

Class #7 - Russell's Description Theory

I. Russell and Frege

Bertrand Russell's "Descriptions" is a chapter from his [*Introduction to Mathematical Philosophy*](#). This book, a non-technical introduction to Russell's version of the logicist project, was written in 1918 while Russell was in prison for his outspoken opposition to the First World War. Russell was a committed pacifist, as well as an Earl (the Third Earl Russell).

Russell was largely responsible for Frege's international influence. Frege's work originally went mainly unnoticed, even in Germany. Russell discovered Frege's projects and brought them to the attention of the English-speaking world. Still, many of Frege's writings were not even translated into English until the 1950s and 1960s.

I already mentioned that Russell attempted to rescue logicism from the paradox he discovered in Frege's logic. Russell also followed Frege's interest in the philosophy of language. But, he did not adopt Frege's distinction between sense and reference.

II. A Different Approach to Frege's Puzzle

Frege's puzzle was that ID1 and ID2 differ in cognitive content, even when 'a' refers to the same thing as 'b'.

ID1	$a = b$
ID2	$a = a$

Frege argues that since 'a' and 'b' are names, there must be an element of the propositions that those sentences express which is other than their references. He concludes that names have both sense and reference.

The cost of Frege's solution might be labelled ontological profligacy. Senses are third-realm objects. Some philosophers are skeptical of a third realm. Russell thus seeks a different solution to Frege's puzzle. He agrees that ID1 and ID2 should have the same cognitive significance if a and b are names and if names are merely denotative. But he presents a narrower view of what names are and argues that the problem of cognitive content does not arise when 'a' and 'b' are real names. He distinguishes such real names, which he calls logically proper names, from other common denoting phrases. If we drop Frege's assumption that 'a' and 'b' are names, then, Russell believes, we do not need to posit senses in addition to references. We can thus avoid multiplying entities. Moreover, we can see a way in which the surface grammar of an expression might mislead us in philosophy.

For Russell, real names are only used for things with which we have direct acquaintance.

A name is a simple symbol whose meaning is something that can only occur as subject, i.e. something of the kind that we defined as an "individual" or a "particular." And a "simple" symbol is one which has no parts that are symbols (69).

Further, we are only really acquainted with our sense data and our selves.

For our own sense data 'a' and 'b', 'a = b' has the same cognitive significance as 'a = a'.

But other terms which seem like names are just disguised descriptions.

Truly proper names are absolutely simple.

Russell allows for "relative names," names which we take to be simple and unanalyzed, even if they are analyzable.

But statements with ordinary proper names are disguised descriptions.

Descriptions, used as denoting phrases, are disguised existential statements.

Uncovering the true nature of our claims, through analysis, became, following Russell, a core method of philosophy in the twentieth century.

It is from this work of Russell's that we get the term 'analytic philosophy'.

II. Denoting Phrases

Russell calls terms like 'the king of America' in sentences like KW denoting phrases.

KW The king of France is wise.

Denoting phrases denote solely in virtue of their form.

Such phrases may denote nothing, one thing uniquely, or not any one thing.

Proper names are one kind of denoting phrase.

Russell argues that there are not many real proper names.

The terms we ordinarily consider names (e.g. 'Hesperus', 'Superman', 'Aristotle') are really just disguised descriptions of an object, just shorthand denoting phrases.

Real proper names must attach only to things with which we have direct and unmitigated acquaintance: our selves, our occurrent ideas, or sense data.

We may inquire significantly whether Homer existed, which we could not do if "Homer" were a name. The proposition "the so-and-so exists" is significant, whether true or false; but if *a* is the so-and-so (where "*a*" is a name), the words "*a* exists" are meaningless. It is only of descriptions - definite or indefinite - that existence can be significantly asserted: for, if "*a*" is a name, it *must* name something: what does not name anything is not a name... (73)

Like Frege, Russell argues that the meaning of a word depends on the context of its use.

It is natural that we do not define "a man" itself, but only the propositions in which it occurs (69).

In order to reveal the true logical form of a sentence which contains a denoting phrase, we have to translate that sentence into one which refers only to things with which we are directly acquainted. In other words, grammatical form is no guide to logical form.

Misled by grammar, the great majority of those logicians who have dealt with this question have dealt with it on mistaken lines. They have regarded grammatical form as a surer guide in analysis than, in fact, it is (66).

Consider the difference between Fregean propositions and Russellian propositions given a typical sentence.

BO Barack Obama is president of the United States.

For Frege, the proposition which BO is naturally used to express is a function of the individual concept of Barack Obama (instantiated only by Obama, but apprehended differently by different persons) and the concept of being president of the United States.

For Russell, if 'Barack Obama' were a name, then the proposition would consist of Barack Obama himself and the property of being president.

But, the grammatical form of BO is misleading and 'Barack Obama' is not really a name.

It is instead a complex symbol, standing for a complex existential assertion.

To see exactly what that complex assertion is, we have to think again about the problem of empty reference.

III. The Problem of Empty Reference

The problem of empty reference, in understanding sentences like KW, is long standing.

