

Guide to Chapter One of Gareth Evans' *The Varieties of Reference*

Rick Grush
Department of Philosophy 0119
University of California, San Diego
La Jolla, CA 92093

1.0 What Happens in Chapter One

In this chapter Evans' does several things. First, he introduces Frege's semantic theory, according to which the meaningfulness of expressions in language is explained by assigning to these expressions two kinds of entities. First, a *referent*, the entity that the expression refers to. And second, a *sense*, which is glossed as a special proprietary way that someone must think of the referent if they are to understand the expression correctly. Though the theory is taken to apply to all grammatical categories, special attention is placed on its application to singular terms — noun phrases that purport to identify a particular object, such as proper names and particular uses of indexical expressions (e.g. "that piano"). Evans articulates a Fregean model of communication according to which it is the possession of a sense that allows expressions to be used in communication.

With this preliminary in hand, Evans points out that it might be the case that there are in fact different *kinds* of singular terms, in particular different *semantic* kinds. One of the sources of problems in Frege's theory is that it assumed that all singular terms were such that a single semantic theory could account for them all. Evans states the view using two distinctions that he names after Frege and Russell. "Fregean" is a label for singular terms for which their usefulness depends on their having a *sense*. "Russellian" is a label for singular terms for which their usefulness depends on their having a referent. These two distinctions produce four possible types of *singular terms*:

Fregean/Russellian: Singular terms whose functioning depends on their having both a referent and a sense. Evans will argue that demonstratives and indexicals fall into this category.

Fregean/non-Russellian: Singular terms whose functioning depends on their having a sense, but not on their having a referent. Evans will use descriptive names as an example of this category.

Non-Fregean/Russellian: Singular terms whose functioning depends on their having a referent, but not on their having a sense. Evans will argue that proper names fall into this category.

Non-Fregean/non-Russellian: Evans doesn't really discuss this option, because it is not clear that it is viable. But the two distinctions open it up in logical space. This is why the title of the book is *The Varieties of Reference*.

Note that these four logical possibilities are all potential types of *referring expression*. Definite descriptions (which are discussed in the next chapter) are not referring expressions, and so aren't in any of these four categories.

1.1 Introductory

This section is straight-forward. Evans rehearses certain basic features of Frege's semantic theory, features which will be examined in greater detail in the remainder of the chapter. First, it was officially limited to certain restricted domains of language, regions that, like artificial languages, lack certain kinds of expressions. Second, it was systematic in that it detailed how the meaning of complex expressions were a function of the meaning of their components. And third, that it underwent two phases: an earlier phase that relied exclusively on expressions' referents; and a later phase that added to this the import of expressions' senses.

Evans draws attention to **three aspects** of Frege's semantic project. (Note that for now we are using the expressions "meaning" and "significance" and "semantic value" and others in a sort of loose way. We will get more regimented at the chapter proceeds.)

First, the theory is constructed against the background of certain relatively antiseptic regions of language — regions devoid of complications like indexicals and demonstratives — in part because such regions are more well-behaved and hence more amenable to treatment, and also in part because of Frege's primary target, the artificial languages of mathematics, are similarly antiseptic. Though mathematics was Frege's main target, he intended the theory to have wider application to natural language. And indeed, even regarded these respects in which natural language departed from artificial languages as *deficiencies* in natural language, a sort of regrettable sloppiness.

Second, the theory was systematic, in that it analyzed the significance of complex expressions, including atomic sentences, as dependent upon, or a function of, the significance of the constituents of the complex expression — a process which bottoms out at lexical items such as words and morphemes.¹

Third, Evans claims that Frege's semantic theorizing underwent two phases. The first phase was what might be called a theory of *meaning*. This theory assigned to each significant linguistic expression of a given grammatical category (some categories are: atomic sentences, singular terms, predicates, logical operators) a semantic value of a type appropriate to that category — the expression's 'meaning'. In the second phase, Frege's recognition that this approach had important limitations led him to supplement it with a theory of *sense*, according to which all meaningful expressions would be assigned a "sense" in addition to a meaning. This second phase maintained the same theory of meaning as the first

¹ It should be pointed out that the idea that (a) *the significance of a specific complex expressions is a function of its components* is compatible with the claim that (b) *the significance had by these components may be a holistic function of their contribution to the meaning of these complex expressions*.

phase, but now had another level added to it, so to speak. Each meaningful expression was now recognized to have not only a meaning, but a 'sense'.

1.2 Meaning (*Bedeutung*)

Evans in this section gives a brief introduction to relevant aspects of Frege's theory of Meaning, as applied to extensional sentences. A couple of potential problems of this theory are hinted at. And finally, Evans introduces the idea of a categorial grammar in order to show how, given an analysis of the Meaning of some grammatical categories, the Meaning of other (derived) categories can be determined.

The section has **four parts**, roughly corresponding to the four paragraphs.

First, Evans discerns three general features of Frege's theory. These are: i) The conviction that the semantic significance of *sentences* consists in their being true or false; ii) The conviction that for any significant expression (sentence, name, predicate, whatever), its significance, or *semantic power*, manifests in its ability to affect the truth value of the sentence in which it is embedded; and iii) This *semantic power* is explained by the expression's being assigned an extra-linguistic entity (what this means and how it occurs is the subject of much of what follows).²

The **second** part consists of the application of these basics to the semantic power of singular terms — a category that includes proper names as the prototype. Since, according to Frege, expressions have their semantic power in virtue of being associated with some extra-linguistic entity, and since singular terms, such as names, *typically* have *referents* (e.g. the name 'Patrick Stewart' has, as its referent, a certain actor most famous for his portrayal of Captain Jean-Luc Picard on a popular television series), the identification of their *referent* as the extra-linguistic entity that imbues singular terms with their semantic power is natural.

