops. Nob thinks Hilda cast a spell on his wife.
71. Hob thinks a certain witch—call her 'Hilda'—blighted his crops. Nob thinks Hilda cast a spell on his wife.

The ease with which one might utter something like (71) is especially telling: it suggests that we allow our representational machinery to form a singular object representation even if we know there is no worldly object for that representation. In a similar vein, when it comes to any of (66)–(68), we might hold that the speaker employs an object representation of this sort to form a purportedly singular restrictor of the form 'identical to *o*'. (As suggested in §4.7, the use of a singular file or tag in thought may be the standard way to construct a singleton restrictor.) And in accounting for the behavior of empty singular restrictors in attitude reports, one can use more or less the same strategies that have been developed to account for overt empty singular terms in attitude reports.[127]

Here are some options. (i) *Meinongianism*. Empty names refer to intentional, non-existent objects; and so do empty singular object representations. (Those who take this line will reject the argument that we cannot treat the specific indefinite in (64) by appealing to wide scope, since it can after all involve a wide-scope Meinongian quantifier.) (ii) *Scepticism*. Ordinary folk are happy using empty names and object representations because they tacitly presuppose Meinongianism but in fact that metaphysic is false. As a result the relevant sentences are defective and fail to express a truth-evaluable content at all. Thus, while it may pragmatically convey useful information it does not semantically express a content. (iii) *Two-dimensionalism*. What (69) asserts is, roughly, that Hob thinks that he is in one of those centered worlds which, when

'internally anchored' to an object representation that is dependent on an object representation in the subject of the attribution, but where the latter is not 'externally anchored' in the world. We shall not in this work investigate the merits of the formalism that they use to provide a systematic account of the truths conditions of reports in this and other situations.

[127] Such discussions typically assume proper names are referential devices. While we question that assumption in Chapter 6, this need not imply that the associated accounts of empty singular terms are devoid of interest or application.

considered as actual, is one where 'Pegasus had huge wings' comes out true. (iv) *Pruning*. Think of belief as a relation to a semantic tree. We could allow that (69) ascribes a relation to a tree that is semantically empty at one node; see §5.5.[128]

In short, while the semantics of (66)–(68) goes very smoothly if we assume that they all involve merely singleton restrictors, we suspect that many such belief reports actually involve singular-type restrictors, even in cases where the speaker is not under any illusion that her use of the indefinite picks out a worldly object. But no special problems arise for the resulting view, beyond what is faced by direct reference theorists accounting for the use of empty names in attitude reports.

(v) *The 'non-specific de re'*.[129] Let us turn to another category of attitude report that causes trouble for the picture according to which the available readings are limited to the scope possibilities. Suppose Susan says

72. Jane wants a husband just like mine[130]

in a context where it is clear that there is no particular husband that Jane wants, and that she has not even heard of Susan. To get the intended reading, we cannot properly scope out 'a husband just like mine' since the resulting claim improperly ascribes a desire for a particular husband. Nor can we simply treat the indefinite *in situ*, since the resulting claim seems to require Susan to care about having matching husbands with Jane. To put the issue in terms of 'desire-worlds': suppose a husband is just like Susan's iff he is shy and wiry.[131] On the so-called non-specific *de re* reading of (72), it is true iff Jane's desire worlds are ones where she has a shy and wiry husband.[132] On the *de dicto* reading,

[128] One's choice among these options will likewise inform what one says about the *presuppositions* of empty singular indefinites within attitude reports. If we think that restrictors containing non-referring singular terms express properties, the presuppositions associated with such indefinites can straightforwardly be treated as described earlier. (Metalinguistic: the speaker presupposes that his use of the indefinite has a singleton extension at the relevant possibilities, which turn out to be subject's belief worlds. Material mode: where the restrictor property is *being F*, the speaker presupposes that the subject believes there is a unique F.) But suppose that we, as theorists, are sceptics of the sort described in (ii). We might then be reluctant to claim that there is any such property in question—that of *being Hilda the witch*, as it may be. Of course, we might still admit that ordinary people proceed as if there is such a property—albeit owing to a faulty semantic self-conception.

[129] The phenomenon is discussed in Fodor, 'The Linguistic Description of Opaque Contexts'. For relevant discussion see the very helpful ms. 'Intensional Semantics' by Kai von Fintel and Irene Heim, §6.

[130] The much-discussed example in Fodor op. cit. is:

i. She wants a hat just like mine.

We use husbands instead to avoid an alternative explanation for the relevant reading of (i), involving the phenomenon where one appears to state a desire for a kind. Thus, for example, David might point to a car and say 'I want that car', meaning only that he wants, say, a Pinto. This allows for an interpretation on which (i) really does involve a specific individual, namely the relevant hat-kind that Jane wants (in this sense).

[131] The vagueness of 'just like' is not the issue here.

[132] Better: in a ranking of worlds using Jane's preferences as an ordering source, there is a world such that every higher-ranked world is one where she has a shy and wiry husband. We will not fuss about the details.

by contrast, there are desire worlds where Susan and Jane both have big gregarious husbands.

Apparently, then, 'a husband just like mine' must remain *in situ* and yet be evaluated relative to the actual world.[133] Those inclined to think of attitude verbs as introducing a kind of modal quantifier can treat (72) as saying that all of Jane's desire worlds w are such that she has a husband at w that is just like Susan's husband at α, the actual world. But we are more inclined to the view that attitude reports ascribe relations to hyperintensional propositions. The analogous fix in that framework would be to postulate the presence of an actualizing operator:

73. Jane wants a husband that is just like mine actually is.

Now, one might object to this approach on the grounds that, by putting an actualized description (or a reference to the actual world) within the scope of an attitudinal verb, one puts implausible conceptual requirements upon the subject of the verb. To illustrate: suppose that if Susan had gone to university, she would have wanted a shy and wiry husband. Then it seems Jane can say:

74. If Susan had gone to university, she would have wanted a husband just like mine

On the envisaged analysis, this means

75. If Sally had gone to university, she would have wanted a husband just like mine actually is.

But then, the complaint runs, (75) requires that at the counterfactual world Susan is able to think about α, the actual world. But it is not plausible that at any counterfactual world Susan thinks about α—this would be quite a feat, and certainly not required by the original ascription. Let us call this the *actuality argument*.[134] Similarly, one might complain that the envisaged analysis still requires Susan to have thoughts about Jane. But in the case just described it may be that Jane would be utterly unknown to her. In short, even if 'wanted a husband just like mine actually is' profiles her desire worlds in the right way—it expresses an intension that is true in all and only her desire worlds—the internal structure of the complement clause puts conceptual requirements on Susan that need not be met in the case at hand.

[133] For further discussion see e.g. Farkas, 'Evaluation Indices and Scope'; Percus, 'Constraints on Some Other Variables in Syntax'.

[134] For an argument of this form—though not raised in the context of the non-specific *de re*—see Soames, *Beyond Rigidity*, pp. 39–47. Similar issues are raised in Williamson, 'On the Paradox of Knowability'. See also *Knowledge and Its Limits* pp. 293–7. For another application of this kind of argument, see also Schiffer, 'Russell's Theory of Definite Descriptions', pp. 1174–5.

4.12 The representation requirement

The actuality argument involves, we believe, a misunderstanding about the way that hyperintensional elements function in attitude ascriptions. Let us extend some lessons that we learned earlier. Consider the sentence:

76. Bill thinks that in five years, a certain person who will have killed before that time will kill you.

It is quite clear that one can offer such a report in a setting where one does not believe that Bill himself thinks of the relevant person as one who will have killed before. Instead, the person Bill has in mind may be someone that only the speaker and the audience knows to have killed before. But the acceptability of the relevant report is not particularly well explained by claiming that 'a certain person who will have killed before that time' has wide scope with respect to the attitude verb, since the sentence's ease of interpretability is in part due to the fact that 'before that time' is preceded by 'in five years'.[135] Likewise, consider:

77. Bill thinks that in a thousand years cats just like ours will be popular.[136]

The natural reading does not require Bill to think that any present cats will live for a thousand years, and hence discourages scoping out 'Cats just like ours'. This is a standard case where the non-specific *de re* reading is called for, and where the model we have suggested works well.[137] We can also throw in a scope island for good measure:

78. Bill thinks that if there had been an election and a certain candidate we would have voted for had lost, then the economy would have crashed.

Here again it is similarly not plausible that 'A certain candidate' takes wide scope at the level of logical form, in part because of the scope island and in part because there are no actual candidates since there is no actual election.

In all of these cases, a wide-scope reading of the relevant constructions is impermissible.[138] Yet for all of the narrow scope readings, an analog of the actuality argument is

[135] This is not decisive. Someone might argue that ease of interpretability requires a certain order at the superficial level but does not require that order at the level of logical form. A full investigation of such defensive maneuvers would take us too far afield. But the wide scope maneuver is rendered yet more problematic when one considers: 'On his thirtieth birthday, every person thought that ten years from then he would be killed by a certain person who would have killed before' said of a group of individuals with varying dates for their thirtieth birthdays. (Thanks to Paul Elbourne here for the example—though he wished to remain at best neutral on the success of the argument.)

[136] Enough extra structure can perhaps save scoping out. This could have the gloss: 'There is some way w cats are when they are just ours and Bill thinks that in a hundred years cats that are w will still be popular'. (Thanks to Elia Zardini here.) We do not find such maneuvers particularly appetizing.

[137] The natural interpretation is: Bill thinks that in a thousand years cats popular then will be just like ours are now.

[138] And of course, the sort of choice-function treatment we looked at in §4.4.ii would be of no use in answering the actuality argument, since it leaves the predicative material *in situ*.

available: Bill does not think of the cat as just like ours, or the killer as someone who will have killed before, or the possible loser as someone we would have voted for. And in each case the belief reports seem true.

Something is going wrong with these actuality arguments. To help with a diagnosis, let us begin with a principle that seems to be driving them. They appear to involve the assumption that something like the following requirement holds:

> **Representation requirement (property):** If an expression expressing some property F occurs within the scope of a positive attitude ascription, and the ascription is true, then the subject must have some means of representing property F.

This has a more general version:

> **Representation requirement (general):** If an expression with some semantic value V occurs within the scope of a positive attitude ascription, and the ascription is true, then the subject must have some means of representing V.[139]

Thus, for example, if we use 'actually red' in the that-clause of an attitude ascription, we require that the subject have some means of representing the property of being actually red (by the property version) and some means of representing the semantic value of 'actually' (by the general version). So a positive attitude ascription to counterfactual beings that deploys 'actually red', for example, would require that those beings are able to think about the actual world.[140]

To see what is going wrong with this argument, let us look at the property version of the principle and consider two ways of taking it. The first way of taking it deploys a thin notion of representing a property. On the thin notion, one represents F iff there is a true positive attitude ascription in which F is expressed by some element in the that-clause.[141] A thicker conception of representing a property may be introduced by the following schema:

[139] Another very different kind of requirement for attitude ascription may be introduced in the following way: Suppose one uses a sentence S with a logical form L in a true attitude ascription of the form X V's that S. Then, on this variant proposal, the truth of the ascription requires that the subject have a mental representation whose logical form is isomorphic with that of S, and whose semantic value patterns exactly with that of S. We suspect that such a requirement does not have much intrinsic plausibility. Moreover, this proposal is one of a range of proposals that allow the truth conditions of belief reports to deviate in dramatic ways from their intuitive truth conditions—a kind of move that we are in general treating as a last resort.

[140] We are ignoring the fact that the ordinary English 'actually' that does not always square with the standard philosophical use. For example, the most natural reading of 'If anything else had gone wrong, I would have actually lost control' does not concern losing control at the actual world.

[141] This formulation takes certain liberties, since that it assumes that all beliefs can be described using language. We could put it this way instead: one represents a property F (on the thin conception) just so long as one stands in some propositional attitude relation to an F-involving proposition.

One represents a property F only if one has the capacity to think of something as F.[142]

Now, when one uses constructions of the form 'S thinks of something as an F', one is typically talking about some guise or way that the subject accesses a property. For instance, consider claims such as 'He does not think of water as H_2O,' 'She does not think of electricity as a flow of electrons,' 'Lois does not think of those glasses as belonging to Superman'. In each case the construction 'as' calls attention to a way of accessing a property.

Let us grant that in counterfactual circumstances, people do not have the capacity to think of things as being red at the actual world.[143] Hence, if one is operating with a thick conception of representing a property, one will take counterfactual people as being incapable of representing actuality. The trouble for actuality arguments is that subjects can count as representing a property on a thin conception, without representing that property on a thick conception. For just as in some contexts a claim that 'Pierre believes Paris is pretty' requires that Pierre thinks of Paris via the name 'Paris', but in other contexts not, there are also contexts where the claim 'Pierre wants me to buy him some dark green furniture' requires that Pierre thinks of the desired color *as dark*—but there are plenty of contexts in which that is not so. Similarly, 'Pierre wants the fridge to be about 6 inches from the stove' in some contexts requires that the subject think of the length *in terms of inches*, while in other contexts it would be perfectly fine for him to think of it in centimeters. Or suppose Pierre says 'The door is open' and I say 'Pierre thinks the door is not closed'. There are contexts where it is not important for Pierre to think of the state of the door as a privation of a certain condition.

In short, it is highly context-dependent what thick capacities of the subject are represented by the internal structure of a given that-clause.[144] Given that the various ascriptions to Bill in (76)–(78) are semantically true in the contexts we specified, it is plausible that the relevant that-clauses do not impose any thick representational requirements. Once one has a proper appreciation of the connection between thick and thin construals, actuality arguments disintegrate.[145] (Note that simply

[142] This is only a partial definition, but it will suffice for our purposes. We also ignore some additional complications: for instance, sentences of the form 'He is thinking of the F as an F' themselves enjoy a measure of context dependence.

[143] At least, this claim is true in nearly every setting that we can think of.

[144] There is an extension of the 'naïve' approach to names according to which a requirement of thick capacities is never part of the truth conditions of attitude reports, residing merely in the pragmatics. We do not wish to evaluate that approach here. Certainly, it would not help the actuality argument we are considering.

[145] We might mention another possible diagnosis of some of these sentences, one that draws on Kaplan's brief discussion of the 'pseudo *de re*'; see Kaplan, 'Demonstratives', p 555, fn. 71. Kaplan examines the sentence: 'John said that the lying S.O.B. who took my car is honest' in a setting where John has said 'The man I sent to you yesterday is honest'. (Kaplan calls this 'pseudo *de re*' because it 'suggests formalization by quantification in'.) He continues: 'The reporter has simply substituted his description for John's', doubting that this phenomenon 'of deliberately distorted reports is of sufficient theoretical interest to make it worth pursuing'. However, since no such distortion is going on with (72)–(78), we take it they cannot be dismissed in this way. (Of course, if one wished to go to town on our resources, one might claim that there are particularly lax contexts where the S.O.B. report is true!)

allowing that some noun phrases can appear 'transparently' in attitude contexts does not explain the broad range of examples just discussed, because the issue arises for a wide variety of expressions.)

And a more general philosophical lesson potentially emerges from this fact. If the above remarks are correct, there may be no helptul and straightforward answer to the question: What is common to the situations in which 'actual' figures in a true attitude ascription? Because of the context-dependence just noted, the answer may be 'not very much'. There may be plenty of interesting questions about how 'actual' functions semantically; and there may be interesting—and almost certainly related—questions that we might express by 'What is it to think of something as actual?' To answer the original question, however, will involve attending to the vagaries of shifting interests and so on.

As we hinted in §2.4, we take seriously the possibility that the same is true of propositional attitudes towards singular propositions. It may seem initially that the question 'What is in common to the situations in which a singular term figures in a true attitude ascription?' is a deep and philosophically important one. But if the case of 'actual' is suggestive, it may turn out that the deeper and more interesting questions, from the point of view of systematic semantics, are 'Which expressions are singular?' and 'What is the role of singular representations in our internal system of representation?' Once the relevant kind of context-dependence is taken seriously, certain of the standard questions about singular attitudes may turn out not to be the most important questions to ask.

5

What 'the'?

Given our liberalism about reference and our preferred account of specific indefinites, what should we say about the meaning of definite descriptions?

5.1 Three approaches to uniqueness

Let us begin with uniqueness. A felicitous utterance of 'The F is G' often seems to require that there is a unique F. And this phenomenon projects, surviving various kinds of embeddings:

It is not the case that the F is G.
Is the F G?

If there is no unique relevant F, one is tempted to respond to all of these constructions with, 'Hey wait a minute, there is no F' or 'Hey wait a minute, there are many Fs'.[1] (Bound uses are similar: felicitous use of 'At every time in the last decade, the F was happy' seems to require that for each time in the last decade, there was a unique F at that time.)

We can distinguish three kinds of view by their treatment of uniqueness. Suppose that John thinks there is only one senator from Kansas, and says

1. The senator from Kansas is bald.

Suppose further that nothing in the context or in John's intentions would further restrict the domain of the quantifier. Now, as it happens, just one of the two senators from Kansas is bald. Given this, we can distinguish three categories of views about John's utterance: (a) those on which it (truth-conditionally) asserts something true—roughly, that there is at least one senator from Kansas who is bald—while communicating something false; (b) those on which it asserts something false—roughly, that there is exactly one senator from Kansas who is bald; and (c) those on which it fails to assert anything truth-evaluable.

Do our initial intuitions provide any support for one or another of these truth-value claims? Notoriously, while there is a general sense of defectiveness when uniqueness

[1] For more on this test, see Shanon, 'On the Two Kinds of Presuppositions in Natural Language'; von Fintel, 'Would You Believe It? The King of France Is Back! Presuppositions and Truth-Value Intuitions'.

fails, our intuitions of truth-value vary from case to case. For instance, John's utterance sounds worse if it turns out that *no* senators from Kansas are bald, and it sounds better if *both* senators from Kansas are bald. Meanwhile, 'The king of France is bald' sounds 'gappier' than 'The king of France wrote *Naming and Necessity*'.[2] When it comes to explaining the full range of such intuitions, none of the three accounts appears to have any obvious advantage. But there may be other reasons for preferring one account over the others.

We have two primary goals in this chapter. The first is to make a modest case, primarily on grounds of simplicity, for a view of type (a). The second is to emphasize that the most plausible accounts of definite descriptions from each of the three types may end up complicating the traditional divide between referential and non-referential terms. As we will see, all three types of view benefit from the apparatus of specific—and sometimes singular—restrictors that we sketched in the previous chapter. Moreover, we will pay special attention to a neo-Fregean view of type (c) on which definite descriptions have objects as their semantic values. Though we do not ultimately endorse it, we think philosophers have been too quick to reject that view; and it provides a useful case study for rethinking the standard taxonomy of referential terms.

5.2 Existentialism

Typically, a speaker's use of 'the F' will communicate both that there is at least one F and also that there is at most one F. According to *existential* accounts, the former implication is truth-conditional, while the latter arises in some other way. Perhaps there is a conventional presupposition of uniqueness associated with definites.[3] Or perhaps we associate some other feature with the use of definites—such as *familiarity* or *givenness*—and this in turn gives rise to a conversational implicature of uniqueness.[4]

Either way, existentialism faces an initial challenge. Suppose someone utters:

2. A certain senator once worked for a tobacco company. The senator now has a 100% anti-tobacco voting record.

And suppose the speaker is talking about the junior senator from New York. Proponents of the existential view will have it that in uttering (2), the speaker *communicates*

[2] This kind of contrast was noticed by Strawson. For more recent discussions, see von Fintel, 'Would You Believe It? The King of France Is Back!', and Schoubye, 'Descriptions, Truth-Value Intuitions, and Questions'.

[3] For an existential view of this sort, see Abbott, 'Issues in the Semantics and Pragmatics of Definite Descriptions in English'.

[4] See Szabó, 'Descriptions and Uniqueness'; Ludlow and Segal, 'On a Unitary Semantical Analysis for Definite and Indefinite Descriptions'. A well-worked out view of the familiarity feature, one not tied to existentialism as we have described it, can be found in Roberts, 'Uniqueness in Definite Noun Phrases', which builds on the picture of Heim, 'The Semantics of Definite and Indefinite Noun Phrases'.

that a single senator both worked for a tobacco company and now has a 100% anti-tobacco voting record. But if 'the' is truth-conditionally an existential determiner, then both sentences could be true even if there were no such senator—perhaps the junior senator from New York once worked for a tobacco company, and another senator now has a 100% anti-tobacco voting record.

Some are willing to accept this result, holding that in such a case it is sufficient to explain why the utterance is *infelicitous* without requiring that either sentence is false. This is, in effect, to endorse a view of definites analogous to the simple view about specific indefinites. And parallel problems will apply: one will have to learn to live with the mismatch of truth-conditions and appeals to exceptional scope that will result.[5] This fact is especially striking for sentences like

3. The senator from Kansas is bald and the senator from Kansas is not bald.

Suppose it is clear that the speaker intends to be speaking about the senior senator from Kansas throughout—perhaps she is trying to give an example of an incoherent remark. Still, on the present view, her utterance is true, since there is a bald senator from Kansas as well as a non-bald one.[6]

(i) *Specificity*. Here is an alternative. For those who adopt our preferred account of specific indefinites, the difficulty with (2) and (3) can be easily avoided. We can begin by noticing that the first sentence in (2) contains a specific indefinite—and so its extension is covertly restricted to a singleton set containing the junior senator from New York. Given this, it seems natural that the domain of the anaphoric definite description is likewise restricted to that set. This yields the result that the truth or falsity of both sentences in (2) will turn on facts about the same individual.

With covert restriction in place, why not treat all definite descriptions as *specific existentials* in the vein of Chapter 4? On such a view, 'The F' truth-conditionally contributes an existential determiner and a restrictor, but its use presupposes that the restrictor has a singleton extension.[7] Or, to put it non-metalinguistically: where the restrictor property is *being F*, the speaker presupposes that there is exactly one thing that is F. And as before, the specificity can vary according to elements in the domain of a higher quantifier. Thus if one says something tantamount to 'At every time t in the last 20 years, the senator from Kansas at t . . . ', one presupposes that one's use of the definite has a singleton extension relative to every assignment of a time in the last 20 years to 't'. (Or, in the material mode, where one's restrictor expresses a relation R between times and individuals, one presupposes

[5] In fact, this family of problems is even more salient in the case of 'the' because, intuitively, definites very often pick up on a subject of conversation previously introduced where as specific indefinites do not.

[6] Thanks to Tim Williamson here.

[7] For the sense of 'presupposition' in play, see §4.2.

that for every time in the relevant period there is a single individual that stands in R to that time.)[8]

In the case of a complete definite, no covert supplementation is required. But in the case of an incomplete definite—one whose overt noun does not pick out a unique object—the noun must be supplemented with implicit material in order for this presupposition to be satisfied. Here again we might postulate that this covert supplementation sometimes involves a singular element—and as we will see in §5.4.ii, this is one way to account for the data behind the so-called referential/attributive distinction.

If definites are specific existentials, we can also explain what is going on in (1) and (3). The reason that an utterance of (1) without any covert supplementation is infelicitous is that it communicates that there is exactly one senator from Kansas. And the speaker of (3) is being incoherent in that if her presuppositions are satisfied, the sentence is guaranteed to be false, unless she somehow supplies different covert material to restrict the two uses of the definite.

Unfortunately, given our view of specific indefinites, this view leaves us with a puzzle: so far we have said nothing to *distinguish* definites from specific indefinites. Both contribute an existential determiner, and both involve a presupposition to the effect that a singleton restrictor is in play. But they are certainly not interchangeable in discourse. For one thing, definites can be used in the absence of covert material, whereas specific indefinites are rarely—if ever—used this way. Indeed, when the *overt* descriptive material obviously has a singleton extension, use of the indefinite article is unacceptable. One can say

4a. I visited the smallest volcano in Hawaii,

but not

4b. I visited a (certain) smallest volcano in Hawaii.[9]

Or suppose we are looking towards a corner, and there is clearly exactly one man in the corner. Now contrast:

[8] Disjunctions are trickier. Suppose David says

i. Either the King of Spain or the Queen of Spain stole the amulet.

This appears to presuppose that there is exactly one King of Spain and exactly one Queen of Spain. But suppose we are in a setting where it is clear that we are not sure whether Spain has a king or a queen, but we are sure it does not have both. Then (i) does not appear to have the same double-presuppositional effect. The same point applies to specific indefinite ('a certain king or a certain queen') and even demonstratives (uncertain of the gender, one points and says: 'That king or that queen stole the amulet!'). In such cases, one hedges in a way that complicates the core presupposition of these specific expressions. A similar situation crops up even in cases where there is no uncertainty. Suppose that Switchland rotates its monarchical leadership: it has only a Queen for ten years, only a King for ten years, and so on. David says:

ii. At every time t in the last 20 years, the King of Switchland or the Queen of Switchland was popular.

This is not the place for a detailed examination of the so-called projection problem for presuppositions—the issue of how a sentence's presuppositions 'project' into complex sentences.

[9] See a similar pair of examples in Gundel, Hedberg, and Zacharski, 'Cognitive Status and the Form of Referring Expressions in Discourse', §1.1.

5a. The man in the corner over there is Hempel.
5b. A (certain) man in the corner over there is Hempel.

If the overt material obviously suffices for uniqueness—whether in virtue of its form or for some other reason—only the definite will do.

(ii) *Candid restrictions*. As a first step towards explaining the data, we might say that the use of a definite conventionally presupposes that the audience can *uniquely identify* the object satisfying the restrictor;[10] while the use of a specific indefinite carries no such presupposition.[11] (The ability to identify x is the ability to single x out, where this might be done by description, perception, or any other means cognitively available.)[12] Sometimes the audience's identifying information is largely drawn from background knowledge. For example, as Barbara Abbott notes, even a discourse-initial use of a sentence like

6. I took the car in for a tune-up

will typically be in order owing simply to the general knowledge that speakers tend to own a single car and that this car is the default subject of car-related remarks.[13] Sometimes, however, the audience has no relevant background knowledge or perceptual cues, and one must use a complete description. For example, suppose the audience in (4a) was not aware that anything has the feature *being the smallest volcano in Hawaii*. Nevertheless, use of the definite is licensed because it supplies its own identifying information.

Upon reflection, however, this still does not distinguish definites from specific indefinites. After all, there is a sense in which the audience can always uniquely identify the object under discussion whenever a specific indefinite is felicitous. Suppose John says:

7. A certain astronaut loves her job.

On our view, John presupposes that his use of 'a certain astronaut' is about a single individual, and semantically supplies a covert element that—along with 'astronaut'—yields a singleton restrictor. But members of the audience can, of course, identify the object in the domain of that restrictor by way of a description like 'the astronaut John is talking about', or 'whoever John meant by "a certain astronaut"'. In this way, the

[10] That is, understanding that it is the object under discussion. Suppose there are several cats in perceptual view, and the audience is in a position to identify each of them. This does not by itself make 'the cat' felicitous—the audience must be able to identify the relevant cat while understanding that it is picked out by one's use of 'the cat'.

[11] Cf. Gundel *et. al.* 'Cognitive Status', p. 277.

[12] As is clear from the first part of this book, there will be no general acquaintance constraint on this ability.

[13] Abbott, 'Definiteness and Identification in English' §3.2.1.

audience is in a position to go on to talk about that astronaut and even to have singular thoughts about her.

However, there is a crucial difference here—one that turns on a distinction introduced in the previous chapter. Hearing (7), the audience will typically not have any independent grasp on the way in which the speaker is restricting the indefinite. As a result, to identify the astronaut in question the audience must use a feature that is parasitic on John's use of the indefinite—a feature like *being whomever John meant by 'a certain astronaut'*, which exploits meta-semantic facts about John's use of the phrase. Note that being *provided* by a description does not make a feature parasitic on that description—the feature *being the smallest volcano in Hawaii*, while provided by the description in (4), does not refer back to the speaker's semantic intentions or utterance, and thus is not parasitic on that description in the sense that interests us here.[14]

Now recall our distinction among restrictors from §4.9: when the audience can grasp how a quantified expression is being restricted, the restriction is *candid*—otherwise it is *coy*. The data we have just been examining suggest a conventional rule: *definite descriptions must be candidly restricted*. (In this way 'the' appears to be like 'every', as previously discussed.) One way to satisfy this rule is to provide overt material in the noun phrase that uniquely identifies an object, so that no covert restriction is necessary; another way is to covertly restrict the definite in a way that is directly accessible to the audience. Either way, the audience will be in a position to non-parasitically identify the individual under discussion.[15]

A result of this rule is that the felicitous use of a definite description involves presupposing that it is candidly restricted.[16] In contrast, we saw in Chapter 4 that specific indefinites are coyly restricted as a matter of course. Indeed, the decision not to use a definite—given the conversational rule *maximize your presuppositions*[17]—will convey that the speaker needs to avoid the presupposition of candidness associated with the definite, presumably because the restriction is coy. And this in turn explains the inability to use a specific indefinite in cases where the overt material is *obviously* uniquely satisfied, as in (4) and (5): the choice not to use a definite would misleadingly suggest that the description is not candidly restricted.[18] (Though there is, of course, an

[14] Theoretically, a description might *provide* information that is parasitic in this sense—e.g. 'The man /a certain man that I'm talking about with this description is happy.' See example (ii) in fn. 18.

[15] Again, *while* understanding that it is the object under discussion; cf. fn. 10.

[16] We realize that the relevant felicity conditions on use involve tacit linguistic knowledge and hence recognition that the restrictor is candid will be tacit too. Applying the characterization of presupposition in Chapter 4 would involve allowing that tacit knowledge can be 'taken for granted' in the relevant way.

[17] For an exposition of this principle, see Heim, 'Artikel Und Definitheit'.

[18] This also explains what is going on in certain atypical cases.

(i) Candidness is audience-relative, and sometimes the audience is patently mixed: some can non-parasitically grasp the restrictor while others cannot. A speaker who is aware of this situation may have refrained from the use of overt identifying information in order to keep some audience members out of the loop. In such a case the indefinite article is preferred, except in the rare case where one is willing to speak felicitously to some audience members and not to others. Thus, strictly speaking, the decision not to use a

arch use of specific indefinites where the speaker flouts felicity by merely *pretending* to be coyly restricting a description, while straightforwardly providing identifying information—as when David says to his only 10-year-old daughter, 'A certain 10-year-old daughter of mine may be getting a new baseball glove for Christmas!')[19]

On the present view, then, while definite descriptions and specific indefinites both involve a specificity presupposition, definites also involve a presupposition of candidness.[20] Moreover, definites differ from specific indefinites in that their presuppositional profile appears to be *meaning-triggered* by the article, whereas using 'a' does not meaning-trigger even a specificity presupposition.[21]

definite description merely conveys the attempt to avoid a *blanket* presupposition of candidness, and will not thereby generate a *blanket* presupposition of coyness if it is a salient possibility that the audience is mixed in this way. This explains our preference for the indefinite in such a case. (This result would not be predicted if there were a basic blanket coyness rule on indefinites, and a derived candidness rule on definites, rather than the other way around.) Of course, sometimes a speaker is confused about her audience's grasp on her restrictor. In such a case she may choose not to use the definite because she wrongly assumes that her restriction is coy. (Here the ordinary sense of 'being coy', which arguably does not depend on facts about the audience, diverges from our technical sense.)

