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4. Reference: foundational issues

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This chapter reviews issues surrounding theories of reference. The simplest theory is the Fido-Fido theory – that reference is all that an NP has to contribute to the meaning of phrases and sentences in which it occurs. Two big problems for this theory are coreferential NPs that do not behave as though they were semantically equivalent and meaningful NPs without a referent. These problems are especially acute in sentences about beliefs and desires – propositional attitudes. Although Frege’s theory of sense, and Russell’s quantificational analysis, seem to solve these problems for definite descriptions, they do not work well for proper names, as Kripke shows. And Donnellan and Strawson have other objections to Russell’s theory. Indexical expressions like I and here create their own issues; we look at Kaplan’s theory of indexicality, and several solutions to the problem indexicals create in propositional attitude contexts. The final section looks at
indefinite descriptions, and some more recent theories that make them appear more similar to definite descriptions than was previously thought.

1. Introduction

Reference, it seems, is what allows us to use language to talk about things and thus vital to the functioning of human language. That being said there remain several parameters to be fixed in order to determine a coherent field of study. One important one is whether reference is best viewed as a semantic phenomenon – a relation between linguistic expressions and the objects referred to, or whether it is best viewed as pragmatic – a three-place relation among language users, linguistic expressions, and things. The ordinary everyday meaning of words like “refer” and “reference” would incline us toward the pragmatic view (we say, e.g., *Who were you referring to?*, not *Who was your phrase referring to?*). However there is a strong tradition, stemming from work in logic and early modern philosophy of language, of viewing reference as a semantic relation, so that will be the main focus of our attention at the outset, although we will turn before long to pragmatic views.

1.1 Reference vs. predication

Another parameter to be determined is what range of expressions (can be used to) refer. The traditional model sentence, e.g. Socrates runs, consists of a simple noun phrase (NP), a proper name in this case, and a simple verb phrase (VP). The semantic function of the NP is to pick out (i.e. refer to) some entity, and the function of the VP is to predicate a property of that entity. The sentence is true if the entity actually has that property, and false otherwise. Seen in this light, reference and predication are quite different operations. Of course many natural language sentences do not fit this simple model. In a semantics which is designed to treat the full panoply of expression types and to provide truth conditions for sentences containing them, the distinction between reference and predication may not be so clear or
important. In classical Montague Grammar, for example, expressions of all categories (except determiners and conjunctions) are assigned an extension, where extension is a formal counterpart of reference (Montague 1973; see also article 11 *The emergence of formal semantics*). (In Montague Grammar expressions are also assigned an intension, which corresponds to a Fregean sense – see below, and cf. article 3 *Sinn and Bedeutung*.) An expression’s extension may be an ordinary type of entity, or, more typically, it may be a complex function of some kind. Thus the traditional bifurcation between reference and predication is not straightforwardly preserved in this approach. However for our purposes we will assume this traditional bifurcation, or at least that there is a difference between NPs and other types of expressions, and we will consider reference only for NPs. Furthermore our primary focus will be on definite NPs, which are the most likely candidates for referring expressions, though they may have other, non-referring uses too (see the articles in Chapter IX, Noun phrase semantics). The category of definite NPs includes proper names (e.g. *Amelia Earhart*), definite descriptions (e.g. *the book Sally is reading*), demonstrative descriptions (e.g. *this house*), and pronouns (e.g. *you, that*). We will have only a limited amount to say about pronouns; for the full story, see article 41 *Pronouns*. (Another important category is generic NPs; for these, see article 49 *Genericity*.) Whether other types of NP, such as indefinite descriptions (e.g. *a letter from my mother*), can be properly said to be referring expressions is an issue of some dispute – see below, section 10.

### 1.2 The metaphysical problem of reference

Philosophers have explored the question of what it is, in virtue of which an expression has a reference – what links an expression to a reference and how did it come to do that? Frege (1892), argued that expressions express a sense, which is best thought of as a collection of properties. The reference of an expression is that entity which possesses exactly the properties contained in the sense. Definite descriptions are the clearest examples for this
theory; the inventor of bifocals specifies a complex property of having been the first to think up and create a special type of spectacles, and that NP refers to Benjamin Franklin because he is the one who had that property. One problem with this answer to the question of what determines reference is the mysterious nature of senses. Frege insisted they were not to be thought of as mental entities, but he did not say much positive about what they are, and that makes them philosophically suspect. (See article 3 Sinn and Bedeutung.) Another answer, following Kripke (1972), is what is usually referred to as a “causal (or historical) chain”. The model in this case is proper names, and the idea is that there is some initial kind of naming event whereupon an entity is bestowed with a name, and then that name is passed down through the speech community as a name of that entity. In this article we will not be so much concerned with the metaphysical problem of what determines reference, but instead the linguistic problem of reference – determining what it is that referring expressions contribute semantically to the phrases and sentences in which they occur.

1.3 The linguistic problem of reference
The two answers to the metaphysical problem of reference correlate with two answers to the linguistic question of what it is that NPs contribute to the semantic content of phrases and sentences in which they appear. Frege’s answer to the linguistic question is that expressions contribute their reference to the reference of the phrases in which they occur, and they contribute their sense to the sense of those phrases. But there are complications to this simple answer that we will review below in section 3. The other answer is that expressions contribute only their reference to the semantic content of the phrases and sentences in which they occur. Since this is a simpler answer, we will begin by looking at it in some more detail, in section 2, in order to able to understand why Frege put forward his more complex theory.

2. Direct reference
The theory according to which an NP contributes only its reference to the phrases and
sentences in which it occurs is currently called the “direct reference” theory (the term was coined by Kaplan 1989). It is also sometimes called the “Fido-Fido” theory, the idea being that you have the name *Fido* and its reference is the dog, Fido, and that’s all there is to reference and all there is to the meaning of such phrases. One big advantage of this simple theory is that it does not result in the postulation of any suspect entities. However there are two serious problems for this simple theory: one is the failure of coreferential NPs to be fully equivalent semantically, and the other is presented by seemingly meaningful NPs which do not have a reference – so called “empty NPs”. We will look more closely at each of these problems in turn.

2.1 Failure of substitutivity

According to the direct reference theory, coreferential NPs – NPs which refer to the same thing – should be able to be substituted for each other in any sentence without a change in the semantics of the sentence or its truth value. (This generalization about intersubstitutivity is sometimes referred to as “Leibniz’ Law”.) If all that an NP has to contribute semantically is its reference, then it should not matter how that reference is contributed. However almost any two coreferential NPs will not seem to be intersubstitutable – they will seem to be semantically different. Frege (1892) worried in particular about two different kinds of sentence that showed this failure of substitutivity.

