Russell: "On Denoting"

DENOTING PHRASES

Russell includes all kinds of quantified subject phrases ('a man', 'every man', 'some man' etc.) but his main interest is in **definite descriptions**: 'the present King of England', 'the present King of France'.

Curiously, Russell omits **proper names**, but he would count them as denoting phrases.

Russell: a definite description functions grammatically in the same way as a proper name: as a denoting phrase that purports to uniquely pick out some item (its denotation). But the **logical form** of a sentence containing a definite description is very different from its (superficial) grammatical form.

KNOWLEDGE: BY ACQUAINTANCE AND BY DESCRIPTION

Knowledge by acquaintance is possible only with respect to things that are **directly presented** to us. (Russell ultimately holds that this restricts us to our own sense-data, and not the individuals of "ordinary" experience.)

Knowledge by description (here called "knowledge of things we only reach by means of denoting phrases," or "knowledge obtained through denoting") is dependent upon knowledge by acquaintance: **"All thinking has to start from acquaintance"** (p. 230).

Russell's view is that, strictly speaking, a **genuine** proper name cannot name anything other than an object of **acquaintance**. What appears to be a proper name of something one is not directly acquainted with must not be a genuine proper name, but rather a **disguised description**.

CONTEXTUAL DEFINITION AND RUSSELL'S THEORY

The key: Russell's theory analyzes **sentences** containing definite descriptions, rather than the descriptions themselves. What is the difference?

Russell does not analyze the denoting phrase 'the *F*'. Rather, he analyzes **sentences** in which the phrase 'the *F*' occurs. That is, he analyzes sentences of the form 'the *F* is *G*'; and in the analysis, there will be no precise counterpart for the original "denoting phrase."

Russell is offering a **contextual definition** of definite descriptions. He does not propose a one-to-one replacement for definite descriptions, but rather shows us how to systematically translate sentences containing descriptions into sentences that are description-free:

"The definition to be sought [of the phrase 'the so-and-so'] is a definition of propositions in which this phrase occurs, not a definition of the phrase itself in isolation." ("Descriptions," p. 241)

"This is the principle of the theory of denoting I wish to advocate: that denoting phrases never have any meaning in themselves, but that every proposition in whose verbal expression they occur has a meaning. The difficulties concerning denoting are, I believe, all the result of a wrong analysis of propositions whose verbal expressions contain denoting phrases." ("On Denoting," p. 231)

Russell sometimes puts this point (e.g., in *The Philosophy of Logical Atomism*) by calling definite descriptions **incomplete symbols**. The idea is that they cannot be regarded as being semantically complete (i.e., analyzable in regard to their meaning) in isolation. In Russell's view, you can no more demand a reference for a phrase of the form 'the *F*' than you can for a phrase of the form 'every *F*'. In a sentence like *every human is mortal*, the phrase *every human* does not denote anything at all. Rather, the sentence as a whole says that anything that satisfies the propositional function *x is human* also satisfies the function *x is mortal*. A similar sort of analysis should be given to sentences of the form 'the *F* is *G*'.

ON READING 'ON DENOTING'

Russell is basically translating what he regards as problematic English sentences into a First Order Language, and then proposing an analysis using the tools of first order logic. But he is writing for an audience (in 1905!) that he can reasonably expect to ignorant of logic.

So instead of stating his analysis using sentences of first order logic, he paraphrases those sentences **literally** into a very stilted form of English. This gives rise to some paraphrases that are difficult to parse. The difficulty is made even worse by his tendency to use now outdated ways of reading logical vocabulary. E.g., instead of saying 'There is at least one *x*, …', he writes 'It is not always false of *x* that …' Armed with this information, you should be able to make Russell's analyses more intelligible.

For example, Russell says (231, right):

This is what is expressed in symbolic logic by saying that 'all men are mortal' means "*x* is human" implies "*x* is mortal" for all values of *x*'.

What he means is that the FOL analysis is $\forall x$ (*x* is human $\rightarrow$ *x* is mortal). [Exercise: write the FOL sentences for the rest of the examples on p. 213.]