(ii) In the vast majority of cases, the use of overt material that is obviously uniquely satisfied coincides with the lack of any need for covert restriction—hence, the definite is clearly preferable. In some recherché cases, however, the overt material may be complete in this way *even though* a covert restriction has crucially been employed. Consider 'The man /a certain man that I'm talking about with this description is happy', in a case where the audience does not have an independent grasp on how the description is being covertly restricted. It is unclear whether this kind of use can entirely escape infelicity. However, we suspect there is an inclination to prefer the definite article here, and this is worth explaining. First, there is a presupposition in play that the description is being covertly restricted, since this is necessary for the specificity presupposition to be satisfied. But given the presence of such a restriction, the *overt* description itself turns out to be complete in the sense that the feature it expresses is satisfied by exactly one thing. Thus, an identifying feature—albeit a metasemantic one—has been overtly provided to the audience. But this means that the audience need not resort to (in the sense of *fall back on*) the use of that metasemantic feature. This suggests that it is not the audience's need to *use* a parasitic feature, but the need to fall back on one, that ultimately marks the relevant notion of coyness.

[19] Thanks to Ted Sider here.

[20] Contrast the related view of Abbott, 'Definiteness and Identification in English'. Abbott's picture is that definites have a conventional uniqueness presupposition, and this in turn generates a conversational implicature of identification, since it is typically expected that addressees can figure out 'which entity is intended by a speaker'. But this will not do for our purposes. Suppose that parasitic identification is not sufficient for figuring out 'which entity is intended'. In that case it would be wrong to treat the uniqueness presupposition as generating an identification presupposition, since specific indefinites carry the former but not the latter (on its thicker construal). On the other hand, if parasitic identification *is* sufficient, then it will not distinguish definites from specific indefinites, given our view of the latter.

[21] An alternative approach to definites mirrors the simple view of specific indefinites discussed in Chapter 4, which repudiates the truth-conditional effects of anything like covert restrictors. On such a view, definites are bare existential expressions from a truth-conditional point of view but nevertheless trigger a kind of candidness presupposition. If one takes for granted a non-semantic sense in which a particular thing is being talked about, one might claim that a given use of 'the dog' is about a particular dog even if it has the same truth-conditional contribution as 'some dog'. One could then add that 'the dog' presupposes that the audience can non-parasitically grasp the feature at work in identifying the unique thing being talked about. (And again, the best version of such a view will admit that singular contents are standardly communicated using definites—see §4.10.) We prefer the view of definites discussed in the text, for reasons akin to those motivating our preference for a semantic domain-restriction view of specific indefinites over the simple view.

A few further points about the candidness requirement are in order.

(a) A restriction can be candid even if it requires the audience to refer back to a *previous* description. For example, suppose John says

8. An astronaut walked into a bar full of cowboys. The astronaut sat down.

This is perfectly in order. By the time we reach the definite article, the audience is already in a position to identify the denotatum—the covert use of information parasitic on an earlier description does not make a restriction coy.

(b) Generalizing to the plural case is straightforward. We have already seen that specificity requires one to restrict the extension down to a single plurality (at the relevant possibilities). The additional requirement imposed by the use of the definite article is that this restriction is candid: the audience grasps it in such a way that they can non-parasitically identify the plurality it picks out.

(c) Likewise, we have seen how specificity behaves under higher quantifiers. Consider 'In every town, the mayor is tall'. Here specificity requires that the restrictor provide an *identification recipe*, picking out a unique individual relative to any assignment to the variable introduced by the relevant quantifier. (In this sentence, the overt material by itself indicates the needed relation from towns to individuals; but in other cases the restrictor will require additional covert help.) The additional requirement triggered by the definite article is that the identification recipe must be candidly supplied, allowing the audience to non-parasitically identify a unique object relative to each assignment.[22]

(d) The considerations concerning modal and attitudinal contexts discussed in Chapter 4 for the metalinguistic element of the specificity presupposition will also apply to the candidness presupposition.[23] Consider, for example,

9. Fred believes in ghosts. He thinks that the ghost of Napoleon is after him.

In this case the speaker does not presuppose that her use of the indefinite has a singleton extension at the actual world—but neither does she presuppose that Fred has any beliefs about her use of the indefinite. Instead, she presupposes the actual presence of a candid restriction that determines a unique object *relative to Fred's belief worlds*—these being the relevant possibilities. Thus, the presupposition of candidness remains directed at the actual audience.

[22] Similarly, on a situation/event-based approach to 'donkey anaphora', one presupposes that there is a candid recipe delivering a unique object relative to every relevant assignment of a situation/event to a situation/event variable. We have in mind treatments of 'If a farmer has a lot of corn, the farmer is happy' that take it to have the following sort of structure: 'In all relevant situations s, if a farmer in s has a lot of corn, the farmer in s is happy'. (See Elbourne, *Situations and Individuals*, for a penetrating exploration of these issues.) Both the Russellian and the existential views that we describe will almost inevitably have need for resources of this sort.

[23] See §§4.6.v and 4.11.i.

(iii) *Familiarity?* Sometimes in using 'the F' one takes for granted that the audience is in some sense *already familiar* with the F. This is especially clear in cases where the overt noun phrase does not single out a unique object. For example, in the absence of any salient cat, a felicitous utterance of

10. The cat has been drinking out of the fishbowl

will typically require some kind of prior familiarity, on the part of the audience, with the cat one is talking about or at least prior cognizance of the fact that the speaker owns one cat. On our view, this phenomenon is easily explained by appealing to the candidness requirement—since the overt noun does not pick out a single object, the audience will typically have to employ background knowledge allowing them to identify the cat talked about.

A related phenomenon can occur even when the overt predicate does pick out a unique object. For example, a felicitous utterance of

11. The terrorist on that roof is smoking a cigarette.

typically requires at least that the audience is *already aware* that there is a terrorist on the roof. If this fact would come as a complete shock, a discourse-initial use of (11) would be infelicitous. On our view, this is easily explained by the fact that, in uttering (11), one *takes for granted* that there is a unique terrorist on the roof. Felicitously taking *p* for granted standardly requires either that *p* is common ground, or else that one can reasonably expect the audience to quietly add *p* to their stock of beliefs. In this case, it is clearly not common ground that there is a unique terrorist on the roof, and this is precisely not the sort of thing we can expect the audience to quietly add to their belief stock.[24]

More generally, we suggest that the presuppositional profile we have offered for 'the' can explain cases where, in using a definite description, a speaker presupposes some *prior* knowledge of or familiarity with the denotatum on the part of the audience. This contrasts with views on which the order of explanation is reversed. For some theorists, the distinctive feature of definites is that they conventionally concern objects that are *already familiar* or *given*—and this in turn explains the phenomenon of uniqueness.[25]

[24] *Prima facie*, one's explanation for the infelicity of (11) should not differ too much from one's explanation for the infelicity of:

i. Every terrorist on the roof is smoking a cigarette
ii. Few terrorists on the roof are smoking a cigarette

and so on. These uses of 'every' and 'few' appear to presuppose, in our broad sense, a non-zero extension; and again one cannot expect the audience to quietly add these to their belief stock. Appealing to a special familiarity presupposition only for the case of 'the' appears to be too local an explanation for this more general phenomenon. Of course, one might propose a familiarity treatment of 'every' and 'few'—one would then inherit problems analogous to those discussed for the case of 'the' below.

[25] For explicitly existential views of this sort, see Szabó, 'Descriptions and Uniqueness'; Ludlow and Segal, 'On a Unitary Semantical Analysis for Definite and Indefinite Descriptions'. For other accounts appealing to

Such a view might characterize *prior familiarity* in a variety of ways. In paradigmatic cases, the definite picks up on information literally provided about an object in a preceding piece of discourse, or else denotes an object perceptually salient to conversational participants.[26] But it is well-known that one can utter

4a. I visited the smallest volcano in Hawaii

in the absence of any prior 'discourse referent' or perceptually salient volcano. Thus, one well-developed account—that of Craige Roberts—extends familiarity to cases where the existence of a unique F is entailed by information that is already common ground by the audience.[27] (In such cases, for Roberts, the denotatum counts as *weakly familiar*.)

This move helps with (4a) if the speaker can reasonably take for granted that the audience was familiar with the fact that there are volcanoes in Hawaii (and no ties for smallest). But suppose it is uttered in a setting where it is *not* already common ground that Hawaii has volcanoes. In such a case, on Roberts' view, the speaker has flouted the familiarity constraint by wrongly taking it for granted that this knowledge was already common ground.

But is this the right account of such a case? Consider an example due to John Hawkins:

12. What's wrong with Bill? Oh, the woman he proposed to last night said 'no'.[28]

Suppose the second sentence is uttered in a setting where it is obvious to all participants that Bill's having proposed last night is not prior common ground. If the definite simply has a uniqueness presupposition, as on our view, then the speaker takes for granted that there is unique woman that Bill proposed to last night. But on Roberts' view, the speaker takes for granted (in our broad sense) that hearers were *already* familiar with this fact.[29] And this means that the speaker takes for granted

familiarity, see Heim, 'The Semantics of Definite and Indefinite Noun Phrases'; 'File Change Semantics and the Familiarity Theory of Definites'; Roberts, 'Uniqueness in Definite Noun Phrases'.

[26] Heim focuses on the former kind of case for the most part, but says that in cases of contextual salience, contexts 'must be able to have new discourse referents added, without anything being uttered', as in a case where a dog runs up to two interlocutors. ('The Semantics of Definite and Indefinite Noun Phrases', p. 309).

[27] See Roberts, 'Uniqueness'. The sense of 'common ground' here is that of Stalnaker. Thanks to Craige Roberts for helpful discussions about issues surrounding familiarity.

[28] Hawkins, *Definiteness and indefiniteness*, pp. 101, 131ff.

[29] We take it that Roberts' notion of weak familiarity requires that information entailing that there is a unique F is *already* common ground prior to the speaker's utterance. (See the use of 'already' in the central characterizations of familiarity on pp. 288 and 294, and the connection to Ellen Prince's sense of 'hearer-old' on p. 298. See also Prince, 'The ZP Letter: Subjects, Definiteness and Information Status'.) But one might suggest an even more relaxed view where the relevant information could all be new—thus the woman mentioned in (12) counts as 'familiar' merely because the audience can infer *from the speaker's use of the definite* that there is exactly one such woman. Of course, this ability will be present even on our view, according to which the speaker in (12) may be using the definite to offer the existence of the woman as an entirely new but

something the audience knows to be false, which is typically not the sort of thing an audience can be expected to quietly add to their beliefs. So why, on this view, does (12) seem perfectly felicitous?

Here one might claim that, in addition to the phenomenon of quietly adding *p* to one's belief stock when it is taken for granted, there is also a common practice of *quietly putting up with the fact that p has been taken for granted*, even where one knows that *p* is false. Indeed, Roberts appeals to presupposition accommodation in this case—and to do the required work it must be 'accommodation' of this second type. (We will set aside the terminological issue of exactly what counts as 'accommodation'.)[30] And perhaps hearers of (12) will in fact be perfectly willing, not only to take on board the fact that Bill went out with a woman last night, but to put up with the speaker's false presupposition that she was already familiar to the audience. However, other things equal, it seems best to avoid having to appeal to this sort of accommodation, especially in cases where the relevant utterance seems *entirely* felicitous. If a conventional rule is really being flouted in a way that the audience must tolerate, we would expect at least an inkling of this fact in the phenomenology of the exchange. We thus prefer a view on which speakers in these cases only take things for granted that the audience can easily add to their belief stock.

Familiarity theorists have an especially difficult time with the following kind of speech, inspired by an example of Barbara Abbott's:[31]

13. Since you don't know much about MSU, I'm sure you haven't heard of the new curling center there. It's pretty amazing. I'll bet you didn't even know there was a curling center in Michigan.

One might expect a presupposition of familiarity to sit particularly poorly with an explicit denial of familiarity. But there is no hint of conversational impropriety here. We therefore ought to take this intuition at face value, especially since we can explain cases where familiarity presuppositions *do* seem to be in play without appeal to imperceptible rule-flouting.

In a recent paper, Peter Ludlow and Gabriel Segal propose an existential view with a *givenness* constraint: 'the noun phrase with the determiner "the" carries the conven-

uncontroversial addition to the common ground. If we count the woman as familiar in such a case, we seem to have lost sight of the old/new distinction underwriting talk of familiarity.

[30] In Lewis, 'Scorekeeping in a Language Game', when the audience accommodates *p*, they come to take *p* for granted. The paradigm cases he discusses involve presupposed propositions that are quietly added to the audience's belief stock. It is an additional theoretical step to suppose that audiences are commonly willing to take for granted propositions they believe to be false. (Stalnaker offers some fairly recherché examples: cases of deception, or when an anthropologist 'adopts the presuppositions of his primitive informant in questioning him'. But he says that presuppositions are *normally* believed to be true. Stalnaker, 'Pragmatics', p. 281.)

[31] Abbott, 'Issues in the Semantics and Pragmatics of Definite Descriptions in English', p. 64. We have taken the denial of familiarity out of a relative clause and left off a hedge about the hearer's knowledge.

tional implication that the object under discussion is *given* in the conversational context'.[32] The contrast here is with noun-phrases fronted by the determiner 'a', which 'are conventionally implicated to involve *new* information'. But what is givenness, exactly? Here Ludlow and Segal quote the *Shorter Oxford English Dictionary*, which tells us that 'the' marks an object 'as before mentioned or already known or contextually particularized.' They go on: 'Givenness is not the complete story, however. When the predicate by itself ensures uniqueness, the implicature gets overridden. If it is obvious that there can only be one F, then no issue can arise about singling out a specific F as already mentioned or contextually particularized'. (The authors offer 'the tallest man in the room' as an example.)

There are at least two problems with this suggestion. First, it explains at best why the definite is *allowable* in 'the tallest man in the room'—not why it is *required*. Second, we must distinguish between cases where it is already known that *there is exactly one F*, and those where it is already known that there *can be at most one F*. Presumably, a predicate must 'ensure uniqueness' of the former sort for it to follow that 'no issue can arise' about whether the object is already known or particularized. After all, a predicate of the second kind can still be used to introduce the *new* information that there is an F. In fact, that is precisely what is going on in cases like (4a), where the speaker talks about the smallest volcano in Hawaii out of the blue. And in (12) it may follow from what is already known in the context that Bill goes out with at most one woman per night, but it certainly does not follow from this that Bill had exactly one date last night. Likewise for the plausible background assumption that a given university will have at most one curling centre: it will hardly entail that MSU has exactly one curling centre. Thus there is no reasonable sense in which the relevant object is 'already known or contextually particularized' in such cases.[33]

Some theorists who appeal to familiarity/givenness postulate a weaker constraint—one that in effect *prefers* prior familiarity on the part of the audience as a default, but does not *require* it. One such view has recently been offered by Zoltán Szabó, making use of Heim's ideology of 'file-cards' along with versions of her familiarity and novelty conditions, interpreted as conventional but not truth-conditional rules.[34] The use of 'a' instructs the hearer to open a new file card, while the use of 'the' instructs the hearer to

[32] Ludlow and Segal, 'On a Unitary Semantical Analysis for Definite and Indefinite Descriptions' (p. 424–5). Note the apparently crucial use of 'the' in stating the theory. We leave it as an exercise to the reader to work through the relevant Gricean derivations of the sort they subsequently propose, as applied to the statement they offer of their own theory—keeping in mind that 'the' has no truth-conditional or conventional uniqueness requirement.

[33] One might suggest that the F counts as 'already known or contextually particularized' as long as what is already known—*supplemented* with information supplied by the definite itself—entails that there is a unique F. This would certainly be closer to the view we prefer, but it can't be what Ludlow and Segal have in mind: it does not seem to involve any kind of givenness requirement, and it does not fit the alleged contrast with indefinites (the latter 'involve *new* information').

[34] See Szabó, 'Descriptions and Uniqueness'; 'Definite Descriptions without Uniqueness: A Reply to Abbott'.

update an old file card *or*—if there is no suitable old file card—to open a new one. However, this does not explain why *only* the definite article is acceptable when the overt description is complete. This is even true in cases where the object it picks out is known by the speaker to be entirely new to the audience—as in 'the new curling center'—and in such cases this view would seem to predict a preference for the indefinite article!

In short, we prefer to treat familiarity as derived and specificity as basic. As we have indicated, our candidness requirement on the restrictor predicts familiarity effects in many cases where the overt predicate does not pick out a single individual. But it also explains why 'the' is required in cases where it is common ground that the predicate *does* pick out exactly one object. The key to felicitous discourse-initial use in such cases is that the audience will be happy to treat it as uncontroversial that there is a unique F, not that they were previously familiar with the F, or previously in a position to infer the existence of a unique F. But a familiarity condition would tend to predict the latter. (Moreover, in §5.3 we will argue that familiarity views fare no better even in the kinds of case usually used to motivate them: namely, those in which definites seem to lack a specificity requirement.)

(iv) *Non-quantificational variants*. In §4.10.ii we discussed non-quantificational approaches to indefinite noun phrases. This kind of approach has been recently advocated for the case of definite descriptions by Delia Graff Fara.[35] The basic idea is that the quantificational force typically associated with definites is due to covert elements, so that the content of 'the F' itself is better thought of as predicative. For example, in 'The dog runs' the quantificational element is not vocalized any more than it is in 'Dogs run'. Meanwhile 'the dog' expresses a property, which we can identify with *being the dog*. (Such views might take the additional step of holding—with certain versions of dynamic semantics—that individual sentences are not really suitable targets for the ascription of truth and falsity.)

As Fara points out, (i) post-copula occurrences of the definite seem to provide evidence for a non-quantificational approach—quantifiers do not typically sit happily after the copula, but definites do; (ii) definite descriptions can combine with predicates in this position ('He is tall, dark, handsome and the love of my life'); and (iii) 'He isn't the tallest person in the class' is not intuitively about two people—indeed the definite here cannot serve as the antecedent for a subsequent personal pronoun. All of this seems evidence that these post-copula uses of the definite have predicative content.[36]

[35] Fara, 'Descriptions as Predicates'.

[36] Fara offers a range of related evidence for the predicative approach, at least some of which we find compelling. For example, 'an F' and 'the F' do not always pattern in the way quantificational phrases do: 'A and B are not the Fs' sounds good, but 'A and B are not DET Fs' sounds odd for various paradigmatic quantificational meanings of 'DET'—especially in the absence of a type of intonation contour suggestive of metalinguistic negation. Moreover, there is an attractive simplicity to the view that 'John is happy' and 'John is the man' are alike in simply concatenating 'John' with a quantifier-free predicate. Further, a predicative approach to definites and indefinites potentially has an easier time handling sentences with covert generic

In sketching the existential view we have assumed that 'the' is a determiner, but the key components of the view can be adapted quite easily to a non-quantificational view (a move that we are in fact rather sympathetic to). On the resulting picture, there is a covert existential determiner at work in 'The president is happy', but not in 'Obama is the president' (assuming 'Obama' is paradigmatically referential); and in both cases the definite description is a predicate expressing the property of *being a president*, or else a more specific property if it is supplemented with covert elements. Meanwhile, in both sentences 'the' will trigger a specificity and candidness presupposition on this property. Note that such a view need not treat specificity as always involving a restriction on the domain of a quantifier phrase: the key is that a (possibly covertly supplemented) predicate is presupposed to have a singleton extension; see also Chapter 4, n. 78. (If we also adopt a non-quantificational treatment of indefinites, the meaning of 'the president' will still, from a truth-conditional point of view, be exactly the same as that of 'a president'.)[37]

Another possibility is to adopt a hybrid view on which definite descriptions shift in the type of truth-conditional content they enjoy according to linguistic environment.[38] Those who embrace a quantificational treatment of definites in subject position could account for the post-copula evidence by adopting a selective non-quantificational treatment for those occurrences.[39]

5.3 Exceptions to specificity?

There are various alleged exceptions to the thesis that definites always communicate uniqueness. These are frequently brought up as problems for Russellianism; but they might also seem to challenge the specificity presupposition we have attributed to definites.[40]

force. The semantics of 'A tiger has stripes' runs smoothly if 'a tiger' has predicative meaning, which then combines either with a covert existential determiner or a covert generic determiner, to generate the two readings. Things run less smoothly if, in addition to the generic determiner, there must be an existential determiner supplied by 'a'.

[37] How might Russellianism be adapted to a non-quantificational view of definites? Here there are two ways to go. First one might align the predicative meaning of 'the president' with that of 'a president' but posit a different covert determiner—one whose semantic contribution is the standard Russellian one whose presence is conventionally signalled by, though not semantically expressed by 'the'. One would think that this proliferation of covert determiner types is to be avoided if possible. (Also, the idea that 'the' conventionally signals the presence of a Russellian quantifier may have trouble accounting for sentences where we wish to construe the covert quantifier as generic.) An alternative approach, preferred by Fara, takes the covert determiner in standard examples to be existential and glosses the predicative content of 'the F' as being a property that applies to a thing iff it is the unique F.

[38] Cf. Partee, 'Noun Phrase Interpretation and Type-Shifting Principles'.

[39] Note that while we need to take account of 'He is tall, dark, handsome and the love of my life,' we also need to take account of the fact that definites and indefinites can combine with names in post-copula position, especially in disjunctive examples: She is either Jane or her twin sister', 'He is either Jim or a guy that looks just like him'. (One might take this as evidence for the predicative view of names discussed in Chapter 6. Similar considerations also apply to demonstratives.)

[40] We set aside cases like the following: 'I didn't talk to the winner, and that's because there wasn't a winner'. Negations of this sort don't demonstrate a lack of presupposition. For example, 'David stopped

(i) *Arbitrary reference*. Consider:

14. The dog got into a fight with another dog.[41]
15. A dog I know got into a fight with another dog.

On our view, in typical settings where one would utter one or the other of these sentences, the first occurrence of 'dog' will be accompanied by covert material that combines with the content of 'dog' to generate a singleton restrictor. So there is no problem of incompleteness here.

However, Zoltán Szabó has raised the following kind of case.[42] Suppose someone utters:

16. A dog was limping in the park. The dog was limping because it got in a fight with another dog. They apparently bit each other: the other dog was also limping in the park.

And suppose this is uttered in a setting where, while the speaker had evidence of a two-dog-fighting-then-limping state of affairs, the speaker's knowledge about the two dogs is entirely symmetrical: she has no means of singling out either of the dogs.[43] In other words, the speaker uses 'a dog' at the beginning of the speech in a way that could just as easily be taken to be about one dog as about the other. In a sense, it is arbitrarily about either of the dogs. Yet the speech is felicitous.

Szabó's main target here is the Russellian, but this case appears to cause trouble for a view like ours as well. After all, it is hard to see how a singleton restrictor can be associated with the definite, since by hypothesis, the speaker has no natural method for cognizing a property that uniquely applies to just one of them. And apparently, given our views on specific indefinites, 'a dog' in (16) cannot be a specific indefinite—even though it has the feel of one—and so there is no way to solve the uniqueness problem for 'the dog' by appealing to the fact that it is anaphoric on the indefinite.[44] (Szabó would have it that 'a dog' is purely existential and yet can serve as the antecedent for

smoking' presupposes that David started smoking. Still, one can say 'David didn't stop smoking and that's because he never started'. The so-called phenomenon of meta-linguistic negation is often thought to explain this. See Horn, *A Natural History of Negation*, Chapter 6.

[41] This sort of example is due to McCawley, 'Presupposition and Discourse Structure'.

[42] See Szabó, 'Descriptions and Uniqueness'. A related case due to Heim is discussed in Roberts, 'Uniqueness', p. 293; but in that case one's knowledge about the two objects is not entirely symmetrical.

[43] As Szabó puts it, we are to suppose that (28) is 'asserted by someone who deduced it from circumstantial evidence'. Our own view, of course, is that it is beside the point whether the evidence is circumstantial. What matters is that the speaker is completely unable to distinguish one dog from the other, and so a singleton restrictor cannot be in play. This cognitive symmetry is perhaps more plausible in the following case:

i. A certain number is important to some contemporary physicists. All I know about the number is that it, like its additive inverse, is a square root of –1. (The additive inverse of that number is equally important to physicists.)

[44] We should note in passing that some resources that have been proposed in formal semantics for somewhat related phenomena do not extend straightforwardly here. Consider the 'donkey' sentence

i. If a farmer owns a donkey, the farmer takes great care of the donkey.

the definite description.) This case, then, suggests that there is no general uniqueness requirement, whether truth-conditional or not, on the definite description.

However, this argument appears to prove too much. After all, something very much like it could be used to try to show that that bare proper names do not generally have any uniqueness requirement. Consider:

17. A dog was limping in the park. Call him 'Rover'. Rover was limping because he got in a fight with another dog. Call the other dog 'Pluto'. Pluto was also limping in the park.

This speech seems just as acceptable as (16) in the very scenario that Szabó has in mind. We doubt Szabó would use this speech to infer that it is no part of the semantic profile of a name that it picks out a unique object. But to draw anti-Russellian conclusions about definite descriptions from (16) is no more compelling than drawing anti-Kripkean conclusions about names from (17).[45]

After all, even supposing with orthodoxy that names are standardly referential tags, there is a use of names as arbitrary tags, as names for an arbitrary member of a domain. When used in this way their behavior in reasoning, in anaphoric licensing, and so on, is very much the same as ordinary names. (An account of arbitrary names that would hardly depart from that orthodoxy at all is one according to which they refer, but it is vague which object is referred to; one then applies one's favorite theory of vagueness, whether supervaluationist or epistemicist or whatever.[46] Note that this approach would be very inhospitable to acquaintance constraints that require anything like 'knowing which'—since these will all come out as determinately false.)

Likewise, we doubt that Szabó would wish to reject Russellianism on the basis of the following speech:

18. Consider an arbitrary natural number: call it 'N'. The result of subtracting the successor of N from the successor of the successor of N is 1.

How is uniqueness secured for 'the farmer' and 'the donkey' given that on standard assumptions they are not bound by 'a farmer' and 'a donkey'? One idea which has some currency is that 'if' triggers a kind of *situation quantifier*. The proposal is, roughly, that the claim be heard as 'all relevant possible situations s which are such a farmer in s owns a donkey in s are situations where the farmer in s takes great care of the donkey in s'. Insofar as situations can be cut up in just the right way, uniqueness can be saved. (See e.g. Heim, 'E-Type Pronouns and Donkey Anaphora' and Elbourne, *Situations and Individuals*.) Whatever the merits of this idea, it does not help in the case at hand in any straightforward way, since there is no obvious trigger for a situation quantifier. Alternatively, if one adopted a dynamic approach, like that sketched in §4.10.ii, one could also easily handle Szabó's case, though one may then want to refashion the presuppositional profile we have proposed for definites as constraining files, object representations, or 'discourse referents' rather than uses of expressions. We shall not pursue these issues here.

[45] We admit that given our own discussion of names—see Chapter 6—this is something of an *ad hominem*. However, nothing like this reasoning motivates our view of names.

[46] For an exploration and defense of this view in its epistemicist version, see Magidor and Breckenridge, 'Arbitrary Reference' (forthcoming, *Philosophical Studies*).

Of course, there is no object uniquely identified by 'the successor of N', but it would be foolhardly to reject the Russellian account of 'the' on this basis. What should we say, then, about (16)? We take it that 'a dog' is a specific indefinite after all—after all, we could easily replace it with the specific indefinite 'this' of informal English.[47] In that case it involves, at least in thought, something very much like a singular restrictor of the form 'is identical to *a*'. In this case, however, the tag '*a*' is more akin to an arbitrary name than to a standard one. This tag is then picked up anaphorically by the definite. On this view, the underlying thought behind (16) would be expressed by something like: 'A dog, Rover, was in the park. The dog identical to Rover fought with another dog . . . ' (Note that on the vagueness-theoretic approach it will be determinately true that the arbitrary tag refers to a unique dog, though for each dog it will be indeterminate that it refers to that one.)

Admittedly, reasoning about arbitrary objects is somewhat puzzling from a semantic point of view. But one thing is clear enough: the discourse involves a presupposition that one is talking about a particular object and the audience then plays along.[48] In the context of that presuppositional background, all the semantic maneuvers associated with uniqueness can be made. And this appears to be precisely what is going on in Szabó's original example.

(ii) *The doctor.* Consider the following speech:[49]

19. John never goes to the doctor, but yesterday he took the bus to the hospital. He got into the elevator and stood in the corner, staring blankly at the wall.

Apparently, none of these definites carries the uniqueness requirement. About such examples, Ludlow and Segal write: 'Our view is that these cases are not aberrations, but in fact more closely reflect the semantics of so-called definite determiners.' Their picture is that additional, pragmatic considerations are in play in cases where there *is* apparent uniqueness.[50]

Given our view, how can this phenomenon be explained? It might be tempting to find a metaphysical object of the right sort to act as a denotatum here—one might say that (for example) 'the hospital' denotes an entity somewhat more abstract than a particular hospital—perhaps an entity akin to a species (what Aristotle would call a

[47] See §4.6.ii. Note that even if 'a dog' were not specific in this setting, we would then have to explain what is going on in the discourse containing 'this'. Thanks to Barbara Abbott for pointing out the availability of this substitution.

[48] Note that unless it is very clear to the audience that arbitrary reference is in play, the case will generate phenomenology of presupposition failure when the audience discovers the speaker had no particular dog in mind. If someone says, 'A dog broke its leg recently' and we learn much later that this was said on circumstantial evidence of a very busy period for the manufacturing of dog-leg casts, we will feel misled by the specific indefinite.

[49] Abbott, 'Definiteness and Identification in English' discusses many such examples from the literature; see also Birner and Ward, 'Uniqueness, Familiarity, and the Definite Article in English'.

[50] Ludlow and Segal, op. cit. p. 442.

secondary substance).[51] One would then have to tell a story about how it is that John counts as *traveling to* and *entering* such an entity; and so on.[52] If this is right, these cases do not involve counter-examples to specificity after all.

Whatever one thinks of this kind of explanation, we doubt that this phenomenon should drive a theory of definite descriptions. For one thing, as Abbott and others have pointed out,[53] it is far from systematic: it shows up with 'the doctor' but not 'the resident'; 'the bus' but not 'the taxi'; 'the hospital' but not 'the university'; 'the pub' but not 'the restaurant'; 'the city' but not 'the village'. Moreover, it can also be regional: in American English one watches *television/TV*, while in British English one watches *the* telly/*the* television.

Perhaps even more importantly, the phenomenon is not very compositional. For example, it disappears when one starts adding adjectives:

20. John never goes to the friendly doctor, but yesterday he took the rusty bus to the Catholic hospital . . .

Here the communication of uniqueness returns in each case. Perhaps this is because these more specific NPs are not plausibly thought as picking out a 'secondary substance'. But the same thing happens when we revert to the simple NP but avoid standard phrases like 'went to the doctor' and 'took the bus':

21. Today the doctor bought some flowers from my shop.
22. A terrorist blew up the bus/train in Chicago today.
23. A construction crew has been making structural improvements to the hospital/wall/elevator.