Evans hints at two problems with this view. It will be worth saying a bit more about these two problems now. The first is that it seems that so-called empty singular terms (singular terms that have no referent) can still be meaningful. Examples include 'Santa Clause' or 'the least rapidly converging series'. In both cases there is no object that is the referent of the expression, yet they still seem to be significant.

The second is the potential non-synonymy of co-referring expressions. According to the theory as stated, since an expression's significance just is its referent, any two expressions with the same referent

² Regarding (ii), don't be confused by the fact that I listed sentences as types of expression that might affect the truth value of a sentence in which it is embedded. There are often sentences embedded in sentences, such as *I believe that the cat is on the mat*, where the subordinate sentence *The cat is on the mat* is embedded in the matrix sentence; or *Roses are red and violets are blue*, which has the two sentences *Roses are red* and *Violets are blue* as components. The structure of the theory will be such that a sentence has the same semantic power — a *truth value* — whether it is free-standing or a component of a larger sentence.

should have the same significance. But intuitively they often differ in a way that it can seem natural to describe by saying that the two terms, though co-referential, *mean different things*.

This intuition can be underscored by placing coreferential names in modal or intentional sentences: the sentence

(1) Melanie believes that her mother is an excellent writer.

might true, whereas the sentence

(2) Melanie believes that the *New York Times* movie critic is a hack.

is false, even though, unbeknownst to Melanie, her mother is the *New York Times* movie critic.

On the face of it, this fact places a good deal of pressure on the idea that the following are all true:

A. The semantic value of a sentence is its truth value.

B. The semantic value of a complex expression is a function of the semantic value of its components.

C. The semantic value of a singular expressions is its referent.

The components of (1) and (2) should all have the same semantic value. The only expressions that differ at all are 'her mother' and 'the New York Times movie critic'. But since they both have the same referent, they should have the same semantic value, as per C.

If each of the the components of (1) and (2) have the same semantic value, then (1) and (2) themselves should have *the same semantic value*, as per B. But (1) is true, while (2) is false. So according to A (1) and (2) should have *different semantic values*. So A-C, together with the facts that (1) and (2) have different truth values while their component singular terms have the same referent generates a contradiction.

This is why Evans remarks that Frege "Originally concentrat[ed] on extentional fragments of language...". The sorts of sentences, like (1) and (2), that can be used to produce problems as noted above include sentences dealing with ascribing intentional states (*S believes P*, *S desires Q*) and modal sentences (*It is necessary that Melanie's mother is Melanie's mother*, *It is necessary that Melanie's mother is the New York Times movie critic*). These are non-extentional sentences. So by focusing on extentional contents, Evans means that Frege was excluding these sorts of sentences, and hence avoiding those contexts in which contradictions could be generated. In extentional contexts, you can't change a true sentence into a false sentence by merely swapping a singular term for a different co-referring singular term.

I characterized this second problem as the problem of "potential non-synonymy of co-referring expressions." But the same basic problem can also be framed as the problem of the informativeness of identity statements, since while

(3) Melanie's mother is Melanie's mother.

is not at all informative,

(4) Melanie's mother is the New York Times movie critic.

can very well be informative. But if the two singular terms mean the same thing, then it is difficult to see how (4) could be informative.

These two problems — the problem of the meaningfulness of empty singular terms, and the problem of the informativeness of identity statements — will figure prominently in much of the rest of the book.

The **third** part of this section consists in the application of the basics as articulated in the first part to the semantic value of *sentences*. In brief, the conviction that the significance of a sentence consists in its being either true or false, together with the conviction that an expression's semantic power is found in its association with an extra-linguistic entity, means that the Truth Value (either The True or The False, conceived as Platonic objects of some sort), was a natural suggestion for the 'meaning' of sentences.

The **fourth** and final part of this section concerns the kind of semantic power of — i.e. extra-linguistic entities assigned to — expressions of other types. With the kind of referents of expressions of the grammatical categories SENTENCE (S) and SINGULAR TERM (N) fixed, the semantic power (referents) of all other categories of meaningful expressions can be derived. Grammatical categories can be expressed in the following notation. The basic (underived) grammatical categories of SENTENCE and SINGULAR TERM are designated S and N respectively; other grammatical categories are derived from these two: a one-place predicate, designated S/N, is something that yields an S when combined with an N; a two-place predicate, designated S/N,N yields an S when combined with two Ns. In general, a derived grammatical category is one that yields an grammatical category of type α (indicated on the left side of the slash) when combined with some specific number of instances of type β (indicated on the right side of the slash) An S/S,S would be an expression which yields a sentence when combined with two sentences. This would be a binary sentential connective, such as 'and' or 'or': *The cat is on the mat **and** Patrick Stewart is bald.*

This is a taxonomy of grammatical categories which takes the categories SENTENCE and SINGULAR TERM as basic and derives others from them. The kind of extra-linguistic entity assigned to expressions of the derived categories as their semantic value is a reflection of their grammatical role. Just as the *grammatical role* of a one-place predicate (S/N) is to form a sentence (S) when combined with a singular term (N), the extra-linguistic entity assigned to one-place predicates are *functions* that map objects (the referents of singular terms) to Truth values (the referents of sentences). More generally and perspicuously, the *semantic value* assigned to a grammatical category α/β will be a *function* that yields semantic values appropriate to α s upon 'input' of a semantic value appropriate to β s. (This obviously generalizes to cases where the category calls for more than one instance of the type β .) Where α is S (to which are assigned Truth Values) and β is N (to which are assigned objects) — an S/N — the assigned extra-linguistic entity is a function from objects to truth values. The nuts and bolts of categorial grammars will not play any prominent role in the remainder of the book.³

³ It should be apparent that the categorial descriptions N (singular terms) and S/(S/N) (quantifier expressions) are similar, in that both are grammatical categories whose semantic value is something

One of Evans' primary goals in this section is to distinguish, from within a broadly Fregean framework, the terms 'referent' and 'Meaning' (using the capital letter to mark the Fregean use of the term). The distinction, which will be discussed more in the following sections, is this: *Meaning* will be whatever extra-linguistic entity is assigned to an expression as its semantic value. *Referent* is one possible choice for Meaning. To foreshadow a bit, Evans will later argue that one can remain broadly Fregean in the face of some problems by choosing, as the extra-linguistic Meaning for some singular terms, things other than their referents.

