Russell, King, and the problem of the unity of the proposition

PHIL 93914
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January 31, 2008

Most contemporary work in semantics aims to assign propositions as the semantic contents of sentences, relative to a context of utterance. Most theorists think, further, words and phrases, as well as sentences, have semantic contents relative to contexts of utterance, and that these contents are constituents of the propositions expressed by sentences containing these expressions. Much of the disagreement in contemporary semantics takes the form of disagreement about what propositional constituents correspond to a given class of expressions.

But, as is well known, a resolution of these debates about the nature of the constituents of propositions would still leave unanswered some difficult questions about the nature of propositions. In particular, we would still need an account of what unifies these constituents into a single thing, a proposition.

One way to bring out this problem, which is due to the Russell of the *Principles of Mathematics*, is to note that sometimes substitution of one expression for another with the same content can transform a sentence — which expresses a proposition relative to a context — to a string of words which does not express a proposition. As Russell says, "By transforming the verb, as it occurs in a proposition, into a verbal noun, the whole proposition can be turned into a single logical subject, no longer asserted, and no longer containing in itself truth or falsehood." (§52) To use one of his examples,

> *A* differs from *B*

expresses a proposition and has a truth-value, whereas

> *A* difference *B*

does not express a proposition. But, intuitively, this is puzzling; for surely 'differs' and 'difference' have the same content, each being terms for the relation *difference*. But then how can the former string of words express a proposition, and the latter not?

We can generate the same effect any time we substitute terms with the same content, but which belong to different grammatical categories. Accordingly, one can block this sort of argument by denying that it is possible for terms of different grammatical categories ever to share a content. While initially plausible, this is, as

Russell pointed out, a difficult position to maintain.[1] The point is easiest to make if we assume a Millian view of some class of singular terms, like names. For suppose that predicates have contents, relative to contexts. Surely it should be possible to talk about those contents; and if it is possible to talk about them, it should be possible to introduce a name for one. But then if names are Millian, the name so introduced will have the same content as the predicate in question, and we will be able to generate a substitution of the sort discussed above.

The same point can be made, albeit less decisively, without assuming a Millian view of names. As Russell suggests, someone who denies that expressions of different syntactic categories can ever share a content will still be tempted to make general claims about the meanings of predicates, such as

> Predicates have contents, but the content of a predicate is never the content of a proper name.

which has the following form:

> $\exists x \exists y$ (x is a predicate & y is the content of x & $\forall z$ (z is a name $\rightarrow \neg$ (y is the content of z))

But for this to be true, the open sentence

> x is a predicate & y is the content of x

must be true relative to some assignment of values to x and y. So the content of some predicate must be such that it can be the value of a variable occurring in subject position. But if this is true, it seems that, if open sentences express propositions relative to an assignment of values to free variables, there must be a proposition which is such that the content of some predicate occurs in subject position. But then why couldn't there be some sentence which expresses that proposition, which would then have to contain some singular term whose content is the content of the predicate in question?

What this kind of argument, if successful, shows is that there must be more to propositions than their constituents; for, if there were not, any two strings of words alike with respect to the propositional constituents corresponding to their parts would always be such that both or neither expressed a proposition.

In the sections of the *Principles* in which he discusses this problem, Russell made two quite different attempts to say what this 'something more' could be. His first attempt was to explain the difference between strings of words such as

> A differs from B

> A difference B

in terms of the mode of combination of the constituents of the proposition expressed by the first. As he put it,

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[1]Russell's discussion is limited to the case of verbs and verbal nouns, but the point is a general one.