Here is Russell's example (p. 232, top) about the father of Charles II:

Sentence to be analyzed	The father of Charles II was executed.
Russell's analysis	It is not always false of *x* that *x* begat Charles II and that *x* was executed and that 'if *y* begat Charles II, *y* is identical with *x*' is always true of *y*.
In first order English	$\exists x$ (*x* begat *c* $\land$ *x* was executed $\land \forall y$ (*y* begat *c* $\to y = x$))
Paraphrased	There is an *x* such that: (1) *x* begat *c*, and (2) *x* was executed, and (3) for any *y*, *y* begat *c* only if *y* = *x*
What it means	Exactly one person begat Charles II, and that person was executed.

THE THEORY OF DESCRIPTIONS

Russell gives the details on pp. 231-32. The general idea is that any sentence of the form 'the *F* is *G*' is an **existential generalization** with three conjuncts. To say that the *F* is *G* is to say that there exists something, *x*, satisfying these three conditions:

Existence of the subject

  It is *F*.   Fx

Predication of the subject

  It is *G*.   Gx

Uniqueness of the subject

  Nothing else is *F*. $\forall y$ (Fy $\to$ y = x)

Hence 'the *F* is *G*' is analyzed as follows:

$$\exists x \ (Fx \land Gx \land \forall y \ (Fy \to y = x))$$

COMPARISON WITH OTHER THEORIES

Russell regarded it as a virtue of his theory that it **analyzed away** definite descriptions. That way, we don't have to worry about the **ontological status** of the entities denoted by definite descriptions (according to Russell, there aren't any!). Nor, as we will see, do we need Fregean **senses**, either. He compares his theory with two others:

Meinong

> "This theory regards any grammatically correct denoting phrase as standing for an *object*." (p. 232)

Russell's complaint: this forces us to wonder about the ontological status of the objects denoted by such (grammatically correct!) denoting phrases as 'the present King of France', 'the round square', etc. Such "entities" would violate the law of contradiction: the round square would be round (for all round things are round) but also not round (since no square is round).

Frege

Frege's theory, Russell realizes, does not succumb to the objection that defeats Meinong's. For Frege distinguishes between "meaning and denotation" (p. 232, right) — Russell's translations of *Sinn* and *Bedeutung*. Hence, Frege can allow a description like 'the present King of France' to have a sense even though it does not have a denotation. (Note that Russell acknowledges his earlier approval of this distinction, p. 232, right.)

But Russell has other reasons for preferring his own analysis to Frege's. The version of Frege's theory that Russell considers is the "chosen object" theory: the view that to an "improper" descriptions (such as 'the present King of France') we assign:

> "some purely conventional denotation for the cases in which otherwise there would be none. Thus, 'the King of France' is to denote the null-class" (p. 233, left).

Russell grants that this approach avoids logical difficulties:

> On the "chosen object" line, sentences of the form 'The King of France is *F*' would typically be **false** — even 'The King of France is a king' is false (since the null-class is not a king), and their **negations** would be **true**. So, there is no contradiction of the sort we get on Meinong's theory. These two sentences:
>
> 1. The round square is round.
> 2. The round square is not round.
>
> come out having opposite truth-values. (1) is false (it is false that the null-class is round), and (2) is true, since it's the negation of (1).

But he still objects to the chosen-object theory:

> "…this procedure, though it may not lead to actual logical error, is plainly artificial, and does not give an exact analysis of the matter" (p. 233, left).

Note that Russell does not directly address Frege's other solution (the one that proposes truth-value gaps). According to that solution, a sentence containing an improper descriptions may express a proposition, but it does not have a truth-value:

> "Whenever something is asserted then the presupposition taken for granted is that the employed proper names, simple or compound, have denotations" (Frege, p. 224, left).

Still, it is easy to see why Russell would prefer his own theory. He can do without truth-value gaps—every meaningful sentence is either true or false—without the artificiality of the chosen-object theory. (He doesn't have to look around for some conventional object to make the denotation of an improper description.)