1.3 Empty singular terms: preliminary remarks

This section is entirely straight-forward. First, Evans walks through an example of how the meaning of an atomic sentence is determined. With this example in hand, he underscores the problem that is created when components fail to have a referent — the problem discussed in the previous section under the heading of 'empty singular terms'. Next, Evans remarks that though Frege recognized this issue, this was not what prompted him to develop his theory of Sense. Rather, it was the second problem (the informativeness of identity statements) that prompted the theory of Sense. Evans then remarks that although it was the second problem that prompted the theory of Sense, with a notion of Sense in hand, Frege tried to use it to address the first problem, that of empty singular terms.

Evans begins by recounting how the sort of semantic theory outlined in the previous section is supposed to work for an atomic sentence by working through an example. Consider the sentence 'John is wise.' First, the singular term 'John' has as its semantic value an object: its referent, *John*. The predicate 'x is wise' has, as its Meaning, a *function* from objects to truth-values, in this case a function which maps all and only wise objects on to the truth value True, and maps all others to False. Because John is one of the wise things, this function yields the truth-value True, and this is then the meaning of the sentence as a whole. Note in particular that it is not just that the output of the function specifies that the *sentence is true*, as one might say. Rather (or in addition), it determines that the truth-value True, conceived as a sort of platonic object, is assigned to that sentence as its extra-linguistic Meaning.

There are two wrenches which might cause this semantic engine to misfire: first, the singular term may fail to be assigned an object (an empty singular term); and second, the function that is the semantic value of the predicate may not be defined over all objects (specifically, it might not be defined over the object assigned to the singular term). In either case, function will not yield an output, and the sentence in question will fail to have a Meaning secured.

that, in combination with an S/N (a predicate), provides a Truth Value. For instance, '*Patrick Stewart is bald*' and '*Some actor is bald*'. The difference is how they arrive at this semantic value. In the first case, at the grammatical level we combine an N and an S/N. At the semantic level we are combining an *object* with a function *from objects to truth values*. This function produces a truth value — an extra-linguistic entity appropriate to Ss. In the second case at the grammatical level we are combining an S/(S/N) — a quantifier — and an S/N — a predicate. At the semantic level, we are combining (i) a function from objects to truth values (the semantic value of a predicate), with (ii) a function *from* (functions from objects to truth values), *to* (Truth values) — that is, a higher level function that takes as input a lower-level function and produces as output a Truth value.

Evans says that before Frege developed his theory of Sense, he accepted this consequence. Thus Frege accepted that atomic sentences such as 'The table in the living room belongs to my grandmother' are strictly *meaningless* if there is nothing answering to the expression *the table in the living room*. This view of matters is today more commonly associated with Russell, and Evans will discuss this more in the next section. For now, note the terminological point that Evans will use the expression *Russellian Singular Term* to mean a singular term whose significance depends on its having a referent — that is, a term such that, if empty, any extensional sentence using it as the grammatical subject will not have a Meaning, it will be *meaningless* (or: will be unfit for the expression of a thought).

Evans then briefly discusses Frege's theory of Sense. While the theory of Meaning was concerned with the *Meaning* of linguistic expressions, the theory of *Sense* was developed to account for features of language users' *understanding* of expressions of their language. Of particular interest was the potential informativeness of identity statements. According to the theory of Meaning outlined in the previous section, there is no difference of *Meaning* between the following two statements:

- 1) Cicero is Cicero.
- 2) Cicero is Tully.

Each sentence, according to the theory of Meaning, invokes the same object twice, and presents them to a function, the identity function, that returns the value True if the same object is presented to it by both singular terms, and returns False if different objects are presented to it. Thus at the level of Meaning (1) and (2) are identical. But clearly (2) can be informative, though (1) cannot be. Because the theory of Meaning fails to discern any difference between (1) and (2), Frege felt it necessary to supplement the theory of Meaning with a theory of *Sense*. The short version is that singular terms (and other grammatical categories) would be assigned not only a Meaning, but also a Sense. And while two co-referring expressions will, by definition have the same Meaning (=referent), they might nevertheless have different Senses.

Note that aside from saying that Senses are distinct from Referents, and that co-referring expressions might nevertheless have different Senses in such a way as to presumably address the problem of the informativeness of identity statements, nothing so far has been said about what, exactly, Senses are. This question will figure prominently in the rest of the book.

What about the Senses of other grammatical categories? First, Frege stipulates that the Sense of a sentence is a *thought*. And so while (1) and (2) both Mean the same thing — they both have the truth-value True as their Meaning — they nevertheless express different *thoughts*. This then is the solution to the problem of the informativeness of identity statements. Such statements, if true, will have the same Meaning, but may nevertheless express different thoughts.

Since every meaningful expression is to be assigned not only a Meaning but also a Sense, Evans points out that Frege felt able to address the problem of empty singular terms by claiming that such singular terms, while lacking a referent, nevertheless might have a Sense, and this explains the (seeming?) significance of such sentences. Evans closes this section by foreshadowing the topic of section 1.5, which is an investigation into whether or not Frege's account allows expressions without a Meaning to have a Sense.