Identity sentences

The first kind are identity sentences – sentences of the form $a = b$, or (a little more colloquially) *a is (the same entity as) b*. If such a sentence is true, then the NPs $a$ and $b$ are coreferential so, according to the direct reference theory, it shouldn’t matter which NP you use, including in identity sentences themselves! That is, the two sentences in (1) should be semantically equivalent (these are Frege’s examples).
(1) a. The morning star is the morning star.
    b. The morning star is the evening star.

However, as Frege noted, the two sentences are very different in their cognitive impact. (1a) is a trivial sentence, whose truth is known to anyone who understands English (it is analytic). (1b) on the other hand gives the results of a major astronomical finding. Thus even though the only difference between (1a) and (1b) is that we have substituted coreferential NPs (the evening star for the morning star), there is still a semantic difference between them.

150 Propositional attitude sentences

The other kind of sentence that Frege worried about was sentences about propositional attitudes – the attitudes of sentient beings about situations or states of affairs. Such sentences will have a propositional attitude verb like believe, hope, know, doubt, want etc. as their main verb, plus a sentential complement saying what the subject of the verb believes, hopes, wants, etc. Just as with identity statements, coreferential NPs fail to be intersubstitutable in the complements of such sentences. However the failure is more serious in this case. Intersubstitution of coreferential NPs in identity sentences always preserves truth value, but in propositional attitude sentences the truth value may change. Thus (2a) could be true while (2b) was false.

(2) a. Mary knows that the morning star is a planet.
    b. Mary knows that the evening star is a planet.

We can easily imagine that Mary has learned the truth about the morning star, but not about the evening star.

165 2.2 Empty NPs

The other major problem for the direct reference theory is presented by NPs that do not refer to anything – NPs like the golden mountain or the round square. The direct reference theory
seems to make the prediction that sentences containing such NPs should be semantically
defective, since they contain a part which has no reference. Yet sentences like those in (3)
do not seem defective at all.

(3) a. Lee is looking for the golden mountain.

b. The philosopher’s stone turns base metals into gold.

Sentences about existence, especially those that deny existence, pose special problems here.
Consider (4):

(4) The golden mountain does not exist.

Not only is (4) not semantically defective, it is even true! So this is the other big problem
for the Fido-Fido direct reference theory.

3. Frege’s theory of sense and reference

As noted above, Frege proposed that referring expressions have semantic values on two
levels, reference and sense. Frege was anticipated in this by Mill (1843), who had proposed a
similar distinction between denotation (reference) and connotation (sense). (Mill’s use of the
word “connotation” must be kept distinct from its current use to mean hints or associations
connected with a word or phrase. Mill’s connotations functioned like Frege’s senses – to
determine reference (denotation).) One important aspect of Frege’s work was his elegant
arguments. He assumed two fundamental principles of compositionality. At the level of
senses he assumed that the sense of a complex expression is determined by the senses of its
component parts plus their syntactic mode of combination. Similarly at the level of
reference, the reference of a complex expression is determined by the references of its parts
plus their mode of combination. (Following Frege, it is commonly assumed today that
meanings, whatever they are, are compositional. That is thought to be the only possible
explanation of our ability to understand novel utterances. See article 6 Compositionality.)
Using these two principles Frege argued further that the reference of a complete sentence is
its truth value, while the sense of a sentence is the proposition it expresses.

3.1 Solution to the problem of substitutivity

Armed with senses and the principles of compositionality, plus an additional assumption that we will get to shortly, Frege was able to solve most, though not all, of the problems pointed out above.

Identity sentences

First, for the problem of failure of substitutivity of coreferential NPs in identity statements Frege presents a simple solution. Recall example (1) repeated here.

(1) a. The morning star is the morning star.
   b. The morning star is the evening star.

Although the morning star and the evening star have the same reference (making (1b) a true sentence), the two NPs differ in sense. Thus (1b) has a different sense from (1a) and so we can account for the difference in cognitive impact.

Propositional attitude sentences

Turning to the problem of substitutivity in propositional attitude contexts, Frege again offers us a solution, although the story is a bit more complicated in this case. Here are the examples from (2) above.

(2) a. Mary knows that the morning star is a planet.
   b. Mary knows that the evening star is a planet.

Simply observing that the evening star has a different sense from the morning star will account for why (2b) has a different sense from (2a), but by itself does not yet account for the possible change in truth value. This is where the extra piece of machinery mentioned above comes in. Frege pointed out that expressions can sometimes shift their reference in
particular contexts. When we quote expressions, for example, those expressions no longer have their customary reference, but instead refer to themselves. Consider the example in (5)

(5) “The evening star” is a definite description.

The phrase *the evening star* as it occurs in (5) does not refer to the planet Venus any more, but instead refers to itself. Frege argued that a similar phenomenon occurs in propositional attitude contexts. In such contexts, Frege argued, expressions also shift their reference, but here they refer to their customary sense. This means that the reference of (2a) (its truth value) involves the customary sense of the phrase *the morning star* rather than its customary reference, while the reference/truth value of (2b) involves instead the customary sense of the phrase *the evening star*. Since we have two different components, it is not unexpected that we could have two different references – truth values – for the two sentences.

3.2 Empty NPs

NPs that have no reference were the other main problem area for the direct reference theory. One problem was the apparent meaningfulness of sentences containing such NPs. It is easy to see how Frege’s theory solved this problem. As long as such NPs have a sense, the sentences containing them can have a well-formed sense as well, so their meaningfulness is not a problem. We should note, though, that Frege’s theory predicts that such sentences will not have a truth value. That is because the truth value, as we have noted, is determined by the references of the constituent expressions in a sentence, and if one of those expressions doesn’t have a reference then the whole sentence will not have one either. This means that true negative existential sentences, such as (4) repeated here:

(4) The round square does not exist.

remain a problem for Frege. Since the subject does not have a reference, the whole sentence should not have a truth value, but it does.
3.3 Further comments on Frege’s work

Several further points concerning Frege’s work will be relevant in what follows.

Presupposition

250 As we have just observed, Frege’s principle of compositionality at the level of reference, together with his conclusion that the reference of a sentence is its truth value, means that a sentence containing an empty NP will fail to have a truth value. Frege held that the use of an NP involves a presupposition, rather than an assertion, that the NP in question has a reference. (See article 102 Presupposition.) Concerning example (6)

255 (6) The one who discovered the elliptical shape of the planetary orbits died in misery.