In these cases, all the normal presuppositional features of definites are back in force. In fact, this can even occur if the definite appears in one of the standard phrases:

24. [Mary the bus thief] I took the bus and won't give it back.
25. [Suzy the IT person] I had to go to the hospital to fix the network.

[51] Roberts attempts to explain the contrast with 'the elevator/bus/stairs/train' on the one hand, and 'the car/bike/taxi' on the other hand, by claiming that the former have 'a unique line of transportation, a path' as the 'intended referent' while the objects at issue in the latter group are 'relatively anarchic in their movements'; see 'Uniqueness', p. 301. However, this does not by itself explain the contrast between 'the bus' and 'the jumbo jet', nor does it explain the non-compositionality discussed in what follows. Roberts offers a different kind of explanation for 'the corner' in 'Johnny, go stand in the corner.' Here, standing in the corner is a 'stereotypical situation' in which 'there would be a weakly familiar entity of the relevant sort; we readily imagine a situation in which a parent or teacher is chiding little Johnny, and the corner is to be interpreted as 'the usual corner'/'the corner kids stand in when they're bad'. However, this does not seem to apply to the use of 'the corner' in (19) or in 'I was standing on the corner of Fourth and Main when I first saw her.'

[52] One might also attempt piecemeal explanations for this kind of phenomenon. For example, perhaps some of these cases can be assimilated to the related phenomenon that accompanies possessives (see §5.3.iii)—the relevant corner and wall in (19) are *the corner of the elevator* and *the wall of the elevator*.

[53] Abbott, 'Definiteness and Identification'.

In the context of these speeches ordinary uniqueness presuppositions are in play, though of course the phrases 'took the bus' and 'had to go to the hospital' are not being used in their ordinary, idiomatic way.[54]

It is instructive to compare idioms that allow count nouns without any articles at all. Consider the following contrasts:

26. Jane went to school/ Jane is at school.
    Jane went to red school/ I blew up school.
27. I'm going to bed/ I'm in bed.
    I'm going to cozy bed/ I fixed bed.
28. Johnny is in prison/ Johnny went to prison.
    Johnny is in large prison/ Johnny went to refurbished prison.

The linguistic contexts that allow this kind of article-omission are very delicate: a slight change seems to induce outright ungrammaticality. And again, one also has to be *using* the phrase in a special way. Suppose Larry has never gone to university, although he has visited university campuses. He cannot say:

29. Yesterday, I went to university to feed the pigeons in the square.

What he did was go to *a/the* university.

In short: when idiomatic phrases are used in a special way, standard rules of use are sometimes suspended. This appears to be what is going on both with the lack of articles in (26)–(28) and with the lack of uniqueness presuppositions in (19). We will not attempt a satisfactory explanation of these phenomena. If a plausible story about reference to 'secondary substances' can be told, that would be very much to our advantage. But at the very least, the full range of data about 'the doctor' do not obviously tell against a conventional presupposition of uniqueness for definites. In fact, existentialists who reject a conventional uniqueness requirement must do more than explain why 'the doctor' sometimes suggests uniqueness and sometimes does not. They must also explain why this is its *default* behavior—it returns as soon as one interferes in almost any way with the special constructions we have discussed.[55] Thus the burden of proof appears to be on those, like Ludlow and Segal, who treat the uses in (19) rather than those in (20) as paradigmatic and 'more closely reflect[ing] the semantics of so-called definite determiners'.

[54] The same phenomenon occurs when the euphemism 'go to the bathroom' in American English is replaced with a non-euphemistic use:

i. [Larry the electrician] I went to the bathroom to fix a light switch.

[55] Moreover, those who postulate a familiarity/givenness constraint will find that it is also suspended in these special phrases. For example, Ludlow and Segal raise apparent failures of uniqueness like this against Russellianism. But it is unclear what happens to their proposed conventional implication ('that the object under discussion is given in the conversational context') when there is no x such that x is under discussion.

(iii) *Possessives*. Ludlow and Segal have also emphasized that possessive constructions often seem to involve an exception to the uniqueness constraint on definites.[56] Thus consider the following sentences:

30. The daughter of a certain wealthy banker died today.
31. This morning someone vandalized the side of our house.

Here (30) sounds fine even in a case where the relevant banker has many daughters. And (31) second sounds fine even though every building has more than one side. Note that one cannot simply appeal to the apparatus of singleton restrictors here, since any restrictor in these cases would not be candid.[57]

Do these data provide ammunition for the existentialist? Ludlow and Segal think so: after all, (30) and (31) do not appear to have the truth-conditions assigned to them by the Russellian. The problem is that simply denying truth-conditional uniqueness does not explain the contrast between these possessives and closely related constructions, like those in

32. The woman raised by a certain wealthy banker died today.
33. The tree in my yard burned down.

In these cases the specificity requirement seems back in play—but what explains this contrast? Those who hope to explain uniqueness implications with a Gricean conversational derivation will have a hard time explaining why (32) and (33) trigger that sort of reasoning but (30) and (31) do not. Meanwhile, those who accept a conventional requirement of uniqueness or familiarity/givenness appear to be faced with an ad hoc suspension of this requirement in the case of possessives.[58] One might argue that this is less costly than the Russellian option of postulating an *ad hoc* shift in truth-conditional content. But neither proposal seems very satisfactory in the absence of an explanation for the proposed change in meaning.

Moreover, a blanket denial of any specificity requirement for possessives would also seem to be incorrect.[59] For one thing, as Timothy Williamson pointed out to us, the following is completely unacceptable:

[56] Ludlow and Segal, 'On a Unitary Semantical Analysis for Definite and Indefinite Descriptions', p. 431.

[57] Candidness is not satisfied even if the restrictor property is *being the daughter that died today* or *being the side that got vandalized* because the information provided by the sentence does not strictly entail that these properties are uniquely instantiated.

[58] Moreover, while (30) seems acceptable even if another daughter of the relevant banker did not die, this effect appears to disappear in the plural case:

i. The daughters of a certain wealthy banker died today

This is not felicitous if only two out of three of his daughters died. Thanks to Andrew McGonigal here.

[59] Note that the paradigm definite description for philosophers, 'The king of France' is a possessive and yet is standardly thought to induce presupposition failure when there are two kings of France.

34. The side of our house has been vandalized and the side of our house has not been vandalized.[60]

But the sentence is fine if we replace both instances of 'the' with 'a' or 'one'. Relatedly, Kyle Rawlins has noted that in speeches of the following sort, the explicit denial of uniqueness often causes trouble for definite possessives that immediately follow:[61]

35. Every banker has three daughters. Unfortunately, the daughter of a certain wealthy banker died today.
36. We recently finished painting all four sides of our house a lovely shade of yellow. But this morning someone vandalized the side of our house!

Rawlins also notes that whether the possessor is described using a definite or an indefinite description can sometimes make a difference. For example:

37. Alfonso picked up the leaf of a tree.
38. Alfonso picked up the leaf of the tree.

Strangely, only the possessive in (37) appears to involve the suspension of a specificity presupposition.

For now, we will simply leave this phenomenon as an unsolved puzzle. But as in the case of 'the doctor', the full data suggest that the lack of specificity involved is not very stable. We therefore do not take this phenomenon to be evidence against a conventional specificity requirement or even against Russellianism.

5.4 Russellianism

Russellian orthodoxy takes the meaning of 'the F is G' to be captured by 'there is an F with which all Fs are identical, and it is G'. In light of the insights of generalized quantifier theory, the standard implementation of this approach in recent years has not been to posit an unvoiced structure isomorphic to this Russellian gloss, but instead to treat 'the' as expressing a relation between properties that encodes the relevant truth condition. In short, 'the' expresses a binary relation that holds between a pair of properties F and G iff there is exactly one instance of F and it is also G.[62] This has the result that 'the F is G' is true just in case there is exactly one F and it is G, and false otherwise. (Where 'the F' contains a variable bound by a higher quantifier, the truth-conditions of the resulting sentence will require that there is one F relative to every assignment to that variable.)

[60] Thanks to Tim Williamson for the example.

[61] Rawlins, 'Possessive Definites and the Definite Article'. Sentences (37) and (38) are from his §4.3.

[62] In a framework with binary branching in each semantic tree, this becomes tweaked further: instead of thinking of a quantifier as expressing relation between properties, we think of a quantifier as expressing function from properties to functions from properties to truth values. This preserves the central motivations for saying that quantifiers express relations between properties.

Russellianism faces the notorious problem of incompleteness: frequently the overt predicate *F* does not have a singleton extension. As a result, a strict application of Russellian truth-conditions would reckon any sentence containing 'the F' to be false. Moreover, it is widely recognized that this problem cannot be solved by somehow restricting the domain of the conversation or even of the sentence:

39. The cat is in the carton. The cat will never meet our other cat, because our other cat lives in New Zealand. Our New Zealand cat lives with the Cresswells. And there he'll stay, because Miriam would be sad if the cat went away. (Lewis 1979)

And the relevant restriction must also be capable of varying, as in, for example:

40. In every workstation, the chair was red.

Here it is natural to appeal to the apparatus of singleton restrictors containing a pronominal element, as discussed in the previous chapter. Indeed, accounts of unvoiced restrictions for definites in broadly the same spirit have recently been advocated by Paul Elbourne and Stephen Neale.[63]

(i) *The so-called referential/attributive distinction*. There is another sort of case that motivates extending Russellianism to involve covert restrictions of the sort discussed in the previous chapter. As Elbourne and Neale both point out, something like the distinction between *merely singleton* restrictors and *singular* restrictors can help explain cases where we intuitively wish to distinguish between who or what the sentence is semantically about and who or what the speaker is talking about using a sentence.[64] Recall an example made famous by Donnellan.[65] When someone, looking in the direction of a certain person in the corner of the room holding a glass of water, says 'The person holding a glass of champagne is a spy', the remark is in some sense intuitively about the person in the corner even though the natural semantics takes it to be about someone else (on the supposition that someone else in the room is the unique holder of a glass of champagne).[66]

[63] See the treatment of 'bound-into Godelian descriptions' in Neale, 'This, That, and the Other,' §23, and Elbourne's *Situations and Individuals*, §3.3.2.

[64] See Elbourne, *Situations and Individuals*, §3.3.3; Neale, 'This, That, and the Other', §19; 'A Century Later'.

[65] 'Reference and Definite Descriptions'.

[66] Note that this kind of contrast need not disappear in an acquaintance-free setting. Suppose David pays someone to find the shortest spy and give him a letter. In fact the letter is misdirected and received by a very tall spy. Oblivious, David says 'The recipient of this letter will almost certainly be very short indeed'. David is in some good sense talking about the shortest spy even though the natural semantics for the sentence does not deliver this conclusion. What of the fact that in such a setting one can felicitously report, 'David said of the shortest spy that he was almost certainly very short indeed'? On the assumption that the truth of a say-that report requires that the content of the that-clause at least be entailed by the content of the speech, one could argue that the truth of the report tells against a face-value construal of the content of the original speech. But—like many others—we reject the assumption about say-that reports just mentioned. (For a discussion,

We agree that speaker-reference using a definite description is often a semantic phenomenon that involves the presence of a singular element in the restrictor. Along with the problem of incomplete definites, this is a powerful motivation for the Russellian to adopt something like apparatus of domain restriction discussed in the previous chapter.

At the same time, sometimes what is lumped under the category of 'speaker reference' is a phenomenon best explained by pragmatic factors. In some settings, when someone hears a speech of the form 'The F is G', she can felicitously represent the speaker as relying on an identity claim (i) 'The F is identical to the H' and a claim of the form (ii) 'The H is G'. In such circumstances the audience may consistently be willing (or at least far more willing) to trust the speaker with regard to (ii) even when (i)—and therefore the original claim—is thrown into doubt. Thus, for example, even if no singular restrictor is semantically in play when a speaker says 'The person in this room holding a glass of champagne is a spy', his epistemic state can usefully be reconstructed as relying on premises of the form 'The person in this room holding a glass of champagne is *that* person' and '*That* person is a spy'. Realizing that the speaker is wrong about the first thing, the second claim is not thereby impugned. So-called attributive cases are ones where no such reconstruction—and hence no analogous fallback—is available.[67]

Essentially the same distinction shows up for names. Suppose, unbeknownst to Ofra, Frank's twin brother shows up to a talk instead of Frank. Ofra is at the talk and reports:

41. Frank was very quiet at the talk today.

If an audience learns of Ofra's identity confusion, they will have a fallback. Suppose instead, Ofra had uttered (41) on account of being told by Frank that he was very quiet at the relevant talk. Then no fallback is available. But the explanation for this contrast need not involve a difference in what is semantically expressed by Ofra's use of (41) in the two cases.

(ii) *Plural definites*. It is worth seeing how restrictors will also have an integral role to play in Russellian accounts of plural definites. The philosophical literature on Russell on descriptions has been dominated by discussion of the non-plural case. But quite obviously, an adequate treatment needs to offer a matching account of the plural case.

One question that needs to be sorted out, for example, is what is to count as a 'complete' definite description in the plural case. Consider Stephen Neale's account of

see e.g. Richard, 'Semantic Theory and Indirect Speech', §1, and Cappelen, H. and Lepore, E., 1997: 'On an Alleged Connection between Indirect Speech and Theory of Meaning', *Mind and Language*, 12, 278–96.)

[67] This contrast is related to that marked by Evans' discussion of what he calls 'immunity to error through misidentification' in his *Varieties of Reference*. For relevant discussion, see also, Kripke, 'Speaker Reference and Semantic Reference'. See also our Chapter 3, fn. 30.

the plural use in *Descriptions*. There he tells us that the truth conditions of 'The Fs are Gs' is to be given by the schema 'the number of Fs that are not G is 0 and the number of Fs is greater than 1'.[68] On the face of it, this blends nicely with his Russellian view of the non-plural case, where the first requirement is the same, but the second clause requires the number of Fs to equal one.

We have a concern about this account, however: it is only set up to handle distributive predicates. For a plural non-distributive predicate like 'encircled the building' one cannot think of the extension as a set of objects each of which encircled the building.[69] We do not claim that this is altogether damning—but it would be nice to have a more comprehensive account in the light of which a Russellian account of 'the' can be evaluated.

To fix this kind of problem, Oliver and Smiley suggest using the machinery of plural quantifiers.[70] In a logic with plural variables and quantifiers, a natural analog to Russell's truth conditions can be written down for the plural use: The Fs are G if and only if there are some Xs such that they are F and for all Ys, if the Ys are F then the Ys are the Xs, and those Xs are G. This approach handles the concern raised about Neale's account quite nicely, since it makes no assumption about whether the predicate is distributive or not. And it gives us a nice intuitive account of uniqueness that is analogous for the singular and plural case: in the singular case a predicate is unique if it applies to one and only one thing; in the plural case it is unique if it applies to one and only one plurality.

However, on this account a definite description like 'The inhabitants of the USA' is incomplete. After all, the maximal plurality of people living in the USA is not the only plurality of people living in the USA: any sub-plurality will satisfy that predicate as well. But on the semantics they recommend, 'The Fs are Gs' will come out as false in any case where F is satisfied by more than one plurality. Thus, this account requires a proliferation of covert restrictors if sentences like that are to come out semantically true. For example,

42. The inhabitants of the USA are happy

needs a covert element in the restrictor that in combination with 'inhabitants of the USA' delivers something tantamount to 'all inhabitants of the USA' which does satisfy uniqueness. (Covert elements will not *always* be required. Suppose we take 'nine current justices of the supreme court' to be a plural non-distributive predicate; then 'the nine current justices of the supreme court are American' can come out true as it stands.)

In short, on the Oliver–Smiley view—which does seem to be the most natural extension of the Russellian account of the plural case—the intuition that we are

[68] *Descriptions*, p. 237.
[69] Thanks to Sam Cumming here.
[70] Oliver and Smiley, 'Plural Descriptions and Many-Valued Functions', p. 1061.

specifically talking about all the inhabitants of the USA when we use 'the inhabitants of the USA' cannot be explained by the semantic content of 'the': it has to be explained instead by some covert restriction.

(iii) *Russellianism vs. existentialism.* We conclude that the best version of Russellianism will use the apparatus of specific restrictors in both the singular and plural case. The existential competitor we are interested in will make use of a similar repertoire of covert restrictions, while proposing simple existential truth conditions. What considerations can help us decide between these views? While some existentialists have challenged Russellianism by appealing to alleged exceptions to any uniqueness requirement, we have not found those arguments very compelling.

But there are other considerations. First, the Russellian's truth-conditional uniqueness requirement cannot by itself replace the work done by our presuppositional proposal for definites. First, the specificity requirement on 'the F' *projects*, surviving under negation, in questions, and in the antecedents of conditionals. It thus appears to be genuinely presuppositional, unlike the uniqueness requirement on 'exactly one F'. In short, the Russellian should acknowledge a specificity presupposition. Second, recall that it is infelicitous to say 'The astronaut went to the bar' in a setting where the audience has no idea how one is completing the restrictor. Even the Russellian proposal supplemented by covert restrictions and a specificity presupposition appears to need supplementary resources to explain this phenomenon. There is nothing in the Russellian semantics that requires audiences to be in a position to non-parasitically identify the unique object talked about. So Russellians as well as existentialists need something like a candidness presupposition as an extra moving part.

Let us suppose, then, that the Russellian and the existentialist both adopt our presuppositional proposal along with the apparatus of singleton restrictors. Is either view in a better position to explain the wide range of linguistic intuitions prompted by definite descriptions? In any case where uniqueness is satisfied, a sentence using the Russellian 'the' will be true iff reinterpreting 'the' as existential also delivers truth, both in the plural and singular case. Thus, arguments for either side based on intuitions about truth-value will have to trade on cases where uniqueness is not satisfied—and in all such cases the specificity presupposition will be violated. As a result, we doubt that any such argument will be persuasive.

For example, suppose we were to argue as follows. A speaker says

43. The winner of the race did a victory lap

without restricting the definite any further, having wrongly supposed that there was a unique winner. Now consider two scenarios:

Scenario A: There was no winner.
Scenario B: There were two winners and both did victory laps.

The existentialist and the Russellian agree that the utterance of (43) involves a false presupposition in both scenarios; but while the Russellian treats the speech as truth-

conditionally false in both cases, the existentialist treats it as true in scenario B. And this seems to better account for the difference in our intuitions between the cases—we have much less temptation to think of (43) as false in scenario B. Indeed, if we had bet that the winner of the race did a victory lap, we would expect to be paid. Thus, the argument concludes, the existentialist is better positioned to explain this difference in intuitions.

Unfortunately, this argument underestimates the explanatory resources of Russellianism when it is armed with presuppositions and specific restrictors. Consider first what both views are likely to say about the contrast between scenario B and:

Scenario C: There were two winners and only one did a victory lap

Here there is another intuitive contrast to be explained—the utterance of (43) sounds worse in C than it does in B. But neither view can trot out a difference in truth-values in order to explain this contrast: in both cases, the speech involves a false presupposition but is reckoned true by the existentialist and false by the Russellian. There is, however, a natural story that can be told. Assuming there were two winners, the speaker failed to restrict the definite in such a way that it picks out exactly one object. Now, in the case of B, any narrowing of the original extension to a singleton extension would have generated a truth. But in the case of C, narrowing the restriction down to one winner would have made the speech true, while narrowing it down to the other would have made the speech false. This is why we prefer (43) in scenario B—it seems closer to being both felicitous and true, because *achieving felicity would have guaranteed truth* as well.

This explanation is further supported by the fact that (43) seems even worse in

Scenario D: There were 100 winners and only one did a victory lap.

This time there are just too many ways of achieving felicity that would have induced falsehood.[71] Presumably even the existentialist will appeal to this kind of explanation to account for the difference between scenarios C and D, and the Russellian can offer just such an explanation for the original contrast between A and B. After all, given that there was no winner, there is simply no way that the speaker could have narrowed

[71] Note that both views can appeal to a related style of explanation to account for the intuitive difference between 'The King of France wrote *Naming and Necessity*' (which we have an inclination to judge false), and 'The King of France didn't write *Naming and Necessity*' (which we have an inclination to judge true). Stephen Yablo suggests that only the first entails a sentence that is false 'for reasons independent of' the fact that there is no unique king of France. (For example, it entails that a king wrote *Naming and Necessity*, which is false because Kripke wrote it and he is not a king.) Meanwhile all the falsehoods entailed by the second sentence are false for reasons that are not independent of the presupposition. See Yablo, 'Non-Catastrophic Presupposition Failure'. A similar proposal is canvassed by Von Fintel, 'Would You Believe It? The King of France is Back!'

down the restriction in order to make it felicitous. Thus the speech is closer to being felicitous and true in B than it is in A.[72]

In short, we suspect that the existential and Russellian views—supplemented with singleton restrictors and the presuppositional profile we have sketched—are evenly matched when it comes to explaining ordinary intuitions of felicity and truth-value.[73] But this conclusion raises the following question: what additional explanatory role is played by a truth-conditional uniqueness requirement on 'the'?[74] This extra complication in the truth conditional content does little or nothing by way of interesting explanatory work given the other resources that are needed anyway.[75] Meanwhile, we are attracted to the uniformity of the picture on which specific indefinites and definite descriptions differ only in their presuppositional profiles. (And the case for uniformity should be even more compelling once we have made the case for treating demonstratives as specific existentials as well; see Chapter 6.)

For these reasons we have a mild preference for the existential account over the Russellian one, though we are inclined to proceed with caution.[76]

5.5 Neo-Fregeanism

We have already mentioned one kind of non-quantificational approach to definites—one that takes the content of definites to be predicative, and takes the quantificational force typically associated with definites to be covertly supplied. But there is another kind of non-quantificational alternative to traditional Russellianism—one that is worth discussing, especially because it raises fundamental questions about the philosophical categories of referential terms and singular thought.

[72] The existentialist will likewise need this kind of explanation when it comes to contrasting scenario A with

E There were two winners and neither did a victory lap.

For the existentialist as for the Russellian, in both A and E the speech has a false presupposition and is truth-conditionally false. But we may be more inclined to consider the speech false in E, since it is closer to being false if felicitous.

[73] Does the existential view have the edge over the Russellian thanks to some of the alleged exceptions to specificity discussed above? The situation remains a little unclear, but there is arguably some advantage for the existential view here. Consider for example the case of possessives. Here the Russellian seems under pressure *not only* to concede that the standard specificity presupposition is transformed or relaxed but also to posit a truth -conditional ambiguity whereby standard Russellian truth-conditions are absent from such cases. *Prima facie*, this involves a more dramatic package of modifications than the existentialist need go in for.

[74] Neale himself expresses concern about 'uniqueness overkill' whenever 'a definite descriptions receives a Gödelian interpretation (except in bound-into cases), for we get it once from the identity conjunct and once again from the logic of the determiner "the"' ('Term Limits Revisited', p. 422).

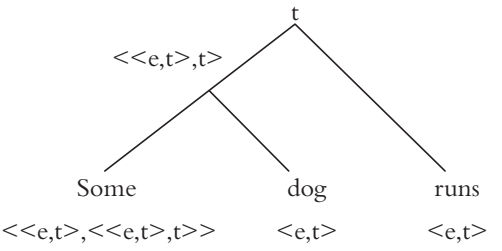
[75] An analogous debate could also be had between two non-quantificational approaches that reckon 'the F' to meaning-trigger a specificity presupposition, where one takes 'the F' to express the property *being F* and the other takes it to express a property like *being the unique F*. As the reader would guess, our preference is for the simpler predicative view, according to which uniqueness is not truth-conditional.

[76] This is especially so given the special significance many philosophers attach to the semantics of definite descriptions.

Prompted by Strawsonian intuitions of truth-value gaps in at least certain cases of presupposition failure, some have sought a 'gap-happy' account of definite descriptions that implements these intuitions semantically. To distinguish and discuss such proposals, let us begin by introducing a simple extensional semantic framework that will be familiar to those acquainted with the Fregean tradition carried forward by Montague.[77] We can start with a rough-and-ready taxonomy. Expressions that have individual objects as their semantic value are type e. Expressions that have truth-values as their semantic value are type t. Other types can be defined recursively in terms of function/argument application: expressions whose semantic values take in objects and deliver truth-values are of type <e,t>. Joining an expression of such a type (e.g. an intransitive verb) with an expression of type e produces an expression of type t; viz. a sentence. Likewise, transitive verbs can be treated as type <e,<e,t>>—that is, as having as semantic value a function from objects to functions of type <e,t>. And so on.

On standard assumptions, a name is treated as type e, a one-place predicate as type <e,t>, and determiners like 'every' and 'some' as type <<e,t>,<<e,t>,t>>. The latter treatment implements the fruitful idea that quantifiers can be thought of as expressing relations between properties. Thus, in 'Some dog runs', the semantic value of 'some' is such that when it takes the semantic value of 'dog' as argument, it delivers a function that delivers truth relative to the semantic value of any predicate that is true of some dog.

On this 'type-driven' approach to the fragment of English we are considering, we can (ignoring tense) represent the semantic structure of a sentence by a binary branching tree in which terminal nodes correspond to each individual expression.

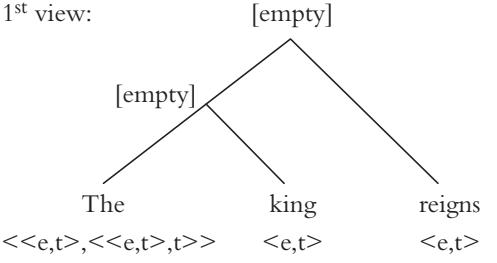


The tree represents a sequence of operations of concatenation to construct a sentence. This is isomorphic to a sequence of function-argument applications that yield a semantic value—which in this setting is a truth-value—for the sentence. The semantic value of a non-terminal node is given by function-argument application of the semantic value of one 'daughter' node to another.

[77] This is not to endorse all aspects of the Montagovian framework. But it is a useful one for getting a preliminary handle on the range of possible views of definite descriptions.

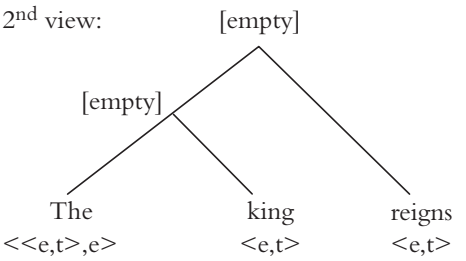
There are a number of proposals for the formal treatment of the definite article within this framework to be considered. If we want the Russellian result that failures of uniqueness induce falsehood for 'The F is G', we can treat 'the' as a determiner of type <<e,t>,<<e,t>,t>>, with a semantic value engineered so that 'the F is G' has the value *true* iff (i) the semantic value of 'F' delivers truth relative to one and only one object x in the domain taken as argument and (ii) the semantic value of 'G' delivers truth when x is taken as argument. Otherwise, the sentence will have the value *false*.

If instead we wish to implement the Strawsonian rejection of truth-value in cases where there is not exactly one F, there are at least two options. On the first approach, we continue to maintain that 'the' has the semantic type <<e,t>,<<e,t>,t>>. However, we treat the relevant function as *partial*: i.e. as undefined for certain arguments. For example, taking as argument the (unrestricted) semantic value of 'king of France', the function associated with 'the' delivers no value at all. Of course, when the function goes undefined, the result of concatenating 'the' with a predicate will fail to deliver a value that can semantically contribute further up the tree: in that case the whole structure will be unable to generate a truth-value for the extension of the sentence.



Another way to obtain the Strawsonian result that 'The F is G' lacks truth-value when there are no Fs is this. We can treat 'the' as an expression of type <<e,t>,e>, taking the value of a predicate as argument and delivering an object as value. (This approach is truer to Strawson's original vision, since it treats standard uses of definite descriptions as referential.) Again, the function will be a partial one: while for certain arguments, individual objects are delivered as values, the function is undefined for other arguments. In particular, for predicates whose semantic value delivers truth relative to one and only one object taken as argument, the output of the function will be that object itself. For other predicates, the semantic value of the function will be undefined. Because the term-forming approach loosely takes its cue from Frege, we will call this last view the 'neo-Fregean approach'.[78]

[78] See 'The Basic Laws of Arithmetic', pp. 49–50. There Frege offers a function that is 'a substitute for the definite article of ordinary language, which serves to form proper names out of concept-words'. Of course, the partial-function approach we suggest here is in tension with Frege's search for a logically perfect language where no reference failure occurs. (Though, at least in 'On Sense and Reference,' he allows that some descriptions such as 'the least rapidly convergent series' have sense although they lack reference; p. 25.)



Both views yield gap-happy results of the kind that the Strawsonian desires: in cases where 'the king' does not denote, the relevant function argument application fails to supply a value for the 'daughter' node. Hence failure to pick something out induces a lack of truth-value in 'The king reigns'. Since the second view has received far more attention and (more importantly) is intriguing from the point of view of our investigation of referential language, it will serve as our central focus here.[79]

Before we proceed, however, it is worth emphasizing that like Russellianism, neo-Fregeanism faces a serious *prima facie* problem when it comes to so-called 'incomplete definites'. Unless some sort of covert supplementation occurs, applying the function supplied by 'the' to the function supplied by the head noun will almost always yield semantic gaps at higher nodes. But this seems to be the wrong result for many cases—and, as discussed at the beginning of §5.4, we cannot simply narrow down the domain of the whole discourse or sentence. Our preferred solution for the neo-Fregean, as for the Russellian, is to posit covert supplementation of the restrictor to yield a singleton extension.

Having sketched a neo-Fregean view of 'the', we can now try to apply some ideas connected to reference that we presented in the Introduction, namely: object-dependence, rigidity, and the metaphysics of propositions.

(i) *Object-dependence: Evans' challenge*. Assume the neo-Fregean view.[80] If one were to gloss meaning as semantic value, the situation in the framework we've just described seems to be this. 'The king' is object-dependent for meaningfulness and its meaning is object-dependent (on the object with which it is identical).

[79] Note that one could in principle take this kind of approach to specific indefinites, generating a referential approach to those expressions that is interestingly different from the versions of the bifurcated view discussed in Chapter 4. On the approach in question, the content of 'a', when used specifically, is of type <<e,t>, e>. Alternatively, one can generate other versions of the referential view for 'the' by adapting ideas from the bifurcated view of specific indefinites. On one version, the predicate does not enter the proposition/semantic tree but instead plays a partial reference-fixing role. On a second version, the referent is supplied by an act of speaker-reference and the predicate plays a merely presuppositional role—one for which the failure of the presupposition does not induce reference failure at all. We leave it to the reader to adapt the pros and cons of the views discussed in the text to these variant views.

[80] Much of what follows could apply equally to the other gap-happy view just described.