1.4 Sense: preliminary remarks

This section is a brief introduction to what Fregean Senses are. Frege used various metaphors, such as they 'illuminate the referent from a particular angle' or are a 'mode of presentation of the referent', and others. Evans makes an initial stab at a less metaphorical proposal: Senses correspond to ways of thinking of the referent.

Evans opens with a long quote from Frege. In it Frege does three things. First, Frege uses the informativeness of identity statements to motivate the idea that in addition to a referent, singular terms must have something like a *sense*. Second, he gives a quick metaphorical gloss on the idea of what Senses are, namely, as a way of “determining an object”:

An object can be determined in different ways, and every one of these ways of determining it can give rise to a special name, and these different names then will have different senses... (VR, p. 15, quoted from Frege, *Philosophical and Mathematical Correspondence*, p. 80)

Third, Frege provides an argument that these senses should not be understood as mental or subjective items, but as objective features of the expressions used.

Evans picks up on the topic of how Frege characterized Sense, pointing out that in other places, he talked of Senses as a sort of particular *viewpoint* on the Meaning (=referent). He also talked about a sense as a *way of presenting* the referent, or as *illuminating* different aspects of the referent. These 'ways of presenting' the Meaning would be objective, in that anyone who was sufficiently familiar with the language would not only know the Meaning of the expression, but would know the particular way in which a given expression 'presented' that Meaning.

Evans suggests that it will be more useful to analyze senses as *ways of thinking of* the referents. That is, given that when one thinks of something, one will be thinking of it in a particular way, these 'ways of thinking' of Meanings can be equated with senses — provided, of course, that these ways of thinking are conventionally associated with expressions in the language. So someone who thinks of the planet Venus as *the object which shines most brightly in the morning sky*, will be thinking of the same object, but in a different way, when thinking of it as *the object which shines most brightly in the evening sky*. The first way of thinking might be conventionally associated with expressions such as 'The Morning Star' or 'Phosphorus', while the second way of thinking of Venus might be conventionally associated with 'The Evening Star' or 'Hesperus'.⁴

Evans then briefly explains that similar considerations apply not only to singular terms, but to any expression assigned a Meaning by the semantic theory. So for example, the function assigned to the predicate '... is a creature with a heart' might map exactly the same objects onto True as the function assigned to the predicate '... is a creature with kidneys'. Since functions are fully determined by their

⁴ Notice that I just cashed out senses as sorts of descriptions, such as *the object which shines most brightly in the morning sky*. This is one way to understand a sense on Evans' view — thinking of an object as the object which uniquely satisfies a description is a way of thinking of that object. But Evans will, beginning in Chapter 6, explore other ways of thinking of objects.

mappings, and these functions have the same mapping, they are the same function — thus these predicates have the same Meaning. In understanding either expression, one would be thinking of this function, but one would be thinking of it in different ways in the two cases. These would correspond to the different senses of the two predicates.

It is worth flagging something that happens here but which Evans won't explicitly remark on until later. Notice that Evans is getting leverage on a phenomenon in *semantics* (the notion of Fregean sense in this case) from psychological facts about the users of the language. In particular, a Sense is a *way of thinking* of a referent that one must employ if one is to *understand* a sentence employing the expression. We are explaining Sense in terms of ways of thinking and requirements for understanding. Much of 20th Century analytic philosophy adopted an approach according to which an analysis of language would be prior to an analysis of, or understanding of, mind. Here Evans is reversing this. And it is for this reason that Dummett (*Origins of Analytic Philosophy*, 1993) once referred to Evans as the first post-analytic philosopher of language.

Evans closes with the following passage (p. 17):

To summarize, then, I suggest we take Frege's ascription of a sense to a Proper Name to mean that not only must one think of an object — the referent of the term — in order to understand a sentence containing it, but also anyone who is to understand the sentence must think of the referent in the same particular way. It is therefore, for Frege, as much a public and objective property of a term that it imposes this requirement, as that it has such and such an object as its referent.

1.5 Sense and thought

This section consists of four parts. The first introduces Frege's Intuitive Criterion of Difference, which is a constraint on the individuation of senses. The second part continues the discussion of Evans' own proposal for unpacking the notion of sense. The third part consists of Evans countering an objection to his proposal. The fourth and final part is a reconstruction of the Fregean model of the communication of thoughts via language that illustrates the role that senses, as Evans describes them, play.

The **first** part of this section, running from the top of p. 18 to the bottom of p. 20, Evans points out that Frege doesn't give us a lot to go on concerning what exactly a *sense* is supposed to be. But he does point out that there is one non-metaphorical constraint that is capable of shedding at least some light on the matter. Since Frege's purpose for the introduction of the notion of sense was to account for a *cognitive* phenomenon (the *informativeness* of identity statements), it is incumbent upon Frege to somehow link senses to what Evans calls propositional attitude psychology — that is, he must link senses to language user's beliefs and rationality. Frege does this by making a cognitive/psychological test criterial for the individuation of senses. Evans calls this test the *Intuitive Criterion of Difference*. Evans states this criterion in the following way, which restricts its immediate application to one particular type of sense — *thoughts* (recall that *thoughts* are the senses of *sentences*):

The thought associated with one sentence S as its sense must be different from the thought associated with another sentence S' as its sense, if it is possible for someone to understand both sentences at a given time while coherently taking different attitudes towards them, i.e. accepting (rejecting) one while rejecting (accepting), or being agnostic about, the other. (p. 18-19)

It is possible, though Evans does not do this here, to generalize this criterion to expressions of any grammatical category by exploiting the fact that the sense of a sentence is a function of the senses of the constituents, in a way exactly analogous to the way in which the Meaning of a sentence is a function of the Meaning of its constituents. The generalized version would be:

If two extensional sentences S_1 and S_2 are identical except for the fact that S_1 employs the grammatical component ' α ' where S_2 employs the expression ' β ', and if it is possible for a rational and fluent speaker of the language in which S_1 and S_2 are expressed to judge one to be true, while at the same time judging the other to be false or to be uncertain of the truth of the other, then ' α ' and ' β ' must have distinct senses.

