

Frege and Russell on Names and Descriptions. Part IA Meaning.

Lecture III, *Russell's Theory of Descriptions*, 5th March.

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For the last two weeks, we discussed Frege's philosophy of language, particularly his distinction between sense and reference. Now, we leave Frege behind and focus on Russell's views on descriptions.

1. Russell and Reference

1.1. Russell completely rejects Frege's notion of sense and so rejects the distinction between sense and reference. Russell's *reasons* for rejecting Frege's notion of sense are notoriously complicated and opaque, see the so-called *Gray's Elegy passage* in (Russell, 1905: 486). We won't discuss this here. What's important to note is that, for Russell, meaning was **a matter of the reference of referring expressions**. Distinctively, for Russell, sentences express propositions and those propositions were complexes containing *as constituents* the very objects referred to by the parts of the sentence. In a famous letter to Frege, Russell wrote:

Concerning sense and reference, I see nothing but difficulties which I cannot overcome [...] I believe that in spite of all its snowfields Mont Blanc itself is a component part of what is actually asserted in the proposition 'Mont Blanc is more than 4000m high'. We do not assert the thought, for this is a private psychological matter: we assert the object of the thought, and this is, to my mind, a certain complex (an objective proposition, one might say) in which **Mont Blanc is itself a component part**. If we do not admit this, then we get the conclusion that we know nothing at all about Mont Blanc itself. This is why for me the reference of the proposition is not the true, but a certain complex which (in the given case) is true. (Frege, 1980: 169)

1.2. An immediate problem for the Russellian view is that there seem to be a significant class of expressions—*indefinite and definite descriptions*—which do not refer at all, but which are nevertheless meaningful. For instance, 'a gnome' or 'the Loch Ness Monster' in the following, respectively:

- (1) A gnome stole my cheese.
- (2) The Loch Ness Monster ate my logic worksheet.

Russell's distinctive response to such worries was to argue that descriptions like 'a gnome' or 'the Loch Ness Monster' **are not meaningful in isolation**. Rather, sentences like (1) and (2) can be analysed and shown to have a special kind of **logical form** which allows for the **elimination** of the seemingly problematic denoting terms. Russell's analysis of sentences like (1) and (2) is his **theory of descriptions**.

2. Russell's Theory of Descriptions

2.1. First, let's take the case of sentences featuring indefinite descriptions like 'a man', 'a gnome', or 'a philosophy student'. Russell analyses sentences featuring such descriptions as being disguised quantificational claims. That is, the logical form of such sentences differs from the surface level, grammatical form.

- (1) A gnome stole my cheese
- (1') 'x is a gnome and x stole my cheese' is true of some x.
($\exists x(Gx \wedge Sxc)$, where $Gx := x$ is a gnome and $Sxy := x$ stole y .)

2.2. Second, let's take the case of sentences featuring definite descriptions like 'the horse', or 'the Loch Ness Monster'. Again, sentences featuring such descriptions are analysed as disguised quantificational claims.

- (2) The Loch Ness Monster ate my logic worksheet

- (2') (i) At least one thing is a Loch Ness Monster; and
 (ii) No more than one thing is a Loch Ness Monster; and
 (iii) Whatever is a Loch Ness Monster ate my logic worksheet.

($\exists x(Nx \wedge \forall y(Ny \rightarrow y = x) \wedge Lx)$, $Nx := x$ is a Loch Ness Monster and $Lx := x$ ate my logic worksheet.)

2.3. To be very clear, Russell's analysis of definite and indefinite descriptions **does not directly analyse** expressions like 'the Loch Ness Monster' or 'a gnome'. Rather, it analyses sentences in which such descriptions occur as the grammatical subject. Note, though, that the analysis here extends to *any* description, definite or indefinite, which features as a grammatical subject in a sentence. Giving an analysis of *any* sentence in which descriptions occurs is surely sufficient for explaining what descriptions mean: the meaning of a word is plausibly determined by its role, loosely speaking, in sentences (Frege's *context principle*).

3. Russell's theory of descriptions to the rescue.

3.1. Russell claimed that his theory of descriptions could **resolve three substantial problems**. The first problem was that sentences which contain descriptions which fail to pick anything out—*empty* descriptions—seem to fail to be about anything because there is nothing referred to. Yet some meaningful and even seemingly true sentences contain empty descriptions. For instance, consider a sentences like

- (3) The Loch Ness monster does not exist
 (4) She did not see a gnome

3.2. Russell's solution? The **mistake** here is thinking that descriptions, definite or indefinite, refer at all. Descriptions **never refer to anything at all**. It is simply a mistake to think that descriptions behave like names—a mistake which we are led to by the misleading grammatical form of sentences like (3) and (4), a grammatical form which obscure their logical form. We can understand (3) and (4):

- (3) The Loch Ness monster does not exist
 (3') It is not the case that the Loch Ness monster exists
 (In other symbols: $\neg \exists x(Nx \wedge \forall y(Ny \rightarrow y = x))$)

- (4) She did not see a gnome
 (4') It is not the case that She saw a gnome
 (In other symbols: $\neg \exists x(Gx \wedge Ssx)$)

For Russell, each name refers to a specific thing; but descriptions do not refer to anyone specific thing. (3) and (4) are not about a specific thing anymore than 'All cats are cute' is about a specific cat.