Frege said that if one were to hold that part of what one asserts in the use of (6) is that there is a person who discovered the elliptical shape of the planetary orbits, then one would have to say that the denial of (6) is (7).

260 (7) Either the one who discovered the elliptical shape of the planetary orbits did not die in misery, or no one discovered the elliptical shape of the planetary orbits.

But the denial of (6) is not (7) but rather simply (8).

(8) The one who discovered the elliptical shape of the planetary orbits did not die in misery.

265 Instead, both (6) and (8) presuppose that the definite description the one who discovered the elliptical shape of the planetary orbits has a reference, and if the NP were not to have a reference, then neither sentence would have a truth value.

Proper names

270 It was mentioned briefly above that Mill’s views were very similar to Frege’s in holding that referring expressions have two kinds of semantic significance – both sense and reference, or
in Mill’s terms, connotation and denotation. Mill, however, made an exception for proper names, which he believed did not have connotation but only denotation. Frege appeared to differ from Mill on that point. We can see that, given Frege’s principle of compositionality of sense, it would be important for him to hold that proper names do have a sense, since sentences containing them can clearly have a sense, i.e. express a proposition. His most famous comments on the subject occur in a footnote to “On sense and reference” in which he appeared to suggest that proper names have a sense which is similar to the sense which a definite description might have, but which might vary from person to person. The name Aristotle, he seemed to suggest, could mean “the pupil of Plato and teacher of Alexander the Great” for one person, but “the teacher of Alexander the Great who was born in Stagira” for another person (Frege 1892, n. 2).

Propositions

According to Frege, the sense of a sentence is the proposition it expresses, but it has been very difficult to determine what propositions are. Frege used the German word “Gedanke” [thought], and as we have seen, for Frege (as for many others) propositions are not only what sentences express, they are also the objects of propositional attitudes. Subsequent formalizations of Frege’s ideas have used the concept of possible worlds to analyze them.

Possible worlds are simply alternative ways things (in the broadest sense) might have been. E.g. I am sitting in my office at this moment, but I might instead have gone out for a walk; there might have been only 7 planets in our solar system, instead of 8 or 9. Using this notion, propositions were analyzed as functions from possible worlds to truth values (or equivalently, as sets of possible worlds). This meshes nicely with the idea that the sense of a sentence combined with facts about the way things are (a possible world) determine a truth value. However there are problems with this view; for example, all mathematical truths are necessarily true, and thus true in every possible world, but the sentences expressing them do
not seem to have the same meaning (in some pre-theoretic sense of meaning), and it seems
that one can know the truth of one without knowing the truth of all of them – e.g. someone
could know that two plus two is four, but not know that there are an infinite number of
primes. (For continued defense of the possible worlds view of the objects of thought, see
Stalnaker 1984, 1999.) Following Carnap (1956), David Lewis (1972) suggested that
sentence meanings are best viewed as entities with syntactic structure, whose elements are
the senses (intensions) of the constituent expressions. We will see an additional proposal
concerning what at least some propositions are shortly, in section 4 on Russell.

3.4 Summary comments on Frege
Frege’s work was neglected for some time, both within and outside Germany. Eventually it
received the attention it deserved, especially during the development of formal semantic
treatments of natural language by Carnap, Kripke, Montague, and others (see article 10 The
influence of logic, article 11 The emergence of formal semantics). Although the distinction
between sense and reference (or intension and extension) is commonly accepted, Frege’s
analysis of propositional attitude contexts has fallen out of favor; Donald Davidson has
famously declared Frege’s theory of a shift of reference in propositional attitude contexts to
be “plainly incredible” (Davidson 1968, 108), and many others seem to have come to the
same conclusion.

4. Reference vs. quantification and Russell’s theory of descriptions
In his classic 1905 paper “On denoting”, Bertrand Russell proposed an alternative to Frege’s
theory of sense and reference. To understand Russell’s work it helps to know that he was
fundamentally concerned with knowledge. He distinguished knowledge by acquaintance,
which is knowledge we gain directly via perception, from knowledge by description (cf.
Russell 1917), and he sought to analyze the latter in terms of the former. Russell was a
direct reference theorist, and rejected Frege’s postulation of senses (though he did accept
properties, or universals, as the semantic content of predicative expressions). The only
genuine referring expressions, for Russell, were those that could guarantee a referent, and
the propositions expressed by sentences containing such expressions are singular
propositions, which contain actual entities. If I were to point at Mary, and utter (9a), I
would be expressing the singular proposition represented in (9b).

(9)  a. She is happy.
    b. <Mary, happiness>

Note that the first element of (9b) is not the name Mary, but Mary herself. Any NP which is
unable to guarantee a referent cannot contribute an entity to a singular proposition. Russell’s
achievement in “On denoting” was to show how such NPs could be analyzed away into the
expression of general, quantificational propositions.

4.1 Quantification

In traditional predicate logic, overtly quantificational NPs like *every book, no chair* do not
have an analysis per se, but only in the context of a complete sentence. (In logics with
generalized quantifiers, developed more recently, this is not the case; see article 44
Quantifiers.) Look at the examples in (10) and (11).

(10)  a. Every book is blue.
    b. $\forall x[\text{book}(x) \supset \text{blue}(x)]$

(11)  a. No table is sturdy.
    b. $\neg \exists x[\text{table}(x) \& \text{sturdy}(x)]$

(10b), the traditional logical analysis of (10a), says (when translated back into English) *For
every x, if x is a book then x is blue*. We can see that *every*, the quantificational element in
(10a), has been elevated to the sentence level, in effect, so that it expresses a relationship
between two properties – the property of being a book and the property of being blue.
Similarly (11b) says, roughly, *It is not the case that there is an x such that x is a table and x is sturdy*. It can be seen that this has the same truth conditions as *No table is sturdy*, and once again the quantificational element (no in this case) has been analyzed as expressing a relation between two properties, in this case the properties of being a table and being sturdy.

4.2 Russell’s analysis of definite descriptions

Russell’s analysis of definite descriptions was called “the paradigm of philosophy” (by Frank Ramsey), and if analysis is the heart of philosophy then indeed it is that. One of the examples Russell took to illustrate his method is given in (12a), and its analysis is in (12b).