The criterion Evans explicitly discusses is obviously a special case of the second, where ' α ' is the entire sentence S_1 and ' β ' is the entire sentence S_2 .

In the **second** part of this section, from the bottom half of p. 20 to the bottom of p. 21, Evans then turns to his own formulation of sense as *a way of thinking of the referent*. It's all well and good for Evans to clarify Frege's metaphors about "presenting" the referent, or "illuminating it from different angles" in terms of its being *a way of thinking of the referent*, but this will not be useful unless we can say something about what 'a way of thinking of something' means – and it could mean many different things.

Evans' proposal is that a 'way of thinking of a ' can be given by an account of what makes it the case that a subject S is thinking about the object a . This account will take a form such as

S is thinking about a in virtue of the fact that ... S ...

What follows the 'that' in this formulation will be some account which makes reference to *both* the subject S and the object a . For example, if S is thinking of a by description, then the account might be

S is thinking about a in virtue of the fact that *S is entertaining the thought that the object that is uniquely F is also G , and a is the object that is uniquely F .*

The account is not limited to cases where the subject is thinking of objects by description, but it can accommodate such cases. Much of what Evans has to say about demonstratives and indexicals will concern non-descriptive ways of thinging about things.

Evans then says that another subject S' will be thinking of a in the same way as S if we get a correct account of why S' is thinking of a by simply replacing S with S' in the original formulation: i.e. " S' is thinking about a in virtue of the fact that ... S' ...".

Third, Evans counters an objection to this proposal. The objection is:

1. Sense determines referent. (This hasn't come up yet in this book, but it is agreed on all sides.)
2. On your (Evans') account, 2 people at different locations thinking of their surroundings in the same way (as 'here') would be employing or grasping the same sense.
3. But then their senses would not determine a referent, because the same sense would lead to, so to speak, two different referents.
4. Therefore, your account cannot be correct.

Evans' answer is to deny (2), because on his proposal, one determines whether S and S' are thinking of *a* in the same way by substituting *only* occurrences of S with S' in the 'S is thinking about object *a* in virtue of the fact that ... S ...' specification. One does not, in addition, substitute *a* for some corresponding *a'*. But the objection above requires that in the specification we replace mention of S with S', and we also replace mention of *a* (the surroundings of S) with mention of *a'* (the surroundings of S').

Note that because Evans' criterion requires that, in order for it to be applied, the formulation must retain everything except the substitution of S' for S, his criterion will have the result that sense determines referent.

Note also that while the Intuitive Criterion of Difference applies only to senses entertained by a single subject at a particular time, Evans criterion can be applied to two different subjects, possibly at different times. It could also be applied when the same subject plays the role of both S and S', at either the same time or different times. Note also that Frege's criterion applies primarily to linguistic expressions, while Evans' applies to thoughts, regardless of their expression in language.

In the final and **fourth** part, from the bottom of p. 21 to the end of the section, Evans closes with a recap of the Fregean model of communication which one arrives at with these ideas. The section is pretty straight forward. The thing to note about this model of communication is that in it, senses play a pivotal role. While Evans isn't explicit about this, throughout the book he will discuss "Fregean" accounts of semantics, and by and large, he means accounts such that this communicative model applies. And so expression types for which the Fregean communicative model applies will be types whose functioning depends on their possession of a Fregean sense.

1.6 Empty singular terms: sense without Meaning?

This section does two things. The first is to clarify the nature of the problem posed for Frege by empty singular terms. The problem is that the most natural way of understanding the theory seems to make no room for a notion of sense for empty singular terms, and hence the apparatus will assign no Sense to extentional sentences employing these terms — that is, these sentences will express no thought.

But in some cases such sentences seem apt for expressing thoughts. Evans then discusses how Frege deals with the problem, by invoking the idea that such uses are essentially fiction.

Evans begins by pointing out that on Frege's metaphor-driven explanations of what senses are (ways of presenting the referent, etc.), as well as on his (Evans') own account (a way of thinking of the referent), there seems to be no way to end up with a sense unless there is a referent. Nevertheless, it seems that there are cases where sentences employing empty singular terms are perfectly legit. It seems disingenuous to provide a semantic theory that is supposed to explain how sentences can be meaningful and express thoughts and be used in communication, and then respond to a problem of this sort by just saying "Well, my theory doesn't apply in these cases."

The problem appears both at the level of singular terms, but also at the level of atomic sentences. Recall that on Frege's theory, the reference of atomic sentences are *truth values*, and the senses of atomic sentences are *thoughts*. And Frege's theory is supposed to be telling us that the semantic power of sentences — their ability to convey thoughts, to be used in meaningful discourse — depends on their having a certain kind of reference, then it is a serious problem if it turns out that there can be intelligible sentences that seem able to convey thoughts in meaningful discourse but which lack the appropriate referent.