> "The twofold nature of the verb, as actual verb and as verbal noun, may be expressed, if all verbs are held to be relations, as the difference between a relation in itself and a relation actually relating. Consider, for example, the proposition 'A differs from B'. The constituents of this proposition, if we analyze it, appear to be only A, difference, B. Yet these constituents, thus placed side by side, do not reconstitute the proposition. The difference which occurs in the proposition actually relates A and B ..." (§54)

While Russell's distinction between relations in themselves and relations actually relating can sound a bit obscure, his point is clear enough: the proposition expressed by 'A differs from B' is not simply a list of two objects and a relation, but rather two objects connected by that relation. In the case of a monadic predication, the analogous move would be to say that the proposition is not simply a list of an object and the property, but rather the object's instantiating that property. Because every proposition includes a property or relation, this strategy will always be available.

An analogy might help. Consider the distinction between facts, thought of as an object or objects having a property or standing in a relation. Facts, so understood, have constituents — objects, properties, and relations — but are something over and above their constituents. The fact that Bob is tall is something more than the mere existence of Bob and the property of being tall; it is a matter of Bob's *being* tall. Of course, if this makes the proposed solution to the problem of the unity of the proposition clearer, it also makes clear why the solution fails. By assimilating the proposition expressed by 'A differs from B' to the fact of A's differing from B, Russell's reliance on 'relations actually relating' makes the existence of false propositions impossible; there can be no such thing as A's differing from B unless it is true that A does differ from B.[2]

Russell's second response to the problem, which he mentions only in passing, is the suggestion that "There appears to be an ultimate notion of assertion, given by the verb, which is lost as soon as we substitute a verbal noun ..." (§52) There's one important similarity, and one important dissimilarity, between this and the treatment of 'A differs from B' discussed above.

This similarity is that, in each case, Russell appeals to a relation's holding between the constituents of the proposition to explain the unity of the proposition. The difference is that, in this case, the relation in question is not the content of any expression in the sentence, but rather an 'ultimate notion of assertion' which is, it seems, a relation which holds between the constituents of every proposition. Here we can think of assertion as a multigrade relation which holds between the constituents of every proposition; to continue the example discussed above, the proposition expressed by 'A differs from B' would then the difference relation's *being asserted of A* and B. Assertion is a relation that really holds between difference, A, and B.

Russell's choice of assertion as the relation which binds together the constituents of the proposition was a poor one. Assertion is one among several attitudes which one might take toward a proposition; propositions can hardly be defined in terms of this attitude. Since propositions can exist unasserted, the nature of propositions cannot depend on (for example) a property being asserted of an object. But the general

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[2]As is well known, this is the problem which eventually led Russell to abandon belief in propositions. See the discussion of 'false objectives' in Russell (1910).

strategy is promising: by finding some relation which actually holds between the constituents of a proposition, we can explain the unity of the proposition by analogy with the unity of facts; by letting this relation be something other than the relations (if any) which are constituents of the proposition, we can understand propositions as facts without assimilating them to the facts which would make those propositions true.

So if we're to solve the problem of the unity of the proposition in this way, we need to come up with a more plausible candidate for the needed relation than the relation of assertion. One might think that the kinds of examples used above to illustrate the problem of the unity of the proposition give us some indication of where we should look: because these were all cases in which we moved from a proposition-expressing string of words to a non-proposition-expressing string by substituting expressions of different syntactic categories for one another; it would not be surprising if such substitutions failed precisely because the syntax of the sentence makes some contribution to the proposition it expresses. This suggests that the wanted relation, which holds between constituents of the proposition, should have something to do with the syntactic structure of sentences which express the proposition.

A version of this strategy has been defended by Jeff King.[3] On King's view, the relation which binds the constituents of the proposition is (modulo a qualification to be explained) the syntactic relation which holds between the expressions of a sentence which expresses the proposition.[4] Consider King's favored example, 'Rebecca swims.' In giving the semantics of this sentence, we take as input three facts about the sentence: that it contains the name 'Rebecca', that it contains the predicate 'swims', and that the sentence is formed by concatenating the latter with the former. King's view is that the relation which obtains here between name and predicate is, along with the object Rebecca and the property of swimming, a constituent of the proposition expressed by the sentence. This relation plays the role played by the relation of assertion in the above example: it is a relation which holds between the other constituents of the proposition (in this case, Rebecca and the property of swimming).