(12) a. The present king of France is bald

b. $\exists x[\text{king of France}(x) \land \forall y[\text{king of France}(y) \supset y=x] \land \text{bald}(x)]$

The analysis in (12b) translates loosely into the three propositions expressed by the sentences in (13).

(13) a. There is a king of France.

b. There is at most one king of France.

c. He is bald.

(*He*, in (13c) must be understood as bound by the initial *There is a...* in (13a).) As can be seen, the analysis in (12b) contains no constituent that corresponds to *the present king of France*. Instead *the* is analyzed as expressing a complex relation between the properties of being king of France and being bald. Let us look now at how Russell’s analysis solves the problems for the direct reference theory.

4.3 Failure of substitutivity

*Identity sentences*

Although Russell was a direct reference theorist, we can see that, under his analysis, English
definite descriptions have more to contribute to the sentences in which they occur than simply their reference. In fact they no longer contribute their reference at all (because they are no longer referring expressions, and do not have a reference). Instead they contribute the properties expressed by each of the predicates occurring in the description. It follows that two different definite descriptions, such as the morning star and the evening star, will make two different contributions to their containing sentences. And thus it is no mystery why the two identity sentences from (1) above, repeated here in (14), have different cognitive impact.

(14)  
   a. The morning star is the morning star.
   b. The morning star is the evening star.

The meaning of the second sentence involves the property of being seen in the evening as well as that of being seen in the morning.

*Propositional attitude sentences*

When we come to propositional attitude sentences the story is a little more complicated. Recall that Russell’s analysis does not apply to a definite description by itself, but only in the context of a sentence. It follows that when a definite description occurs in an embedded sentence, as in the case of propositional attitude sentences, there will be two ways to unpack it according to the analysis. Thus Russell predicts that such sentences are ambiguous.

Consider our example from above, repeated here as (15).

(15) Mary knows that the morning star is a planet.

According to Russell’s analysis we may unpack the phrase the morning star with respect to either the morning star is a planet or Mary knows that the morning star is a planet. The respective results are given in (16).

(16)  
   a. Mary knows that ∃x[morning star(x) &

   b. ∃x[morning star(x) &
The unpacking in (16a) is what is called the narrow scope or de dicto (roughly, about the words) interpretation of (15). The proposition that Mary is said to know involves the semantic content that the object in question is the star seen in the morning. The unpacking in (16b) is called the wide scope or de re (roughly, about the thing) interpretation of (15). It attributes to Mary knowledge concerning a certain entity, but not under any particular description of that entity. The short answer to the question of how Russell’s analysis solves the problem of failure of substitutivity in propositional attitude contexts is that, since there are no referring constituents in the sentence after its analysis, there is nothing to substitute anything for. However Russell acknowledged that one could, in English, make a verbal substitution of one definite description for a coreferential one, but only on the wide scope, or de re interpretation. If we consider a slightly more dramatic example than (15), we can see that there seems to be some foundation for Russell’s prediction of ambiguity for propositional attitude sentences. Observe (17):

(17) Oedipus wanted to marry his mother.

Our first reaction to this sentence is probably to think that it is false – after all, when Oedipus found out that he had married his mother, he was very upset. This reaction is to the narrow scope, or de dicto reading of the sentence which attributes to Oedipus a desire which involves being married to specifically his mother and which is false. However there is another way to take the sentence according to which it seems to be true: there was a woman, Jocasta, who happened to be Oedipus’s mother and whom he wanted to marry. This second interpretation is the wide scope, or de re, reading of (17), according to which Oedipus has a desire concerning a particular individual, but where the individual is not identified for the purposes of the desire itself by any description.

4.4 Empty NPs
Recall our initial illustration of Russell’s analysis of definite descriptions, repeated here.

(18)  a. The present king of France is bald.

b. $\exists x[\text{king of France}(x) \land \forall y[(\text{king-of-France}(y) \supset y=x) \land \text{bald}(x)]]$

The example shows Russell’s solution to the problem of empty NPs. While for Frege such sentences have a failed presupposition and lack a truth value, under Russell’s analysis they assert the existence of the entity in question, and are therefore simply false. Furthermore Russell’s analysis of definite descriptions solves the more pressing problem of empty NPs in existence sentences. Under his analysis *The round square does not exist* would be analyzed as in (19)

(19) $\neg \exists x[\text{round}(x) \land \text{square}(x) \land \forall y[[\text{round}(y) \land \text{square}(y)] \supset y=x]]$

which is meaningful and true.

4.5 Proper names

Russell’s view of proper names was very similar to Frege’s view; he held that they are abbreviations for definite descriptions (which might vary from person to person) and thus that they have semantic content in addition to, or more properly in lieu of, a reference (cf. Russell 1917).

4.6 Referring & denoting

As we have seen, for Russell, definite descriptions are not referring expressions, though he did describe them as denoting. For Russell almost any NP is a denoting phrase, including, e.g. *every hat* and *nobody*. One might ask what, if any, expressions were genuine referring expressions for Russell. Ultimately he held that only a demonstrative like *this*, used demonstratively, would meet the criterion, since only such an expression could guarantee a referent. These were the only true proper names, in his view. (See Russell 1917, 216 & n. 5). It seems clear that we often use language to convey information about individual
entities; if Russell’s analysis is correct, it means that the propositions containing that
information must almost always be inferred rather than being directly expressed. Russell’s
analysis of definite descriptions (though not of proper names) has been defended at length by

5. Strawson’s objections to Russell

Russell’s paper “On Denoting” stood without opposition for close to 50 years, but in 1950
P.F. Strawson’s classic reply “On Referring” appeared. Strawson had two major objections
to Russell’s analysis – his neglect of the indexicality of definite descriptions like the king of
France, and his claim that sentences with definite descriptions in them were used to assert
the existence of a reference for the description. Let us look at each of these more closely.