What, though, should we make of the question whether 'The king is happy' *expresses a thought* in cases where 'The king' fails to refer? In this context one could, perhaps, invoke what Evans has called the 'pre-theoretical notion of sentence's being significant,' of its being 'capable of conveying a thought to, and perhaps producing belief in, anyone sufficiently familiar with the language', arguing on that basis that 'The king is happy' expresses a thought even if the non-terminal expression 'The king' has no semantic value. But Evans also raises a challenge:

> What can it mean on Frege's, or on anyone's principles, for there to be a perfectly determinate thought which simply has no truth-value?[81]

Let us see if we have the resources to meet this challenge. Evans himself notes that there are two kinds of defects an expression can have:

(i) It fails to supply a semantic value at all.
(ii) It introduces a function that does not determine a value relative to some arguments.[82]

Assume for the moment a Millian position on proper names according to which they are singular tags, and that 'Louis' is an unsuccessful attempt to name a king. Then 'Louis' has the first defect, and so does 'the king'. (The node representing concatenation of 'the' and 'king' can deliver no function for semantic operations further up the tree.) Moreover, the *reason* 'the king' has the first defect is that 'the' has the second defect. If we compare only the terminal nodes of the two sentences 'The king reigns' and 'Louis reigns', we find that one contains an expression with the first defect, and one contains an expression with the second defect. Only 'Louis reigns' has a term that lacks any semantic value at a *terminal* node.[83]

Can we exploit this difference to argue that, while neither sentence has truth-value, only 'the king reigns' expresses a *thought*? A response to Evans' challenge naturally suggests itself: a sentence expresses a determinate thought (even if it lacks truth-value) just in case it is terminally complete. This idea would allow one to maintain that sentences containing names, but not those containing definite descriptions, are object-dependent for the expression of thought.

Let us try to implement this idea in a toy theory of the contents of sentences and thoughts. Consider a theory according to which sentences have semantically interpreted phrase structure trees as their contents, and that attitude reports express relations between believers and such trees.[84] On this sort of view, if a belief ascription's that-

[81] Evans, *The Varieties of Reference*, p. 24.
[82] Op. cit., p. 11.
[83] Thanks to Jason Stanley and Jeffrey King for discussion that prompted the following paragraphs.
[84] cf. Higginbotham, 'Belief and Logical Form'; Larson and Ludlow, 'Interpreted Logical Forms'.

clause expresses a tree that is semantically empty at non-terminal nodes, this need not induce a lack of truth-value in the ascription itself. In other words, trees with semantically empty non-terminal nodes are perfectly good relata for the belief relation. There can be true ascriptions of truth-valueless thoughts.

Let us call a tree that is semantically empty at one or more nodes a *semantically pruned* tree,[85] and a tree that is semantically empty at a terminal node a *terminally pruned* tree. On one view, a tree can figure in a true thought ascription even if it is non-terminally pruned, though not if it is a terminally pruned tree. Call proponents of this view *non-terminal pruners*. Finally, let *terminal pruners* will be those who claim that a tree can figure in a true thought ascription even it is terminally pruned. The latter approach is defended, for example, by Larson and Ludlow, who maintain that

44. Max believes Louis reigns

attributes a belief relation between Max and a terminally pruned tree.[86]

Both terminal and non-terminal pruners face the decision whether (and how heavily) the trees given by that-clauses in attitude reports are *annotated* at nodes; that is, do they supply only semantic values for nodes where available, or do they also supply a way of representing the semantic value of that node? Within the framework of the tree-theoretic approach to that-clauses, the choice here is roughly between naïve and notionalist versions of that approach. (Obviously, the naïve approach might eschew annotation in the semantics but reinstitute something like it at the level of pragmatics.) For example, a 'notionalist' version of this approach may propose representing Lois Lane's belief that Superman can fly by way of a tree connecting just semantic values, or we could annotate the node whose value is Superman with the word 'Superman' (call this 'lexical annotation') or some other aspect of her mode of presentation.

Larson and Ludlow's trees are annotated, though they only allow lexical annotation. This has the advantage of allowing one to construct the semantic value of a belief ascription in a more or less mechanical way from the superficial sentence that expresses it, though has the disadvantage of constraining annotation to an implausibly narrow range of guises. It seems preferable, if we are allowed the complexities of annotation to begin with, for there to be great flexibility on what kind of relation can be supplied as the mode of presentation in context—in some cases it is conceptual, in others lexical, in others phonetic. (Larson and Ludlow try to compensate by invoking some context-dependent parameter that endows the lexical annotation different significance in difference contexts.) We shall not pursue the competing merits of various versions of the annotational paradigm further here.

Once we have accepted annotations at nodes, it is not clear how one might motivate non-terminal pruning over terminal pruning. Certainly one cannot provide such a motivation by invoking pre-theoretical intuitions about belief ascription. After

[85] We picked up the language of 'pruning' from Peter Ludlow, and are grateful for discussions with him.
[86] Larson and Ludlow, op. cit., p. 1012–3.

all, such intuitions allow (40) as a perfectly true belief ascription. Of course, we could imagine motivations for non-terminal pruning. For example, the friend of acquaintance might reason as follows: 'One's grasp of the terminal elements have to proceed via acquaintance with them, but there is no requirement that in thinking the thought one is thereby acquainted (under the right guise) with the very top of the tree—its truth value. Perhaps acquaintance requirements fade as one ascends.' But let us not resurrect old demons.

Here is another possible motivation for non-terminal pruning. Suppose that—in line with an Evans-inspired tradition—we were to insist that an annotation must involve a mode of representation *of* an existing semantic value. If modes of representation or 'senses' were success-dependent in this way, then the emptiness of a node would signal the absence of a mode of presentation. In the case of 'David thinks that Louis reigns', terminal pruning would entail a kind of radical under-specification of the thought not present in the case of 'David thinks that the the king reigns', because no annotation could appear at the node corresponding to 'Louis'. If the senses available for annotation all require semantic values, this would provide some motivation for non-terminal over terminal pruning.

Absent the vindication of such a project, there appears to be no reason for proponents of the tree-theoretic account of attitudes to be merely non-terminal pruners. The most straightforward positions available for the tree-theorist are (i) to deny that any pruned trees can be the objects of attitudes, or (ii) to accept terminal pruning. Either way, we will be unable to differentiate 'the king reigns' from 'Louis reigns' by appealing to object-dependence for thought. This suggests that tree-theorists who accept the neo-Fregean view should deny that there is an important sense in which ordinary names are object-dependent but definite descriptions are not.

(ii) *The metaphysics of propositions*.[87] We have so far been making use of a semantic framework that emphasizes function/argument application, and in implementing Strawsonian intuitions have made crucial use of functions that are undefined relative to various arguments. But how can these views be represented in the metaphysical framework of structured propositions that is more familiar to philosophers?

On a simple version of this framework, the building blocks of propositions are individuals, properties, and relations; and in particular, atomic propositions ascribe properties to objects, and quantificational propositions ascribe second-order properties and relations to properties. If we think of a property as either instantiated or not by a thing, and a relation as either holding or failing to hold between a pair of things, then however this picture becomes implemented in a detailed semantic theory, it will be a theory in which, in effect, there are no semantic values that can be represented by partial functions.

On the other hand, perhaps there are properties such that, for some objects, we must reject both the claim that the object has that property and the claim that the object does

[87] Thanks to Jeff King for discussion here.

not have that property. There is certainly *prima facie* independent motivation for this claim. If one introduces a predicate by stipulating a sufficient condition but leaving the extension unsettled then, arguably, the stipulation successfully introduces a new predicate, and the predicate expresses a property, and yet there will be some individuals for which we will have to reject both the claim that they instantiate the property, and the claim that they do not.[88]

If there are such 'partial' properties, our second formal treatment of 'the' as of type <<e,t>,<<e,t>,t>> can be thought of as implementing the idea that it expresses a partial relation between properties. Further, treating beliefs as relations to structured propositions, we could allow that the 'the king reigns' actually expresses a proposition, even if there is no basis for saying that this proposition is true or false. At the same time, a belief ascription like 'John believes that the king reigns' might be true even if the sentence in its complement clause is undefined.

Within this framework it is fairly straightforward to separate 'Louis reigns' from 'the king reigns': only the second expresses a structured proposition, and so only the second expresses something that can be the object of thought. Indeed, on standard assumptions, even 'John believes that Louis reigns' will fail to express a proposition. Therefore there is a clear sense in which 'Louis reigns' is object-dependent for thought, while 'the king reigns' is not; even though both sentences are object-dependent for truth-value.

Of course, on the simple version of this metaphysical picture of propositions there is no obvious analog to the <<e,t>,e> account of 'the'. This is not surprising. The Montagovian framework is rich with types, and there is no natural analog for some of them in the toy metaphysical framework sketched above.[89] (Thus, for example, there is no natural analog to the Montagovian treatment of an adverb that treats it as a function from properties to properties.[90]) By our lights, this cannot count as a significant problem for the third view. One cannot let a picturesque vision of the metaphysical structure of propositions call the semantic shots.

(iii) *Rigidity*. Suppose we treat 'the' as of type <<e,t>,e>, implementing Frege's treatment of the definite article as an operator that forms referential terms. It is natural to ask whether this approach will treat definite descriptions as rigid. To answer this, we need to see how the neo-Fregean might enrich his resources to handle modal constructions.

[88] Obviously epistemicists about vagueness will not be moved by intuition-pumps like this. (Nor will standard supervaluationists.)

[89] Suppose, for example, it is claimed that the natural analog of a Fregean treatment of 'the F' that delivers object x as semantic value is a view that treats 'the' as expressing the relation of unique instantiation and hence one that treats 'the F' as expressing the relation of unique instantiation between x and F-ness, and yields a gappy proposition in the case where no object uniquely instantiates F-ness. The gappy proposition would then have a binary relation with a property at one end but nothing at the other. This does not seem like a natural analog for the neo-Fregean type <<e, t>,e>.

[90] Of course, Davidson's well-known analysis of adverbs might make it possible to handle them using the resources of the toy metaphysics of propositions just sketched.

Within the framework of Russellian propositions, we would standardly test for rigidity of 'the king' by marching its semantic contribution around worlds of evaluation and asking what it denotes at each world. But there is an alternative treatment of intensional constructions that can be used understand the behavior of 'the king' inside the scope of modal operators.

Imagine a language fragment for which 'the' is of type <<e,t>,e>. Call it 'Etese'. Following one well-known style of approach, let us enrich Etese with explicit world variables as a device for talking about other possible worlds. Modal expressions are interpreted as involving quantifiers that bind such variables. (The language will similarly have temporal variables and temporal quantifiers, but we shall focus on the modal case for now). In cases where these variables are unbound, they function as referential terms, getting their reference from the context of utterance. Rather than saying 'John runs', one says 'John runs at w' and, as long as it is not embedded in a more complex speech (or conversational run-up directing the speaker's attention to a counterfactual situation), the world variable gets assigned to the actual world.

Following some standard ideas in formal semantics, we now complicate the story a little. The semantic value of 'runs' is a function from worlds to functions from objects to truth values: that is, <w, <e,t>>. As before, the semantic type of 'the' is <<e,t>, e>. If I say 'The F at w is G at w' and that is not embedded in a larger speech that binds the world variables, the world variables get assigned in context to the actual world. Assuming that there is actually one and only one thing that 'F' is true of, 'The F at w' will deliver an individual object as semantic value. Meanwhile, if I say 'There exists a world w where the F at w is G at w', where all the variables get bound by the modal quantifier, then that will be true just in case for some assignment w, taken as argument, 'The F at w is G at w' comes out true.

In Etese, so called '*de dicto*' and '*de re*' readings of modal claims involving definite descriptions need not be distinguished by scope effects. Compare:

There is a world w_1 where the F at w_2 is G at w_1.
There is a world w_1 where the F at w_1 is G at w_1.

In the first sentence, the world variable on the definite description is not bound by the world quantifier. Assuming it gets assigned to the actual world, then relative to each assignment to the variable 'w_1', the object that is F at the actual world (if there is one) is the object relevant to that world of evaluation. If there is no such object, then the sentence lacks a truth-value. If there is such an object, that is the object relevant to each world of evaluation. In short, we can get a *de re* reading according to which this is a modal claim about a particular object without resorting to scope.[91]

[91] For a sympathetic treatment of this approach, see Elbourne, *Situations and Individuals*, especially pp. 99–109; see also Bäuerle, 'Pragmatisch-Semantische Aspekte Der Np-Interpretation'.

According to orthodoxy, one can *approximate de re* modal claims without resort to scope by 'actualizing' definite descriptions. 'It is possible that the actual president is F' has the effect of making non-actual presidents irrelevant to the modal evaluation. But the modal claim containing the narrow actualized description does not behave quite like one containing a referential term. The following consideration is standardly adduced to bring this out. On Russellian orthodoxy, a claim of the form 'The actual F is G' can only be true at a world if the actual F exists at that world. After all, that claim, when evaluated at a world, says of that world that there exists a unique object that is both the unique F at the actual world and G at the world of evaluation. In contrast, it is standardly held that a claim of the form 'David is G' can, in some cases, be true at a world where the object designated by 'David' does not exist: e.g. 'David is David' and 'David does not exist'. This is what explains the truth of 'Possibly, David does not exist'.

If the world variable of an Etese definite description gets assigned by context, call that a *contextual* use of the description. (Compare bound uses of pronouns, which have referents only relative to assignments, with those that acquire a referent from context.) Within this simple intensional framework, contextual uses of 'the king' in Etese function as rigid designators inside the scope of modal operators, just like the referential terms of orthodoxy. That is to say, 'The F at w', insofar as it has some individual object x as semantic value, retains x as semantic value when embedded in a modal operator but used contextually. Moreover, we have seen that contextual uses of 'the F' in Etese contribute a particular object as semantic value when they denote, and otherwise they induce a lack of truth-value in the sentences in which they appear. By these tests, then, contextual uses of definite descriptions in Etese appear to deserve the title 'referential term', and truth-value-bearing sentences that contain them appear to deserve the title 'sentences with singular contents'. (For more on rigidity in this framework, see fn. 26 of Chapter 6.)

5.6 Three arguments for a neo-Fregean 'the'

Let us now ask whether the behavior of our own definite article can be usefully modeled by that of Etese. We will begin with three possible arguments in favor of this view, all of which we consider at best inconclusive.

(i) The first argument is that if the English definite article were of type <<e,t>,e>, it would help account for truth-value gap intuitions. But this kind of argument—one that endorses a gap-happy approach to the relevant presuppositions—is far from compelling. First, there is a wide variety of intuitions about truth-value, there will presumably be a pragmatic component involved in the explanation of some of those data, even if we help ourselves to semantic truth-value gaps. (Recall the lack of a gappy intuition with 'The king of France wrote *Naming and Necessity*.') The question is whether we need semantic truth-value gaps in addition.

Suppose we grant for the sake of argument that we do, and in particular that if 'S' presupposes the truth of *p*, then we cannot assign 'S' a truth-value when *p* is false. Suppose further we grant the correctnesss of broadly Montagovian framework. Still, that is no reason not to treat the definite article as of type <<e,t>,<<e,t>,t>>. After all, we have to explain similar phenomena when it comes to undisputedly quantificational noun phrases. For example, a typical use of

45. Every elephant in the room has a long tusk

induces a 'Hey wait a minute!' reaction that survives embedding in questions, negation, and so on. (Likewise for 'neither elephant'.)[92] We could not simply account for this fact with the hypothesis that 'every F is G' means 'there is at least one F and all Fs are Gs,' since that would predict that we find (45) false and its negation true, and does not by itself explain the 'Hey wait a minute!' intuition. But on the other hand, this is no reason to deny that 'every elephant' is quantificational. A natural Montagovian explanation of a truth value crash in this case (should one want one) would be a semantic view according to which 'every' expresses a partial function that goes undefined when it takes as argument a predicate function that fails to deliver 'true' relative to any objects. (In the framework of §5.5.ii above, this would mean that 'every' expresses a partial relation between properties.)

If we were to accept this approach to 'every', it only stands to reason that we treat 'the' in the same manner instead of resorting to the term-forming account. At any rate, truth value gap intuitions would not in any way militate against this. It is the 'partial function' idea that is crucial, not the 'term-forming' one.

(ii) Here is a second argument for a neo-Fregean treatment of 'the'—one that has been endorsed by Paul Elbourne.[93] Consider the sentence

46. John wants the banshee in his attic to leave.

There are contexts in which this does not presuppose or imply that there is a banshee in his attic. On a standard Russellian semantics, the sentence seems to say that John wants it to be the case that there exists a banshee that is the unique banshee is his attic and that it leaves. But this seems to get the truth conditions wrong: John does not want there to be a banshee in his attic. (A similar argument could be run against the existential view.) The suggested conclusion is that we should switch to a neo-Fregean account as a means for avoiding this undesirable result (for details, see below).

This argument thus stated is not compelling. First, notice that it seems to show too much. Suppose we are in a context where we say

47. John wants a/some/both/all three/seventeen torturer(s) to be executed.

[92] Thanks to Jeff King here.

[93] See Elbourne, *Situations and Individuals,* 109–12, inspired by Heim, 'Artikel Und Definitheit', p. 493.

Clearly it would be unnatural in this setting to claim that John wants there to be (for example) three torturers. But should we conclude from this that 'three torturers' is somehow a referential term?

What is going on? Here is one toy model.[94] Suppose John has a preference ordering on worlds. Plausibly, 'John wants P' conveys that the worlds John wants most are P worlds. But suppose that context also provides a restrictor on the worlds. So, more accurately, 'John wants P' tells us that the worlds out of the contextually delimited class C that John wants most are P worlds. In a setting where we utter one of the sentences in (47) or 'John wants some banshee in his attic to leave', the contextually delimited class is naturally thought of as being such that at each such world there is a banshee in his attic. Roughly, we are interested in which worlds John prefers out of the worlds where there is a banshee in his attic.

In a setting where we say 'John wants there to be a banshee in his attic', the contextually delineated class is naturally thought of as wider. In general, stating a preference involves making a cut between possibilities—but one would not be doing this in the latter case unless the relevant class included some worlds where there was a banshee and some not. Given this framework, the problem with the argument turns on a failure to notice a context shift.[95] (This is a point about how we hear those sentences given natural background assumptions and does not suggest any generalization about those forms of sentence. Consider here the fact that 'John wants some rescuer to arrive' and 'John wants there to be a rescuer who arrives' sound pretty much on a par. Insofar as there are presuppositions in play governing 'John wants some banshee to leave', they are conversational—things taken for granted in that context of conversation—rather than lexically triggered by 'some'.)

But there is more to say here.[96] While it is unnatural to read 'John wants three torturers to be executed' or 'John wants a torturer to be executed' as communicating a desire of John's that there be torturers, there are contexts where 'John wants three Fs to be G' or 'John wants an F to be G' is read as communicating a desire that there be Fs. (For example 'John wants a big house to be built' or 'John wants three pink mansions to be constructed'.) On the toy model described earlier, these must be settings where the contextually delimited class includes some worlds where there is not a big house/are not three pink mansions. But, the line of argument runs, 'John wants the F to be G' is not like that—it *cannot* be heard as communicating a desire that there be exactly one F or as communicating a desire that there is at least one F.

The neo-Fregean can offer the beginnings of a nice explanation of this phenomenon. Suppose 'John wants the winner to be happy' has the underlying form

[94] We are here employing tools from the standard literature within the framework under discussion: e.g. Heim, 'Presupposition projection and the semantics of attitude verbs'.

[95] Notice that this response does not rely on denying closure for desire. We agree with Elbourne (2010) that closure denial does not get to the heart of the matter here.

[96] We are grateful to discussions with Daniel Rothschild here.

48. All John's desire worlds w are such that the winner at w is happy at w

with a contextual restriction on w. Suppose 'the winner at w' goes undefined relative to certain assignments to 'w'. Assuming that we treat universal quantifiers as tantamount to infinite conjunctions and that we use strong or weak Kleene truth tables, the desire ascription will then come out gappy—a bad result. So it seems that a semantic presupposition of such a claim is that the domain of worlds is such that 'the winner at w' is defined relative to each of them. Suppose instead that the world variable attached to 'winner' is used contextually (in the sense described earlier). Then the claim is tantamount to

49. All John's desire worlds w are such that the winner at alpha is happy at w.

In that case again, though for different reasons, the sentence cannot be heard as expressing a desire that there be exactly one winner, since the desire can be satisfied at worlds where there is no winner at all.

The main thing we want to say here is that while these considerations may militate in favour of the thesis that definites carry a specificity presupposition (and hence both an existential and uniqueness presupposition), we still stand in need of a further argument that this needs to be implemented within a neo-Fregean framework.[97] Consider, in particular, the package consisting of the existential hypothesis combined with a (candid) specificity presupposition. Such a package would make very similar predictions. Suppose, for example, there is a world variable bound by a higher quantifier. The specificity presupposition requires in part that the restrictor specify a unique object relative to each assignment to the variable. If, relative to certain assignments, no such object were available, the presupposition of specificity would fail. As applied to the toy model outlined above, this means that the analysis 'All John's desire worlds w are such that the winner at w is happy at w' will require restriction to a domain of worlds in exactly the way required by the Fregean.[98]

[97] We note indeed that in his more recent 'The existence entailments of definite descriptions.' Elbourne (2010) endorses the banshee argument not as an argument for a neo-Fregean 'the' but more cautiously as an argument for the hypothesis that 'the' carries an existence presupposition. His discussion there also contains what we believe to be a slightly different argument for an existence presupposition than the one implicit in the banshee example. Here it is. Having said 'I am unsure whether there is an F', it is, the line of thought runs, always bad to go on to say 'I want the F to be G'. (Example: 'I am unsure whether there will be a victor.' 'I hope the victor is French'). The data are explained by the thesis that 'the' carries an existence presupposition in combination with the idea that when a sentence is embedded in a propositional attitude verb, the effect is to presuppose that the subject believes the presuppositions canonically associated with the embedded sentence. We are quite sympathetic with this style of argument for an existence presupposition in general, as opposed to the neo-Fregean proposal in particular.

[98] Note also that in any case the neo-Fregean only succeeds in a gap-happy implementation of the specificity presupposition and not of the additional presuppositional requirement of candidness. In cases where the presupposition of specificity is satisfied but the presupposition of candidness is not, the neo-Fregean will not predict a semantic crash. Thus if one wanted a gap-happy approach to the candidness presupposition carried by 'the', neo-Fregeanism is not the way to achieve it.

Pending some general argument for the superiority of gap-happy approaches to presupposition, we see no particular advantage for the neo-Fregean here. In short, a version of the banshee argument may well be a good argument for the specificity presupposition, but does not appear to be a particularly compelling argument for a neo-Fregean implementation of that presuppositional idea.[99]

(iii) According to a third possible style of argument, the neo-Fregean can recover intuitive truth values for certain sentences without recourse to special pleading about unusual scope behavior, whereas it seems that quantificational views about definite descriptions have to resort to such pleading.

Consider a claim beginning with:

50. If the Queen of England had not existed . . .

Assume a Russellian or existential semantics. If the definite description is given narrow scope with respect to the conditional, and the negation is given narrowest scope, then it seems that we are being asked to look for the closest possible worlds where a Queen of England at that world both does and does not exist. The conditional will then go the way of conditionals with impossible antecedents. But that is not how we naturally hear it. (Nor does it help to add 'actual' to the definite description, as this would only require that there exist someone at those worlds who is Queen of England at this world, and does not exist at those worlds.)

The quantificationalist could try to explain the data by giving negation wide scope with regard to the definite description. Let us try to close off this option. Consider sentences that use 'fails to exist' instead of 'does not exist':

51. If the Queen of England had failed to exist . . .

In general, it seems that 'failed to F' has mandatory narrow scope. If someone says 'Everyone didn't show up', this can (with a suitable intonation contour) be heard as claiming that not everyone showed up. But if someone says 'Everyone failed to show up,' this cannot be heard as claiming that it failed to be the case that everyone showed up. Similarly, 'Someone failed to show up' cannot be read as saying that no one showed up. So without a special treatment in these cases, the quantificationalist cannot handle (51) by scoping out 'failed'.[100]

Suppose instead that the quantificationalist were to try to handle (51) by giving the definite description wide scope with respect to the conditional. This would then violate standard scope restrictions on determiner phrases with respect to conditionals. Compare:

[99] We would like to thank Paul Elbourne, Daniel Rothschild, and Anders Schoubye for extensive discussion that resulted in significant improvements to this section.

[100] Barry Schein remarked to us that if we insert the negative polarity item 'at all' at the end of the antecedent in (51), that also makes the wide scope reading implausible since it is arguable that the 'not' cannot be so far from 'at all' and still have the requisite licensing effect.

52. If everyone had failed to show up, it would have been awful.

For this antecedent to be satisfied, it needs to be the case that *everyone* fails to show up. Scoping out 'everyone' would allow for a reading according to which everyone is individually such that if he or she had failed to show up, it would have been awful. This reading is unavailable. (A similar point can be made, *mutatis mutandis*, for 'no one', 'few people', 'many people', and so on.) In conclusion, the argument runs, the quantificaitonalist will have to engage in special pleading: the definite article is an exception to the general rule.

In contrast, proponents of the neo-Fregean approach need engage in no such special pleading, at least on the assumption that a singular proposition of the form 'a does not exist' can be true at worlds where the relevant individual does not exist. (Similar arguments can be run for the temporal case on the assumption that things exist at some times and not others.) A neo-Fregean argument seems to have opened up, since it seems that such an approach can recover the reading very naturally: the antecedent, when contextually used, generates a non-vacuous conditional even when given narrow scope.

A similar argument can be run on the definite description in

53. If there had been no cats, and mice had been as large as the actual cats actually are, then mice would have been big.

This sentence intuitively expresses a truth. Here again, assuming 'if' generates a scope island, the argument can proceed as before. Those philosophers who are not convinced that the definite description cannot scope out of the antecedent might care to look at sentences where extra material more obviously creates a 'wall'. Thus consider

54. If there had been no cats, and at every time in the last year, mice had been as large as the actual cats actually were at that time, then there would have been very large mice at each time last year.

This is also intuitively true. But here it is even more implausible that the truth of the sentence is secured by a wide scope appearance of 'the actual cats actually were', which is bound by a temporal quantifier.

Are these good arguments for the view that expressions of the form 'the F' are complex referential terms? Consider:

55. If both parents had failed to exist . . .
56. If all three children had failed to exist . . .
57. If most actual senators had failed to exist . . .
58. If at least one actual president had failed to exist . . .

Here again, if the description has narrow scope these antecedents will be impossible. And here we have an additional reason to disallow wide scope for 'failed' with respect to the determiner phrase: (56) cannot be read as saying 'If it had failed to be the case

that all three children existed . . . ' The antecedent of the latter conditional is true at worlds where there only two of the children. But the antecedent of the original conditional is more demanding.

As for (53), consider:

59. If there had been no cats and mice had been as large as *some* actual cats actually are, then mice would have been big.

Again the sentence appears straightforwardly true; the phenomenon is not unique to 'the'. It thus seems that we are forced to engage in special pleading here with regard to conditional and scope, or else appeal to fresh resources.[101] (In this connection, and notably, one might opt for a semantical framework according to which there is a constant domain across times and worlds, and interpret 'exists' in the original sentences as 'concrete existence'.[102] In that case there is no need for special scope pleading even if one is Russellian or existentialist.[103] Here is not the place to pursue the matter further.)

5.7 Five arguments against a neo-Fregean 'the'

We have not yet seen a good reason for modeling 'the' along the lines of Etese. Let us now briefly consider some arguments against that approach.

(i) The first line of thought is not one that we endorse, but we believe it explains why many philosophers are hostile to an Etese treatment of 'the'.[104] Consider the sequence

60. The first president of the U.S. was George Washington. That could have been false.

This is naturally heard as true. According to the objection, however, (54) does not come out true on the Etese model, since it gets regimented as:

[101] It is worth noting further that to get the most natural reading for (55) we must not only treat 'both parents' as scoping out, but employ plural quantifiers. Compare:

[Exactly two x: x is a parent] if x had failed to exist . . .

[Exactly two xs: the xs are parents] if the xs had failed to exist . . .

The antecedent of the first is satisfied just in case each parent is such that, if that parent had failed to exist . . . But the natural reading of (55) best matches the second.

[102] Cf. Williamson, 'Necessary Existents'.

[103] Obviously one has to read some of the relevant predicates as having a covert 'actually': even assuming a constant domain and the suggested reading of 'exists', we still need to actualize 'parents' in order for 'If some parents had failed to exist' to express a possible condition (assuming that one cannot be a parent without concretely existing). The point is that, using a constant-domain semantics, the speech can be rescued with an actualizing gloss on the predicate, whereas such a gloss will not suffice to save the coherence of the antecedent in a standard variable domain setting.

[104] The following line of thought is inspired by a well-known passage of Kripke, *Naming and Necessity*. The line of response to the Kripke-inspired objection is also presented in Cappelen and Hawthorne, *Relativism and Monadic Truth*.

61. The first president of the U.S. at α was George Washington. That could have been false.

But it could not have been false that the first president of the U.S. at α was George Washington. And so the second sentence (60) comes out false, contrary to how we naturally hear it. Since the first sentence in each sequence does not involve quantification over worlds even by the neo-Fregean's lights, there is no way out that appeals to binding of the world variable attaching to the first noun phrase in the first sentence.

One reason to be skeptical of this argument straightaway is that philosophers typically admit that ordinary present-tense claims are saturated by a time. That is, they think that 'The cat is on the mat' as said by someone now expresses the proposition that the cat is on the mat now. But notice that we can perfectly well hear the following sequence as true:

62. The cat is on the mat. That didn't used to be true.

Moreover, we suspect such philosophers will admit that 'John is nearby' is saturated by a reference point, so that an utterance by David of 'John is nearby' in a case where David has himself as the reference point expresses the proposition that John is nearby him. But notice that if Bill is nowhere near David and each thinks that John is near himself, then there is a felicitous reading of the following speech:

63. David thinks that John is nearby. Bill thinks that too. But Bill is wrong.

In short, if world-indexing were unacceptable for the reasons given by the main argument, then time- and place-indexing should be unacceptable too.

We do not think this line of reasoning should lead one to reject all three kinds of indexing. One should simply reject the initial argument against world-indexing. Consider

64. John loves his mother. Bill does too

There is a sloppy identity reading, where the first sentence is computed as

65. John λx (x loves x's mother)

and where 'does too' picks up on 'λx (x loves x's mother)', which by the standard principles of λ-conversion, gives us the right reading for 'Bill does too'. This seems like a fairly good first pass at what is going on in (64) on the relevant reading. But an altogether parallel analysis is available for the cases above. Supposing 'that' can pick up on the λ-expression in

66. Now λt (the cat at t is on the mat at t)

Then the puzzle disappears. Similarly for

67. At α: λw (the first president of the USA at w is George Washington at w)

We do not by any means wish to conclude that the world-variable treatment is the right one. But one should not repudiate views for the wrong reasons. The relevant line of argument ignores the flexibility of 'that'. In fact, whatever our attitude towards a diagnosis involving lambda-maneuvres, it does seem that in a large range of cases where an anaphoric 'that' is at work, something less saturated than a proposition is carried over from the first sentence to the second.

(ii) A second line of skepticism about the neo-Fregean account proceeds via a thoroughgoing commitment to classical logic. We can begin by noticing that, on the neo-Fregean hypothesis,

68. Either the king at t or the regent at t was in charge

should presumably still come out true relative to a time even if one of the disjuncts is undefined at that time.[105] (Of course, if we think that a failure of a definite to denote induces a complete failure of semantic value for the sentence 'the king at t was in charge', then it is hard to see how a function-argument approach to 'or' can deliver this result.) Assuming this result can be achieved, it conflicts with classical model theory, since the latter explains quantification in a setting where open sentences are bivalent relative to an assignment, and where the possibility of true disjunctions with some truth valueless disjuncts is not entertained. Likewise, one might think that there are determiners such that

69. [Det] time t is such that the tallest man at t is nice at t

comes out true even though the open sentence 'The tallest man at t is nice at t' is undefined relative to some times taken as assignments. (There are times at which there is no tallest man, due to ties or a complete lack of men.)

