

Wittgenstein on logical form and the nature of philosophy

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Having discussed Wittgenstein's picture theory of representation and his doctrine that all propositions are truth-functions of elementary propositions, we now return to his discussion of logical form in §§3.3-4.128. This topic provides the transition between Wittgenstein's views on the philosophy of language and his views about the nature of philosophy.

1 Logical form and Russell's paradox (3.3-3.5)

Somewhat puzzlingly, Wittgenstein begins this discussion by discussing logical notation, or logical symbols. (He distinguishes between a sign and a symbol; this seems to be roughly the same as the distinction between a propositional sign and a proposition.)

Wittgenstein here draws a sharp distinction between everyday language and a logical language. Everyday language contains ambiguities; logical language, to avoid the confusions this causes, will not (§3.323). This amounts to the suggestion that we avoid the fundamental confusions of which philosophy is allegedly full (§3.324) by constructing a new notation for the expression of our thoughts:

3.325 In order to avoid such errors we must make use of a sign-language that excludes them . . .

A background thought here is that we cannot trust ordinary language. Just as we cannot trust the fact that 'is' has the same interpretation in 'x is good' and 'x is x' and 'x is' so

we cannot trust the fact that certain kinds of propositions seem, in ordinary language, to make sense.

Just so, in ordinary language we can sometimes formulate claims which seem to make sense, but ultimately do not. Among these are certain paradoxical sentences which, in a certain way, make reference to themselves. Consider, for example,

There is a set which contains all the sets which are not members of themselves.

This is one way of expressing the claim which leads to Russell's paradox.

One way to block the paradox, which Wittgenstein seemed to favor, was to adopt a restrictive claim about what can be expressed. He says:

3.332 No proposition can make a statement about itself, because a propositional sign cannot be contained in itself. . . .

The next proposition (§3.333) expresses more directly the kind of restriction Wittgenstein has in mind: no function can be part of its own argument. Explanation of the function/argument analysis of propositions, and why this restriction makes the sentence used above to express Russell's paradox meaningless.

The important thing to see is that this restriction is not an arbitrary extra thesis adopted by Wittgenstein to avoid contradiction, but rather a consequence of other views that we have already discussed. Wittgenstein makes this clear when he says

3.333 The reason why a function cannot be its own argument is that the sign for a function already contains the prototype of its argument, and it cannot contain itself.
...
That disposes of Russell's paradox.

Here we have an application of the picture theory of representation that we have already discussed; that no element of a representation can refer to the representation as a whole, since for it to do so it would have to have the same form as the representation as a whole, and nothing can have the same form as one of its (proper) parts.

It seems clear that Wittgenstein saw in this result a striking confirmation of his theory of representation: it simply flows from the theory that Russell's paradox does not arise, because the kind of self-reference on which it seems to depend is impossible.

A problem for this response to Russell's paradox and related paradoxes, like the Liar: versions can be constructed which involve no explicit self-reference. It is not obvious how Wittgenstein's ban on elements of a representation representing that representation as a whole apply to these versions.

2 Propositions and ordinary language (4-4.0641)

[We'll be skipping §§4-4.0641; these provide more details about Wittgenstein's theory of propositions, and his view about how it is related to the sentences and symbols of ordinary language.]

3 Science vs. philosophy (4.1-4.128)

Given Wittgenstein's metaphysics of states of affairs, he gives exactly the sort of view about the nature of science that one might expect:

4.1 Propositions represent the existence and non-existence of states of affairs

4.11 The totality of true propositions is the whole of natural science. . . .

The job of sciences is to describe what is the case; since the existence and non-existence of states of affairs is what is the case, the job of natural sciences is to describe the existence and non-existence of states of affairs.

However, this raises a problem: if science tells us what the facts are, what is left over for philosophy to do?

It emerges in this section that Wittgenstein thinks of philosophy as a kind of process of clarification, whose subject matter (insofar as it has one) is the logical form of our propositions and thoughts, rather than their subject matter:

4.112 Philosophy aims at the logical clarification of thoughts.

The idea here is that philosophy is not interested in which facts about the world happen to obtain, but only about the form, or nature of those facts (including the forms of those facts by which we represent the world). This is in some ways a traditional view of philosophy. To know which facts about the world obtain, one would have to engage in some sort of a posteriori investigation of the world. But philosophy is an a priori discipline whose results, therefore, must concern the form of any possible fact rather than the particulars of actual facts.

Given this conception of philosophy, Wittgenstein endorses a thesis with which many philosophers now would disagree: science is not only distinct from philosophy, but completely irrelevant to it. Wittgenstein states this thesis in no uncertain terms, using as examples two kinds of scientific theories which many have thought *do* have importance for philosophy:

4.1121 Psychology is no more closely related to philosophy than any other natural science. . . .

4.1122 Darwin's theory has no more to do with philosophy than any other hypothesis in natural science.

These are not just bald assertions, but follow from Wittgenstein's view of philosophy's aim. If philosophy does really aim at giving the form of any possible fact, then what use can it have of the results of scientific theories which do no more than enumerate and systematize actual facts?

4 There are no facts about logical form

But here a kind of paradox arises. Wittgenstein thinks that it is the job of philosophy to tell us what the logical forms of our thoughts (and so of all possible facts) are. This seems to imply that there must be a special class of facts about logical forms — otherwise, if there were no facts about logical forms, what would philosophy be describing? But if there are facts about logical form, then there must be a class of facts which is beyond the reach of science. But this contradicts Wittgenstein's view that the aim of science is to describe *all* the facts. (It would also seem contradict his idea that all facts are simply a matter of the existence and non-existence of states of affairs.)