5.1 Indexicality

Indexical expressions are those whose reference depends in part on aspects of the utterance
context, and thus may vary depending on context. Obvious examples are pronouns like I and
you, and adverbs like here, and yesterday. Such expressions make vivid the difference
between a sentence and the use of a sentence to make a statement – a difference which may
be ignored for logical purposes (given that mathematical truths are non-indexical) but whose
importance in natural language was stressed by Strawson. Strawson pointed out that a
definite description like the king of France could have been used at different past times to
refer to different people – Louis XV in 1750, but Louis XVI in 1770, for example. Hence he
held that it was a mistake to speak of expressions as referring; instead we can only speak of
using an expression to refer on a particular occasion. This is the pragmatic view of reference
that was mentioned at the outset of this article. Russell lived long enough to publish a rather
tart response, “Mr. Strawson on referring”, in which he pointed out that the problem of
indexicality was independent of the problems of reference which were his main concern in
“On denoting”. However indexicality does raise interesting and relevant issues, and we return to it below, in section 7. (See also article 68 *Indexicality and logophoricity.*

5.2 Empty NPs and Presupposition

The remainder of Strawson’s paper was primarily concerned with arguing that Russell’s analysis of definite descriptions was wrong in its implication that sentences containing them would be used to assert the existence (and uniqueness) of entities meeting their descriptive content. Instead, he said, a person using such a sentence would only imply “in a special sense of ‘imply’” (Strawson 1950, 330) that such an entity exists. (Two years later he introduced the term *presuppose* for this special sense of *imply* (Strawson 1952, 175).) And in cases where there is no such entity – that is for sentences with empty NPs, like *The king of France is bald* as uttered in 1950 – one could not make either a true or a false statement. The question of truth or falsity, in such cases, simply does not arise. (See article 102 *Presupposition.*) We can see that Strawson’s position on empty NPs is very much the same as Frege’s, although Strawson did not appear to be familiar with Frege’s work on the subject.

6. Donnellan’s attributive-referential distinction

In 1966 Keith Donnellan challenged Russell’s theory of definite descriptions, as well as Strawson’s commentary on that theory. He argued that both Russell and Strawson had failed to notice that there are two distinct uses of definite descriptions.

6.1 The basic distinction

When one uses a description in the *attributive* way in an assertion, one “states something about whoever or whatever is the so-and-so” (Donnellan 1966, 285). This use corresponds pretty well to Russell’s theory, and in this case, the description is an essential part of the
thought being expressed. The main novelty was Donnellan’s claim of a distinct referential use of definite descriptions. Here one “uses the description to enable his audience to pick out whom or what he is talking about and states something about that person or thing” (Donnellan 1966, 285). In this case the description used is simply a device for getting one’s addressee to recognize whom or what one is talking about, and is not an essential part of the utterance. Donnellan used the example in (20) to illustrate his distinction.

(20) Smith’s murderer is insane.

For an example of the attributive use, imagine the police detective at a gruesome crime scene, thinking that whoever could have murdered dear old Smith in such a brutal way would have to have been insane. For a referential use, we might imagine that Jones has been charged with the murder and that everybody is pretty sure he is the guilty party. He behaves very strangely during the trial, and an onlooker utters (20) by way of predicating insanity of Jones. The two uses involve different presuppositions: on the attributive use there is a presupposition that the description has a reference (or denotation in Russell’s terms), but on the referential use the speaker presupposes more specifically of a particular entity (Jones, in our example) that it is the one meeting the description. Note though, that a speaker can know who or what a definite description denotes and still use that description attributively. For example I might be well acquainted with the dean of my college, but when I advise my student, who has a grievance against the chair of the department, by asserting (21),

(21) Take this issue to the dean of the college.

I use the phrase the dean of the college attributively. I mean to convey the thought that the dean’s office is the one appropriate for the issue, regardless of who happens to be dean at the current time.

6.2 Contentious issues

While it is generally agreed that an attributive-referential distinction exists, there have been
several points of dispute. The most crucial one is the status of the distinction – whether it is semantic or pragmatic (something about which Donnellan himself seemed unsure).

535  *A pragmatic analysis*

Donnellan had claimed that, on the referential use, a speaker can succeed in referring to an entity which does not meet the description used, and can make a true statement in so doing. The speaker who used (20) referentially to make a claim about Jones, for instance, would have said something true if Jones was indeed insane whether or not he murdered Smith.

540  Kripke (1977) used this aspect to argue that Donnellan’s distinction is nothing more than the difference between speaker’s reference (the referential use) and semantic reference (the attributive use). He pointed out that similar kinds of misuses or errors can arise with proper names, for which Donnellan’s distinction, if viewed as semantic, could not be invoked (see below, section 8). Kripke argued further that since the same kind of attributive-referential difference in use of definite descriptions would arise in a language stipulated to be Russellian – that is, in which the only interpretation for definite descriptions was that proposed by Russell in “On denoting” – the fact that it occurs in English does not argue that English is not Russellian, and thus does not argue that the distinction is semantic. (See Reimer 1998 for a reply.)

550  *A semantic analysis*

On the other hand David Kaplan (1978) (among others, but cf. Salmon 2004) noted the similarity of Donnellan’s distinction to the *de dicto/de re* ambiguity which occurs in propositional attitude sentences. Kaplan suggested an analysis on which referential uses are involved in the expression of Russellian singular propositions. Suppose Jones is Smith’s murderer; then the referential use of (20) expresses the singular proposition consisting of Jones himself plus the property of being insane. (In suggesting this analysis Kaplan was
rejecting Donnellan’s claim about the possibility of making true statements about misleading entities. Others have also adopted this revised view of the referential use, e.g. Wettstein 1983, Reimer 1998.) Kaplan’s analysis of the referential understanding is similar to the analysis of the complement of a propositional attitude verb when it is interpreted \textit{de re}, while the ordinary Russellian analysis seems to match the analysis of the complement interpreted \textit{de dicto}. However the two understandings of a sentence like (20), without a propositional attitude predicate, always have the same truth value while, as we have seen, in the context of a sentence about someone’s propositional attitude, the two interpretations can result in a difference in truth value. In explaining his analysis, Kaplan likened the referential use of definite descriptions to demonstrative NPs. This brings us back to the topic of indexicality.

7. Kaplan’s theory of indexicality

A major contribution to our understanding of reference and indexicality came with Kaplan’s classic, but mistitled, article “Demonstratives”. The title should have been “Indexicals”. Acknowledging the error, Kaplan distinguished pure indexicals like \textit{I} and \textit{tomorrow}, which do not require an accompanying indication of the intended reference, from demonstrative indexicals, e.g. \textit{this}, \textit{that book}, whose uses do require such an indication (or demonstration, as Kaplan dubbed it). The paper itself was equally concerned with both subcategories.

7.1 Content vs. character

The most important contribution of Kaplan’s paper was his distinction between two elements of meaning – the content of an expression and its character.

