

Philosophy of Logic

Fall 2005 - Winter 2006

Our goal over these two quarters is to think through a series of positions on the nature of logical truth. We'll focus on the most fundamental questions: what is the ground of logical truth? (what makes logical truths true?), and how do we come to know these truths? I have in mind here the simplest of logical truths -- if it's either red or green and it's not red, then it must be green -- or the simplest of logical validities -- any situation in which all men are mortal and Socrates is a man is a situation in which Socrates is mortal.

The default requirement for those taking the course for a grade (other than S/U) is three short papers (750-1250 words) due at the beginning of class in the 4th week, 7th week, and 10th week. Each paper should isolate one localized point in the readings and offer some analysis and/or critique. Other options are open to negotiation.

I assume everyone has access to copies of:

Carnap, *Logical Syntax of Language*.

Frege, *A Frege Reader* (edited by Beany).

Wittgenstein, *Tractatus Logico-Philosophicus* (preferably the Ogden translation).

Philosophical Investigations.

Course copies of Anscombe, Black, Fogelin, Hacker, Kenny, Kripke, McGinn, Mounce, Ostrow, Pears, Stenius, Stern (both books), and Wittgenstein's *Remarks on the Foundations of Mathematics* will be kept in Brian Rogers' office for borrowing. All other assigned reading (plus some extra material for the curious) will be available outside my office for photocopying.

Please come to the first meeting prepared to discuss the Kant reading.

Topics

1. A Kantian view of logic

Maddy, I.4, III.2.

Unfortunately, chronological order puts one of the most difficult views first. The first selection gives a capsule overview of the relevant parts of the *Critique* plus references; our discussion will focus on the second. For more background on Kant, a good book length introduction is:

Gardiner, *Kant and the Critique of Pure Reason*.

If you don't own a copy of the *Critique*, it's probably best to pick up the recent translation by Paul Guyer and Alan Woods. (The assigned reading is fairly light to leave time for brushing up on your Kant.)

2. Psychologism

Anderson, 'Neo-Kantianism and the roots of anti-psychologism', §§1-3.

3. Frege

Frege, excerpt from the *Grundgesetze*, Beaney, pp. 202-204.
 'Logic', in Beaney, pp. 227-250.
 'Thought', in Beaney, pp. 325-345.

Sluga, *Gottlob Frege*, pp. 52-61, 90-95, 100-123.
 (Gabriel, 'Frege, Lotze and the continental roots of early analytic philosophy')
 (Merrick, 'What Frege meant when he said: Kant was right about geometry')
 (Resnik, 'Frege as idealist then realist')

Burge, 'Frege on knowing the third realm'
 'Frege on knowing the foundation', §§I and IV.

4. Early Wittgenstein

We'll be reading Wittgenstein's *Tractatus* over a period of weeks. There won't be many pages of assigned reading for the first two sessions, so you'll have time to dip into some of the standard secondary sources. Black is especially helpful for his line-by-line readings and the references he provides.

Introductions:

Anscombe, *An Introduction to Wittgenstein's Tractatus*.

Black, *A Companion to Wittgenstein's Tractatus*.

Fogelin, *Wittgenstein*

Kenny, *Wittgenstein*

Mounce, *Wittgenstein's Tractatus*.

Some other standard sources:

Pears, *The False Prison*, volume one.

Hacker, *Insight and Illusion*.

Stenius, *Wittgenstein's Tractatus*.

Stern, *Wittgenstein on Mind and Language*.

First meeting: Ontology and the Picture Theory

Wittgenstein, *Tractatus*, Preface and 1-3.42.

We'll touch on many of the obvious questions raised by this material -- e.g. how do objects stick together into facts? -- but a hard one you might ponder ahead of time is: why must there be simple objects (or names)?

Second meeting: Propositions and Logic

Wittgenstein, *Tractatus*, 3.5-5.143.

See if you can figure out why the form of representation can't be represented.

Third meeting: More logic

Wittgenstein, *Tractatus*, 5.3-5.5571, 6.1-6.13, 6.3, 6.375-6.3751

This time, we'll circle back and think about how the word-world connections are set up. For background to this debate, see

(Ishiguro, 'Use and reference of names'.)