Recall Plato's suspect Parmenidean argument in *Sophist*, that one can not say anything about not-being. Meinong took all denoting phrases to stand for objects.

Thus, Meinong had to distinguish types of being: mere subsistence and real existence.

Russell says that Meinong's view lacks a robust sense of reality.

In such theories, it seems to me, there is a failure of that feeling for reality which ought to be preserved even in the most abstract studies...A robust sense of reality is very necessary in framing a correct analysis of propositions about unicorns, golden mountains, round squares, and other such pseudo-objects (66-7).

Frege and Russell have different analyses of KW, but they agree that the Meinongian analysis is wrong. Frege argued that the meaning of KW is a structured proposition consisting in part of the individual concept instantiated by the king of France and in part of the general concept of being wise.

Since there is no king of France, that concept cannot be instantiated.

If the concept were instantiated, then the statement would be true or false depending on whether or not the instantiation of the concept (i.e. the king of France) had the property instantiated by the concept of being wise.

Frege's distinction between sense and reference, and his analysis of indirect discourse, provides a satisfying account of KW and JKW.

JKW Juanita believes that the king of France is wise.

For Frege, JKW can be true even though there is no king of France.

'The king of France' in the that-clause refers to its own sense, to the mode of presentation which Johnny apprehends, and not to its ordinary reference.

Moreover, Johnny and the rest of us can grasp the sense of KW, even if it has no truth value.

Still, KW, as it stands, is somewhat problematic for Frege.

It is meaningful, but it has no truth value.

Frege must reject classical logic's principle of bivalence, B.

B Every sentence is either true or false.

Bivalence, like the principle of compositionality, is generally, though not universally, accepted as a structural guideline for developing theories of language.

Bivalence is closely related to the principle of non-contradiction, the claim that no statement is both true and false.

Put into the object language, and eliminating references to truth, bivalence is known as the law of the excluded middle.

LEM $P \vee \sim P$

Similarly, the principle of non-contradiction can be written as an object-language statement.

PNC $\sim(P \cdot \sim P)$

PNC and LEM are equivalent in standard, classical logic, using the rules called De Morgan's Law and Double Negation.

They are not categorical, and they have significant detractors.

Still, any deviance from such venerable guiding principles should be well-motivated.

Frege's account of the problem of empty reference leads him to give up B.

The problem of empty reference thus leads to what is called Frege's truth value gap.

Russell accuses Frege of calling KW nonsense, since the denoting phrase 'the king of France' lacks a denotation.

Frege says such sentences denote the null class, but Russell says this is artificial.

And, as we saw, Frege's analysis of the sense of a name runs into trouble.

So Russell rejects Frege's sense/reference distinction.

IV. Russell's Theory of Descriptions

Notice that 'the king of France' is not a proper name.

It is not a name of a sense datum, but a mere ordinary denoting phrase.

Thus, a proper analysis of KW should not regiment it as an object.

Russell analyzes KW as RKW.

RKW $(\exists x)[Kx \cdot (y)(Ky \supset y=x) \cdot Wx]$

RKW says that there is a king of France, there is only one king of France, and that thing is wise.

Because the first clause of RKW, ' $(\exists x)Kx$ ', is false, the conjunction, and thus the whole existential statement is false.

A similar analysis works for KNW, which looks, to surface grammar, like the negation of KW.

KNW The king of France is not wise.

If we were to regiment KW and KNW as referring to objects, as Frege does, we violate PNC.

FKW Wk
FKNW ~Wk

The problem is that we hold both FKW and FKNW to be false.
So, we want to assert FP.

FP Wk • ~Wk

FP is precisely a violation of PNC.
That's a problem for Frege's analysis.
On Russell's analysis, KNW becomes RKNW.

RKNW $(\exists x)[Kx \cdot (y)(Ky \supset y=x) \cdot \sim Wx]$

Again, ' $(\exists x)Kx$ ' is false, and so the whole sentence is false.
But since RKW and RKNW are not contradictory, there is no violation of PNC.
Russell thus retains classical logic, with no contradiction.

The retention of classical logic in and of itself is not the main reason why Russell thinks that his treatment of sentences that include names without bearers is better than Frege's.
Russell believes that KW and NKW are both intuitively false.
If we take 'the king of France' to be a name, KW and KNW look like contradictories, independently of Frege's analysis.
So a finer-grained analysis, a cleavage between logical form and grammatical form, seems apt.

V. Russell's Theory and Identity Statements

Russell's analysis solves the problems of identity statements as well as the problem of empty reference. And, Russell solves the problem of identity statements without introducing senses.
Russell's claim is that 'Hesperus is Phosphorus' and 'Hesperus is Hesperus' would have no difference in cognitive content if 'Hesperus' and 'Phosphorus' were logically proper names.
The difference in cognitive content arises only from the fact that both terms are really disguised descriptions.

So long as names are used as names, "Scott is Sir Walter" is the same trivial proposition as "Scott is Scott" (71).