\textit{Content}

The content of the utterance of a sentence is the proposition it expresses, however
propositions are viewed. Assuming compositionality, this content is determined by the
contents of the expressions which go to make up the uttered sentence. The existence of
indexicals means that the content of an utterance is not determined simply by the
expressions in it, but also by the context of utterance. Thus different utterances of, e.g., (22)

(22) I like that.

will determine different propositions depending who is speaking, the time they are speaking,
and what they are pointing at or otherwise indicating, and would vary depending on these
parameters. In each case the proposition involved would be, on Kaplan’s view (following
Russell), a singular proposition.

Character

Although on Kaplan’s view the contribution of indexicals to propositional content is limited
to their reference, they do have a meaning: I, for example, has a meaning involving the
concept of being the speaker. These latter types of linguistically encoded meaning are what
Kaplan referred to as “character”. In general, the character of an expression is a function
which, given a context of utterance, returns the content of that expression in that context. In
a way Kaplan is showing that Frege’s concept of sense actually needs to be subdivided into
these two elements of character and content. (Cf. Kaplan 1989, n. 26.)

7.2 An application of the distinction

Indexicals, both pure and demonstrative, have a variable character – their character
determines different contents in different contexts of utterance. However the content so
determined is constant (an actual entity, on Kaplan’s view). Using the distinction between
character and content, Kaplan is able to explain why (23)

(23) I am here now

is in a sense necessary, but in another sense contingent. Its character is such that anyone
uttering (23) would be making a true statement, but the content determined on any such occasion would be a contingent proposition. For instance if I were to utter (23) now, my utterance would determine the singular proposition containing me, my office; 2:50pm on January 18, 2007; and the relation of being which relates an entity, a place, and a time. That proposition is true at the actual world, but false in many others.

7.3 The problem of the essential indexical

Perry (1979), following Casteñeda (1968), pointed out that indexicality seems to pose a special problem in propositional attitude sentences. Suppose Mary, a ballet dancer, has an accident resulting in amnesia. She sees a film of herself dancing, but does not recognize herself. As a result of seeing the film she comes to believe, *de re*, of the person in the film (i.e. herself) that that person is a good dancer. Still she lacks the knowledge that it is she herself who is a good dancer. As of now we have no way of representing this missing piece of knowledge. Perry proposed recognizing belief states, in addition to the propositions which are the objects of belief, in order to solve this problem; Mary grasps the proposition, but does not grasp it in the first person way. Lewis (1979) proposed instead viewing belief as attribution to oneself of a property; he termed this “belief *de se*”. Belief concerning a nonindexical proposition would then be self-attribution of the property of belonging to a possible world where that proposition was true. Mary has the latter kind of belief with respect to the proposition that she is a good dancer, but does not (yet) attribute to herself good dancing capability.

7.4 Other kinds of NP

As we have seen, Strawson pointed out that some definite descriptions which would not ordinarily be thought of as indexical can have an element of indexicality to them. An indexical definite description like *the (present) king of France* would, on Kaplan’s analysis,
have both variable character and variable content. As uttered in 1770, for example, it would yield a function whose value in any possible world is whoever is king of France in 1770. That would be Louis XVI in the actual world, but other individuals in other worlds depending on contingent facts about French history. As uttered in 1950 the definite description has no reference in the actual world, but does in other possible worlds (since it is not a necessary fact that France is a republic and not a monarchy in 1950 – the French Revolution might have failed). A nonindexical definite description like the inventor of bifocals has a constant character but variable content. That is, in any context of utterance its content is the function from possible worlds that picks out whoever it is who invented bifocals in that world. For examples of NPs with constant character and constant content, we must turn to the category of proper names.

8. Proper names and Kripke’s return to Millian nondescriptionality

It may be said that in asserting that proper names have denotation without connotation, Mill captured our ordinary pre-theoretic intuition. That is, it seems intuitively clear that proper names do not incorporate or express any properties like having taught Alexander the Great or having invented bifocals. On the other hand we can also understand why both Frege and Russell would be driven to the view that, despite this intuition, they do express some kind of property. That is because the alternative would be the direct reference, or Fido-Fido view, and the two kinds of problems that we saw arising for that view arise for proper names as well as definite descriptions. Thus identity sentences of the form $a = b$ are informative with proper names as they are with definite descriptions, as exemplified in (24).

\[(24)\text{ a. Mark Twain is Mark Twain.} \]
\[ \text{ b. Samuel Clemens is Mark Twain.} \]

Intuitively (24b) conveys information over and above that conveyed by (24a). Similarly exchanging co-referential proper names in propositional attitude sentences can seem to
change truth value.

\[ (25) \]

a. Mary knows that Mark Twain wrote *Tom Sawyer*.

b. Mary knows that Samuel Clemens wrote *Tom Sawyer*.

We can well imagine someone named Mary for whom (25a) would be true yet for whom (25b) would seem false. Furthermore there are many proper names which are non-referential, and for which negative identity sentences like (26) would seem true and not meaningless.

\[ (26) \]

Santa Claus does not exist.

If proper names have a sense, or are otherwise equivalent to definite descriptions, then some or all of these problems are solved. Thus it was an important development when Kripke argued for a return to Mill’s view on proper names. But before we get to that, we should briefly review a kind of weakened description view of proper names.

8.1 The ‘cluster’ view

Both Wittgenstein (1953) and Searle (1958) argued for a view of proper names according to which they are associated semantically with a cluster of descriptions – something like a disjunction of properties commonly associated with the bearer of the name. Wittgenstein’s example used the name *Moses*, and he suggested that there is a variety of descriptions, such as “the man who led the Israelites through the wilderness”, “the man who as a child was taken out of the Nile by Pharaoh’s daughter”, which may give meaning to the name or support its use (Wittgenstein 1953, §79). No single description is assumed to give the meaning of the name. However, as Searle noted, on this view it would be necessarily true that Moses had at least one of the properties commonly attributed to him (Searle 1958, 172).

8.2 The return to Mill’s view

In January of 1970 Saul Kripke gave an important series of lectures titled “Naming and
necessity” which were published in an anthology in 1972 and in 1980 reissued as a book. In these lectures Kripke argued against both the Russell-Frege view of proper names as abbreviated definite descriptions and the Wittgenstein-Searle view of proper names as associated semantically with a cluster of descriptions, and in favor of a return to Mill’s nondescriptional view of proper names. Others had come to the same conclusion (e.g. Marcus 1961, Donnellan 1972), but Kripke’s defense of the nondescriptional view was the most thorough and influential. The heart of Kripke’s argument depends on intuitions about the reference of expressions in alternative possible worlds. These intuitions indicate a clear difference in behavior between proper names and definite descriptions. A definite description like the student of Plato who taught Alexander the Great refers to Aristotle in the actual world, but had circumstances been different – had Xenocrates rather than Aristotle taught Alexander the Great – then the student of Plato who taught Alexander the Great would refer to Xenocrates, and not to Aristotle. Proper names, on the other hand, do not vary their reference from world to world. Kripke dubbed them “rigid designators”. Thus sentences like (27) seem true to us.

\[(27)\] Aristotles might not have taught Alexander the Great.