We should here distinguish two attitudes that might prevail among those sympathetic to classical logic. First there are the *compromisers* who concede that there are thoughts for which validity and entailment are not properly handled by classical logic, and whose quantifiers are not properly interpreted using the resources of classical model theory. Having made those concessions, compromisers can still claim that for an interesting and tractable subdomain of thoughts, classical logic provides the correct story about validity. But the propositional quantifiers of metasemantics have to be restricted in order to reason in a classical way about that interesting class.

But there is a more trenchant attitude according to which the semantics of classical logic runs much more deeply. For the *classical diehards* the semantics of classical logic holds of all possible thoughts. Let us implement the vision in stark metaphysical terms: there is a natural class of objects, **propositions**, and two highly natural properties of **truth** and **falsity** that hold of those propositions, and a natural relation of **judging** that hold between individuals and **propositions**. It is of the nature of **judging**

[105] A neo-Fregean might hope to use a strong Kleene truth table and treat existential and universal quantifiers as equivalent to (infinite) disjunctions and conjunctions respectively.

(and the other natural propositional attitudes) that one relatum is a **proposition**. On this view, one can certainly talk about various abstract constructions that one might call 'propositions' and construct various gerrymandered truth-like predicates to talk about them. And perhaps the gerrymandered counterparts of **truth** and **falsity** will not enjoy the gerrymandered counterpart of **bivalence**. But such constructions can never serve as objects of **judgment**.

What would the proponent of such a conception make of some people who self-consciously tried to introduce a language like Etese and use it as the vehicle of thought? (Let us imagine that the relevant community has clear neo-Fregean truth-value intuitions and so on.) One *might* run the bleak line that if one insists on trying to employ the definites of Etese one will fail to thereby **judge propositions** to be **true**, since the kind of semantic values that one is trying to attach to determiner phrases of the form 'the F' have no place in the realm of **propositions**. But that seems rather extreme.

One might instead propose that claims of the form 'The F is G' express singular **propositions** of the sort the neo-Fregean claims for himself in cases where there is unique F but no **proposition** otherwise. But what about quantificational cases, such as 'At some future time, the tallest man will be nice', in a case where relative to some future times there is no tallest man? If one claims that this is true, but when evaluated at assignments where there is no unique tallest man, the open sentence 'The tallest man at t is nice' expresses no proposition, then one will already be drawn into recognizing the need to provide a non-classical account of quantifiers for the community's language. This is because one will recognize various quantificational claims as expressing **propositions** but those **propositions** cannot be captured in terms of standard classical model theory.

Perhaps the classical diehard ought to say that despite the community's best efforts, the relevant quantificational sentences express **propositions** that are best characterized in a non-Fregean way. One might usefully compare the case with a tribe that self-consciously tried to introduce a language for which some non-standard logic was correct. The hard line view is that their **judgments** would nevertheless be magnetized to the realm of **propositions** and so their best efforts would fail. We do not wish to endorse the attitude of the classical diehard here; but we take it more seriously than some do.

We might also mention a kind of position that attempts to pursue a referential view of definite descriptions, but which does not wish to contest classical logic. The idea is to endorse a free logic that maintains bivalence for sentences containing empty referential definites. One natural version of this follows Evans' approach to what he calls 'non-Russellian singular terms', reckoning atomic sentences containing empty expressions of the form 'The F' to be false, and which, in conformity with the referential approach for definite descriptions, uses a referential schema to describe their contribution to truth and falsehood:

'The F' refers to x iff x satisfies 'F' and every y which satisfies 'F' is identical to x.

Such an approach would obviously have to depart from the function/argument vision that dominates Montagovian semantics. After all, on the envisaged semantics, 'The F is G' can have a truth value even if there is no object to serve as argument for the semantic value of 'The F'.[106] Now certainly this approach cannot be motivated by a desire to generate truth value gaps semantically to line up with 'gappy' intuitions. But if there were other good reasons to treat 'The F' as a complex referential term, this could at least ward off the classical diehard without appealing to the resources of the compromisers.

(iii) A different line of concern about the neo-Fregean view of definite descriptions is presented by Gareth Evans.[107] The Etese picture as we presented it made ready use of world-variables that can either be bound or assigned by context. One might think that postulating world-variables in the object language is not really that important to a referential approach to definites, and that such an approach can be readily adapted to other ways of thinking about modality. But this is far too quick. For suppose that natural language does not deploy covert reference to worlds in a way that mirrors Etese. Suppose instead that it uses modal operators to express modal contents and does not deploy world-variables even at the deepest level of structure. Now, even if we avail ourselves of the apparatus of worlds in our metalanguage,[108] then it will not do at all to think of 'The inventor of the zip' as simply standing in a binary reference relation to a particular object. After all, 'Possibly, the inventor of the zip was Jason Stanley' has a true reading but no compositional account of that reading is available on the hypothesis that 'the inventor of the zip' is referential in that way.

In short, unless world-variables are pervasive in natural language, proponents of a neo-Fregean 'the' must relativize reference to worlds in order to account for the behavior of definite descriptions within the scope of modal operators. But as Evans sees things, it would be a cost to do this if a compositional account of the core referential terms could be accomplished using a simple binary reference relation. As

[106] Another strategy stays within function/argument semantics, but takes seriously the idea that the semantic value of 'true' and 'false' in English (and other human languages) extends beyond the limits of semantic truth and falsity. (This kind of view is entertained in von Fintel, 'Would You Believe It? The King of France is Back?'; and Heim and Kratzer, 'Semantics in Generative Grammar', p. 77.) In effect, this approach treats the semantic value of 'true' as a property that is a disjunction of semantic truth and some other property that a sentence can exemplify even when it is not semantically true. Even if the strategy is inappropriate in the case at issue, its broad outlines are interesting. (One can imagine a view along these broad outlines according to which, for example, 'Atlantis does not exist' is true without being semantically true. Perhaps truth at the fringes, so to speak, gets a non-semantic explanation.) However, we worry that the alleged semantic value of 'true' is too gerrymandered to be the best candidate; perhaps 'true' is magnetized to the more natural property of semantic truth even if the latter fits ordinary use rather less well. But further discussion of this issue would take us too far afield.

[107] Evans, *The Varieties of Reference,* pp. 51–57.

[108] An approach that we shall not discuss, but to which we are somewhat sympathetic, detects operators rather than world variables in natural languages and also recommends operators rather than world variables in the semantic metalanguage that we use to theorize about them. That would make the project of giving a truth-conditional account of the behavior of a neo-Fregean 'the' in modal contexts even harder than in the framework we are about to describe. (Note also that we do not suppose that the choice between treating modality with sentential operators and treating it with world variables is exhaustive.)

far as our current line of inquiry goes, a slightly different point also bears emphasis: in this setting we would have a fairly strong basis for thinking that a neo-Fregean definite description is not a genuine referential device. After all, this setting would encourage us to recognize a divide between those expressions that, at a context, stand in a simple binary reference relation to some object or other and those that merely stand in a ternary relation involving an object and a world.

Without passing final judgment, we do think that this argument has some *prima facie* appeal. If it turns out that treatment of the deep structure of ordinary modal language based on world-variables is incorrect, then this may indeed be a good reason for rejecting the hypothesis that ordinary definite descriptions are neo-Fregean. And even if we were to pursue neo-Fregeanism in that setting, this might give substance to the claim that neo-Fregean definite descriptions are not *bona fide* referential terms.

(iv) A fourth concern is that the Etese implementation of neo-Fregean approach is in trouble if there could have been objects that do not in fact exist. Suppose, for example, that there could have been talking donkeys, but that nothing in reality—nothing that is in the range of our quantifiers—could have been a talking donkey. Now the Etese lover would want the sentence 'There might have been talking donkeys' to come out true under his favored regimentation. But consider '$\exists w \exists x$(x is a talking donkey at w)'. For this to be true, there must be an assignment to 'w' such that 'x is a talking donkey at w' has at least one true instance with respect to that assignment. This in turn requires there to be some object quantified over in our semantical metalanguage that satisfies the predicate 'x is a talking donkey at w' relative to some assignment to 'w'. But if reality is devoid of possible talking donkeys, how can there be any such object? The upshot is that the Etese approach does not sit well with the picture that the domain of all objects is modally non-constant. To what extent one judges this a problem will turn on one's hostility to doing modal metaphysics with a constant domain.

(v) Our final argument is easily stated, and mirrors the concern raised against the Russellian. As we have seen, neo-Fregeanism will certainly need the apparatus of covert restrictors, otherwise so-called incomplete definite descriptions will uniformly crash. Further, neo-Fregeanism cannot, in itself, explain a presupposition of candidness: nothing in its semantic story explains the requirement that the audience be in a position to identify the subject of the definite in a non-parasitic way.

But once she has helped herself to the apparatus of covert restrictors and the relevant presupposition, is anything gained by postulating a neo-Fregean semantic structure? We have not encountered anything of that sort. (Note, in passing, that the apparatus of singular restrictors would naturally predict semantic crashes even on an existential approach postulating covert singular restrictors, when these fail to pick anything out: see §4.11.) For those of us who adopt an existential approach to indefinites, existentialism about definites promises an enviable level of uniformity. None of this is decisive, but we take the burden of evidence to be very much on the neo-Fregean.

5.8 The upshot

Once the acquaintance-theoretic superstition has been discarded, there is little reason to deny that semantic vehicles of an Etese kind are at least perfectly possible referential vehicles, and there is no important sense in which such vehicles would be excluded from expressing singular contents. However, the overall case for a neo-Fregean treatment of definites is not compelling.[109] On balance, and largely driven by considerations of systematicity and elegance, we prefer an existential account of 'the', supplemented with the apparatus of specific restrictors and the presuppositional profile we sketched in §5.2.

[109] We certainly do not rule out the possibility that certain of our expressions are of type <<e,t> e> even if definite descriptions are not.

6

Et tu, 'Brute'?

We turn now to an investigation of two kinds of expression that are often considered paradigmatically referential: demonstratives and proper names. Given our treatment of definite and indefinite descriptions, is there reason to postulate a semantic rift with these expressions on one side, and demonstratives and names on the other? It is worth exploring the possibility that, with the apparatus we already have in place, a more unified account of all four types of expression is in the offing.

6.1 Demonstratives

We can begin with the idea that complex demonstratives are always quantifier phrases, focusing on the implementation of that idea by Jeffrey C. King.[1] Among other advantages, this approach allows a single semantic role for 'that F', both when it is used in a context to single out a particular object in view, and also when the object it singles out varies according to a higher quantifier, as in

1. Every student who flunks her first exam remembers that exam for a long time.
2. Every parent dreads that moment when their oldest child leaves home[2]

Neither demonstrative is being used as a device to refer to a single object, though each seems to be pick out a single object relative to each individual in the extension of the restrictor of the higher quantifier. It would be a *prima facie* advantage for a view to treat these occurrences as having the same semantic type as occurrences that are considered paradigmatically referential, as when someone says '*That* exam was hard' immediately after getting out of an exam.[3]

[1] King, *Complex Demonstratives*. See also King, 'Are Complex "That" Phrases Devices of Direct Reference?', Lepore and Ludwig, 'The Semantics and Pragmatics of Complex Demonstratives', and Neale, 'This, That, and the Other', pp. 174–5.

[2] Ibid., p. 10. See also the examples in Maclaran, 'The Semantics and Pragmatics of the English Demonstratives'. A related example is found in Neale, 'Term Limits', p. 120, and credited to Jamie Tappenden. Note that similar examples can be constructed for plural complex demonstratives.

[3] We do not endorse all of King's arguments; in particular, we reject the appeal to acquaintance on pp. 48–50. But the case he sets out for a quantificational view of demonstratives is compelling even if we set that argument aside.

(i) *Covert restrictions*. If 'that' is a determiner in 'that exam', then what is the mechanism by which the latter can rigidly designate a particular exam? Here King's account relies on covert material. When 'that dog' is used demonstratively, context supplies covert restrictive material that—to put in our terminology—combines with the overt material to constitute a singular restrictor.[4] As King conceives of things, when an object x is demonstrated, the covertly supplied property is that of being identical to x. This would, of course, yield a restrictor that is *rigid* in the terminology of Chapter 4.

Given the foregoing chapters, it is natural to combine this idea with the account of domain restriction adopted in Chapter 4. For sentence (1) we can thus treat the restrictor in 'that exam' as containing an unvoiced element capable of interacting with 'exam' to yield a different property relative to each element in the domain of 'every student'. Meanwhile, in 'that exam was hard', the unvoiced element interacts with 'exam' to supply the property of being identical to e, where e is the unique exam the speaker is talking about. (As we saw, one way of implementing this idea is to posit a syntactical structure involving an object variable and a function variable. In (1), the object variable gets bound by 'every student', and the function variable gets assigned a function that takes as input each student assigned to the object variable and yields—together with the nominal—the property of being that student's first exam.[5] Meanwhile, in 'That exam was hard', the object variable is assigned the exam being demonstrated, and delivers the property of being identical to that exam.) The result of this picture is similar to that achieved by King's view.

As King is aware, this kind of story could be extended to the case of simple demonstratives: the difference would be that the restrictor is entirely unvoiced, rather than the result of blending voiced and unvoiced elements. This would help with bare uses of 'that' that appear to vary according to the domain of a higher quantifier, as in

3. Every boy who had a piece of candy ate that before his dinner.

Moreover, this approach holds out the prospect of a unified semantic treatment of all uses of demonstratives, just as the domain restriction approach to specific indefinites provided a unified treatment for both plain specific and functional uses.[6]

[4] Obviously, the covert material may not need 'help' from the overt material to achieve specificity, especially if the former is singular in nature.

[5] Though see the various caveats in §4.5.iii. Moreover, a full account of cases where complex demonstratives need to get evaluated relative to varying assignments will need to implement one's favored treatment of donkey anaphora: cf. Chapter 5, fns. 22 and 44.

[6] Meanwhile, a similar approach can be taken with 'there', which, unlike 'here' and 'this', also has bound uses. (We are discounting such examples as 'Mary didn't visit anywhere without thinking to herself that this/here was the place she would live' as mere mixed quotation. Thanks to Paul Elbourne for the example.) Also consider 'we', which can apparently appear in determiner position, and appears to have bound uses. On the first point, consider 'we Americans', 'we three kings'; see Postal, 'On So-Called "Pronouns" in English'; Elbourne, *Situations and Individuals*, §2.1.2. On the second point, consider, 'Whenever I am with some friends, we play ice hockey', reading 'some friends' non-specifically. Thanks to Billy Dunaway and Barry Schein here.

(ii) *Familiar options*. Of course, other unified accounts are available for the truth-conditional contribution of 'that F', including three that mirror the views of definites discussed in Chapter 5. King's own view is analogous to the Russellian treatment of definites: he treats 'that F' as a quantifier phrase that truth-conditionally requires uniqueness. But once we examine the *presuppositional* profile of 'that F', it will be clear that there are also existential and neo-Fregean accounts available. In fact, the competing considerations march in step almost exactly with those of the last chapter. And once again we are tentatively inclined to opt for an existential account for the kinds of reasons given there; in fact, given our view of specific indefinites and definites, the prospect of a significant degree of uniformity among all three types of noun phrase is appealing in itself.

There is a further choice point when it comes to the truth-conditional contribution of 'that F'. We mentioned earlier the possibility of non-quantificational approaches to definite and indefinite descriptions, on which 'a cat' and 'the cat' have predicative content, while the quantificational force stems from covert elements. This option is obviously also available for demonstrative expressions, and many of the same motivations apply. For example, if one takes it to be evidence for a predicative approach to 'the F' and 'an F' that they sit happily after 'is' and 'is not'—one will find exactly the same evidence for a predicative approach to 'that F'.[7]

In what follows, we will explore a unified existential treatment of demonstratives that is otherwise similar to King's view. And though we will treat 'that' itself as having quantificational force, we have no objection to a non-quantificational variant of the view we present.

6.2 Non-rigid uses

One phenomenon that King does not explore is the apparently non-rigid use of demonstratives, even in a case where an object is demonstrated.[8] Suppose that the broad outlines of King's view are correct. Still, one is tempted to wonder whether it is really obligatory to load an *identity* property into the restrictor whenever an object is demonstrated. Why not allow for a specific restrictor that is non-rigid, as we saw can be supplied in the case of definite and indefinite descriptions? If there were examples where demonstratives appeared to be restricted in this way, it is hard to see how those

[7] Meanwhile, on a non-quantificational treatment of simple demonstratives, 'that' combines with a covert element to yield a predicative content.

[8] Some examples like this can be found in Nunberg, 'Indexicality and Deixis', p. 28, though these are complicated by intensional operators. An example similar to those we discuss is found in Elbourne, 'Demonstratives as Individual Concepts', p. 442. Note that these are distinct from what King calls 'NDNS' uses of complex demonstratives, where the subject explicitly uses a uniquely identifying description, and which King concludes are not rigid because of acquaintance considerations (e.g. 'That first hominid who discovered how to start fires was a genius'). See *Complex Demonstratives,* p. 48–50.

data could be recovered by a standard referential account. And this would lend support to a view like King's, augmented with the permissible use of specific, but non-rigid, restrictors.

Consider first the case of plural demonstratives. Suppose some troops attack our position. Smith says

4. Those troops are 500 in number but could easily have been 1,000 in number.

Supposing 'Those troops' is a plural complex demonstrative, this seems to be a case where it selects a specific plurality at the actual world, but different pluralities at other worlds. There are analogous examples of temporal non-rigidity: 'They are 500 in number but used to be 1,000 in number'. Again, it would be natural to suppose that 'those troops' involves a plurality-specific restrictor that is non-rigid, selecting different pluralities at different times. Supposing the restrictor were something like the property of *being all French troops in the field,* then the acceptability of the sentence is unsurprising. Of course, one could perform semantic acrobatics to make a referential account accommodate the data. For example, one could insist that 'Those troops' picks out a single object with modal and temporal flexibility in its constitutents—it is fatter at other worlds and times, so to speak. But, even allowing for the contentious ontology it would require, such an account just feels overly strained.

There also seem to be cases in which a single demonstrandum is picked out non-rigidly. Suppose Smith is at a fashion show to decide about whether to invest in a line of clothing. However, we suspect Smith is only interested in what is worn by supermodel Jones, and is not paying attention to much else. As it turns out, Jones is wearing a suit that Smith does not like. Smith does not invest in the line. We might say:

5. If that suit had been more impressive, Smith would have invested in the line.

On one reading the truth conditions do not hinge on the identity conditions of that particular suit, but on whatever suits are worn by Jones at close worlds. We might even say

6. If that suit had been something completely different . . .

Likewise, to illustrate temporal non-rigidity, suppose there is a dating game that always involves a soldier, a sailor, and a spy. A previous contestant can point to the spy and say:

7. I was once that guy.

On the standard view of complex demonstratives, the acceptability of (3)–(7) is hard to explain. But if we extend King's account to allow that a merely specific restrictor is at work in such cases, the explanation is straightforward, and also in line with what we have said about specific indefinites and definites.

The same lessons seem to apply to simple demonstratives. Suppose Jones is required to take a sequence of exams in random order. As it turns out, the first exam is on calculus, which is Jones's weak spot. Having written the first exam, Jones says:

8. If that had been the history exam, I'd have done well.

Likewise, we could have used the demonstrative 'they' in (3) and (4) in place of 'those troops'; and 'that' instead of 'that suit' in (5) and (6). Here there are various maneuvers on behalf of the view on which demonstratives are always rigid: one might dismiss these examples as loose talk; fans of counterpart theory might say that in this case non-standard 'counterpart' relations are invoked;[9] others might say that in such cases one is referring to a kind or 'secondary substance' rather than an ordinary object;[10] and so on.[11] But accounting for these sentences is utterly straightforward if we treat all demonstratives along the lines we have been suggesting.[12]

6.3 Salience

The uniformity we envision among specific existentials still involves differences in their presuppositional meanings—on our view, it is such a difference that divides 'the' and 'a'. What, then, is distinctive about 'that'? Its felicity conditions appear to be more stringent than those associated with 'the'—there must be a candid, specific restriction in play, but that is not enough. For example, suppose no car is salient, but the audience can exploit a background assumption that the speaker has just one car. Now consider these discourse-initial utterances:

9. I took the car to the garage last night.
10. I took that car to the garage last night.[13]

[9] We are imagining that the counterpart theorist works with something like the following account of rigidity: a rigid designator of x will designate an object o relative to a world w iff o exists in w and is a counterpart of x.

[10] Thanks to Sarah Moss here.

[11] A full exploration of these issues ought to compare and contrast these cases with the apparently non-rigid use of 'I' and 'today' that Nunberg underscores in 'Indexicality and Deixis':

(i) I am traditionally allowed to choose my last meal (uttered by a prisoner about to be executed)
(ii) Today is always the biggest party day of the year

In these cases the uses of 'traditionally' and 'always' force an interpretation in which the indexical appears not to be (or not just to be) tracking an individual person or token day. For an excellent recent discussion of a wide range of relevant data, see Elbourne, 'Demonstratives as Individual Concepts'.

One might think that in (i) and (ii) there is simple reference to a kind or non-standard object going on, but we doubt the same thing can be said for every non-rigid use of simple and complex demonstratives. (And if there is really pervasive reference to non-standard objects in natural language, we should also re-examine the apparent non-rigidity of various definite descriptions—think of a variant of (5) with 'the' instead of 'that'. Why accept philosophical orthodoxy when it comes to 'the suit', but resort to a devious ontology for 'that suit'?)

[12] Here is one respect in which complex demonstratives seem to differ from simple ones. While it is very easy to come up with cases where a complex demonstrative of the form 'That F' is bound, it is rather more difficult to contrive cases where a simple 'That' is bound. But the contrast is not one of principle—consider example (3) in the text. We suspect these are less common because it is harder to satisfy the presuppositional constraints of 'that' in bound cases with a simple demonstrative.

[13] Thanks to Craige Roberts for discussion about such examples.

What makes (9) acceptable is that the audience can non-parasitically grasp how the definite is being restricted, allowing them to identify the car in question. But a felicitous utterance of (10) would require the relevant car to stand out much more conspicuously to the audience.[14]

What exactly is the additional constraint required by felicitous use of a demonstrative? Perhaps the restrictor property must be *cognitively salient* to the audience, where this involves a mode of presentation more forceful than non-parasitic identification.[15] Thus, in some paradigmatic cases, the object is identified by a perceptual mode of presentation whose salience is due to an act of pointing. Of course, this is a special case of a more general phenomenon. As we saw in Chapter 1, a demonstrative can be used to talk about someone who has just conspicuously left the room. And demonstratives can be used anaphorically on specific indefinites, as in:

11. Yesterday, a strange man in the pub said he was a teetotaler. Later in the evening, that guy drank four vodkas in an hour.

On this approach, supposing the specific indefinite is about x, the feature *being the guy identical to x* counts as cognitively salient.

However, this additional requirement may not be strong enough. Contrast the following sentences, uttered discourse-initially in the absence of perceptual cues:

12. I saw the tallest man in the world the other day. That guy was *tall*.
13. I saw that tallest man in the world the other day.

The speaker's use of the predicate 'tallest man in the world' makes salient the feature *being the tallest man in the world*. This suffices for the felicity of (12), but not of (13). It appears, then, that the restrictor property cannot simply be *provided* by noun phrase itself—such cases call for the definite article instead.[16]

We might try to add the condition that some identifying feature must *already* be cognitively salient to the audience by the time one uses the demonstrative.[17] This would explain the contrast between (12) and (13), but again it cannot be exactly right.

[14] As with definites, the audience must be able to (non-parasitically) use the restrictor property to identify the object talked about—*while understanding* that it is the object talked about. Suppose a car is obviously in view and the restrictor expresses the property of being identical to that car. It is not sufficient for the audience to (non-parasitically) grasp this property and identify the car; they must also understand it to be the car talked about. An analogous point holds for the identification recipe in bound cases.

[15] A weaker constraint might be proposed, namely that the object that the demonstrative is about should be cognitively salient. This would not harmonize as well with the salience constraint that we propose for cases where a demonstrative is bound by a higher quantifier (namely that the relevant relation be cognitive salient). Note that in those unbound cases where the covert restrictor is an identity property—cases that in our view are typical—there is little difference in the requirement of the weaker view and that articulated in the text.

[16] Though restrictive relative clauses are a complication—see fn. 19.

[17] According to Gundel, Hedberg, and Zacharski, use of 'that F' requires that the hearer can identify the object 'because he already has a mental representation of it'. Gundel, Hedberg, and Zacharski, 'Cognitive Status and the Form of Referring Expressions in Discourse', pp. 277–82. (They mention one kind of exception in their fn. 6.)

For one thing, it is perfectly acceptable to bring the hearer's attention to an object with a demonstrative, even if it is obvious that the hearer has not yet noticed it. Likewise, linguistic cues that bring an object to salience need not occur *prior* to one's use of the demonstrative. Thus, both of the following are acceptable:

14. Everyone has heard of William Shakespeare. That sublime poet died in 1616.
15. That sublime poet, William Shakespeare, died in 1616.

This suggests that the issue is not chronological priority, but *supplementality*—the use of a demonstrative conventionally relies on salient supplemental information to help the audience identify the object.[18] Thus, to grasp how the demonstrative is being restricted, the audience is intended to look beyond whatever information is supplied by the head noun (however prenominally modified).[19] This explains why (13) is unacceptable: the restrictor property is saliently provided by the noun phrase itself. In contrast, in (14) and (15) the audience is signaled to rely on supplemental information provided by other pieces of discourse. Likewise, many paradigmatic uses of demonstratives are supplemented by acts of pointing—and the fact that one is pointing at x constitutes salient supplemental information. Or again, it may simply be very salient that x is the only person in front of us, or that x just slammed the door.

No doubt this sketch is inadequate,[20] and much more can be said about the presuppositional profile of demonstratives. But let us emphasize some structural facts before moving on. First, as specific existentials, demonstratives conventionally require specific restrictions. Second, the salience condition is simply a refined candidness

[18] This general idea is certainly not new. For example, Tyler Burge writes that demonstratives involve 'conventional reliance on extrasentential action or context to pick out a particular': Burge, 'Reference and Proper Names', p. 342. (But 'extrasentential' is not exactly right: consider (15), (21)-(24), as well as examples in the following fn.) And Craige Roberts writes that the demonstrative carries a presupposition that there is a discourse referent 'anchored by information in the common ground to an individual in the world which is directly indicated by the speaker at the time of utterance of the demonstrative NP' Roberts, 'Demonstratives as Definites', §6.

[19] There is a striking contrast between:

i. That tallest man in Germany will win the prize.
ii. That man who is tallest among Germans will win the prize.

To properly cash out the 'supplement' idea, restrictive relative clauses must count as supplemental, while prenominal modification must not. We do not know of any principled reason why this should be the case. But there do seem to be acceptable demonstratives containing obviously individuating information in restrictive relative clauses. Thus, along with (ii), consider:

iii. Those who are easiest to love are hardest to lose.

These may sometimes seem archaic, but do not appear to violate any presupposition.

[20] See, for example, the issue raised in the previous footnote. It is also difficult to say exactly what makes an individuating feature sufficiently salient. Consider the following example, modeled on one from Heim, 'The Semantics of Definite and Indefinite Noun Phrases'.

i. I dropped ten marbles and found only nine of them. *That one was blue.

We need to be able to make good on the idea that in this case the event of nine marbles being found has, in the relevant sense, too much salience relative to the event of the single marble not being found. (Of course, we should not conclude that the problem is the lack of an explicit linguistic antecedent referring to the marble, or even the lack of a perceptually salient marble—see sentences (22)–(24) below.)

condition: the audience must be in a position to non-parasitically grasp how the demonstrative is restricted—*using salient supplemental information*. As such, it is part of what we have called the metalinguistic element of the presuppositional profile of specific existentials, and so remains directed at the actual audience even when in modal and attitudinal environments.[21] That is, while the requirement that the restrictor property have a singleton extension concerns relevant worlds that may not include the actual world, the requirement that it be salient concerns only the actual audience at the actual world. To see this, suppose a car is salient to Alfred and Betty but not to Charles. In this case it is not acceptable for Alfred to say to Charles,

16. Betty wants to take that car for a spin.

The salience condition itself must be satisfied by Charles. Meanwhile, (16) may be acceptable even if the restrictor only picks out a car at Betty's belief worlds—suppose Alfred has just told Charles that Betty believes that John F. Kennedy was shot while driving a yellow Ferrari.[22]

Finally, we need to consider bound uses. On our view, the use of a bound specific existential requires the restrictor to provide an identification recipe—roughly, a function from variable assignments to properties that uniquely individuate objects. In the case of bound complex demonstratives, the presupposition is that the recipe is non-parasitically available to the audience, using salient supplemental information.[23] And the data seem to support this. Thus, contrast the following two sentences, used discourse-initially:

17. Every Easter, I take the car to the garage.
18. Every Easter, I take that car to the garage.

The first of these can be interpreted as allowing for different cars on different Easters—the audience may have background knowledge that the speaker has a different car every year. But (18) cannot be interpreted this way, and indeed sounds defective if we try to use it with that meaning. The proposed explanation is that the relevant background information, while supplemental, is not sufficiently salient in context. Similarly, contrast:

19. Every time I go to a doctor's office, I get into a fight with the receptionist.
20. Every time I go to a doctor's office I get into a fight with that receptionist.[24]

[21] See §§5.2.ii, 4.6.ii, and 4.11.i.

[22] Consider also 'Betty wants that first person she falls in love with to love her back', in a setting where Betty never actually falls in love with anyone, or Hob/Nob examples using 'that witch'. Here we have a range of options as to the nature of the restrictor mirroring those discussed in §4.11.iii–iv.

[23] See fn. 14 for appropriate hedges about the type of knowledge involved.

[24] Thanks to Cian Dorr here.

Again, hearers can work out the identification recipe in play by invoking the assumption that the speaker encounters a single receptionist every time she goes to the doctor's office. But that information is not very salient, so the bound definite is preferred.

In other cases, the supplemental information at work in a bound use does achieve sufficient salience. This occurs, for example, when the identification recipe is explicitly given by a linguistic antecedent, for example:

21. Whenever I flunk an exam, I remember that exam for a long time.

Notably, this need not literally require an earlier determiner phrase involving the demonstrative's head noun:

22. Whenever I take a shot on net, I kick that ball as hard as I can.
23. Whenever I throw up, I clean that vomit right up.
24. Whenever I get undressed, I put those clothes straight into the washing machine.

There are, clearly, many ways to raise an identification recipe to salience. Talk of occasions where one takes a shot on net brings very vividly to mind the fact that, on every such occasion, one shoots a unique ball. And so on.