Frege is driven to say that such sentences *express thoughts*, but these thoughts are neither true nor false. This is another way of saying that such sentences have a sense, but no referent. And so Evans puts pressure on this in various ways. Both by just pointing out that in general it seems difficult to see what it might mean for there to be a definite thought that was neither true nor false, but also more specifically by pointing out that on Frege's view, the reference of compound expressions, like sentences is a function of the reference of their components. And so if there is a component that has no reference, it should not be possible for it to contribute to the determination of the reference of an embedding sentence. But it seems that they can: this is where Evans' discussion of a wide-scope negation operator comes in to play. Note that Evans points out that one way out of this bind is to go the way Russell did, namely, to deny that such sentences — sentences with an empty 'logically proper name' — express thoughts.

The discussion from the bottom of p. 25 to the top of p. 27 is meant to counter a certain objection that isn't explicitly stated. The objection is this: "Look, Evans, it might not be necessary for Frege that in order to have a sense, a sentence must have a reference. Granted, there is a puzzle concerning how *empty singular terms* might have a sense with no reference, but assuming that can get solved somehow, it would be possible to say that the sense of an atomic sentence is determined by the senses of its components, and the fact that the atomic sentences don't have a referent (are neither true nor false) wouldn't present a new problem."

This objection points out that there are two ways to conceive of how the sense of an atomic sentence (or other derived category) has its sense determined:

1. Reference of components plays two roles: a) it is a component of the determination of that component's sense (it is the thing that is being presented in a certain way); and b) it is an input into a function that determines the referent of the compound. The once the compounds referent is determined, the sense of the compound is some function of this referent. The chain of explanation

for how the compound gets a sense goes from component's referent to compound's referent to compound's sense.

2. Reference of components still plays the same two roles: a) it is a component of the determination of the component's sense (it is the thing that is being presented in a certain way); and b) and it is an input into a function that determines the referent of the compound. But, the sense of the compound is a function of the senses of its components. The chain of explanation for how the compound gets a sense goes from component's referent to component's sense to compound's sense.

And the objection is suggesting that if we go the second route, then there is no problem with sentences that are neither true nor false nevertheless expressing a thought. (Though of course the problem of how the components get a sense without a referent would remain.)

In the page and a half where Evans addresses this his main point is that Frege's theory takes the form of (1), not (2). As Evans puts it:

Frege nowhere appears to have envisaged a theory which would entail, for any sentence of the language, S, a theorem of the form

The sense of S is...,

derived from axioms which would state the sense of the primitive words of the language. (pp. 25-26)

Next, Evans explains how Frege managed the cognitive dissonance caused by the combination of the official line according to which atomic sentences employing empty singular terms should be meaningless, and his willingness to allow that such sentences could be meaningful. Despite the fact that in some cases those sentences seem perfectly serious and respectable, and might even play an indispensable role in serious reasoning (e.g. "*The least rapidly converging series* converges less rapidly than the Reciprocal Fibonacci series") — Frege lumps all such cases together as fiction. And so given that there is good independent reason to accept that the use of language in fiction might require different analysis than its normal non-fictional use, Frege put all the problem cases under that heading. So according to Evans the official Fregean line is that such sentences don't really express thoughts, despite the fact that Frege sometimes says things suggesting that they do. They only express *mock thoughts*. Evans summarizes with the following passage:

...we may gloss those passages in which Frege says that a sentence containing an empty singular term may express a thought as follows. Yes: a sentence containing an empty singular term may have a sense, in that it does not necessarily have to be likened to a sentence containing a nonsense-word. But no: it does not *really* have a sense of the kind possessed by ordinary atomic sentences, because it does not function properly, it is only *as if* it functions properly. Frege's use of the notion of fiction wrongly directs our attention to just one case in which it is *as if* a singular term refers to something, namely when we are engaged in a pretence that it does, but

there are others, and if we think of them, we might speak of apparent, rather than mock or pretend, thoughts. (p. 30)

At this point it might help clarity to say a few words about where Evans is going to go with this, even though in some sense what I am about to say is reporting on moves Evans only makes in later chapters. First, within the *grammatical* category of singular term (S/N) different *semantic* categories must be discerned, such as Proper Names, demonstratives, descriptive names, and perhaps others. Frege didn't distinguish different kinds of singular terms, and hence attempted a one-size-fits-all theory that didn't in fact fit all sizes. Different accounts of the significance of expressions of each type might be necessary, and in particular some types may be significant even in absence of a referent (e.g. descriptive names, discussed in Section 1.7), while others might not (e.g. demonstratives, discussed in Chapter 6). Those expressions whose significance depends on their having a referent Evans will call *Russellian*: where there is no referent, the sentence employing the expression fails to express a thought, and is strictly meaningless. Nevertheless, such sentences cannot simply be assimilated to pure nonsense, but rather an account must be given of how such sentences can have the appearance of significance, or can convey 'apparent thoughts'. These are some of the main themes in the rest of the book.

1.7 Section 1.7 Empty singular terms: sense without referent

In this short section, Evans does two things. First, he summarizes the argument of the chapter to this point, and his gloss on Frege's theory. Second, he points out the core reason that Frege's theory is unworkable, and he foreshadows his own proposals (which in some cases are very Fregean).

Evans begins with a gloss on Frege's overall semantic theory. First, it recognizes a level of Sense in addition to a level of Meaning. Second, it is Russellian in that *strictly speaking* it holds that atomic sentences employing singular terms which themselves lack a Meaning are not significant. Third, it points in a direction to look for an explanation of why such sentences sometimes appear to be significant: the conveyance of something like apparent thoughts, or the pretense of thought-apprehension.

The core problem with Frege's theory is it a *single theory* that Frege tried to apply to a category of expressions (singular terms) when in fact that category contains different subtypes with different features, and in need of different treatments. For example, according to Evans there are some types of singular term that are *Russellian* (meaning that if they are empty, atomic sentences employing them are

meaningless, and convey no thought), as well as some that are not Russellian. Demonstratives would be an example of the former (which Evans discusses at length in Chapter Six), and descriptive names would be an example of the former (which Evans will discuss in the next chapter).