Furthermore, Kripke pointed out, a sentence like (27) would be true no matter what contingent property description is substituted for the predicate. In fact something like (28) seems to be true:

\[(28)\] Aristotles might have had none of the properties commonly attributed to him.

But the truth of (28) seems inconsistent with both the Frege-Russell definite description view of proper names and the Wittgenstein-Searle cluster view. On the other hand a sentence like (29) seems false.

\[(29)\] Aristotles might not have been Aristotles.

This supports Kripke’s claim of rigid designation for proper names; since the name Aristotle must designate the same individual in any possible world, there is no possible world in
which that individual is not Aristotle. And thus, to put things in Kaplan’s terms, proper
names have both constant character and constant content.

8.3 Natural kind terms

Although it goes beyond our focus on NPs, it is worth mentioning that Kripke extended his
theory of nondescriptionality to at least some common nouns – those naming species of
plants or animal, like elm and tiger, as well as those for well-defined naturally occurring
substances or phenomena, such as gold and heat, and some adjectives like loud, and red. In
this Kripke’s views differed from Mill, but were quite similar to those put forward by
Putnam (1975). Putnam’s most famous thought experiment involved imagining a “twin
earth” which is identical to our earth except that the clear, colorless, odorless substance
which falls from the sky as rain and fills the lakes and rivers, and which is called water by
twin-English speaking twin earthlings, is not H2O but instead a complex compound whose
chemical formula Putnam abbreviates XYZ. Putnam argues that although Oscar_1 on earth
and Oscar_2 on twin earth are exactly the same mentally when they think “I would like a glass
of water”, nevertheless the contents of their thoughts are different. His famous conclusion:

“‘Meanings’ just ain’t in the head” (Putnam 1975: 227; see Segal 2000 for an opposing
view.)

8.4 Summary

Let us take stock of the situation. We saw that the simplest theory of reference, the Fido-
Fido or direct reference theory, had problems with accounting for the apparent semantic
inequivalence of coreferential NPs – the fact that true identity statements could be
informative, and that exchanging coreferential NPs in propositional attitude contexts could
even result in a change in truth value. This theory also had a problem with non-referring or
empty NPs, a problem which became particularly acute in the case of true negative existence
Frege’s theory of sense seemed to solve most of these problems, and Russell’s analysis of definite descriptions seemed to solve all of them. However, though the theories of Frege and Russell are plausible for definite descriptions, as Kripke made clear they do not seem to work well for proper names, for which the direct reference theory is much more plausible. But the same two groups of problems – those involving co-referential NPs and those involving empty NPs – arise for proper names just as they do for definite descriptions. Of these problems, the one involving substituting coreferential NPs in propositional attitude contexts has attracted the most attention. (See also article 66 Propositional attitudes.)

9. Propositional attitude contexts

Kripke’s arguments for a return to Mill’s view of proper names have generally been found to be convincing (although exceptions will be noted below). This appears to leave us with the failure of substitutivity of coreferential names in propositional attitude contexts. However Kripke (1979) argued that the problem was not actually one of substitutivity, but a more fundamental problem in the attribution of propositional attitudes.

9.1 The Pierre and Peter puzzles

Kripke’s initial example involved a young Frenchman, Pierre, who when young came to believe on the basis of postcards and other indirect evidence that London was a beautiful city. He would sincerely assert (30) whenever asked.

(30) Londres et jolie.

Eventually, however, he was kidnapped and transported to a very bad section of London, and learned English by the direct method. His circumstances did not allow him to explore the city (which he did not associate with the city he knew as Londres), and thus based on his part of town, he would assert (31)

(31) London is not pretty.
The question Kripke presses us to answer is that posed in (32):

(32) Does Pierre, or does he not, believe that London is pretty?

An alternative, monolingual, version of the puzzle involves Peter, who has heard of
Paderewski the pianist, and Paderewski the Polish statesman, but who does not know that
they were the same person and who is furthermore inclined to believe that anyone musically
inclined would never go into politics. The question is (33):

(33) Does Peter, or does he not, believe that Paderewski had musical talent?

Kripke seems to indicate that these questions do not have answers: “…our normal practices
of interpretation and attribution of belief are subjected to the greatest possible strain, perhaps
to the point of breakdown. So is the notion of the content of someone’s assertion, the

proposition it expresses” (Kripke 1979, 269; italics in original). Others, however, have not
been deterred from answering Kripke’s questions in (32) and (33).

9.2 Proposed solutions

Many solutions to the problem of propositional attitude attribution have been proposed. We
will look here at several of the more common kinds of approaches.

Metalinguistic approaches

Metalinguistic approaches to the problem involve linguistic expressions as components of
belief in one way or another. Quine (1956) had suggested the possibility of viewing
propositional attitudes as relations to sentences rather than propositions. This would solve
the problem of Pierre, but would seem to leave Peter’s problem, given that we have a single
name Paderewski in English (but see Fiengo & May 1998). Others (Bach 1987, Katz 2001)
have put forward metalinguistic theories of proper names, rejecting Kripke’s arguments for
their nondescriptionality. The idea here is that a name N means something like “the bearer
of N”. This again would seem to solve the Pierre puzzle (Pierre believes that the bearer of
*Londres* is pretty, but not the bearer of *London*, but not Peter’s Paderewski problem. Bach argues that (33) would need contextual supplementation to be a complete question about Peter’s beliefs (see Bach 1987, 165ff.).

### Hidden indexical theories

The remaining two groups of theories are consistent with Kripke’s nondescriptional analysis of proper names. Hidden indexical theories involve postulating an unmentioned (or hidden) element in belief attributions, which is “a mode of presentation” of the proposition, belief in which is being attributed. (Cf. Schiffer 1992; Crimmins & Perry 1989.) Thus belief is viewed as a three-place relation, involving a believer, a proposition believed, and a mode of presentation of that proposition. Furthermore these modes of presentation are like indexicals in that different ones may be invoked in different contexts of utterance. The answer to (32) or (33) could be either Yes or No, depending upon which kind of mode of presentation was understood. The approach of Richard (1990) is similar, except that the third element is intended as a translation of a mental representation of the subject of the propositional attitude verb.