6.4 Modal themes

Let us consider two objections to the foregoing picture, each of which concerns the modal behavior of demonstratives.

(i) First, consider the following sentences:

25. That guy who is currently president didn't used to exist.
26. That guy who is actually president might not have existed.

Here is an objection that reenacts a line of thought from the previous chapter (§5.6.iii). On the proposed view of demonstratives, 'That F is G' truth-conditionally involves existential quantification over Fs. Thus it can only be true at a world if there is an F at that world, and can only be true at a time if there is an F at that time. This would yield the prediction that there is a false reading of both of these claims—one that requires there to be a time/world where an F both exists and doesn't exist. But there is no such reading. Moreover, it is far from clear that this is adequately explained just by saying that we do not hear the false readings because they are obviously false. After all, it often happens that sentences have obviously false readings that we can still easily *access*. (For example, 'The president of the U.S. might not have been the president of the U.S.'.)

If this argument were accepted, it would not of course follow that 'that' is a referential term. One could, after all, opt for a neo-Fregean semantics for 'that' on which it is of type $\langle\langle e,t\rangle,e\rangle$. In that case 'that' would be a referential-term-forming operator, and in bare uses the restrictor would be utterly covert. Assuming philosophical

orthodoxy, which holds that singular propositions like 'Socrates does not exist' can be true at worlds where Socrates does not exist, one would then escape the argument.

However, as with the analogous argument considered in the last chapter, we think this argument fails to take proper stock of the relevant data. After all, consider:

27. A certain person who is actually a senator might not have existed.
28. Most people who are actually senators might not have existed.
29. Fourteen of the artworks currently in my private gallery did not even exist ten years ago.

We do not hear readings for these sentences on which they come out false regardless of the facts about the speaker's artworks, and so on. Notice also that a sentence like

30. It used to be the case that fourteen of the artworks currently in my private gallery did not even exist

should help the relevant reading—but it is still at best extremely difficult to access. (Note that the mere availability of a wide scope reading in these cases would explain the availability of a true reading, but would not explain the unavailability of a false one.)

In sum, many determiners pattern with 'that' when it comes to the relevant data. But we suspect the proponent of this style of argument would not be willing to save the data by claiming that none of the expressions 'a', 'most', and 'fourteen' are quantifier expressions. So the argument has gone awry.

What solution do we propose? Insofar as one is offering a semantic theory of natural language that captures our intuitive verdicts on truth-value, it may well be that the most natural solution is to posit a constant domain across times and worlds, with ordinary uses of 'exist' serving as a restrictor.[25] Whether or not we are right about this, however, the argument does not provide any special reason to reject a quantificational construal of demonstratives.

(ii) Here is a second modal argument, which requires considerably more discussion. First, suppose with King that complex demonstratives *typically* involve a rigid restrictor—a hypothesis we applaud. Now suppose the speaker is talking about a salient soldier S. On the present view, 'that soldier'—along with the covert material supplied to form a rigid restrictor—will in effect be semantically equivalent to 'the soldier identical to S'. As a result, it will pick out S only at worlds where S is a soldier. For example, an utterance of 'That soldier is happy' will not be true relative to worlds where S is not a soldier. In short, a demonstrative occurrence of 'that soldier' ought to be a *weakly rigid designator* in the sense discussed in the introduction.

[25] Cf. Williamson, 'Necessary Existents'. Notice that—as Williamson stresses—semanticists often tacitly presuppose a constant domain by availing themselves of a metalanguage that quantifies over the denizens of all worlds and times.

But—the objection continues—if 'that soldier' were a weakly rigid designator, there ought to be a reading of

31. That soldier might have been a sailor

equivalent to 'Possibly, there is a soldier who is identical to S, and is a sailor.' That reading would require, as a condition on its truth, that there are possible worlds in which S is both a soldier and a sailor. Call this the *weakly rigid* reading. But such a reading is at best hard to hear. The suggested conclusion is that the semantics we have sketched is incorrect.[26]

Here are two replies that we think are unsuccessful.

First, one might think that this reading is unavailable simply because it is nigh impossible that someone be both a soldier and a sailor. But this does not explain the data. For one thing, it is hard to hear weakly rigid readings even in many contexts where the predicates are perfectly compatible. Consider (32), uttered while pointing at Phil:

32. That philosopher could easily have been poor.

Of course, it might turn out—due to the structure of close possibility space or because of prior stipulations about which possibilities are relevant—that Phil is a philosopher at all the easily accessible possibilities. But suppose the domain of possibilities under discussion includes worlds where Phil is not a philosopher. It is at best difficult to access a reading on which the truth of (32) requires of Phil that there are nearby worlds in which he is *both* a philosopher and poor. That is, assuming there are easily accessible possibilities where Phil is poor but not a philosopher, it is hard to construe (32) in such a way that these would not suffice for its truth.

Second, one might claim that weakly rigid readings are hard to access in these cases because of the superficially wide scope appearance of 'That soldier' and 'That philosopher'. The idea would be that somehow these cannot be heard as taking narrow scope relative to the modal operator. But this cannot be right either. We have no problem whatsoever accessing a non-rigid reading of the definite in 'The President of the U.S. might have been a woman'. But to access this reading, one must reverse the scope orderings superficially indicated.

It is tempting to modify our treatment of demonstratives by adding a further constraint: unbound uses require the overt predicative material in the restrictor to be 'actualized' and 'presentized'—that is, to be tied to the time and world of the context of utterance. But this would not predict the straightforwardly non-rigid uses of 'that' described above (ones that are not even weakly rigid). A slightly more nuanced proposal would require that the overt predicate get automatically presentized and actualized whenever a singular restrictor is being supplied. Thus whenever the covert

[26] King's view, as we will see, avoids this worry, but not in a way we endorse.

material amounts to an identity property, the predicate 'F' gets interpreted as 'actually and currently F'. (King's view has this result, and so avoids the problem of absent weakly rigid readings.) However, not only would this constraint disrupt the unity of our three categories of specific existentials—assuming the other two lack such a constraint—but it is too austere to accommodate the data. In particular, consider uses of demonstratives that do not select objects from the time and world of the context. For example

33. Think back to the party last Christmas. That DJ was awesome.

Here there is no requirement that the individual in question still be a DJ; nor is it sufficient that the individual be currently a DJ and formerly awesome. Consider similarly:

34. The Republican ticket might have made it to the White House in '08, but I could never have warmed to that vice-president.

The truth of (34) does not require Palin to actually be vice president.

What, then, should be said about the argument from absent weakly rigid readings? First, the issue can be clarified by noticing some relevant analogies among the other specific existentials. Consider a case where a particular philosopher P is under discussion and someone says:

35. The philosopher over there might have been poor.

It is hard to hear this utterance as requiring that there are possible worlds where P is both poor and a *philosopher over there*. Likewise, suppose someone points at a man and says:

36. The man near the stove could easily have answered Janet's question.

It is hard to access a reading on which at the relevant worlds the man must answer Janet's question *near the stove*. If the answer is not given in the kitchen at any relevant world, that fact is irrelevant to the truth of the utterance. Finally, consider:

37. A certain philosopher could easily have been poor.

It is hard to hear (37) as true just in case: possibly, there is a philosopher identical to so-and-so that is poor. But given our semantics for specific existentials, should not such a reading be available? In short: if the argument based on weakly rigid readings causes trouble for an existential semantics for demonstratives, analogous arguments will cause trouble for the approach to descriptions defended in Chapters 4 and 5.

What might explain this phenomenon? We rejected the proposal that unbound uses require the overt predicative material in the restrictor to be 'actualized' and 'presentized', because it was too strict and too local. But it was not entirely off-track. Let us begin with the temporal case. Consider a setting in which there is a room full of people,

but only one soldier in it. Suppose David utters one of the following, intending the audience to understand that he is speaking about the soldier S in the room:

38. That soldier used to be a sailor.
39. The soldier used to be a sailor.
40. A certain soldier used to be a sailor.

The audience will typically not be able to hear a reading of any of these sentences as requiring that at some time in the past, S was both a soldier and a sailor. Intuitively, the role of 'soldier' is to provide information to the audience that helps them to narrow down the individual under discussion.[27] The predicate serves this purpose by describing how S is at the time of speaking. If this is the predicate's sole purpose, it makes sense for it to be 'presentized' and therefore temporally inert—thus the truth conditions of (38) are roughly: 'At some past time t, the individual identical to S who is *now* a soldier was a sailor at t.' This effect is even more pronounced with elements of the predicate that obviously concern the current context or the interlocutors' perceptual access to the individual under discussion—thus adding 'over there' to 'soldier' will in each case yield a sentence that cannot be heard as requiring that at some point in the past S was *a soldier over there* as well as a sailor.

But, as with (33), there are also cases where the predicate plays an identificatory role not tied to the time of utterance. Suppose we are talking about the storming of the Bastille. David says

41. A certain prisoner killed eight guards.

Here 'prisoner' helps narrow down the topic of conversation in a useful way without needing to be read as 'current prisoner'. It is 'tied' to a time other than the present. Still, the specific indefinite here will typically be strongly rigid. If in such a conversation David says 'A certain prisoner never got married', it is hard to hear this as merely claiming that the individual was never *both* a prisoner and married. Insofar as the point of the overt predicate F is to help the audience narrow down who is being talked about by exploiting the fact that the individual is F at some relevant time t, the predicate's truth-conditional contribution is equivalent to 'F-at-t'. (Note that we need not think of such readings as ones in which the description takes wide scope with regard to a temporal or modal operator. For example, assuming there is a temporal variable on the predicate, a weakly rigid reading will be blocked if that variable is assigned to a particular time—typically the

[27] Of course, this is not to say that (40) involves a presupposition that the audience can non-parasitically *identify* the object. Typically in the case of a specific indefinite some identifying information is being withheld.

time of utterance.[28] And likewise for the modal case, assuming a semantics that postulates world variables in the object language.[29])

In the foregoing cases the overt predicate plays its typical role in a specific existential. But we reject the claim that there are *no* (temporally) weakly rigid readings for specific existentials. To generate such a reading it is best to find a case where the role of the predicate is not to help the audience select an individual either from the time of the context or from some other time under discussion. Suppose we are discussing Methuselah. We know Methuselah was a child at some time or other, but we have no idea at all how long ago that was. The speaker, knowing Methuselah's character, doubts that there was ever a time when Methuselah was, as a child, scared by dreams. The speaker says:

42. I'll bet there was never a time in the past when a certain child was scared by dreams.
43. I'll bet there was never a time in the past when that child was scared by dreams.

Here we get intuitions of weak rigidity. These claims are true even if Methusulah was once scared by a dream as an adult, but never as a child.

Similar points apply to the modal case. Typically in using a specific existential, one is speaking about an actual individual, and the overt predicate is used to help the audience narrow down or even non-parasitically identify a particular individual from the actual world. Thus, for parallel reasons, the predicate will typically be modally inert—that is, it will not impose a descriptive requirement on how the relevant object is at other worlds. It will thus, in effect, function as an 'actualized' predicate—just as in (38)–(40)

[28] Thus if the deep structure of 'The soldier' is 'The soldier at t', and 't' in context is used referentially, then whether the definite occurs within the scope of a temporal quantifier will be irrelevant given that 't' is functioning as a referential pronoun and not a bound one. In that framework, we shall say that for 'soldier' to perform its identificatory role, the hidden time pronoun must be saturated by a particular time, and that this in turn will make a weakly rigid reading unavailable.

[29] It is worth a few words to clarify the typical language of 'rigidly and non-rigidly denoting/designating phrases' in the current context. First, if 'the' and 'that' have merely existential force at the level of truth-conditions, the language of 'denoting' and 'designating' may be misleading—but set that aside. More importantly, the language of rigid and non-rigid denoting tends to rely on an ideology of denoting relative to times or worlds. But assuming the temporal variable approach, we can articulate the key contrast as follows. Some predicates will contain a variable that is bound by a temporal quantifier, and others will contain instead a covert referential temporal pronoun. The natural interpretation of 'temporally rigid' for (uses of) noun phrases containing at most one temporal variable is this: a noun phrase (as used on an occasion) rigidly denotes iff its restrictor is true of the same individual (and only that individual) relative to any assignment of a time to that variable. If there is no variable expression, the restrictor will automatically rigidly denote insofar as it is true of a single individual. But insofar as there is a temporal variable, the standard distinctions between various grades of temporal rigidity can kick in: non-rigid expressions will be true of various distinct objects relative to different assignments. Moderately rigid expressions will be true of the same individual x relative to any time assignments at which the individual exists but true of nothing otherwise. And obstinately rigid expressions will be true of the same individual x relative to any time assignment whatsoever. Finally, some uses will be true of the same object x relative to any assignment where they are true of any object, but will also fail to be true of any object—including x—relative to some times at which x exists. These will be weakly temporally rigid. (Likewise, *mutatis mutandis*, for modally rigidity.)

the predicate is 'presentized'. For this reason, the effect can be made even more pronounced by adding 'over there' or 'that I'm pointing to'.

Typically, as we have said, the purpose of the overt predicate is to help the audience narrow down the individual under discussion. But in the modal case, as with the temporal case, there are examples where the predicate is not playing any such role and hence where a weakly rigid reading is available. Consider:

44. Palin was on the Republican ticket, but I could never have warmed to that vice-president.

Intuitively, this can be true even if the speaker warms to Palin at worlds where she is a comedian rather than the vice president. Someone might reply that this effect is achieved not by weak rigidity, but instead by a domain restriction on the worlds in question. This diagnosis does not adequately generalize. Consider:

45. McCain and Palin each might have become famous in the movies instead of in politics. I could never have warmed to that actor or that actress.

Consider a world where McCain makes it to the silver screen but Palin does not. Such a world must be relevant, since warming to McCain at that world would falsify the possibility claim in the second sentence. However, warming to Palin but not McCain at that world *would not* falsify the possibility claim, at least on one salient reading. So this use of 'that actress' is weakly rigid.[30]

The main point that emerges is this: except in quite specialized contexts, specific existentials do not allow for weakly rigid temporal and modal readings. In particular, the function of the predicate in specific existentials is often merely one of helping the audience identify which object one is talking about; and in such cases weakly rigid temporal/modal readings are generally unavailable.[31]

[30] Examples like, 'I'll bet none of those children was ever scared by dreams', said of a group that includes Methuselah, can be used to block an analogous suggestion about the Methuselah case above.

[31] Daniel Rothschild's insightful paper 'Presuppositions and Scope' covers ground somewhat similar to the discussions of modality in this chapter. Rothschild there distinguishes between two kinds of descriptions. The rigid uses under discussion here are examples of what he would call 'particularized' uses. Non-rigid uses of definite descriptions exemplify what he calls 'role-type' uses. According to his account, role-type descriptions are used in settings where it is common ground that there is a unique but varying satisfier across the relevant region of modal space. All other descriptions are particularized. Rothschild makes it clear that a definite description may be role-type in one setting and particularized in another, depending on the common ground governing the relevant discourse.

We are very sympathetic to much of what Rothschild has to say. But it is not clear that his role/particularized distinction marks the most natural boundary in the vicinity. First, suppose one says 'The president of the USA could easily have been an academic and not a politician at this time'. One can perfectly well intend for this claim to hinge on Obama's modal profile. But this a setting where the descriptive material is variably but uniquely satisfied across the relevant region of modal space. (After all, it is common ground that in all the worlds where Obama has this or that career at t, there is a unique US president at t.) We do not think Rothschild would want to say that in the utterance envisaged, 'The president of the USA' is being used in a role-type way.

Second, Rothschild's taxonomy does not do anything with the contrast between merely weakly rigid uses and other rigid uses. We envisage that he would be tempted to use the parameter of 'relevant possibilities' to

6.5 The view so far

Our discussion in this and the last two chapters lends itself to an idea that ties together several themes gaining currency among semanticists.[32] Call it the *presupposition hypothesis*: the differences between specific indefinites, definite descriptions, and demonstratives are to be cashed out in terms of their respective presuppositions rather than truth-conditionally. So far in this chapter, we have urged an existential version of King's account, modified to allow for specific but non-rigid restrictors. This puts us in a position to articulate a first pass at our preferred version of the presupposition hypothesis: specific indefinites, definite descriptions, and demonstratives are all specific existentials—existentially quantified expressions presupposed to be restricted in such a way that they have exactly one object/plurality in their extension.[33] In addition, the use of a definite or demonstrative presupposes that hearers can non-parasitically grasp how it is restricted—aided, in the case of demonstratives, by salient supplemental information.[34]

On our view, all of these expressions can be used on an occasion to express propositions with singular content. But so far our investigation has uncovered no overt expressions that invariably meet the criteria for referentiality set out in the Introduction. Given this, it is worth turning to another alleged bastion of paradigmatic reference: the proper name.

handle that contrast (where the apparent absence of merely weakly rigid readings in a wide range of cases is nothing more than the phenomenon of a restricted domain of relevant possibility). But we have argued against this proposal in the main body of the text.

Finally, consider 'The number you get when you add two to three'. Our knowledge of mathematics tells us that there will not be a variable satisfier of the predicate from world to world. But it does not seem natural to claim that this definite as it appears in 'Necessarily, the number you get when you add two to three is odd' is 'particularized' as opposed to 'role type'. In short, Rothschild's discussion does not seem to take account of Kripke's contrast between '*de facto*' and '*de jure*' rigidity.

[32] Though we differ with them on the details, a number of theorists have endorsed something similar to this hypothesis. For example, Craige Roberts in 'Demonstratives as Definites' articulates a unified theory of demonstratives and definite descriptions on which they have presuppositions of familiarity and informational uniqueness in common, but differ in that the demonstrative carries an additional presupposition (see our fn. 18). And Ludlow and Segal, 'On a Unitary Semantical Analysis for Definite and Indefinite Descriptions' argue that definites and indefinites differ only their pragmatics.

[33] For bound uses, add 'relative to an assignment'. Insofar as one does not want to think of appearances in attitudinal and modal environments as bound uses, the presuppositional proposal should be refined in line with the discussion of Chapter 4: these expressions must be restricted in such a way that there is they have exactly one object/plurality in their extension at the relevant possible situations.

[34] 'That' has another peculiarity: it can occur without an overt restrictor. But we doubt this is a deep fact—it is akin to the contrast between 'an' and 'one' (where only the latter can occur alone). For relevant discussion see Elbourne, Situations and Individuals, p. 46, following Stockwell, Schachter and Partee, *The Major Syntactic Structures of English*, New York, 1973.

6.6 Names[35]

Proper names are well known to have a predicative use, as in 'Most of the Smiths went to the park' or 'I met a Nicodemus the other day'. But the crucial area of dispute concerns bare uses, as in 'Smith is happy'. The currently orthodox view among philosophers is that bare names are paradigmatically referential, simply contributing an object to the compositional determination of truth-conditions. According to some detractors, however, bare names function semantically like predicates, contributing a property that combines with the meaning of a covert determiner.[36] As we shall see, these two views do not exhaust the possibilities—in fact we have a mild preference for a third view—but they will serve as our starting point.

Here are two *prima facie* compelling considerations in favor of the predicative approach over the orthodox approach.

(i) Given that names sometimes require a predicative treatment, it seems we should prefer to assimilate the bare appearance of names to that treatment as far as possible. And it is hard to deny that some uses of 'Smith' betray all the characteristic behavior of predicates. If one is about to marry a Smith one might say 'Soon I will be a Smith'. And the predicative content of 'Smith' can apparently be recovered anaphorically in just the way one would expect if 'Smith' were a noun like 'cat':

46. A Smith is in the kitchen. Another is in the garden.

With a predicate view, one can treat the two uses of names as very similar semantically; in fact, one can maintain complete semantic uniformity among names by postulating a covert quantifier accompanying bare uses.

Although non-bare uses of names are sometimes treated as marginal, it is far from obvious that they are cognitively or developmentally less fundamental than bare uses. It is worth noting in this vein that there are many nouns aside from ordinary proper names that can be used bare when addressing someone: for example, 'Waiter, bring me a beer'. And even though children happily say 'my mommy', 'their mommy', and so on, the use of 'Mommy' is obligatorily bare when children use it to call to their own mommy. Of course, another mark of this use in written English is that we capitalize the noun—but given the cognitive primacy of spoken language, this is hardly proof of ambiguity. Once this use is in place, it is also very natural for children to use the noun bare in other contexts where it is clear which mommy is being talked about, as in 'I gave it to Mommy'. (Note that a father might say this to a child as well; such a use is

[35] The following sections on names have benefited considerably from discussions with Aidan Gray and Sam Cumming.

[36] See for example Burge, 'Reference and Proper Names', Larson and Segal, *Knowledge of Meaning: An Introduction to Semantic Theory*, Bach, 'Giorgione Was So-Called Because of His Name'. Burge makes it clear that a precise statement of his view is not that names are predicates, but that names are general terms which can form predicates when combined with a copula and a determiner. (See p. 429, fn. 7). Like him, we shall not fuss about this point in the main body of the text.

not equivalent to 'my mommy'.) A similar phenomenon can be noted with various predicates of insult—'knucklehead', for example. None of this demonstrates that no deep semantic shift from predicate to referential term has occurred; but the close relationship here between the ordinary predicate and the name is suggestive.

(ii) A second consideration, stressed by a number of authors, is that there are languages where 'the' is entirely optional in front of a proper name.[37] Thus in Italian one can say either 'la Maria' or 'Maria', for example: likewise in Greek and in some dialects of German and Spanish. (Use of the definite article can be helpful with names that do not conjugate for case in languages where the definite article does, such as Greek.) The near-interchangeability that native speakers feel provides a prima facie reason not to posit a dramatic semantic difference in such languages that separates bare names from those prefixed with the definite article.

(iii) Third, even in English there are various situations where names in subject position require articles. Thus, when modifying names with adjectives we almost always add articles: 'A/The bleary-eyed Bill Clinton emerged', 'Now the incredibly agile Jordan is weaving through his opponents'. Meanwhile, if one wants to talk about a number of people named 'Clinton' one will typically say 'the Clintons' unless one means to speak generically, as in 'Clintons tend to be ambitious'. And in the latter case no one is tempted to treat the name as referential.[38]

Even unmodified singular names are often prefixed by the definite article, such as names for rivers and newspapers, not to mention *The Reference Book*. Moreover, no deep distinction divides names that are prefixed by the article and those that are not.[39] Names for oceans typically have an article, while names for lakes typically do not; in California, numerical names for highways have them ('take the 405'), while on the east coast they do not ('take 287'). One might object that, for example, in 'the Thames' the article is somehow fused into the name and no longer functions as a determiner. But note that the article gets distanced from the name when adjectives are added: 'the mighty Thames', 'the vast Pacific', 'the notorious *Wall Street Journal*' and so on.[40]

One could, of course, concede that none of these names are being used as referential terms, while still holding that bare uses are always referential. But this would be a considerable cost, especially since the usual arguments for thinking that names are referential terms seem to apply with equal force in all of these cases.[41] The other option

[37] See, for example, Larson and Segal, *Knowledge of Meaning*, pp. 354–5.

[38] Arguably a generic covert determiner is in play; see fn. 50 below. (However, some vocative uses of bare plural names may be referential—'Hey Joneses' or 'Hey Blockheads'. Thanks to Cian Dorr here.)

[39] Of course, there are some generalizations that can be made. Ordinary names for individual people do not take the definite article unless some other item appears between the name and the article, as in 'The philosopher Saul Kripke' and 'the much-maligned Dick Cheney'.

[40] This variation complicates written conventions of italicization and capitalization for the definite article. One also finds names in English for which prefixing a definite article is entirely optional: this is the case for many names of ships—*Queen Anne's Revenge*, for example.

[41] For example, there appears to be no false reading of The 'Thames might not have been called 'the Thames''.

for referentialists is to deny that 'the' plays its usual semantic role in these cases, perhaps claiming that it is semantically empty. But even biting that bullet would not by itself explain what is going on with 'the mighty Thames' and 'the incredibly agile Jordan'.

6.7 The predicate view: details

(i) *Being a Smith.* Whether or not 'Smith' can be used as a referential term, we face the question what it means when it is used as a predicate. And if we do hold that 'Smith' is always a predicate—and appears with a covert determiner in bare uses—there is a *prima facie* reason to hold that it always means the same thing. Thus we would have an initial reason to reject a view on which a given bare use of 'Smith' expresses the haecceitistic property *being Smith*. For that is not its meaning when one says 'A Smith is in the garden' or 'I will soon be a Smith'.[42]

Another view is that the predicate 'Smith' means 'is called 'Smith''. As Kripke notes,[43] the fact that the sentence 'Smith is called 'Smith'' has a fairly trivial feel should not weigh too heavily in favor of this view. After all, 'Sages are called 'sages'' has a fairly trivial feel, but no one thinks 'sages' means 'called 'sages''. Further, as Kripke also points out, care is required in order to state what 'is called 'Smith'' means for this view. It cannot mean 'is *referred* to by 'Smith'', at least on the view according to which 'Smith' is always a predicate. But if we gloss the proposal as 'x is such that 'Smith' applies to x' then the proposal would not explain how something comes to be in the extension of 'Smith'. If we learn what 'red' means, that gives us insight into which things 'red' is true of. But if we learned that 'Smith' means 'is an x such that 'Smith' is true of x' that gives us no insight into which things 'Smith' is true of. (Note also that in one ordinary sense of 'calling', David can call John 'Smith' even if John is not a Smith, since David can make a mistake. Suppose David keeps calling John 'Smith' habitually because of a recurrent confusion. Still John is not a Smith. So the fact that *someone* calls John 'Smith'—even on multiple occasions—is not by itself sufficient to make John a Smith.)[44]

Another option for the proponent of the predicate view is this: in a typical case the predicate 'Smith' is lexically simple and is true of something just in case it is a Smith; and to be a Smith is to be suitably related to a naming practice involving 'Smith'. (In a setting that permits naming practices to be initiated on the fly, satisfying this condition will be trivial; hence the ease with which we can decide that someone is called 'Honey' or 'Bozo'.) This is the sort of view that Burge endorses: 'A proper name is true of an object iff the object is given that proper name in the appropriate way. There is and need be no

[42] This use of 'Smith' cannot express a plural haecceity since an individual cannot acquire or lose membership in a haccitistically individuated plurality.

[43] See Naming and Necessity, p. 68–70.

[44] We should also be wary about saying that 'Smith' is internally represented as a lexically complex item of the form 'is called "Smith"'. This risks regress, for if the name in quotes is the same as the original, this decomposes further into 'is called "is called 'Smith'"', and so on.

claim that a proper name abbreviates *another* predicate.'[45] In this way 'Smith' is similar to so-called 'response-dependent predicates'—the central explanation of the fact that it applies to something on an occasion is that there is a suitable social practice of applying it to that thing. (Of course, there are also non-standard, metaphorical uses like 'He is a real Don Juan.')[46] The relevant social practice of course allows for temporal and modal variation. Someone who is about to marry a Smith and take on the convention of being called 'Smith' is not yet a Smith but will be. Someone who has just so married is a Smith but might not have been. We shall not try to develop this admittedly barebones story into a fully satisfying one here (though we shall be refining it in due course).

(ii) *Restrictors*. Crucially, as Paul Elbourne emphasizes, a view that postulates a covert determiner for bare uses of names will benefit significantly from an appeal to what we have been calling specific restrictors.[47] Given that many people are named 'Smith', this allows us to avoid contriving some meaning for 'Smith' that explains how, on some particular occasion of use, 'Smith' is used to talk specifically about one particular person. As in the case of specific existentials, this job would be accomplished not by the noun 'Smith' itself, but by covert elements in the restrictor. (Meanwhile, for reasons of simplicity that should be familiar by now, we think the predicate view should treat the covert determiner as simply having the truth-conditional contribution of the existential quantifier.)

The covert-determiner account of bare uses, supplemented by specific restrictors, can take on board many Kripkean insights. After all, when a *singular* restrictor is in play, familiar Kripkean lore will apply. Which individual is picked out by a name restricted in this way may not be determined by any descriptive information available to the speaker. Instead, it may well depend on participation in a social chain. Suppose David says to John,

47. A nice young man, Joe Smith, is going to marry my first daughter.

John might forge a singular tag that is parasitic on David's, which John can in turn use to form singular restrictors of his own. And John will succeed in talking about that individual even if pretty much all the associated information is wrong: for example, the man may not end up not being nice or marrying David's daughter.[48]

[45] Burge, 'Reference and Proper Names', p. 428.

[46] Note that sometimes the indefinite followed by a name appears to be specific and rigid. For example, discussing great influences in literature, one might say, 'One thinks of a Dante, or a Shakespeare, or a Milton, and one wonders when the world will see the next poet of that order.' It is natural to postulate a rigid restrictor at play in these cases.

[47] Elbourne, *Situations and Individuals*, §6.1.3.

[48] See the Gödel/Schmidt case in Kripke, *Naming and Necessity*, pp. 83–91. As Gareth Evans emphasised in 'The Causal Theory of Names', some names have a heavier descriptive tie than others. (One of Evans' examples is that of chess opening names, like 'The King's Indian Defense'. We do not think that discovering that the name actually originated as a name for a pattern of moves beginning with the pawn move to g4 by white would have any bearing on its current denotation.) If we discover that a person named 'Homer' originally masqueraded as the author of the two epic poems, and that the real author was a hermit whose

In one respect, however, the account under consideration will depart from Kripke. Take a case where the predicate 'Joe Smith' is false of the individual—David is confused and the man he is talking about is actually called 'Bo Smith'. In that case, when he utters (47), the covert material picks out Bo Smith and David falsely predicates 'Joe Smith' of him. Together, the covert and overt material yield a restrictor expressing a property nothing has. Someone who realizes what is going on can say to David:

48. He is not Joe Smith, he is Bo Smith.

Of course, 'Joe Smith is about to marry my daughter', as uttered by the confused individual, has a true feel about it. But arguably this can be assimilated to the true feel associated with 'The man holding champagne is the chairman' said in a setting where the relevant individual is holding a glass of sparkling water rather than champagne. In the latter case, the feeling of truth arguably attaches not to the semantic content but to some related information that the speaker is more interested in communicating.

(iii) *Presupposition*. If bare uses of names are predicates accompanied by covert determiners, it is also worth asking after their presuppositional profile. Here there is a reasonable case for assimilating them to definites, even aside from the cross-linguistic phenomena we noted above relating bare names to those preceded by the definite article.[49] For in fact, bare uses of names and definite descriptions have the same pattern of presupposing specificity and candidness.[50] First, it seems odd to use a name discourse-initially when the hearer has not heard of the relevant person before. In this respect, bare names are more like definites than like indefinites. Meanwhile, there is no strain in using names discourse-initially in a setting where the bearer can be (non-parasitically) identified but is not cognitively salient. Again, this patterns well with definites, and less well with paradigmatic complex demonstrates. This tells against Burge's suggestion that names are to be understood on the model of phrases like 'that book'.[51]

name was unrelated, many speakers would have much stronger anti-Kripkean intuitions than in the Gödel/Schmidt case. (See Evans, *The Varieties of Reference*, p. 395, n. 21.) However, none of this matters much to our current purposes: the point is that even universally Kripkean intuitions could be explained by the version of the predicate view adumbrated here. (And by our own preferred view, discussed below.)