More precisely, we can to a first approximation describe the proposition expressed by this sentence as follows, letting 'R' be a name for the syntactic relation which holds between the name and predicate in this sentence: it is the fact of there being words x and y of some language such that x has Rebecca as its content, y has the property of swimming as its content, and $R(x, y)$.

This is only true to a first approximation because it leaves out the semantic contribution of the syntactic relation R. King brings out this point nicely via the example of a possible language, Nenglish, which is such like English but that concatenation of a name and a predicate expresses a proposition which is true iff the referent of the name does *not* instantiate the property expressed by the predicate.[5] The problem is that the account of propositions would seem to assign the same proposition to the string 'Rebecca swims' in Nenglish as in English, despite this divergence in truth conditions. This seems clearly incorrect; so our theory of propositions will have to take account of the divergence in the semantic significance of concatenation of a

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[3]King (2007).

[4]A consequence of the view is that no two sentences with different logical forms can express the same proposition.

[5]King (2007), 35-8.

name and simple predicate between the two languages. As King suggests, we can think of the semantic significance of R in English as a function from objects, properties, and worlds to truth values: the function which, given as argument an object o and property F, determines the truth value true at w iff o instantiates F at w. We can then describe the proposition expressed by 'Rebecca swims' as follows: it is the fact of there being words x and y of some language such that x has Rebecca as its content, y has the property of swimming as its content, $R(x, y)$, and R encodes the instantiation function.

King's view has some clear virtues:

- Assimilates propositions to facts, rather than treating them as mysterious sui generis entities.

- Makes clear what talk of 'constituents' amounts to. Will not convince everyone who's skeptical about this kind of talk that it makes sense; but it should convince anyone that finds intelligible the kinds of views about facts sketched above.

- Makes it clear how propositions can be the sorts of things that have truth conditions.

- Makes it plausible that propositions exist.

- Explains why 'A difference B' does not express a proposition.

But the view also has some vices:

- The most obvious is that it makes propositions metaphysically dependent on the existence of a sentence which expresses them. No propositions true before there were humans. Not such a big deal; does not entail that no propositions which now exist fail to truly describe times prior to the existence of humans. (This is a special case of the distinction between context and circumstance/index.)

- Worse problem about language-dependence: one might coin a sentence in order to express some thought; but on this view the thought can't precede the sentence.

- Further problem: perceptual representation. Seems propositional, but it also seems that we can perceptually represent propositions which are not expressible by any sentence that we can understand.

These problems are not disqualifying. But it would be better to have a theory of propositions which avoided them.

A better view seems like the following: the syntax of a sentence, like the words of the sentence, contribute something other than themselves to the proposition expressed by the sentence. What the syntax of the sentence contributes is what King calls the semantic contribution of the syntax of the sentence: an instruction which says what it takes for the proposition to be true. This contribution would then be a relation which held between the constituents of the proposition.

What would this relation have to be like? In the case of the example sentence 'Rebecca swims', it seems as though it would have to satisfy the following constraints:

- It would be guaranteed to hold between Rebecca and the property of swimming.

- It would be guaranteed not to hold between Rebecca and something other than a monadic property.

- It would be such that the fact which consisted of its holding between Rebecca and the property of swimming would be true with respect to a world iff Rebecca instantiates the property of swimming at that world.

King's candidate relation seems to meet these constraints; and it meets them partly because it is defined in terms of the syntax of certain natural language sentences, which is also what gives the account its objectionable features. Is it plausible to believe that there is a relation which meets these constraints which is not defined partly by its relations to linguistic expressions?

References

Jeffrey King, 2007. *The Nature and Structure of Content*. New York: Oxford University Press.

Bertrand Russell, 1903. *The Principles of Mathematics*. Cambridge University Press.

Bertrand Russell, 1910. On the Nature of Truth and Falsehood. In *Philosophical Essays*, 147–159. Longmans, Green & co.