(McGuinness, 'The so-called realism of Wittgenstein's *Tractatus*'.)

(Pears, *The False Prison*, pp. 99-114.)

Goldfarb uses the discussion of reference as an approach to his own ontological morals; since this (unpublished) paper, he's been attracted to more radical 'new' readings (see below).

Summerfield focuses more deliberately on reference, seeing the *Tractatus* in a contemporary context.

Goldfarb, 'Objects, names, and realism in the *Tractatus*', pp. 1-22.

Summerfield, 'Thought and language in the *Tractatus*'.

'Fitting versus tracking: Wittgenstein on representation', pp. 100-105, 118-133.

(See also Hacker, pp. 73-80, Mounce, pp. 28-30.)

Fourth meeting: Wittgenstein as Kantian

Wittgenstein, *Tractatus*, the parts not listed above.

Stenius, 'Wittgenstein as Kantian philosopher', *Wittgenstein's Tractatus*, chapter XI.

Garver, 'Wittgenstein and the critical tradition', pp. 227-235.

Summerfield, 'Wittgenstein on logical form and Kantian geometry'.

(For more on Kantianism in the *Tractatus*, see Kannisto [1986], Williams [1974]. Also Hacker.)

Fifth meeting: the new Wittgenstein

Ostrow, *Wittgenstein's Tractatus: a Dialectical Interpretation*, Introduction and chapters I and IV.

Ostrow's approach represents a new turn in the line of interpretation beginning with Diamond's 1988 paper, 'Throwing away the ladder: how to read the *Tractatus*'. Goldfarb [1997] and [????] are also central texts; see also Crary and Read [2000]. For samples of dissent, see Proops [2001] or Hacker [2003]. In contrast with his predecessors, Ostrow undertakes to explain in detail how the various apparently substantive discussions in the *Tractatus* in fact serve their purely therapeutic purpose.

Those interested in how the story of the 'new Wittgenstein' extends back to a distinctive take on Frege should have a look at Ricketts [1985], [1986a], and [1986b].

For a useful overview of interpretations of the *Tractatus*, see Stern [2003].

5. Carnap/Quine

First meeting: Carnap

Carnap, *Logical Syntax of Language*, §§1, 2, 17, 50-52, 62, 71 (pp. 257-260), 72-86.

'Empiricism, semantics and ontology'.

Friedman, 'Carnap and Wittgenstein's *Tractatus*', chapter 8 of *Reconsidering Logical Positivism*.

Second meeting: Quine

Quine, 'Truth by convention', especially §III.

'Two dogmas of empiricism', especially §§4, 6.

'Carnap and logical truth'.

('On Carnap's views on ontology'.)

Shapiro, 'Where in the (world wide) web of belief is the law of non-contradiction?'

For a particular case of Quine's empiricism, see Putnam's 'The logic of quantum mechanics' (also titled 'Is logic empirical?'); the argument of this paper is treated in detail in David's course, 'Probability and determinism'. Quine's views on logic softened somewhat in later years. See *Philosophy of Logic*, chapters 6 and 7, and *Pursuit of Truth*, §6. For summary and references, see 'Three forms of naturalism'.

Third meeting: Carnap's definition of 'analytic'

(Friedman, 'Analytic truth in Carnap's *Logical Syntax of Language*'.)

Goldfarb and Ricketts, 'Carnap and the philosophy of mathematics', especially pp. 61-72.

Ricketts, 'Carnap's Principle of Tolerance, empiricism, and conventionalism'.

Friedman, 'Tolerance and analyticity in Carnap's philosophy of mathematics'.

(Friedman, 'Tolerance, intuition and empiricism'.)

Fourth meeting: How Quine and Carnap talk past each other

Richardson, 'Two dogmas about logical empiricism: Carnap and Quine on logic, epistemology and empiricism'.

'Tolerating semantics: Carnap's philosophical point of view'.

Ricketts, 'Languages and calculi'.

(Maddy, I.5, I.6)

6. Naturalized Kant

Maddy, III.1, III.3-III.8.