3.3. A **second problem** also concerns empty descriptions and the **law of excluded middle**. Roughly, the law of excluded middle states that for any proposition p , either p or not- p is true. Thus, it would seem to follow as a truth of logic that

- (5) Either the present King of France is bald or not.

However, the truth of (5) is, at first glance, problematic:

... if we enumerated the things that are bald, and then the things that are not bald, we should not find the present King of France in either list. Hegelians, who love a synthesis, will probably conclude that he wears a wig (Russell, 1905: 485)

3.4. Russell's solution shows the power of his analysis of definite descriptions. Importantly, Russell's theory of definite descriptions allows for two analyses of a statement like "the present King of France is not bald". One is the **wide-scope analysis** (what Russell terms 'primary occurrence') and the other is the **narrow-scope** (the 'secondary occurrence'):

(i) **Wide-Scope**: It is not the case that the present King of France is bald.

In other symbols: $\neg\exists x(Kx \wedge \forall y(Ky \rightarrow y = x) \wedge Bx)$

(ii) **Narrow-Scope**: The present King of France is not bald.

In other symbols: $\exists x(Kx \wedge \forall y(Ky \rightarrow y = x) \wedge \neg Bx)$

(i) and (ii) say very different things. Crucially, when understood as wide-scope negation, we can accept (5) properly understood as a legitimate and true instance of the law of the excluded middle:

(5*) $\exists x(Kx \wedge \forall y(Ky \rightarrow y = x) \wedge Bx) \vee \neg\exists x(Kx \wedge \forall y(Ky \rightarrow y = x) \wedge Bx)$

Moreover, the worry about enumerating the things which are bald and not bald and not finding the present King of France on either list is not an argument against the truth of (5*), and thus not an argument against (5) properly understood. Thus, on Russell's theory of descriptions, there is no worry here.

3.5. Note how strikingly different this sort of solution is from the one we discussed from Frege. Recall that, for Frege, sentences featuring non-denoting terms were consequently non-denoting sentences—they were neither true nor false. Thus, for Frege 'The Present King of France is bald' is **neither true nor false**. For Russell, it is **simply false**. Though we will discuss this in more detail next week, it is worth noting briefly at this point that Russell's conclusion that such sentences featuring empty descriptions are false is not immediately correct. How should we think about the following, seemingly true sentences?

(6) A gnome is a mythological creature and diminutive spirit in Renaissance magic ... (*Wikipedia*)

(7) Exactly 80 years ago the Loch Ness monster was invented. (*The Guardian*, 2013)

3.6. The final problem which Russell took his theory of descriptions to solve concerns **informative identity statements**—the kind of statement which Frege thought required a distinction between sense and reference. If we assume that a definite descriptive phrase like 'the author of *Waverly*' is a name and all that names do is refer, i.e., the meaning of a name is exhausted by its referent, then we have to accept that two identity statements like the following mean the same. (Think back to Lecture I on Frege's discussion of this problem.)

(8) The author of *Waverly* is Sir Walter Scott

(9) Sir Walter Scott is Sir Walter Scott

I may well accept, or believe, or know (9), but I may well not believe or know (8).

3.7. Russell's solution was again to stress that definite descriptions like 'the author of *Waverly*' in (8) should not be thought of as names and can in fact be eliminated upon analysis. The correct way of understanding a statement like (8) is to think of it as a **quantified claim**. That is, something like:

(8*) Sir Walter Scott wrote *Waverly* and *nobody else* wrote *Waverly*.

However, if (8) is understood as (8*), it is perfectly clear how one could believe (9)—an uninformative statement of identity—and not believe (8). Russell thus claims to solve this problem without the need of sense.

4. Russell on Names

4.1. Throughout this, we have been concerned with Russell's theory of *descriptions* and how Russell uses this to solve a number of problems which seem to arise from mistakenly taking sentences involving descriptions to be of the same logical form as sentences involving names. Russell's view is that descriptions should not be confused with names. Russell defines a name, or a *logically proper name*, as follows.

A name is a simple symbol, directly designating an individual, which is its meaning, and having this meaning in its own right independently of the meanings of all other words (Russell, 1919: 173)

4.2. For Frege, although there is a distinction between expressions which refer to objects and expressions which do not—and only the former kind are classed as *singular terms*—there is no fundamental distinction, for Frege, between different kinds of singular terms—between proper names, descriptions, demonstratives, and so on. In contrast, Russell thinks that many of the similarities between so-called singular terms—particularly, the similarities between descriptions and names—are only superficial and are not present when one analyses the logical form of sentences in which they occur.

4.3. An obvious gap in Russell's approach to the problems above, which we have neglected to discuss, is that the same, or similar, problems arise not solely with descriptions, but also with *names*. For instance, 'Pegasus is a winged horse' does not feature a description, nor does the classic 'Hesperus is Phosphorus'. Russell's solution to this class of problems was to argue that ordinary names like 'Pegasus' are not really names at all, but are in fact disguised definite descriptions. Whilst Russell does not deny that there are genuine names—logically proper names—such names are few and far between. This claim about ordinary names is the *descriptivist theory of names*. In this lecture we have been concerned with Russell's *theory of descriptions*. It's crucial that the two should not be conflated.

References

- Frege, Gottlob (1980). *Philosophical and Mathematical Correspondence*. Blackwell, Oxford.
Russell, Bertrand (1905). On Denoting. *Mind* 14, 479–493.
Russell, Bertrand (1919). *Introduction to Mathematical Philosophy*. New York: Dover Publications.