Evans summarizes the point he has been arguing for in this chapter with the following crucial passage:

I have not argued that the entire structure of a Fregean semantic theory would break down if one insisted upon ascribing a Fregean sense to an empty singular term. What I have claimed is that dire consequences follow from the ascription of a Fregean sense to any expression that has no Meaning or semantic value; hence the consequences ensue for Frege because he selected, as appropriate semantic values for singular terms, the objects that would be regarded as their referents. But the equation between semantic value and referent is by no means mandatory. In fact it has to be given up if empty singular terms are to be ascribed a sense. (p.32)

This is the key passage of this chapter for purposes of interpreting Evans' proposal. Clearly, Evans takes it that a broadly Fregean semantic theory is still viable, provided that, at least for some categories of singular term if not all, their semantic value is not identified with their referent. Singular terms which can be empty, and yet contribute to meaningful sentences, must have as their semantic values something other than their (purported) referents.

Evans closes by providing one *example* of such an alternate proposal: one can assign to singular terms not objects (referents) but *sets*, such that the set assigned to a singular term either contains exactly one object (the referent) or is empty (the empty set). On this proposal, all singular terms will have a semantic value, an extra-linguistic Meaning. It should be stressed that *this is not a proposal Evans wants to endorse*, but is merely an example of how one can choose entities other than referents to be the Meanings of singular terms. Evans' own proposal for various kinds of singular term will form the bulk of the book.

1.8 Interpretational semantics and truth theories

This section is probably the most difficult of the chapter, and for most readers it will also be the most dispensable. The entire purpose is to head off an objection to Evans' enterprise to the effect that his treatment of the difference between Russellian and non-Russellian singular terms will be of interest only to theorists who adopt an interpretational semantic theory, but is not relevant to those interested in Davidsonian truth-theoretic semantic theories. Evans argues that even from a truth-theoretic approach, the difference between Russellian and non-Russellian singular terms is important. Those uninterested in this issue can safely skip this section — it will be of no consequence for the remainder of the book.

Evans begins by pointing that the Fregean semantic theory he has been discussing is a species of what he calls an *interpretational semantic* theory. Such a theory analyzes the meaningfulness of sentences in natural language by assigning to expressions (sentential and sub-sentential) of various semantic categories entities of some sort as their semantic value: both an assignation of a kind of entity as an appropriate interpretation for expressions of a particular semantic category, as well as the particular assignation of a given entity of this kind to a given expression of the semantic category.

Evans then introduces a different sort of semantic theory, Davidsonian truth theories. Evans' reason for doing this is not that he thinks such truth theories are preferable. Indeed, he argues that interpretational theories are needed even for those who engage in the truth-theoretic enterprise. Rather, he introduces truth theories here in order to show that even from within such theories, the distinctions Evans wants to draw between Russellian and non-Russellian terms can be drawn. The following passage makes Evans' intentions on this matter clear:

... the rather cumbersome theories in which entities are assigned to expressions as their semantic values seem ultimately unavoidable... However, it may help to increase the clarity and appeal of the points I have been making if I express them in terms provided by one of these more familiar and less cumbersome theories. (p.34)

Very roughly, these theories explicate the meaning of sentences in the language under investigation (the object language) by means of *theorems* (stated in the metalanguage, the language in which the investigation is conducted) that rely only on a notion of *truth*. For example:

1. 'Schnee ist weiss' is true if and only if snow is white.

This is an analysis of the meaning of the object-language sentence that does not assign anything to any elements of the object language.

But a problem faced by this approach is that it would seem to require an infinite number of such theorems to explicate the meaning of the sentences of any actual natural language. A solution to this problem is to treat the analysis as compositional by showing how this infinite number of theorems can be derived from a finite number of axioms. These axioms, in turn, provide interpretations of the parts of sentences of the object language. (There is a potential confusion of terms here. Evans uses "Interpretational semantics" to mean a theory that assigns objects and other extra-linguistic entities to meaningful expressions of the language under discussion. The 'interpretations' appealed to in compositional truth theories are not interpretations of this sort. They interpret expressions of the object language in terms of the metalanguage and an enriched semantic vocabulary including words like 'refers', 'satisfies', and perhaps others.)

Consider axioms such as

2. The referent of 'Schnee' = snow
3. The referent of 'Firenze' = Florence.

And similar axioms for other subsentential expressions. We would then have the wherewithal to derive an infinite number of theorems from a finite number of axioms. In the simplest case, the theorems and axioms are themselves stated in the same language as the language being analyzed. So we would have axioms such as

4. The referent of 'Seattle' = Seattle.

As Evans points out, while strictly speaking the theory is still not assigning extra-linguistic entities to linguistic expressions,

...one can more or less derive, from what it explicitly states about the primitive expressions of the language, the assignment of Meanings (from the appropriate elements of Frege's ontology) which would be made to those expressions upon the distinguished or actual interpretation...

But while such axioms could be used to indicate what the 'Meanings' of such expressions would be, they couldn't in that way indicate what the Senses would be, since both of the following would be equally serviceable as axioms:

5. The referent of 'Cicero' = Cicero
6. The referent of "Cicero" = Tully

And because both will serve equally well, we can't just read off any set of axioms adequate for a truth theoretic account anything corresponding to the Senses such expressions might have. Nevertheless, of all those that are adequate for truth theoretic purposes, we could choose those that, in addition to being serviceable as axioms in the theory, in addition display the Senses.

