

Wittgenstein's Logical Atomism

Seminar 8

PHIL2120 Topics in Analytic Philosophy

16 November 2012

Admin

Required reading for this seminar:

Soames, Ch 9+10

New Schedule:

23 November: The Tractarian Test of Intelligibility
(Ch 11)

30 November: Logical Positivism on Necessity and
Aprioricity

7 December: The Rise and Fall of the Empiricist
Criterion of Meaning

14 December: No seminar

Ludwig Wittgenstein

- Wittgenstein was born on April 26, 1889 in Vienna, Austria, to a wealthy industrial family
- in 1911 he went to Cambridge to study with Bertrand Russell.
- *Tractatus Logico-Philosophicus* was first published in German in 1921, and then published in English in 1922.
- In 1920 Wittgenstein, now divorced from philosophy (having, to his mind, solved all philosophical problems in the *Tractatus*), gave away his part of his family's fortune and pursued several “professions” (gardener, teacher, architect, etc.) in and around Vienna.
- It was only in 1929 that he returned to Cambridge to resume his philosophical vocation, after having been exposed to discussions on the philosophy of mathematics and science with members of the Vienna Circle.
- Died 1951 from cancer
- *Philosophical Investigations* was published posthumously in 1953.

A useful tool

A useful tool to use in determining what facts there are, and what they are like, is the logically perfect language discussed in seminar 4, which I will call L.

Let us suppose that:

- i) L contains a logically proper name for each atomic particular,
- ii) L contains a predicate for each fundamental property and relation, and
- iii) L does not contain any other logically proper names or predicates

Atomic sentences in L

The atomic sentences in L are sentences consisting of a predicate followed by one or more logically proper names.

Examples:

- i) 'Ra' ('a is red')
- ii) 'Lab' ('a is to the left of b')

Note: I am assuming for simplicity that redness and to-the-left-of-ness are fundamental properties

Wittgenstein's theory of facts

- There are atomic facts
- Atomic facts are “arrangements” (or “combinations”) fundamental properties and atomic particulars (or atoms, for short)
- Each true atomic sentence in L expresses (or corresponds to) a fact
- There are no complex facts (This is different from Russell)

The picture theory of meaning

Atomic sentences have meaning in a similar way to how pictures have meaning

Aspect 1: True atomic sentences represent facts by sharing a common form

E.g., $Fa_1 \dots a_n$ represents a fact consisting of the property expressed by F and the atoms referred to by $\text{'}a_1\text{'}$... $\text{'}a_n\text{'}$ in virtue of these constituents being arranged in a similar way as $\text{'}F\text{'}$, $\text{'}a_1\text{'}$... $\text{'}a_n\text{'}$.

The picture theory of meaning (cont)

Aspect 2: An atomic sentence S is an meaningful iff it is possible for the atoms and properties named in S to be arranged in a manner corresponding to the way in which the names and predicates in S are arranged.

A consequence of the picture theory

A meaningful false atomic sentence S need not express an object that is its meaning (such as a proposition or a non-obtaining state of affairs)

Reason: For S to be meaningful, it need only be possible for the atoms and properties named in S to be arranged in a manner corresponding to the way in which the names and predicates in S are arranged

Note: Wittgenstein did not hold that there are any merely possible facts or states of affairs

Knowing the meaning of an atomic sentence

- i) To “know the meaning” of an atomic sentence is not to be acquainted with some abstract entity, such as a meaning, proposition, or state of affairs.
- ii) Rather, it is to know what the world would have to be like if the sentence were to be true

Truth for atomic sentences

An atomic sentence is true iff it corresponds to an atomic fact

(An atomic sentence corresponds to a fact iff the atoms and properties named by named in S to be arranged in a manner corresponding to the way in which the names and predicates in S are arranged)

Truth for non-atomic sentences

The truth or falsity of non-atomic sentences is always determined by the truth or falsity of atomic sentences.

So there is no reason to posit non-atomic facts.

Example 1: Negation

' \sim Lab' is true iff 'Lab' is not true

where 'Lab' is not true iff there no fact of a being to the left of b

Note: Wittgenstein is rejecting Russell's correspondence principle.

Russell's correspondence principle

(CP) For any true sentence S , there is a set F of facts that correspondence of S to one or more of the members of F is responsible for the truth of S

(CCP) If correspondence to members in F is responsible for the truth of S , then it is impossible for the members of F to exist without S being true

Wittgenstein rejected (CP)

Example 2: Quantification

Suppose F expresses a fundamental property.
Then ' $\forall xFx$ ' is true iff each sentence of the form
' Fa ' expresses a fact

The truth of ' $\forall xFx$ ' is therefore determined by
what atomic facts exist, and there is no reason
to postulate any extra general fact to explain the
truth of ' $\forall xFx$ '

Wittgenstein's theory of possibility

- i) Each atom and each fundamental property exists necessarily
- ii) There couldn't be any atoms other than the atoms that actually exist
- iii) Each atomic sentence in L is possibly true and possibly false
- iv) Every atomic sentence s compatible with the truth or falsity of any other atomic sentence

Wittgenstein's theory of possibility (cont)

v) For every set of atomic sentences in L , it is possible that the members of S are all and only the true atomic sentences in L

In other words, each such set corresponds to a possible world (or complete way things could be)

Why believe Wittgenstein's logical atomism?

Wittgenstein gives some deductive arguments for his components of this theory, such as his claims that everything is composed out of atoms.

However, Soames argues that these arguments are unpersuasive (see p. 200-3)

A better reason for endorsing Wittgenstein's theory is that it is simple and has great explanatory power (wrt, for example, truth, possibility and meaning).

Problem 1: Incompatible properties

- Let 'R' express a particular shade of red, and let 'B' express a particular shade of blue.
- These properties seem to be fundamental properties.
- Hence, according to Wittgenstein's logical atomism, 'Fa' and 'Ba' should be compatible with each other.
- However, this is false, since nothing can be both red and blue

Wittgenstein's response

Being R and being B are not fundamental properties

They are analysable in terms of more fundamental properties

But which properties?

Maybe physical properties?

Prob: Some physical properties raise similar problems, such as being 1g and being 2g, and being 1 m from, and being 2 m from.

Consequences of the nature of atoms

It apparently follows from this response that sense data can't be atoms, since sense data are coloured.

Wittgenstein therefore differs from Russell here.

So what are the atoms?

Problem 2 (applies to Russell's logical atomism also)

Why think there are any facts at all? Why can't there just be particulars and properties.

For example, we can say that

(1) 'Lab' is true iff a stands in the relation of being to the left of to b

This seems to be just as good an explanation as that offered by Russell and Wittgenstein's (2).

(2) 'Lab' is true iff the fact of a standing to the left of b exists

Problem 2 (cont)

Hence, by Occam's razor, we shouldn't believe in facts.

Occam's razor: Do not multiply entities beyond necessity (If there is no reason to believe that there are Fs, believe there are no Fs)

Problem 2 (cont)

More radically: Why not think that all there is is particulars?

For example, we can say

(3) 'Lab' is true iff a is to the left of b

(3) also seems just as good an explanation as that of (1) and (2). Hence, we don't need to postulate either properties or facts. Hence, by Occam's razor, we shouldn't believe in such entities.