### Pragmatic theories

Our third kind of approach is similar to the hidden indexical theories in recognizing modes of presentation. However the verb *believe* (like other propositional attitude verbs) is seen as expressing a two-place relation between a believer and a proposition, and no particular mode of presentation is entailed. Instead, this relation is defined in such a way as to entail only that there is at least one mode of presentation under which the proposition in question is believed. (Cf. Salmon 1986.) This kind of theory would answer either (32) or (33) with a simple Yes since there is at least one mode of presentation under which Pierre believes that London is pretty, and at least one under which Peter believes that Paderewski had musical
talent. A pragmatic explanation is offered for our tendency to answer No to (32) on the basis of Pierre’s English assertion *London is not pretty*.

10. Indefinite descriptions

We turn now to indefinite descriptions – NPs which in English begin with the indefinite article *a/an*.

10.1 Indefinite descriptions are not referring expressions

As we saw above, Russell did not view definite descriptions as referring expressions, so it will come as no surprise that he was even more emphatic about indefinite descriptions. He had several arguments for this view (cf. Russell (1919, 167ff). Consider his example in (34)

(34) I met a man.

Suppose that the speaker of (34) had met Mr. Jones, and that that meeting constituted her grounds for uttering (34). In that case, were a man referential, it would have to refer to Mr. Jones. Nevertheless someone who did not know Jones at all could easily have a full understanding of (34). And were the speaker of (34) to add (35) to her utterance

(35) …but it wasn’t Jones.

she would not be contradicting herself (though of course she would be lying, under the circumstances). On the other hand if it should turn out that the speaker of (34) did not meet Jones after all, but did meet some other man, it would be very hard to regard (34) as false. Russell’s arguments have been reiterated and augmented by Ludlow & Neale (1991).

10.2 Indefinite descriptions are referring expressions

Since Russell’s time others (e.g. Strawson 1952) have argued that indefinite descriptions do indeed have referring uses. The clearest kinds of cases are ones in which chains of reference occur, as in (36) (from Chastain 1975, 202).
A man was sitting underneath a tree eating peanuts. A squirrel came by, and the man fed it some peanuts.

Both a man and a squirrel in (36) seem to be coreferential with subsequent expressions that many people would consider to be referring – if not the man, then at least it. Chastain argues that there is no reason to deny referentiality to the indefinite NPs which initiate such chains of reference, and that indeed, that is where the subsequent expressions acquired their referents. It should be noted, though, that if serving as antecedent for one or more pronouns is considered adequate evidence for referentiality, then overtly quantificational NPs should also be considered referential, as shown in (37).

(37) a. Everybody who came to my party had a good time. They all thanked me afterward.
   b. Most people don’t like apples. They only eat them for their health.

10.3 Parallels between indefinite and definite descriptions

Another relevant consideration is the fact that indefinite descriptions seem to parallel definite descriptions in several ways. They show an ambiguity similar to the de dicto-de re ambiguity in propositional attitude contexts, as shown in (38).

(38) Mary wants to interview a diplomat.

(38) could mean either that there is a particular diplomat whom Mary is planning to interview (where a diplomat has wide scope corresponding to the de re reading for definite descriptions), or that she wants to interview some diplomat or other – say to boost the prestige of her newspaper. (This reading, where a diplomat has narrow scope with respect to the verb wants, corresponds to the de dicto reading of definite descriptions.) Neither of these readings entails the other – either could be true while the other is false. Furthermore indefinite descriptions participate in a duality of usage, the specific-non-specific ambiguity (see article 43 Specificity), which is very similar to Donnellan’s referential-attributive
ambiguity for definite descriptions. Thus while the indefinites in Chastain’s example above are most naturally taken specifically, the indefinite in (39) must be taken nonspecifically unless something further is added (since otherwise the request would be infelicitous).

(39) Please hand me a pencil.

(See also Fodor & Sag 1982.) In casual speech specific uses of indefinite descriptions can be unambiguously paraphrased using non-demonstrative this, as in (40).

(40) This man was sitting underneath a tree eating peanuts.

However non-demonstrative this cannot be substituted for the non-specific a in (39) without causing anomaly. So if at least some occurrences of definite descriptions are viewed as referential, these parallels provide an argument that the corresponding occurrences of indefinite descriptions should also be so viewed. (Devitt 2004 argues in favor of this conclusion.)

10.4 Discourse semantics

More recently approaches to semantics have been developed which provide an interpretation for sentences in succession, or discourses. Initially developed independently by Heim (1982) and Kamp (1984), these approaches treat both definite and indefinite descriptions as similar in some ways to quantificational terms and in some ways to referring expressions such as proper names. Indefinite descriptions introduce new discourse entities, and subsequent references, whether achieved with pronouns or with definite descriptions, add information about those entities. (See article 38 Discourse Representation Theory, article 39 Dynamic Semantics, and also article 42 Definiteness and Indefiniteness.)

10.5 Another puzzle about belief

We noted above that indefinite descriptions participate in scope ambiguities in propositional attitude contexts. The example below in (41) was introduced by Geach (1967), who argued
that it raises a new problem of interpretation.

(41) Hob thinks a witch has blighted Bob’s mare,

and Nob wonders whether she (the same witch) killed Cob’s sow.

Neither the ordinary wide scope or narrow scope interpretation is correct for (41). The wide scope interpretation (there is a witch such that...) would entail the existence of a witch, which does not seem to be required for the truth of (41). On the other hand the narrow scope interpretation (Hob thinks that there is a witch such that...) would fail to capture the identity between Hob’s witch and Nob’s witch. This problem, which Geach referred to as one of “intentional identity”, like many others, has remained unsolved.

11. Summary

As we have seen, opinions concerning referentiality vary widely, from Russell’s position on which almost no NPs are referential to a view on which almost any NP has at least some referential uses. The differences may seem inconsequential, but they are central to issues surrounding the relations among language, thought, and communication – issues such as the extent to which we can represent the propositional attitudes of others in our speech, and even the extent to which our own thoughts are encoded in the sentences we utter, as opposed to being inferred from hints provided by our utterances.

12. References


Fodor, Janet D. & Ivan Sag 1982. Referential and quantificational indefinites. *Linguistics*


John W. Parker.


Keywords: *de dicto-de re*, referential-attributive, character-content