Wittgenstein does not think that there are any true propositions about logical form:

4.12 Propositions can represent the whole of reality, but they cannot represent what they must have in common with reality in order to be able to represent it — logical form.

In order to represent logical form, we should have to be able to station ourselves with propositions somewhere outside logic, that is to say outside the world.

This has an important consequence. Recall that Wittgenstein thinks that there is a very tight connection between language and the world; indeed, he seems to think that the following *fact-proposition equivalence* holds:

x is a possible fact if and only if there is some proposition which has x as its sense.

So when Wittgenstein says here that there is no proposition which can represent logical form, we can take him as also committed to the claim that there are no facts about logical form. And, if philosophy is concerned with logical form, it follows that there is no class of facts which philosophy studies.

This re-raises the paradox about the nature of philosophy in a sharp form: if there are no facts for philosophy to describe, what is it supposed to do?

Before trying to answer this question, though, one wants to know: what is the basis for Wittgenstein's claim that there are no facts about logical form? The following are two possible arguments which may be extracted from the text for this conclusion.

4.1 *The argument from the impossibility of self-reference*

§4.12 makes it seem as though part of the story is that there is a kind of incoherence in a certain kind of self-reference – this is a thought which we already encountered above, in Wittgenstein’s brief discussion of Russell’s paradox. One initially plausible idea is that this explains Wittgenstein’s view that there are no true propositions about logical form. If there were, it would involve a kind of self-reference that he’s shown to be impossible.

But even if we grant this point about *self*-reference, this does not show that we could not state *any* propositions about logical form. The point about self-reference would get us the conclusion that no proposition can state its own logical form; but wouldn’t it still be possible for there to be some propositions that could state the logical forms of other propositions?

Perhaps the idea is this: if we grant the point about self-reference, then there would have to, on pain of infinite regress, be *some* propositions such that no proposition stated their logical form. But it would be absurd to say that there are facts about the logical forms of some propositions but not about the logical forms of others. So it follows from the fact-proposition equivalence that, if there are some propositions whose logical forms are not stated by any other proposition, there are no facts about the logical forms of any propositions. However, it’s not clear that the regress in question is a vicious one.

Another way to view this argument is by adding the assumption that every proposition has the same logical form. If this were true, this would undercut the worry that one proposition could describe another’s form, even if no proposition can describe its own form. This is a puzzling suggestion. However, that this is Wittgenstein’s view seems to be indicated by remarks such as the following:

4.12 Propositions can represent the whole of reality, but they cannot represent what they must have in common with reality in order to represent it — logical form.

In order to be able to represent logical form, we should have to be able to station ourselves with propositions somewhere outside logic, that is to say outside the world.

Here Wittgenstein talks about ‘logical form’ as though it is just one thing, as opposed to the logical form of this or that proposition. This would help the present argument. But it is hard to reconcile this with the idea that the picture theory of representation is supposed to explain how representation is possible. If every sentence has the same logical form, how is this supposed to help explain how a give sentence could represent one fact rather than another?

This is an important tension in the *Tractatus* that I’m not sure how to reconcile.

4.2 *The argument from internal properties*

A different kind of argument for the view that there are no facts about the logical forms of propositions is suggested by some of Wittgenstein’s difficult remarks about internal and external properties in this section. Consider especially the following:

4.122 In a certain sense we can talk about formal properties of objects and states of affairs, or, in the case of facts, about structural properties: and in the same sense about formal relations and structural relations. (Instead of 'structural property' I also say 'internal property'; instead of 'structural relation', 'internal relation.')

...

It is impossible, however, to assert by means of propositions that such internal properties and relations obtain: rather, this makes itself manifest in the propositions that represent the relevant states of affairs and are concerned with the relevant objects.

This indicates that the logical forms of propositions and other facts, and the relations between propositions and the facts they represent, are, respectively, internal properties and relations. A bit later Wittgenstein adds:

4.123 A property is internal if it is unthinkable that its object should not possess it. ...

This means that, if an object has an internal property, it is a necessary truth that it has that property (and also that, if two objects or facts stand in a certain internal relation, that it is a necessary truth that they stand in that relation). But Wittgenstein does not believe that there are any *facts* which are necessary. Indeed, one of the explanatory ambitions of the *Tractatus* seems to be to explain a host of metaphysical notions, including necessity and possibility, in terms of the sparse metaphysical resources provided by a set of mutually independent contingent states of affairs. To admit that there are facts about logical forms (while holding to the plausible thesis that these facts are internal in Wittgenstein's sense) would, perhaps, be to give up that ambition.

This makes the unsayability of logical form a consequence of Wittgenstein's metaphysics.

5 Saying vs. showing

Suppose that we grant that there are no facts about logical forms, and that it is the business of philosophy to investigate logical forms. Given this, it seems to follow that, since the *Tractatus* is a philosophical work, it must not contain any propositions which state facts. But then what are all the sentences in the book which seem to state facts doing?

The short answer is that these sentences do not, strictly speaking, say anything: their function is to *show* us what we need to know about logical forms. As Wittgenstein puts it:

4.114 [Philosophy] will signify what cannot be said, by presenting clearly what can be said.

This touches on the central paradox of the *Tractatus*. We will return to it at the end of the book.