(For some background on naturalism, see 'Naturalism: friends and foes', 'Three forms of naturalism' and/or 'Second Philosophy'.)

7. Late Wittgenstein

The late Wittgenstein's views on logic are largely subsumed by the larger question of following a rule. We'll spend several weeks on this theme. Though this work is entirely different from the *Tractatus*, it's no easier, so you may once again find it helpful to dip into some of the secondary literature as we go along.

Introductions:

Fogelin, *Wittgenstein*.

Kenny, *Wittgenstein*.

McGinn, *Wittgenstein and the Philosophical Investigations*.

Stern, *Wittgenstein's Philosophical Investigations*.

Others:

Pears, *The False Prison*, volume two.

Hacker, *Insight and Illusion*.

Stern, *Wittgenstein on Mind and Language*.

First meeting: Following a rule

Wittgenstein, *Philosophical Investigations*, §§89-242.

(§§243-317, the private language argument.)

Remarks on the Foundations of Mathematics, Part I, §§1-23, 113-156.

Second meeting: Logical necessity

Dummett, 'Wittgenstein's philosophy of mathematics'.

Stroud, 'Wittgenstein and logical necessity'.

Canfield, 'Anthropological science fiction and logical necessity'.

Third meeting: Kripkenstein

Kripke, *Wittgenstein on Rules and Private Language*, pp. 1-113.

Kripke sees Wittgenstein as putting forward a new skeptical paradox and a skeptical solution to it. This skeptical solution in turn generates an argument against the possibility of a private language.

(A partial guide to the literature on Kripkenstein appears in Stern, 'Review essay: recent work on Wittgenstein, 1980-1990, §2.)

Fourth meeting: Troubles for Kripkenstein ...

... on the viability of the skeptical solution

Fogelin, *Wittgenstein*, pp. 155-185.

Fogelin first outlined the skeptical paradox and the skeptical solution, complete with the analogy to Hume, in the first edition of his book (1976). He also, as here, questioned the viability of the skeptical solution in some of the same ways as post-Kripkean commentators have criticized Kripkenstein:

(Blackburn, 'The individual strikes back', especially §3.)

Hoffman, 'Kripke on private language'.

... on faithfulness to Wittgenstein ...

Though the first paragraph of *PI* §201 begins with a statement of 'our paradox', the second and third paragraphs go on to explain why it is based on a misunderstanding. Many commentators have pointed this out (see Stern, 'Recent work on Wittgenstein, p. 429). Summerfield attempts to explain how the second sentence of the first paragraph, beginning 'the answer was ... ', could in any sense be considered an answer.

Summerfield, '*Philosophical Investigations* 201: a Wittgensteinian reply to Kripke'.

Fifth meeting: The therapeutic Wittgenstein

Goldfarb, 'Kripke on Wittgenstein on rules', especially §III.

Diamond, 'Realism and the realistic spirit'.

Maddy, 'Wittgenstein's anti-philosophy of mathematics'.

These three outline an interpretation of Wittgenstein at the extreme opposite from Kripke's, an interpretation pioneered by Diamond, Goldfarb and others.

(Goldfarb, 'I want you to bring me a slab: remarks on the opening sections of the *Philosophical Investigations*'.)

(Stroud, 'Wittgenstein's "treatment" of the quest for "a language which describes my inner experiences and which only I myself can understand"'.)

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(All but the first of these papers is available on my web page.)

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Logic in Islamic philosophy also contributed to the development of modern logic, especially the development of Avicennian logic (which was responsible for the introduction of the hypothetical syllogism, temporal logic, modal logic and inductive logic) as an alternative to Aristotelian logic. Logic in general can be divided into Formal Logic, Informal Logic and Symbolic Logic and Mathematical Logic: Formal Logic: Formal Logic is what we think of as Philosophy of logic is devoted to the investigation, analysis and reflection on issues arising in logic, while philosophical logic concerns questions about reference, truth, quantification, existence, entailment, predication, identity, modality, and necessity. A typical example of philosophical logic is the application of formal logical techniques to philosophical problems.