[49] See Larson and Segal, *Knowledge of Meaning*, pp. 354–5, Geurts, 'Good News About the Description Theory of Names'.

[50] Matters are different with bare plural names, which behave just like other bare plural nouns. Bare 'Kennedys' can be used as a generic: 'Kennedys are rich', while in other cases the quantificational force is more like 'some': 'Kennedys were at the party'. Compare 'Cows are gentle' and 'Cows were in the street', respectively. We do not naturally hear the bare 'Kennedys' or 'cows' as tantamount to 'the Kennedys' or 'the cows'.

[51] Burge, 'Reference and Proper Names', p. 432. To be fair to Burge, the main point of the analogy to complex demonstrates was to emphasize that both are usually 'used with the help of speaker-reference and context, to pick out a particular' (432). And as a result, both are usually rigid.

6.8 Two ineffective arguments

It is of vital importance to get clear about the merits of certain arguments that might be leveled against a view that treats names as predicates and avails itself of the apparatus of covert determiners and singular restrictors.

(i) *Kripke-style modal arguments*. In his defense of the predicate view of names against modal objections, Elbourne considers the sentence

49. Socrates is the entity called 'Socrates'.

He then argues that if we interpret the initial noun-phrase as of the form 'is called 'Socrates' and is identical to S' where 'S' is a referential tag referring to Socrates, we can satisfy Kripke's insistence that the statement being made is not necessary. This is because (49) requires that someone is both identical to S and called 'Socrates', which is false evaluated at a world where Socrates is not called 'Socrates'. As Elbourne emphasizes, (49) will not be necessary 'for exactly the reason Kripke gives: Socrates might not have been called 'Socrates''.[52]

However, this response will not satisfy Kripkean opponents, who will likely resort to two moves:

First, consider:

50. Socrates might not have been called 'Socrates'.

Granted, this has a true reading on the proposed account—one where 'Socrates' takes wide scope. But the account nevertheless seems to predict that a false reading should be available. After all, claims of that form typically have narrow scope readings, but the proposed view would render a narrow scope reading false. The problem is that there is no accessible reading on which (50) is false. Consider similarly:

51. Martha Soames might not have been a Soames.

The critic will argue that (51) has no accessible false reading, but the view in question predicts the availability of a narrow scope reading that is false.

Second, consider the sequence

52. Socrates is called 'Socrates'. That might have been false.

Suppose the relevant domain of possibilities includes only those in which Socrates exists. Since the wide-scope reading should be blocked by this type of modal construction, on the proposed view the second sentence ought to strike us as false. But instead it strikes us as true.

These two points purport to show that the predicate view is inadequate to the gamut of modal considerations that Kripke adduces. But in fact they fail to demonstrate a

[52] *Situations and Individuals*, §6.2.1.

contrast between names and other determiner phrases. (This point has recently been pressed home by Daniel Rothschild.[53]) We have seen that, insofar as a predicate is used to select an object from the current situation, it is presentized; and insofar as it is used to select an object from the actual situation, it is actualized. Thus, in a situation where there is a soldier present and one says about him:

53. The soldier might not have been a soldier
54. The soldier didn't used to be a soldier

we simply will not hear a false reading of these claims. Consider also:

55. The soldier is happy. That might have been false.
56. The soldier is happy. That wasn't true twenty years ago.

One cannot hear (56) as denying that the person being talked about was both a soldier and happy twenty years ago, so that the sentence would be true if he were a happy non-soldier then. Instead, on any available reading of the second sentence that concerns how that person was twenty years ago, it is false if he was happy twenty years earlier, regardless of whether he was a soldier. Likewise, *mutatis mutandis*, for the modal case.

As we saw in §6.4, the key point is that weakly rigid readings of definite descriptions are not available when the role of the noun is to help the audience identify our subject in the actual world.[54] So we should hardly be surprised that weakly rigid readings are not available for 'Socrates' in a setting where we have used the name to identify the subject in the actual world. These modal considerations are simply another respect in which names (along with their covert determiners) act like definite descriptions involving rigid restrictors. In short, these modal arguments against the predicate view of names are so far unconvincing.

[53] Rothschild, 'Presuppositions and Scope'.

[54] Why is this? In a framework that posits world variables and time variables in the deep structure of the object language, it would be straightforward to hold that in this setting the world variable on 'soldier' gets assigned to the actual world and the time variable to the time of the context of utterance. In a setting without such a world variable, we can implement a similar idea by claiming that when 'soldier' is used in this way, there is a covert 'currently' or 'actually' in the restrictor.

There are other possible strategies that depart in more drastic ways from the framework we have been working with. Here is a picture inspired by the dynamic theories of Heim and Kamp briefly discussed in §4.10.ii. Suppose we draw a line to distinguish presuppositional from its proferred content, and when we hear 'A certain soldier is happy' or 'That soldier is happy' or 'The soldier is happy', we write 'x is a soldier and identical to S' below the line (where S is a singular tag for the target of discussion), and 'x is happy' above it. As the discourse continues we put 'ten years ago x was not happy' above the line. To then check for the acceptability of the discourse, we first check for the presuppositions by prefixing their conjunction with an existential quantifier for each variable. If the presupposition test is satisfied, we prefix the conjunction of the presuppositional elements in combination with the non-presuppositional elements with quantifiers, which gives us the complete message. On this sketch, the presuppositions get screened off from modal and temporal operators in a straightforward way. (The result is a view on which the singular element 'S' does not enter in to the truth-conditional content of the discourse, but governs whether it can be assessed for truth—in this respect it is like the singular-presupposition variation on the simple view discussed in §4.10.i.)

(ii) *Restrictive relative clauses*. Another possible objection to the predicate view begins with the fact that descriptions admit of restrictive relative clauses, but bare names typically do not. Thus, one can say

57. The John that I know best,

using 'that I know best' as a restrictive relative clause (as opposed to unrestrictive uses as with 'A certain Smith, who happens to be a real genius . . . '). But one cannot say

58. John that I know best

or use 'who I know best' with a restrictive intonation contour. If bare names are simply referential terms, this contrast would seem to admit of a straightforward explanation—the name all by itself picks out the individual named, leaving 'no role for a restrictive clause to play'.[55]

We doubt this phenomenon is particularly damaging for the predicate view.[56] First, as Paul Elbourne pointed out to us, Saxon genitives—expressions like 'John's horse'—do not allow restrictive relative clauses either, but that is hardly a good reason to hold that 'John's horse' is a non-descriptive expression referring to a horse. Second, cross-linguistic data suggest that the acceptability of 'John the blacksmith' but not 'John who comes from Yorkshire'—assuming the latter really is unacceptable—is due to a local syntactic parametrization of English.[57] Third, something similar appears to be going on with the use of adjectives to modify bare names. Thus the fact that one cannot say

59. I gave the paper to frustrated John

cannot be explained by the fact that John all by itself picks out an individual, since 'frustrated' need not have an identifying role in

[55] Perlmutter and Soames, *Syntactic Argumentation and the Structure of English*, p. 268–9.

[56] One prototype for a story about the distinctive behavior of bare names may be culled from Longobardi's influential account of the syntax of names in Italian. (Longobardi, 'Reference and Proper Names: A Theory of N-Movement in Syntax and Logical Form'; Longobardi, 'How Comparative Is Semantics? A Unified Parametric Theory of Bare Nouns and Proper Names'.) Longobardi argues there that bare uses of names in Italian syntactically raise to an unoccupied determiner slot. Suppose this were the case for bare names in English. That would then provide a potential structural explanation of why restrictive relative readings are unavailable. Very schematically: the relative clauses are adjacent to a noun slot and a restrictive reading would require combining with the meaning of an occupant in that slot. But on the raising hypothesis, the bare name is not present in that slot. (This would also provide an explanation of the fact that the predicative contribution of a bare use of 'Smith', if such there be, cannot be picked up by an anaphoric 'one'; see §6.10. Suppose 'one' was linked to the predicate slot. If the name has moved from that slot then it may then be unable to serve as an antecedent for 'one'.)

However, Longobardi argues the evidence he adduces for this view about Italian does not carry over to English. For example, one crucial piece of Italian data is that while adjectives can precede proper names with overt definites—'L'Antica Roma'—they cannot do so in the case of bare proper names—'Roma Antica' is acceptable but 'Antica Roma' is not. In English, on the other hand, 'Ancient Rome' is fine. (Though as we point out in the text, plenty of other adjective+name combinations are not.)

[57] For example, 'Kofi Ameko who comes from Anloga' is apparently fine in Akan. See Saah, 'Relative Clauses in Akan'.

60. I gave the paper to the frustrated clerk.

Thus if anything like the same explanation applies to (59) as to (58), the argument for referentialism just sketched is a failure.

Finally, it is not even clear that English has a general prohibition against restrictive relative clauses on bare names. If someone is looking for an individual named 'Mary' but there are two, it seems at least passable to say: 'Are you looking for Mary who lives on the farm or Mary who lives in the village?'[58] What, then, explains the contrast with (58)? It is worth noting, to begin with, that a similar contrast arises for adjectives—contrast (59) with

61. I gave the ball to cute little Johnny.

Likewise for integrated appositives: consider 'Mary the judge' vs. 'Mary the woman in robes'. (It is especially noteworthy that integrated appositives clearly provide identifying rather than supplementary information—a further problem for the argument sketched above.)[59] But perhaps these contrasts can be explained without giving up the general prohibition. Suppose that 'Mary who lives on the farm', 'cute little Johnny', and 'Mary the judge' are being interpreted as informal complex names along the lines of 'Professor Kripke', rather than as names accompanied by modification. In that case, we would expect that 'frustrated John', 'John that I know best', and 'Mary the woman in robes' would sound significantly more odd. After all, these are unlikely candidates for complex names, if only because they invoke highly alienable features of the named individuals.[60]

6.9 Calling and describing

The predicate view of bare names draws much of its intuitive appeal from the fact that names are sometimes used predicatively. In the end we do not think the evidence points towards the kind of semantic uniformity envisioned by the predicate view—according to which 'Smith' always contributes a property to the truth conditions. Before raising our concerns, however, it will be useful to flesh out our earlier sketch of the meaning of 'Smith' when it is used predicatively.

Very roughly, x is a Smith iff x is caught up in a suitable naming practice in which x is called 'Smith'. But what does this idea of a 'suitable naming practice' amount to?

[58] Thanks to Ken Safir here.

[59] This is illustrated in Huddleston and Pullum's example: 'Carmen the opera is performed more often than Carmen the ballet'. (See Huddleston and Pullum, *The Cambridge Grammar of the English Language*, p. 447. We are following their taxonomy.) Contrast supplementary appositives, which do not form a single intonational unit with the expressions they modify. For example: 'Bob, the guy I was telling you about' and 'the winner of the race, the guy sitting over there'. Note that in 'Mary the judge', 'the judge' is integrated with, and modifies 'Mary' in rather the way that 'Bob' is integrated with and modifies 'My friend' in 'My friend Bob'. (Interestingly, while bare names can take definites as integrated appositives, definite descriptions cannot take other definite descriptions as integrated appositives.)

[60] It is at least suggestive that we appear to find integrative appositives in various stages of evolution into surnames—from 'John the smith' to 'John the Tall' and 'Alexander the Great' to 'John Smith'.

More specifically, what does it take to count as actually *engaged* in the naming practice? If John says 'A certain Smith is coming to dinner' or 'That Smith is taller than the others', is John engaged in the naming practice at that point? And if not, why not?

(i) *The intuitive distinction*. It is natural to think that in these cases John is merely describing someone as a Smith—he is ascribing the property of being a Smith—but is not calling anyone by the name 'Smith'. Thus he is *talking about* the naming practice involving the name 'Smith' but not *engaging* in it.[61] This intuitive distinction is nicely illustrated by nouns with clear predicative meanings that nevertheless admit of bare uses. Consider

62. Bill is a knucklehead. Catherine is my grandmother. Joy is the chef.

Here one is describing someone as a knucklehead, a grandmother, or a chef. Now contrast

63. Knucklehead, go upstairs! Grandmother, could you look at this? Chef, have you prepared any new dishes?

and

64. Knucklehead fell down. Grandmother loves apples. Chef runs this kitchen like a drill sergeant.

In these cases one is *calling* someone 'Knucklehead', 'Grandmother', or 'Chef'.[62] (Note that typically, when someone is actually being called by the noun, it is bare.[63])

It seems that when an individual is being called 'Grandmother' rather than simply described as a grandmother, a distinctive speech act is in play.[64] And in the most central case of such calling—the vocative use illustrated by (63)—the speaker is literally *calling*

[61] We are grateful to Chris Kennedy here.

[62] Many nouns in English are readily available only for the descriptive use and the vocative calling use, but not for a third-person calling use. Compare:

i. Bill is a waiter
ii. Waiter, come here
iii. Waiter dropped the glass

Some *adjectives* lend themselves to the vocative use as well:

iv. Would you like more coffee, Gorgeous/gorgeous?
v. What do you think you're doing, Stupid/stupid?

With no naming practice in place, it can be somewhat more difficult to call someone by 'gorgeous' when speaking in the third person. (We note in passing that capitalization conventions for the vocative uses in (iv) and (v) appear to admit of regional variation.)

[63] Not always, though. Just as we can say 'The incredibly agile Michael Jordan' we can in the same vein say 'The incredibly agile Chef'. (Thanks to Cian Dorr here.)

[64] Note that in the predicative use, 'grandma' and 'knucklehead' can easily be applied to distant times and worlds. Suppose Sally never had children. We can say 'If Sally had had children, his grandma would have been happy'. But we can far less comfortably say 'If Sally had had children, Grandma would have been happy'. Similarly suppose that Sally has no children but will have some in five years. The speech 'In five years, Grandma will be happy' as a remark about Sally's mother is strained at best. (Similar points apply, *mutatis mutandis*, to 'Knucklehead'.)

to someone with the noun.[65] (It may be that this use has a kind of primacy among instances of the speech act of calling someone by a noun, but we shall not explore that issue further here.)

The same phenomenon is arguably at work with 'Smith'. It is one thing to describe someone as a Smith; it is another to call that person 'Smith'. It is the latter use that is central to the practice of naming—the convention of calling someone by 'Smith' is required for that person to be describable as a Smith. Thus in uttering 'A Smith is in the garden' one is talking about a naming practice, but one is not engaged in it. Likewise, insofar as there is an informal naming practice involved with 'Knucklehead', the speaker of (62) is not engaged in it, but the speakers of (63) and (64) are.

The calling/describing distinction is also illustrated by the fact that there are some uses of names which are legitimate when combined with a determiner but do not seem legitimate when used bare. Thus one might say 'x is a Kennedy' on account of x's lineage even if her surname is 'Smith'.[66] But in this setting the bare 'Kennedy is winning' seems out of place as a vehicle for describing Smith's success. Likewise, one may say of a painting 'x is a Rembrandt', even if there is no practice of calling it 'Rembrandt', as in 'Rembrandt was sold at the auction for $33 million'. If we treat calling and describing uses of a name as contributing exactly the same property, this provides no account for the diminished flexibility of names when used bare.[67]

(ii) *Three views of calling uses*. We know what it is to be a grandmother, a knucklehead, or a chef.[68] The relevant properties are presumably expressed by 'grandmother', 'knucklehead', and 'chef' when they occur in (62). But are they also expressed by *calling* uses of those nouns? Do these properties figure in their truth-conditional contribution of the bare uses in (63) and (64)?

These uses, of course, somehow *convey* that the person under discussion has the relevant properties. In fact, this effect projects out of negation, questions, and the like—that is, it counts as presuppositional by the standard tests. For example, 'Did Chef show up at the party?' implicates that the individual at issue is a chef just as much as 'Chef showed up at the party'.

Here are three accounts of calling uses that flesh out this presuppositional profile in different ways.

First, there is the *predicate view* of calling uses, according to which a calling use of 'Chef' will supply the property of being a chef to the truth conditional content, just as it does in descriptive uses. But in the former case it also triggers a presupposition

[65] We do not mean to suggest that the use of the verb 'to call' is a failsafe guide to the speech act distinction we are interested in. After all, one can say 'he called me a knucklehead' even when he said 'The knucklehead in the corner . . . ' There is clearly a good deal of flexibility in 'to call'.

[66] Indeed, this is arguably the *primary* use of dynasty-names like 'Kennedy' in cases where they are obviously being used as predicates. Thanks to Jeff King here.

[67] Thanks to Aidan Gray for bringing this point to our attention.

[68] Of course, it is rather vague and context-dependent which property is expressed by 'knucklehead'. Sometimes 'knucklehead' is used derisively, sometimes affectionately and so on.

of the sort just sketched. (We think this view is best spelled out so that the name combined with the hidden determiner is treated as a specific existential—one with the specificity and candidness requirements accompanying definites. Such a use of 'Chef' will therefore presuppose the presence of a candid restrictor that picks out exactly one chef at the relevant possibilities.)

Second, the referentialist will treat a calling use of 'Chef' as having two very different kinds of effects from a type-theoretic perspective. For the purpose of calculating its effects at the level of presupposition, a calling use of 'Chef' has the semantical type of a predicate; but for the purpose of calculating its effects at the level of truth-conditional content, it has the semantical type of the Kripkean names of orthodoxy. Call this *the bifurcated view*. (Given the preceding discussion, this is the most natural development of the orthodox view on names.)

There is a third possibility, which we will call *the minimal view* of calling uses. From the predicate view it takes the idea that a given use of 'Chef is happy' involves a covert existential quantifier and a singular restrictor. And from the bifurcated view it takes the idea that in calling someone 'Chef' we are not *attributing* the property of being a chef. In short, the minimal view is that the calling use of 'Chef' has a predicative contribution, but it is entirely at the level of presupposition. In fact, the word 'Chef' contributes nothing whatsoever to truth-conditional content. Instead, neither the quantificational force in 'Chef is happy', nor the singular element that truth-conditionally restricts that quantifier, is due to any voiced element. (In the former respect, that sentence is like 'Chefs are coming over', and in the latter respect it is like 'A certain chef is coming over'.) From a representational perspective, it is natural to hold that the singular restrictor involves an internal object-representation of some kind; but it has no overt articulation. If we seek a semantically unstructured item at work that counts as referential, it will be not be found among the phonetically articulated items.

(A further choice-point for each of these views involves the relationship of truth to presupposition. On a *gap-happy* approach, when one calls someone 'Chef' who is not a chef, this blocks 'Chef' from achieving anything at the level of truth-conditional content and so there is a truth-value gap.[69] Similarly, in a context where 'Grandma' involves the presupposition that x is the grandmother of Tony, but x is not the grandmother of Tony, this will induce a truth-value gap.[70] On a *gap-hostile* approach, presupposition failure does not induce a truth-value crash. A given sentence involving 'Chef' will succeed in expressing a true or false proposition even if the individual picked out by 'Chef' is not a chef.[71])

[69] Admittedly, the contrast between the minimal view and the predicate view is harder to make out on the gap-happy approach, since they will not diverge on the conditions under which 'Chef is happy' is true, false and truth-valueless.

[70] One way of achieving this result for the predicate and minimal views is to treat failure of the presupposition as blocking the content of the covert referential element from making it into the truth-conditional content.

[71] Of course, this view of the presupposition can still allow a truth-value crash in the case where the internal object representation itself fails to refer.

Here is one benefit, for the second and third views, of taking these presuppositions seriously. On such a view 'Cicero was wet' ascribes wetness to *x* but *presupposes* (very roughly) that *x* was called 'Cicero'. Meanwhile, 'Tully was wet' also ascribes wetness to *x*, but presupposes that x was called 'Tully'. As Jerry Fodor has pointed out, this provides a simple explanation for why 'Cicero is Tully' is informative: although it does not *say* that the individual called 'Cicero' was also called Tully, it nevertheless conveys that information through its presuppositions.[72] This helps to undercut any motivation that Frege puzzles might otherwise provide for the predicate view.

(iii) *Calling uses of 'Smith'*. Whatever view we adopt of calling uses of nouns like 'Chef' and 'Grandmother', we should recognize that this is not the primary use of those nouns: the use of 'chef' when combined with determiners like 'a' and 'the' is obviously more central than the bare calling use. In this respect, ordinary proper names are quite different—they are specially designed for the speech act of calling. For this reason, the account of the presupposition attached to 'Chef' does not apply straightforwardly to the case of ordinary proper names. So what is the presuppositional contribution of the latter?

A first pass at the presupposition attached to a calling use of 'Smith' is that when one calls x 'Smith', one presupposes (in a way that projects) that x is a Smith; that is, that there exists a legitimate naming practice of calling x 'Smith'. (That is, as distinct from a practice of describing x with 'Smith': again, the fact that a painting is a Rembrandt does not make it the case that there is a practice of calling it 'Rembrandt'.) And that much appears true. However, there is arguably an even stronger presupposition involved. Suppose someone's real name is actually 'Cliff' but one mishears it as 'Smith'. However, it just so happens that Cliff is a member of a spy ring and his code name is 'Smith'. Still, if one uses 'Smith' because of a misunderstanding—rather than in a way that is connected to the naming practice of the spies—something has gone badly wrong. (This is not a case where one is lucky that nothing went wrong.)

Here is a second pass that takes care of this point.[73] In calling x 'Smith', one presupposes that one's use of the name is a legitimate instance of a naming practice of calling x by 'Smith'.[74] This is not to say that one's use of a name has to be part of a longstanding practice. One can for various purposes *initiate* a practice of calling someone by a name, a practice that may or may not stick. (It is also plausible to extend this presuppositional treatment to complex names: in using 'Professor Kripke' one calls

[72] *Fodor, Psychosemantics: The Problem of Meaning in the Philosophy of Mind,* p. 85. For a much more extensive and contemporary discussion of the presuppositions of names, see Swanson, 'Interactions with Context', ch. 1.

[73] Evans' main intuitive worry about Burge's predicative approach was that 'it does seem to me to fail to bring out the way in which utterances containing proper names are dependent upon the existence and coherence of a general practice of reference' (*Varieties of Reference,* p. 374). What follows is somewhat in line with that sentiment.

[74] In addition, the ordinary specificity and candidness presupposition of specific existentials will be in play. The full presupposition triggered by a calling use of Smith will thus be that the speaker's use of the name is candidly restricted to pick out a unique object at every world, and is an instance of a naming practice of calling that object 'Smith'.

someone by the combined expression, and this results in combining the presuppositions accompanying a calling use of 'Professor' with those accompanying a calling use of 'Kripke'.)[75]

(iv) *Calling uses and bareness.* It is tempting to hold that every use of a proper name without an article or determiner is a calling use. However, this general rule of thumb seems to have exceptions. Suppose one is speaking about Jane Jones within a culture where a married woman always adopts her husband's last name. One might say:

65. If Jane had married into the Smith family, she would have been Jane Smith.[76]

Similarly, we can say

66. Jane is not yet Jane Smith, but she will be one day

if Jane plans to marry a Smith.

To begin with, it would be entirely misguided to treat these uses as paradigmatically referential. On that view, if 'Jane Smith' in (66) fails to refer, the utterance cannot be true; but if it succeeds in referring, the utterance must be false. Meanwhile, it is also pretty clear in both cases that the speaker is not presupposing that there is a naming practice of calling anyone 'Jane Smith', of which her use is an instance. (This aspect of the presupposition of calling uses should survive being embedded in a conditional or a negation.) In short, these uses do not have the presuppositional features we have ascribed to calling uses.

Happily, this result accords with our sense of the intuitive distinction between calling and describing uses. In neither sentence does the speaker intuitively seem *engaged* in the practice of calling anyone 'Jane Smith'. Instead, (65) intuitively says that Jane would have a certain feature if she had married into the Smith family, while (66) intuitively says that she does not yet have a certain feature that she will one day have. What feature? Plausibly, it is that of being suitably related to a naming practice involving 'Jane Smith'. In fact, 'Jane Smith' appears simply to be contributing its ordinary predicative content, without accompaniment by any covert material:

67. If Jane Jones and Jane Green had both married into the Smith family, they would *each* have been Jane Smith!

Again, the acceptability of this sentence suggests that in this use 'Jane Smith' simply expresses the property of being suitably related to a naming practice involving 'Jane

[75] That is, roughly, one presupposes that one's use of 'Kripke' is part of a legitimate naming practice applying to the individual being talked about, and that the individual being talked about is a professor. There are often further idiosyncratic conventions in play. For example, 'Philosopher Kripke' is a less felicitious name than 'Professor Kripke'. And in special cases, nouns that are part of complex names do not, except perhaps metaphorically, draw on their normal meaning, as in 'The Boston Patriots'.

[76] See Elbourne, 'Why Propositions Might Be Sets of Truth-Supporting Circumstances', p. 109.

Smith'. This account is further supported by the relative unacceptability of this use in subject position:

68. If Jane had married into the Smith family, Jane Smith would have been happy.

With (68) there is a much stronger inclination to hear the speaker as engaged in calling someone 'Jane Smith', and as presupposing the existence of the relevant naming practice.

In short, in (65)–(66) 'Jane Smith' has its predicative meaning—the same meaning it has when it is accompanied by an article. But it appears without any article! This is hardly unprecedented: a number of other nouns that usually act as count nouns can be used in predicate position unaccompanied by articles:

69. I too will be chef/president/queen one day.[77]
70. I am mayor of this town.

Count nouns that admit of such a use tend to be those that attribute official positions held by exactly one person at a time. (Here is not the place to speculate any further on what governs the acceptability of such uses.)

Thus, not all bare uses of names are calling uses. Meanwhile, we have already encountered plenty of calling uses involving the definite article, such as 'la Maria', 'the Thames', and 'the incredibly agile Michael Jordan'. So not all calling uses are bare, either.

6.10 Against the predicate view

We can now articulate in our own framework a worry about the predicate view that has been voiced in some fashion by a number of authors. Intuitively, the predicate view fails to properly distinguish *describing* someone as called by a name ('he is a Smith') from actually *calling someone* by a name ('Smith is happy'). The second use is such that its success requires the token name to stand in relation to a certain naming practice—but this is not to ascribe to anyone a relation to that naming practice or to describe oneself as engaged in it. Consider the following analogy. Suppose we use a sign language in which pointing is a common way to draw attention to objects. Moreover, in this language one can mimic a person's gestures when describing what they did on a certain occasion. Thus, if David is describing what John did yesterday, David might use a pointing act to ascribe a certain property to John—the property of having pointed at someone. But it does not follow that *any time* David points at someone, he thereby ascribes to himself or anyone else the property of pointing to someone. Instead, he can also simply *engage* in the sort of activity that is described by the secondary use of the pointing gesture.

[77] Unsurprisingly, there are no clear conventions of capitalization with such uses.

Now, of course, the predicate view can appeal to a distinction between uses of 'Smith' that are accompanied by a singular restrictor and those that are not. But on that view, even when a singular restrictor is in play one is ascribing to someone the property of being a Smith when one uses the bare name 'Smith'. The force of the above line of thought is that bare uses do not play this descriptive role. In short, there is something deeply right about the Millian idea that the bare use of 'Smith' does not have a connotation. In calling someone 'Smith', one does not ascribe to her the property of standing in a relation to a suitable naming practice. One simply *presupposes* that one's use is part of an identifiable naming practice. Of course, there are *also* non-calling uses of names: as nouns, they can combine with determiners such as 'every'. This forces a descriptive interpretation, on which 'Smith' is most naturally interpreted as ascribing a relation to a calling practice involving 'Smith' (with some, albeit vague, contextual restriction to relevant naming practices).[78]

For those tempted to a predicative approach at least in the case of *complex* names, it may be especially useful here to think about the intuitive difference between the function of 'Miss' in 'She is a Miss not a Mrs.' and its function in 'Miss Jones is coming to tea'. 'She is a Miss not a Mrs.' feels straightforwardly predicative, one that in context may make a point about marital status. But it is intuitively strained to treat it as functioning in the same way in 'Miss Jones is coming to tea'. The relation of that sentence to marital status seems paradigmatically presuppositional.[79] (Consider also the contrast between 'She is coming to dinner' and 'The owner is a she, not a he'.)

Here is another consideration that supports this assessment of the predicate view. As Jeffrey King has noted, bare names cannot easily interact with an anaphoric 'one'.[80] Thus, a speaker can say

71. A Smith/a grandma just arrived at the party. Another one will arrive shortly.
72. At the party there was a single member of each political family. But we kept confusing the Clinton with one who wasn't there.

In these cases it is easy to hear 'one' as picking up on the predicative meaning of 'Smith', 'grandma', and 'Clinton'. But at best this is much more difficult to hear in these cases:

[78] Obviously, there are contexts in which it takes on other meanings, ranging from facts about lineage—on one use of 'Kennedy'—to facts about who painted the thing in question—on one use of 'Rembrandt'. An account that insists on the importance of the calling/describing contrast is better placed to account for why such meanings cannot figure in bare uses.

[79] We prefer a gap-hostile approach here, so that a failure of the person talked about to have the requisite marital status in no way bears on the truth of the sentence. But we shall not defend that preference here. A gap-happy approach is less well-placed to push the point that the role of 'Miss' in 'Miss Jones' is merely presuppositional and to sharply distinguish himself from the predicate view on this basis.

[80] King, 'Singular Terms, Reference, and Methodology in Semantics', p. 149. Thanks also to Jeff King and Eric Swanson for discussion of these examples.

73. Smith/Grandma just arrived at the party. Another one will arrive shortly.[81]
74. At the party there was a single member of each political family. But we kept confusing Clinton with one who wasn't there.

Even though context makes it clear what ought to be meant by these sentences, 'one' resists picking up on the alleged predicative meaning allegedly expressed by the bare use. A similar contrast occurs with 'also', 'too', and 'as well'. Thus suppose we are looking at an extended family and David says:

75. The grandma is also a marathon runner.
76. Grandma is also a marathon runner.

In (75) it is much easier to hear 'also' as meaning 'in addition to being a grandma'.[82] But in (76) the audience feels the need to look for previous segments of the conversation to provide the antecedents for 'also'.

If a calling use has predicative content, then, it cannot be picked up anaphorically with 'one', 'also', and so on.[83] This fact goes unexplained on the predicate view but is predicted by the bifurcated and minimal views. On those views, the predicative content of a calling use lives only at the level of presupposition and not at the level of truth-conditional content. And this in turn makes it inaccessible (or at least less accessible) as the antecedent for 'one'. Consider by analogy:

77. She arrived at the party. Another one will arrive shortly.

The use of 'she' presupposes that the person talked about is female. But the appearance of the property of being female at the level of presupposition is insufficient to allow one to later use 'one' to pick up on that property.

In sum, the relevant anaphoric data reinforce our central source of concern about the predicate view.

6.11 Bare and bound?

Can the individual picked out by a bare name vary according to assignments to a variable bound by a higher quantifier? That is, to speak loosely, can bare names be

[81] There are complications in other cases. For instance, 'another one' is not very felicitous in this speech: 'Once there was a man. He lived all alone. The man used to go dancing. Another one would visit him.' Also, consider the effect of focus in cases like this: 'Well *David* Kaplan is nodding, but the other one isn't.' (Thanks to David Kaplan for this last point. As Kaplan noted, this may just be a case where 'one' is not functioning anaphorically but instead context helps us to figure out what the speaker might have been driving at. Thus, if Peter and Paul are almost inseparable companions, one can say 'Well, Peter is here. But, surprisingly, the other one isn't.')