THE PUZZLES RUSSELL WANTS TO SOLVE

Russell sets out three puzzles (p. 233):

1. Substitutivity

George IV wished to know whether Scott was the author of *Waverly*. But if we substitute, in a sentence that expresses this proposition, one denoting phrase ('Scott') for another ('the author of *Waverly*') denoting the same object, we obtain the sentence 'George IV wished to know whether Scott was Scott'.

> "Yet an interest in the law of identity can hardly be attributed to the first gentleman of Europe."

2. Excluded middle

It seems logically true that either the present King of France is bald, or the present King of France is not bald. But neither alternative seems acceptable (neither disjunct seems true).

> "Hegelians, who love a synthesis, will probably conclude that he wears a wig."

3. Negative existentials

It would appear to be "self-contradictory to deny the being of anything." Suppose we wish to say that something or other does not exist. How can we do this if, in order to pick out what we wish to deny the existence of, we must use a phrase that denotes it? If we succeed in picking it out, it will no longer be true to deny its existence.

For example: the earth revolves around the sun, the sun does not revolve around the earth. Or, we might say, there **is** such a thing as the revolution of the earth around the sun, but there **is no such thing** as the revolution of the sun around the earth. Now consider a sentence that seems to say this:

'The revolution of the sun around the earth does not exist.'

How can this be true? If the denoting term that is the subject does not denote anything, how could the sentence be true (there's nothing for it to be about)? But if it does denote something, it would seem to contradict itself in denying the existence of the very thing its subject term denotes.

HOW RUSSELL'S THEORY SOLVES THE PUZZLES

1. Substitutivity

The puzzle is to show what is wrong with this clearly invalid argument:

> 1. George IV wished to know whether Scott was the author of *Waverly*.
> 2. Scott = the author of *Waverly*
> ∴ 3. George IV wished to know whether Scott was Scott

It would appear that the identity asserted in (2) permits us to substitute 'Scott' for 'the author of *Waverly*' in (1), thereby obtaining (3).

Russell appeals to his distinction between grammatical form and logical form. First, a sentence containing a description, such as 'The author of *Waverly* was a man', "does not have 'the author of *Waverly*' for its subject" (p. 217). Russell's analysis:

$\exists x$ (x wrote *Waverly* $\land$ x was a man $\land$ $\forall y$ (y wrote *Waverly* $\to$ $y = x$))

Note that there is no occurrence of 'the author of *Waverly*' in this analysis. Similarly, Russell's analysis of (1), on its most plausible interpretation, is:

> 1a. George IV wished to know whether:
> $\exists x$ (x wrote *Waverly* $\land$ $\forall y$ (y wrote *Waverly* $\to$ $y = x$) $\land$ $x =$ Scott).

And in (1a) there is nothing for which one can substitute 'Scott' to obtain (3).

Second, the alleged "identity statement" 'Scott was the author of *Waverly*' turns out **not to be an identity statement** when its logical form is revealed:

$\exists x$ (x wrote *Waverly* $\land$ $\forall y$ (y wrote *Waverly* $\to$ $y = x$) $\land$ $x =$ Scott)

So there is no question of substituting 'Scott' for 'the author of *Waverly*', since:

- The translation of 'Scott was the author of *Waverly*' into FOL is not an identity statement, and

- In the translation of (1) into FOL, there is no expression corresponding to 'the author of *Waverly*' left to substitute for!

3. Excluded middle

Russell's solution turns on his distinction between **primary** and **secondary** occurrences of descriptions. What is at issue is the **scope** of the description. (Cf. Russell's touchy yacht-owner (p. 235, right): "I thought your yacht was larger than it is." "No, my yacht is not larger than it is." Here we can distinguish two readings:

Narrow scope: I thought (the size of your yacht > the size of your yacht).

Wide scope: There is a size, *x*, such that the size of your yacht = *x*, and I thought that the size of your yacht > *x*.