The main difference between Frege and Russell is over the issue of bivalence, over whether KNW is false, just as KW is, or whether both sentences lack denotation.
This difference manifests itself in a difference over whether the constituents of a proposition are senses, as they are for Frege, or individuals and functions, as they are for Russell.

VI. Russellian Propositions and Opaque Contexts

For Russell, statements which include names, strictly speaking, include the objects of those names and a propositional function.

TR That (spot in my field of vision) is red.

In TR, there is a name and an ascription of a property to the object to which that name refers.

That ascription is called a propositional function, 'x is red'.

Most singular propositions, though, contain concepts rather than objects.

What do I really assert when I assert "I met a man"? Let us assume, for the moment, that my assertion is true, and that in fact I met Jones...[N]ot only Jones, but no actual man enters into my statement. This becomes obvious when the statement is false, since then there is no more reason why Jones should be supposed to enter into the proposition than why anyone else should. Indeed the statement would remain significant, though it could not possibly be true, even if there were no man at all. "I met a unicorn" or "I met a sea-serpent" is a perfectly significant assertion, if we know what it would be to be a unicorn or a sea-serpent, i.e. what is the definition of these fabulous monsters. Thus it is only what we may call the *concept* that enters into the proposition (65-6).

SF is a disguised existential assertion which contains only the concept of being Superman, when unpacked.

SF Superman flies.

But, for the purposes of understanding Russell's approach to the problem of opaque contexts, let's imagine that 'Superman' is a real name.

For Frege, the proposition naturally expressed by SF contains the sense of Superman, and the sense of the property of flying, concepts under modes of presentation.

Senses allowed Frege to treat opaque contexts, like LS.

LS Lois Lane believes that Superman flies.

If Lois Lane and Superman were proper names, a Russellian would analyze LS as containing Superman, not a mode of representation of Superman.

The reference of the related that-clause in LC would contain the same man and the same property.

LC Lois Lane believes that Clark Kent flies

Thus, Russellian propositions seem to run into the problem that Frege seemed to solve.

The two that-clauses have the same reference.

But the sentences containing the two that-clauses have different truth conditions.

Indeed, on the standard story, LS is true and LC is false.

For Frege, the different truth conditions showed that the that-clauses had difference senses.

For Russell, rejecting senses, the different truth conditions show that neither sentence really contains a proper name.

Propositions verbally about "a so-and-so" are found to contain no constituent represented by this phrase. And that is why such propositions can be significant even when there is no such thing as a so-and-so (68).

The denoting phrase is essentially part of a sentence, so does not have meaning on its own, according to Russell's proposal.

Here, Russell adopts Frege's context principle.

Furthermore, when the proposition in which a denoting phrase occurs is fully expressed the denoting phrase disappears.

To be clear, the problem of opaque contexts is that from LS and SC, which are both true, LC follows as a law of logic.

SC Superman is Clark Kent.

But this inference is invalid.

Frege avoids the problem by his doctrine of indirect discourse and the sense/reference distinction.

Russell avoids the problem by claiming that LS and LC are of more-complex logical form.

LS is really RLS and LC is really RLC.

RLS Lois Lane believes that there is a thing called Superman, there is only one thing called Superman, and that thing flies.

RLC Lois Lane believes that there is a thing called Clark Kent, there is only one thing called Clark Kent, and that thing flies.

RLS contains the property of being called Superman; RLC contains the property of being called Clark Kent.

But the property of being called Superman is not identical to the property of being called Clark Kent. So, the invalid inference is blocked.

Since denoting phrases are paraphrased away, the problem of substituting a co-referential phrase and getting a tautologous statement is mitigated.

VII. Russell versus Frege

Frege and Russell agree, in a sense, that names are not just Millian denotations.

Frege thinks that names have connotation, too.

The sense of 'Dartmouth' is not just the concept of being the city at the mouth of the Dart River.

Instead, it is whatever determines the reference of that term.

Each object has different senses associated with it.

Different people can grasp the object under different modes of presentation.

For Russell, the description which Frege associates with the sense of a name is actually what the name abbreviates.

Frege sees sense and reference; Russell sees hidden logical form.

But both Frege and Russell are what come to be known as description theorists.

Frege could be called a sense descriptivist and Russell an abbreviational descriptivist.

Descriptivism is opposed to Mill's theory of non-connotative names, which is sometimes called the direct reference theory, or the 'Fido'-Fido theory.

Description theory defeated the 'Fido'-Fido theory for sixty-to-seventy years, until some research in modal logic, metaphysics, and essences by Saul Kripke revived the dead position.

Now, the descriptivist view is mainly disfavored, for reasons we will continue to explore.

VIII. Russell on the Ontological Argument:

Just for kicks, check out Russell's solution to the ontological argument.

As a proof, [the ontological argument] fails for want of a proof of the premise 'there is one and only one entity x which is most perfect' ("On Denoting" 491).

That is, the problem is dissolved by the paraphrase because the presupposition that there is a God fails. Russell's solution has its roots in Leibniz's criticism of Descartes's argument, but that's for another course.