[82] Thanks to Chris Kennedy and Aidan Gray here.

[83] The same is true for the use of 'Jane Smith' described in §6.9.iv—but that is arguably because it is not even acting as a count noun.

'bound into'? They are, at the very least, much harder to bind into than ordinary definite descriptions. Thus,

78. In every race, the colt won

is perfectly natural in a case where it is common ground that each race involved a different colt, running against stallions. But if there are a number of people named 'John' running for office in different political races, a bound-into reading of

79. In every race, John won

is (at best) much harder to access. If bare names function semantically much like definite descriptions, one might wonder how this contrast is to be explained.[84]

This, however, is hardly a problem for the predicate or minimal views as we have presented them. If there is a convention that a bare occurrence of a name in subject position is a calling use, there must be a unique individual that is rigidly specified, whether this is achieved by the name itself referring (as the bifurcated view would urge) or by the presence of a singular restrictor (as the minimal and predicate views would urge). Thus, suppose one could felicitously utter (79) intending to speak about a different John in every race. In that case, in defiance of the actual convention, one would be using 'John' bare without calling any particular individual 'John'. It is therefore no surprise for the predicate and minimal views that names are difficult to bind into, so long one acknowledges a conventional link between bare uses and singular restrictors.[85]

On the other hand, perhaps in rare cases names can be bound into after all. Consider a type of example due to Hans Kamp.[86] Suppose it is a convention to have five sons and to name the fifth son 'Quintus'. It seems at least passable in such a setting to say:

80. In any family, Quintus is the fifth son.[87]

In this case, the name must pick out a different individual in each family. Likewise, although it is difficult in a modal setting to find non-rigid uses of bare names in subject position, the following is passable:

[84] One might try appealing to the fact that names do not allow restrictive relative clauses. The idea would be that the availability of the bound reading in (78) is due to the fact that we can interpret 'the colt' as 'the colt in race x'. But the prohibition on restrictive relative clauses disallows 'John in the race', so the bound reading is not available in (79). However, as Elbourne pointed out to us, Saxon genitives—expressions like 'John's horse'—do not allow restrictive relative clauses, but can easily be bound into. 'In every race, John's horse won' is perfectly acceptable in a setting where John bets on a different horse in every race.

[85] Perhaps, more generally, there is a default to the effect that forms of noun phrases suited to calling uses generally require a singular restrictor. For notice that while 'The Thames' is not bare, we strong prefer 'In each city the river called 'The Thames' is very big' to 'In each city, the Thames is very big' (said of a group of cities, each of which contains a river called 'The Thames').

[86] see Elbourne, *Situations and Individuals*, §6.3.4, who credits Kamp via Irene Heim.

[87] This variation on the Kamp-style examples is due to Gail Leckie.

81. If I had had five sons, Quintus would have been the most neglected, but if I had had six sons, Quintus would not have been the most neglected.[88]

This can also be interpreted so that 'Quintus' is not tied to any particular individual.

We do not find these data to be particularly strong. But it is worth noting that they can be explained by the predicate and minimal views—it is the sort of behavior that would be predicted for names if the requirement of a singular restrictor were allowed to lapse in special cases. (Note that in other respects these appear to be calling uses: they appear to be *calling* one person in every family—or in every hypothetical scenario—'Quintus', rather then describing him. And they presuppose that they are instances of an existing naming practice—even if it is one that only picks out individuals in hypothetical scenarios.) Meanwhile, the *difficulty* of binding into names would continue to be explained by the fact that the singular-restrictor requirement is typically in force.

(Daniel Rothschild has offered an alternative explanation for the difficulty of binding into names.[89] When a non-rigid interpretation of a definite description is available, the overt predicate—or some expansion of it that is natural in context—is reckoned to have a unique but varying satisfier across the relevant situations. But in the case of ordinary names, no natural expansion that satisfies this condition is available. For example, if one says 'In every room, John is happy' it would be rare for there to be a background assumption that there is exactly one John in every room. By contrast, it is notable that in the Quintus example, 'Quintus' does satisfy this desideratum. When there is a unique but varying satisfier in the relevant situations, he predicts that a bound reading of bares names will be available. However, this does not account for the following kind of case. Suppose there was a series of boxing matches: in each match a different Clinton took on a different Kennedy. And suppose this is all background knowledge to the conversational participants. Rothschild's approach predicts that

82. In every match, Clinton won

should be perfectly in order. But it sounds far more acceptable to say, 'In every match, the Clinton won'. While Rothschild's explanation may be part of what is going on, the preference against binding bare names is arguably more resilient than that explanation alone would predict.)

[88] This is similar to an example from Geurts, 'Good News About the Description Theory of Names', p. 322.

i. If a child is christened 'Bambi', and Disney Inc. hear about it, then they will sue Bambi's parents.

But here there is an explicit mention of the name in the antecedent. Note that one can pull off a similar kind of modal subordination for expressions in pretty much any category:

ii. Suppose there were intelligent animals called 'schmats', and hunting them were called 'schmatting'. In that case it would be wrong to schmat.

[89] See Rothschild, 'Presuppositions and Scope.' Gail Leckie independently came up with a similar account. In her unpublished manuscript on names she also stresses the point about modal environments that follows.

The upshot is pretty inconclusive. On the one hand, the conventional requirement of a singular restrictor explains the difficulty of binding into bare names. On the other hand, if some can genuinely be bound into, the predicate and minimal views can posit an exception to that rule in some fringe cases without departing too much from their treatment of calling uses. Meanwhile, if the bifurcated view wishes to accommodate bound uses, it must allow a use of names that can appear in subject position (perhaps with a covert determiner), and has much of the presuppositional flavor of a calling use, and yet lacks a referential interpretation. If anything, the combined data on bound readings favour the predicate and minimal views over the bifurcated view.

Here is a further reason for doubting the significance of (80)–(81).[90] Consider:

83. Whenever I am given a choice between going to the movies with someone called 'Harold' or with someone called 'Maud', I choose Maud.

This does not sound too bad. But neither does

84. Whenever I am given a choice between something called a 'bank' and something called a 'bat', I choose the bank

even in a setting where the choices included cricket bats, vampire bats, financial institutions, and river banks. Arguably, (84) flouts the rules for the use of both words spelled 'bank', rules which recognize various acceptable uses but none that licenses (84). Nevertheless (84) is not utterly uninterpretable: speakers can use metalinguistic ascent to construct a new meaning on the fly—in this case one where 'bank' means something like 'a thing that on one standard meaning 'bank' is true of'—and there are enough contextual clues to enable the hearer to recover the albeit deviant use that is being intended. That such creativity is possible without any breakdown of communication should not motivate a semantics of 'bank' or 'bat' designed to straightforwardly accommodate such uses—it is not as if, all, along, there was a special lexical entry for 'bank' that assigned it this metalinguistic meaning. Moreover, with the right contextual set-up, the same kind of phenomenon can occur even without explicitly mentioning the relevant words in the preamble. To mimic the setting required to generate the relevant reading of (84), imagine a convention in which every child must draw a picture of one of four items: a cricket bat, a vampire bat, a financial institution, or a river bank. In that scenario,

85. Every child chose to draw a bat

does not seem too bad even if some children drew cricket bats and some drew vampire bats. And in the context of a discussion about the stipulative new definition of 'planet' handed down by the International Astronomical Union, it is perfectly acceptable to say:

[90] Thanks to Tim Williamson for raising a suggestion along these lines.

86. If the IAU had made a different decision, Pluto would still be a planet.

In the same vein, it may be suggested that the availability of the readings in (80)–(81) is not something licensed by the rules of use for bare names. For example, one might insist that the core conventions for names require that when they occur in subject position they are calling uses and require a singular restrictor. One could still then propose that the interpretability of (80)–(81) is an artifact of our ability to construct novel metalinguistic interpretations given sufficient scene-setting which do not correspond to any meaning licensed by the core rules of use. At any rate, it is far from clear that there is sufficient contrast between the tangential phenomenon of apparent bare name binding and the examples just provided to warrant any other conclusion.

6.12 Varieties of validity

Before offering a tentative verdict on proper names, let us turn to a final consideration—one that Paul Pietroski has recently raised in favor of the predicate view.[91] Consider the following argument:

TYLER
Every Tyler I met is a philosopher.
I met Tyler Burge.
Therefore Tyler Burge is a philosopher.

This argument, suggests Pietroski, appears to logically valid. But how can this be explained if the calling use of 'Tyler' in the second premise does not contribute the property of being a Tyler at the level of semantic content? We might note that there is an analogous argument using 'Knucklehead':

KNUCKLEHEAD
Every knucklehead I met is a politician.
I met Knucklehead.
Therefore Knucklehead is a politician.

The minimal and bifurcated views reject the idea that the calling use of 'Knucklehead' semantically expresses the property of being a knucklehead. (Similar arguments can be run with 'grandma' and 'chef') But what then should one say about the apparent validity of these arguments?

This point is far from decisive. Arguments can be valid in some sense without being valid in virtue of their logical form. For example, the argument 'David loves Mary; therefore David has love for someone' is *truth-conditionally* valid, in the sense that it is not possible for what is truth-conditionally expressed by the premises to be true while what is truth-conditionally expressed by the conclusion is false. But since 'loves' and 'love' are of different semantic types, that argument is not logically valid. Moreover the intuition that an argument is valid can arise even in the absence of truth-conditional validity. Thus, consider:

[91] Pietroski, 'Systematicity Via Monadicity', p. 353–4.

ACTUALLY	It is raining. Therefore it is actually raining.[92]
YOU	Everyone I address will die soon. Therefore you will die soon.

These arguments are not truth-conditionally valid, though in some sense their conclusion follows from their premises.

Thus the intuition of validity generated by TYLER and KNUCKLEHEAD may not be due to logical validity. In fact, there is reason to doubt that these arguments are truth-conditionally valid. Arguably, what is truth-conditionally expressed by the second premise of KNUCKLEHEAD in typical contexts can be true relative to a world where the man actually called 'Knucklehead' is neither a knucklehead nor a politician. In that case, there are worlds at which the premises are true but the conclusion is not. Indeed, even those who allow 'Knucklehead' to contribute the property of being a knucklehead at the truth-conditional level ought to hold, for reasons discussed in §6.4, that the restrictor is standardly actualized. But in that case the argument is still not truth-conditionally valid in the modal sense.

There are conceptions of validity that do not require modal validity. We might call an argument 'valid' iff there is no context of utterance relative to which the premises express a truth and the conclusion fails to express a truth. Call this *Kaplanian validity*. And there are natural precisifications of this idea on which ACTUALLY and YOU get classified as valid. To begin with, note that at any possible world where x utters the sentences in ACTUALLY in accordance with the rules of English and holds fixed the relevant location (for raining) during the course of the argument, x will utter a true conclusion iff x utters a true premise.[93]

Now, if—as the predicate view would have it—'Knucklehead' descriptively encodes *being a knucklehead at w* at any context of utterance where the world of the context is w, KNUCKLEHEAD will be also come out as Kaplan-valid. But this result can also be achieved by gap-happy versions of the minimal and bifurcated view. For in that case, there is no possible situation where an English speaker endorses KNUCKLEHEAD and expresses truths by the premises but a falsehood by the conclusion. For if the person being talked about fails to have the property expressed by the restrictor—or no one is being talked about—this induces a presupposition failure and thus a truth-value gap in the second premise. In short: in any context where one utters KNUCKLEHEAD and expresses truths with the premises, one expresses a truth with the conclusion as well.

[92] We intend here the standard reading of 'actually' among philosophers.

[93] We take a slight liberty here, since we are not really taking the trouble to screen off the fact that the actual utterance of a sequence takes time. A more careful presentation might, like Kaplan, reaching for a notion of validity that applies to sequences of sentences relative to contexts where they are not all uttered. This requires a slightly more elaborate notion of a context. Those details need not concern us here.

Things are a bit more complex on gap-hostile versions of these views. For according to such views, the second premise can still express a truth even if there is not exactly one person being talked about who satisfies the restrictor property. Nevertheless, there will be no context of utterance in which (i) all the presuppositions governing the premises and conclusions are satisfied, (ii) the premises are true, and yet (iii) the conclusion is false. This makes for a natural cousin of Kaplan-validity.

Consider by analogy a view which adopted a presuppositional account of the maleness encoded by 'he' and combined this with a gap-hostile approach to its truth-conditional contribution. Now consider:

HE He is having a good time.
Therefore at least one male is having a good time.

There will be circumstances of utterance where the conclusion expresses a falsehood but the premise expresses a truth (because 'he' is being used to refer to someone who is, unbeknownst to the speaker, female). Yet there is some intuitive sense in which the conclusion follows from the premises. The notion of validity just sketched can make good on that intuition. In this sense, KNUCKLEHEAD and BURGE will be valid even for the gap-hostile approach.

In sum, the minimal and bifurcated views can account for the apparent validity generated by KNUCKLEHEAD and BURGE by appealing to some variant of Kaplan-validity. And that is validity enough.

6.13 Names: a tentative verdict

We have outlined three views of calling uses of proper names. While hardly decisive, we think the considerations offered in §6.10 provide a passable case against the predicate view and in favour of the bifurcated and minimal views. We argued there that the predicate view fails to adequately capture the intuitive distinction between calling and describing—a diagnosis borne out by the inability to pick up on the alleged predicative content of calling uses with an anaphoric 'one'.

Adjudicating between the minimal and bifurcated views, however, is more difficult. Our suspicion is that, if there is some way to argue convincingly for one or the other, it will turn on very systematic considerations.[94] We have, however, encountered a few suggestive points along the way. In §6.6 we offered two initial considerations that seem to cause trouble for the bifurcated view. First, given that names are sometimes genuinely predicative, it seems preferable to provide as uniform an account of the two uses as possible. (This is especially so given the close tie between the two uses of nouns like 'waiter' and 'grandma'.) How do the bifurcated and minimal accounts fare

[94] We do not foreclose on the idea that the issue may, at some level of abstraction, come down to a choice among different styles of bookkeeping.

on this score? The bifurcated approach assigns one type of truth-conditional contribution to 'grandma' or 'Smith' on calling use (an object), and a very different type to its descriptive use (a property). The bifurcated approach *also* assigns two very different types of conventional content to its calling use—one truth-conditional (an object) and the other presuppositional (a property). Meanwhile, the minimal view only ever assigns a property as the conventional content of 'grandma' or 'Smith'—that property is the truth-conditional content of its descriptive use, and the presuppositional content of its calling use. Arguably, then, the minimal view fares a little better when it comes to uniformity.

Second, we noted that proper names are frequently used with articles, occasionally in English and much more commonly in certain other languages. And the bifurcated view arguably has a harder time explaining this phenomenon. Constructions like 'the mighty Nile' militate against treating 'the Nile' as referring to an object in a semantically unstructured way. Meanwhile, treating 'Nile' in 'the Nile' as semantically referring to an object makes it hard to know what semantic value to assign to 'the'.[95] Admittedly, the minimal view does not come with a built-in explanation for why some calling uses of names come with determiners and others do not, but it does provide a highly uniform account of both cases: they differ only with respect to whether the determiner is covert.

Next, we did not place much weight on alleged examples of bound names. But for those who think the 'Quintus' examples involve a non-rigid calling use, the minimal view seems better positioned than the bifurcated view to provide an account of what is going on—it need only postulate an occasional relaxation of the rule that calling uses in subject position involve singular restrictors.

A final point in favour of the minimal view will appeal only to those who have been persuaded by the last few chapters that specific noun phrases *standardly* get to be about an object thanks to a covert restrictor. In this respect, the minimal view assimilates calling uses of names to singular uses of specific existentials. The picture that emerges is highly unified: when one calls someone 'Grandma', it may be that some kind of referential tag appears at the level of representation crucial for truth conditions, but this is not expressed by the proper name itself, any more than we utter overt referential tags when we say 'a certain grandma', 'my grandma', or 'that grandma'.[96] We have no decisive arguments for this comprehensive view. But it is certainly a natural rounding out of the vision we have articulated in the second half of this book.

To conclude: while a paradigmatically referential treatment of proper names is superior to the predicate view, there is a plausible third alternative with its own virtues. A persuasive case in favour of referential orthodoxy about names remains to be made.

[95] Thanks to Cian Dorr for discussion here.

[96] Philosophers often adopt a toy model according to which truth conditional semantics proceed by assigning semantic values to phonetic or graphemic types. If unlexicalized covert representations have a crucial representational role, this picture might turn out to be misleading.

Afterword

Our stated aim at the outset of this book was to critically examine some widespread philosophical views about reference and singular thought. We went on to reject the alleged link between reference and acquaintance, and to present an alternative to the standard taxonomy of referential expressions. But this leaves plenty of room for theories of reference and singular thought that are compatible with liberalism as well as with much of what we have to say about descriptions, demonstratives, and names. We will now briefly review our central themes and then turn to some of the positive views about the nature of reference and singular thought that are left standing.

(i) *A recapitulation*. As we noted in the Introduction, contemporary philosophers use 'reference' as a natural kind term. Thus, it has no stipulative definition—instead, it is intended to pick out a semantic relation that (a) is a pretty good fit with respect to the traits and paradigms with which it is associated; and (b) carves semantic reality neatly at the joints. The standard working hypothesis is that there is a single semantic kind that best satisfies these desiderata, a kind to which we must appeal in any perspicuous theory of meaning. (And likewise, *mutatis mutandis*, for 'singular thought'—where the relevant joints are cognitive.)[1] For this reason, we began by surveying the relevant themes associated with the philosophical use of 'reference': traits like rigidity, exhaustiveness, and object-dependence; paradigms like Russell's logically proper names and variables-relative-to-assignments; the theory-laden idea of contributing objects to propositions; and finally, the requirement of acquaintance—a special causal or epistemic connection between speaker and object.[2]

In Part I we defended *liberalism*—the thesis that reference and singular thought are not subject to any interesting acquaintance constraint. In doing so, we adopted the working hypothesis that a single semantic natural kind best suits the cluster of themes just sketched. We concluded that if there is such a kind, we should not expect it to be governed by any variety of acquaintance.[3] (And the same point holds for 'singular

[1] We take it that some of the primary ideas associated with 'singular thought' are in turn parasitic on the notion of reference. See §1.8.

[2] Of course, 'acquaintance' does not get defined either; it is treated as a candidate natural kind term with its own associated traits and paradigms.

[3] For those who (implausibly) insist that the idea of acquaintance is so fundamental a desideratum that no such kind would deserve the label 'reference', the take-home lesson would be that the working hypothesis turns out to be false: there is no such natural semantic kind as reference.

thought', whether construed in terms of attitudinal relations to singular propositions or else in terms of internal referential vehicles.) In Chapter 1 we made a *prima facie* case for liberalism using a battery of examples involving eight different modes of reference. In Chapter 2 we defended liberalism in the face of two general types of argument. The first of these argues that an acquaintance constraint is required to explain a certain kind of belief-reporting data; we replied that, even assuming the semantic principles to which the argument appeals, the relevant data can in fact be better explained if one gives up on acquaintance. The second type of argument uses acquaintance to appease our intuitions about certain cases of apparently unwarranted epistemic advance; but again we found that these intuitions are best reconciled by a liberal explanatory strategy. In both cases, then, the relevant data ended up providing further motivation for liberalism. Finally, in Chapter 3 we canvassed some varieties of epistemic acquaintance, and argued that none of them is a plausible condition on reference or singular thought.

By itself, rejecting acquaintance provides little positive insight into the natural semantic relation, if any, that is the best deserver for 'reference'. The purpose of Part II was to examine a range of noun phrases in natural language, inquiring whether there is an interesting referential/non-referential distinction among them. (And if only *uses* of expressions can be called 'referential', what characterizes those uses, and which expressions can be so used?)

In Chapters 4–6 we argued for closely related semantic accounts of specific indefinites, definites, demonstratives, and names. The result is an overall picture on which none of these noun phrases is paradigmatically referential, since they all have quantificational structure.[4] But at the same time, they admit of *uses* that exhibit many of the traits associated with reference, and in each case this is due to the presence of a *singular restrictor* on the existentially quantified domain.

(ii) *Revisiting reference.* Where does all of this leave the philosophical notion of reference? Names and demonstratives are typically treated as paradigms of straightforwardly referential expressions—but on this picture they turn out to be a poor fit for the associated semantic profile, since the traditional criteria for reference do not neatly apply to complex quantified expressions involving singular restrictors. (Indeed, quantificational expressions are standardly taken to be something of an anti-paradigm of reference.) Our investigation, then has failed to uncover any expressions in the overt structure of natural language that straightforwardly fit the profile of a referential term. To what extent does this failure generalize? Are there *any* voiced elements that are paradigmatically referential?

[4] On this point, we were most tentative about the case of names.

Take 'here' and 'now'. On the standard Kaplanian conception, these terms as used at a context are referential devices whose semantic value are a place and a time respectively, and hence are rigid designators.[5] But this simple picture arguably takes liberties with the semantic category of those expressions: they are plausibly better construed as modifiers that generate property expressions out of property expressions. (That is, they are of the same semantic type as 'in Texas'.) Thus, in 'John is smoking here', 'here' does not simply supply a location, as though John is being said to smoke a location. Instead, the result of, say, modifying 'smokes' by 'here' while located at *l* will be a complex expression that expresses a property that applies to a thing iff that thing smokes at *l* (similarly, *mutatis mutandis*, for 'now'). In this way, 'here' and 'now' have a spatially or temporally constraining effect on a predicate. But that does not make it correct to say that 'here' and 'now' simply *refer* to spatial or temporal locations.

Philosophers also standardly suppose that *pronouns* comprise one class of referential terms. The idea is that some uses of pronouns are variably referential—referring relative to an assignment—while other uses (notably 'deictic' ones) refer to an object simpliciter. But on an alternative view that is emerging as quite popular, 'he', 'she', 'it' and so on are determiners and function semantically as quantifiers. Here is not the place to review the data for such a view.[6] But we can no longer fall back on pronouns as uncontroversial exemplars of reference in natural language.

Perhaps the right conclusion to draw from all of this is simply that reference turns out to be less prevalent than we thought—perhaps there are only a few expressions like 'I' that are truly referential. But suppose it turns out that there are no voiced expressions of natural that are paradigmatically referential. In that case, we appear to face a familiar quandary: what shall we say about the semantics of a putative natural kind term—in this case 'reference'—whose associated paradigms and traits are not perfectly satisfied by any joint-carving kind in reality? (Of course, what we say about the semantics of the quasi-technical term 'reference' may not be of any great theoretical importance, as long as we understand the way in which various expressions get to be about objects.)[7] One pessimistic option is complete eliminativism about reference: just as no substance fit the role of 'phlogiston' sufficiently well to count as its meaning, there is no semantic natural kind that will serve as the meaning of 'reference'.

A more tolerant conclusion eschews any fundamental role for reference in compositional semantics, but brings it closer to the use of 'refers' in ordinary language. On this approach, one thinks of reference as something that a speaker does on an occasion using a noun phrase, emphasizing that this can occur even if one's favored typology for formal semantics does not associate an object with that expression for the purpose of

[5] On Kaplan's self-consciously simplified gloss, these are of course the place and time of the circumstance of utterance.

[6] For a comprehensive discussion of the case for this view, see Elbourne, *Situations and Individuals*, §2–3.

[7] It has been widely noted that the ordinary use of 'refers to x', even as applied to expressions, is much more inclusive than the term of art is intended to be.

computing truth conditions compositionally. Thus, for example, one's compositional truth conditions might treat 'A certain dog' as used on an occasion as having the semantic structure of a complex quantifier phrase. But compatibly with this one can postulate a reference relation that holds between speaker and object, one that the phrase is used to achieve. (Such a view will face the a decision about when a speaker refers using a specific existential. Whenever the restrictor is uniquely satisfied? Or only when a singular restrictor is in play? One will preserve more of the ideas introduced at the outset if one opts for the latter rather than the former.)

Still another approach is to reject the assumption that the true bearers of reference must be voiced. The past few chapters have suggested that, underlying the use of various noun phrases, there is a proliferation of covert singular restrictors whose presence gives rise to the phenomena associated with referential terms. Here some may wish to take a stand on the presence of covert singular elements at the level of representation that linguistics call 'LF', perhaps holding that when one points at John and says 'that man', context supplies a covert lexical structure, one element of which expresses identity, and another element of which genuinely refers to John.[8] Distinguishing between a lexeme and an overt phonetic articulation, and assuming that representations at LF have lexemes at the nodes of representational trees, the thesis is that there are lexemes that deserve to be considered referential even if no voiced expressions do.[9]

If this is the case, however, one might wonder: why are these referential lexemes never, or almost never, vocalized? One bold hypothesis recently suggested by Paul Pietroski is that there are no referential lexemes: the language organ does not, in its natural course of operations, allow them.[10] Insofar as there are referential vehicles of thought—or terms of Mentalese—these are simply never lexicalized.[11] (As Pietroski conceives of it, this is not a necessary feature of natural language, but a contingent feature of the structure of the language organ in our species.)[12] A possible corollary of

[8] Alternatively, one might hold instead that these singular elements are atomic and express haecceitistic properties like *being John*. We are then faced with the question whether this disqualifies them as genuine bearers of reference.

[9] Of course, it may turn out that 'I' perfectly suits the criteria associated with 'referential term'; and our case against the bifurcated view of names was not overwhelming. However, even if a referential treatment of those cases can be defended, one might still plausibly insist that it is the lexeme rather than the phonetic manifestation that refers. On a view where singular elements proliferate at LF, one would then hold that certain lexemes are referential, but only those in a special class are phonetically manifested. On a view holding that files or tags are typically not lexicalized, one would hold instead that it is only in Mentalese that singular elements proliferate, while only those in a special class are even lexicalized.

[10] Pietroski, 'Systematicity Via Monadicity', §2.2.

[11] Some will find this view entirely unpalatable. As Stephen Schiffer puts it: 'What a mystery it would be if Mentalese singular terms could not have public language counterparts.' ('Russell's Theory of Descriptions', p. 1178.)

[12] Thus the hypothesis is silent on the kinds of semantic structures that may obtain for *artificially* introduced languages. Here is an analogy. One promising hypothesis taken very seriously by linguists is that all naturally occurring quantifiers in human language are conservative. (A quantifier, thought of as a binary relation between sets, is conservative iff the following condition obtains: it holds between A and B iff it holds between

this view is that the level of representation at which truth-conditional contents are generated is a sub-lexemic level: assuming that the level that linguists call 'LF' is a level at which representations are built out of lexemes, it is a mistake to think that truth conditions are generated at that level.[13]

Pietroski also entertains a slightly weaker hypothesis that would also explain the paucity of vocalized referential terms. Suppose that thought employs a combination of singular tags that are context-independent, as well as some that work like indexicals. The weaker hypothesis is that the language organ lexicalizes only a small range of tags of the latter sort. This view allows, for example, that 'I' (perhaps the last bastion for the reference lover) is referential, but still makes for compelling explanation of why singular restrictors are inevitably covert—at least on the assumption that the tags supplied in the restrictor are context-independent.[14]

These conjectures raise still further questions. If singular tags in thought do not appear at LF, then arguably the singular restrictors we have been describing—if they are formed from singular tags—do not appear at the level of LF either. Choice points here lead to further choice points. If the semantic interpretation of the nodes at LF at a context underdetermines truth conditions, is there a useful notion of the content of a sentence at a context that is not truth-evaluable? Or should our notion of semantic content reach through LF to the thought that interfaces with the language organ in order to yield the truth conditions of a sentence at a context? These are important, non-trivial questions to which we lack answers.

We wish to remain neutral on both forms of the Pietroski hypothesis. But even its strong form is compatible with a semantic theory that confers a key role to the category of referential vehicles. On such a view it will be mental object-representations themselves—tags, files, or terms of Mentalese—that best deserve to be considered referential.

(iii) *Revisiting singular thought.* As with 'reference', we must decide among competing ideas about what features of a cognitive state are criterial for it to count as a 'singular thought'. The simplest idea we encountered in the Introduction is this: to be a singular

A and the intersection of A and B.) But of course, that hypothesis is quite compatible with the possibility that we can stipulatively introduce determiners whose quantifier meanings are non-conservative. The lack of non-conservative quantifiers in human language hardly rules out the possibility of their artificial introduction. The same point holds for variably referential or referential vehicles. One would be hard-pressed to say that the variables of first-order predicate logic are unintelligible; but the Pietroski hypothesis entails that all such expressions are the product of artificial contrivances of reflective theorists who introduce them on the heels of a naturally acquired language that lacks them.

[13] Such a conclusion is far from compulsory, however. As Cian Dorr has pointed out, one might instead conclude that the terminal nodes at LF sometimes have the same semantic values that they would have if they had extra structure. Thus one might conclude that on an occasion of use, a noun like 'dog' can have the property of being a dog identical to Rover as its semantic value.

[14] What might one say about 'I' if one were to defend the strong hypothesis? Insofar as one were to be persuaded that 'he' and 'we' are determiners with quantificational content plus presuppositional marking, it would not be so unnatural to extend such a view to 'I'. An alternative—akin to the minimal view of names—is that 'I' is accompanied with a covert determiner and expresses a phi-feature, but is purely presuppositional in its contribution.

thought is to be a cognitive attitude toward a singular content: viz., a content of the sort expressed by sentences containing referential expressions. But in light of the foregoing discussion, it is far from clear whether we have an independent grip on the notion of a referential expression. And even if we did, we would still have to ask exactly how cognitive attitudes of this sort are to be identified. If we simply rely on a principle like HARMONY from Chapter 2, we face the thoroughgoing context-dependence of reports that ascribe attitudes to singular contents, which casts doubt on the idea that there is something theoretically interesting shared by all and only the cognitive states of individuals who satisfy such reports.[15]

These worries are avoided by thicker conceptions of singular thought, which either deny the sufficiency of bearing a cognitive attitude to a singular content, or claim that bearing such an attitude requires tokening a natural kind of cognition as its vehicle. (The latter approach will either deny HARMONY or explain away some of the problematic reporting data, as discussed in §2.4.) The most prominent varieties of the thicker conception appeal to cognitive mechanisms like tags or files, which are individuated in part by their special role in object representation. If some such vehicles count as referential, then plausibly what it is for a thought to be singular is for it to contain such a vehicle. And the link between reference and singular thought will be even more dramatic if we adopt the Pietroski hypothesis—not only will there be no singular thought without a referential vehicle, but there will be no reference at all outside of thought.

These speculations are intriguing. However, the project of delineating the relevant cognitive mechanisms is still incipient, and supporting pieces of cognitive science are often at best tendentious. We suspect it is simply too early for much systematic philosophical inquiry about that level of representation. But those with a taste for it should at least be careful not to rely on the most dubious aspects of the singular thought tradition—in particular, those driven by muddled ideas about acquaintance. Otherwise there is little hope that philosophers will usefully supplement whatever mature cognitive science has to say about the role of object representations in our cognitive economy.

[15] See §2.4.i, and the final paragraphs of Chapter 4.

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