When the description is given **wide** scope, Russell calls this a **primary** occurrence. When it is given **narrow** scope, it's a **secondary** occurrence. (Only the narrow scope reading attributes logical inconsistency to the yacht owner's friend.)

Thus, two (or more) readings are possible when a description is doubly embedded within a proposition. (Russell gives a clearer explanation of the distinction between primary and secondary occurrences in "Descriptions," pp. 244-5.) Here is how the distinction applies to Russell's example: 'The present King of France is not bald':

Primary:

There is an *x* who is uniquely King of France at present, and *x* is not bald.

$\exists x$ (*x* is king $\wedge$ $\forall y$ (*y* is king $\rightarrow$ *y* = *x*) $\wedge$ $\neg$(*x* is bald))

Secondary:

It is not the case that there is an *x* who is uniquely King of France at present, and *x* is bald.

$\neg \exists x$ (*x* is king $\wedge$ $\forall y$ (*y* is king $\rightarrow$ *y* = *x*) $\wedge$ (*x* is bald))

As Russell says (p. 236, left) the sentence is **false** if the occurrence of the description is **primary**, and **true** if it is **secondary**. We can apply this distinction to the problem of excluded middle.

The sentence:

Either the King of France is bald, or the King of France is not bald.

expresses a logical truth (i.e., is an instance of the law of excluded middle) only if the two disjuncts **contradict** one another. The left disjunct is false, on Russell's theory, and the right disjunct appears to be the negation of the left. But the right disjunct is **ambiguous**—it has both a **wide** scope reading (primary occurrence of the description) and a **narrow** scope reading (secondary occurrence of the description). And it is only the **narrow** scope reading of the right disjunct that is the negation of the left disjunct. And **on that reading, the right disjunct is true**. So, the law of excluded middle is preserved.

Either the King of France is bald, **or** the King of France is not bald.

F	**F**	**T**
Unambiguous	Primary	Secondary
	(wide scope)	(narrow scope)
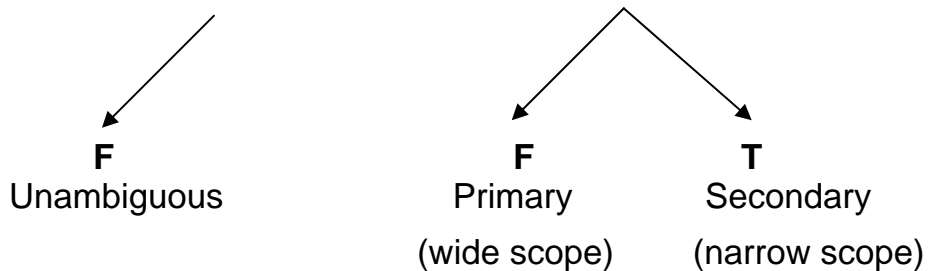
As Russell says:

"Thus we escape the conclusion that the King of France has a wig" (p. 236).

4. Negative existentials

We apply the primary/secondary occurrence distinction to our problem case:

'The revolution of the sun around the earth does not exist.'

Primary:

'There is an x such that x is uniquely a revolution of the sun around the earth, and x does not exist.'

Secondary:

'It is not the case that there is an x such that x is uniquely a revolution of the sun around the earth.'

On the primary reading, the sentence is self-contradictory. But on the secondary reading, it is true (and equivalent to saying that the sun does not revolve around the earth).

SUMMARY

Pros

Russell's theory is a powerful one. It solves the problems he set out to solve, and gives us a way of analyzing sentences containing definite descriptions which avoids both truth-value gaps and the ontological extravagance that seems to be required if we consider descriptions to be denoting phrases.

Cons

Definite descriptions as actually used in a natural language do not seem to conform very well to Russell's theory. On Russell's theory, someone who says something of the form 'the F is G' is not using the phrase 'the F' to **refer to something**. Rather, she is making an existential generalization (with a uniqueness clause and a predication clause thrown in).

Next, two of Russell's critics: first Strawson, and then Donnellan.

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