OK, all that was mostly preliminary. Here is the first key bit. Suppose in fact that there are Russellian singular singular terms, that is terms such that if they are empty, then sentences employing them are neither true nor false. Evans points out that

...[i]n the event that a term appropriate for treatment in this way lacks a referent, no such clause can truly be stated, so that truth-conditions for sentences containing the term cannot be derived. This is a formal representation of the fact that such a term has no sense and that sentences containing it express no thought.

These are precisely the features of Russellian singular terms, but they have been captured now in the theoretical framework of truth theoretical semantics.

What about non-Russellian singular terms, such as descriptive names? How can that category be captured in terms of this sort of approach? Such singular terms would need to be associated with axioms that can be used to derive truth conditions for embedding sentences even when those expressions lack a referent. For example axioms of a form such as:

7. (x) (the referent of 'a' = x iff x is φ).

(As in Evans' text, underlining indicates the scope, so to speak, of uniqueness, but unlike the text, I use italics to indicate which expression is the one for which uniqueness is being asserted.)

Evans points out that while axioms such as 7 can be used to derive appropriate truth theoretic theorems, they do so non-homophonically. So in this respect they are unlike (4) and (5).

In the rest of the section, Evans points out that this is not a worry, since it is possible to do it homophonically. The argument is that if the metalanguage has descriptive names, then we need to

recognize certain free-logic-esque modifications to classical logic in the metalanguage. (And we are presuming the metalanguage has descriptive names, since it is a descriptive name in the object language that we are analyzing, and we are assuming for simplicity that the metalanguage is an extension of the object language. It's not clear that this argument would work if the metalanguage were not an extension of the object language, and lacked the descriptive name in question.) But once we have the expressive resources of free logic, in particular the resources to indicate the 'scope' of a name, we shall be able to construct axioms that use the name

8. $(x) (\text{The referent of 'Julius'} = x \text{ iff } [\text{Julius}] (x=\text{Julius}))$

Here, the name in brackets ([Julius]) indicates the 'scope' of the name, that is, the section of the formula within which various classical logic inferences employing the name are allowed. So in (8), the name is used in the axiom which specifies the contribution that that name will make to theorems derived from it in such a way that it is not required that the name have a referent.

A few closing remarks are in order. First, the general heading of "truth theoretic semantics" is large, and there are many nuances. The reader shouldn't take anything Evans (or my gloss on Evans) says to be anything other than a comment on one of many ways to understand the program. Second, to repeat what I said above, this section is entirely dispensable in terms of understanding the major themes in the book.

1.9 Conclusions

In this section Evans presents and clarifies the main results he wants to draw from this chapter. In brief, it is that we should be open to the possibility that the intuitive category of singular terms might in fact include multiple semantic categories, that is, multiple kinds of terms that require different semantic analyses.

Evans closes with the following conclusions:

- 1) Frege's theory of sense and reference forced him to be a Russellian about singular terms, at least most of them, whether or not he liked or recognized this fact.
- 2) Even if (1) is wrong, there was nothing to prevent Frege from recognizing Russellian singular terms.
- 3) Even granting (2), there was nothing to prevent Frege from recognizing non-Russellian singular terms.

Therefore there is the possibility of an eclectic Fregean theory, recognizing both Russellian and non-Russellian singular terms. This of course requires giving up a monolithic semantic theory for singular terms, and recognizing different semantic categories within that grammatical category. But Evans

warns that as yet we have no idea what a Russellian thought could be, how a way of thinking of something could be such that in the absence of the object, there is no such thought to be had. (The move from Russellian singular term to Russellian thought will be clarified later.)

Evans then claims that even such an eclectic Fregean theory will not be able to handle all singular terms. Specifically, *proper names* will not fit into a broadly Fregean semantic theory – and by this he means a theory for which the Fregean model of communication, outlined at the end of Section 1.5. The reason is that proper names work, i.e. subserve communication, without it being the case that the interlocutors must share a sense — that is, they can both understand the proper name correctly and use it for fruitful communication, even though they do not think of the referent in the same way, and thus could have thoughts distinguishable by the Intuitive Criterion of Difference.⁵

So there is the possibility — which Evans will explore in the rest of the book — of at least these three semantic categories within the broader grammatical category of *singular term*, each requiring its own semantic theory. Using *Russellian* for semantic categories of singular term that require a referent in order to function, and *Fregean* for semantic categories of singular term that require a sense in order to function (as per the Fregean model of communication) we have:

- a) Russellian/Fregean singular terms (e.g. demonstratives and indexicals: *this*, *that*, *here*, *there*, *I*); require a referent in order to be significant; theory of Sense is applicable.
- b) Non-Russellian/Fregean singular terms (e.g. descriptive names such as ‘Julius’); do not require a referent in order to be significant; theory of Sense is applicable.
- c) Russellian/non-Fregean singular terms (e.g. proper names such as ‘John McDowell’); require a referent in order to be significant; theory of Sense is not applicable.

Evans doesn't discuss this, but note that there is a fourth possibility in logical space: non-Russellian/non-Fregean singular terms. It's not obvious what sort of useful singular term could have these features, however. Because it is non-Russellian, its usefulness could not derive from any connection to its putative referent (as with proper names), nor could its usefulness be derived from there being any sort of proprietary ways of thinking or what-have-you, since those would qualify as Senses. This isn't meant to be a knockdown argument, but just a quick consideration as to why that fourth category might be empty. Also, as a reminder, definite descriptions don't fall into any of these categories, since they are not referring expressions. Definite descriptions are treated in more detail in Chapter 2.

⁵ Note that Evans here is making appeal to Frege's Intuitive Criterion of Difference, which is defined only for a single speaker, to a case involving two speakers. Presumably he has in mind a situation in which a single speaker entertains the two thoughts that are being entertained by the two speakers in the situation under discussion.