PART II PAPER 08:
PHILOSOPHICAL LOGIC

SYLLABUS

Philosophy of language:
- Understanding and truth-conditions; realism and anti-realism.
- Indeterminacy of meaning, rule-following.

Topics in logic:
- Conditionals.
- The logic of plurals

The nature of logic and mathematics:
- Logic: analytic versus empirical.
- Conventionalism about logic and mathematics.
- Logicism: traditional and contemporary.
- Intuitionism: traditional and contemporary.
- Structuralism and fictionalism.

COURSE OUTLINE

The course covers questions in (i) the philosophy of language (ii) logic (iii) the nature of logic and mathematics. These include: (i) Whether there could even be any such thing as linguistic meaning; (ii) Whether the standard logical apparatus can accommodate conditionals or plurals; (iii) What makes logical and mathematical statements both true and sometimes also knowable: are they products of human convention or descriptions of a wholly abstract world?—or something else?

Prerequisites

Some topics presuppose Part IA and/or Part IB Logic. Candidates who have not covered these may find it helpful to consult:


Objectives

Students taking this paper will be expected to:

1. Study issues in philosophical logic and philosophy of language at an advanced level.
2. Acquire a sophisticated understanding of the scope, purpose and nature of logic.
4. Refine their powers of philosophical analysis and argument through study of these ideas.

Preliminary Reading

HOOKWAY, Christopher, Quine (Cambridge: Polity, 1988), chs. 8-10.

READING LIST

An asterisk * indicates a classic item or one which provides a good route into a topic.

PHILOSOPHY OF LANGUAGE

Understanding and Truth-Conditions

*DAVIDSON, Donald, Inquiries into Truth and Interpretation (Oxford: Oxford University Press, 1984), ch. 9 'Radical interpretation'. Also available online at: http://doi.org/10.1093/0199246297.003.0009


Realism and Anti-Realism

(i) Dummett and His Critics


*DUMMETT, Michael, The Seas of Language (Oxford: Oxford University Press, 1993), ch. 20 'Realism and anti-realism'. Also available online at: http://dx.doi.org/10.1093/0198236212.003.0020

*DUMMETT, Michael, Truth and Other Enigmas (London: Duckworth, 1978), ch. 10 'Realism'.


*DUMMETT, Michael, The Logical Basis of Metaphysics (London: Duckworth, 1991), Introduction & ch. 15 'Realism and the theory of meaning'.


PEACOCKE, Christopher, Thoughts: An Essay on Content (Oxford: Blackwell, 1986), Parts I & II.


(ii) Putnam's Internal Realism


PUTNAM, Hilary, Reason, Truth, and History (Cambridge: Cambridge University Press, 1981), chs. 2 & 3. Also available online at: http://doi.org/10.1017/CBO9780511625398

(iii) Relativism

*DAVIDSON, Donald, Inquiries into Truth and Interpretation (Oxford: Oxford University Press, 1984), ch. 16 'The inscrutability of reference'. Also available online at: http://doi.org/10.1093/0199246297.003.0016

*DAVIDSON, Donald, Inquiries into Truth and Interpretation (Oxford: Oxford University Press, 1984), ch. 13 'On the Very Idea of a Conceptual Scheme'. Also available online at: http://doi.org/10.1093/0199246297.003.0013


Indeterminacy of Meaning

*HOOKWAY, Christopher, Quine: Language, Experience and Reality (Cambridge: Polity, 1988), chs. 8-10.

*QUINE, W.V., Word and Object (Cambridge, MA: MIT Press, 1960), ch. 2 'Translation and meaning'.

DAVIDSON, Donald, Inquiries into Truth and Interpretation (Oxford: Oxford University Press, 1984), ch. 16 'The inscrutability of reference'. Also available online at: http://doi.org/10.1093/0199246297.003.0016


QUINE, W.V., Theories and Things (Cambridge, MA: Harvard University Press, 1981), ch. 1 'Things and Their Place in Theories'.

Rule-Following


AHMED, Arif, Saul Kripke (London: Continuum, 2007), ch. 4 'Rule-following'. Also available online at: http://lib.mylibrary.com/?id=327232

TOPICS IN LOGIC

Conditionals

(i) Indicatives


JACKSON, Frank, *Conditionals* (Oxford: Blackwell, 1987), chs. 1, 2 & 5. [This book is other than the collection *Conditionals*, which he edited]


(ii) Counterfactuals


The distinction assumed here between indicative and counterfactual conditional has itself provoked criticism, see e.g.:


And, for an overview:


The Logic of Plurals

*OLIVER, Alex, and Timothy SMILEY, *Plural Logic* (Oxford: Oxford University Press, 2013), ch. 1 (introduction), chs. 3-4 (singulist analystes), chs. 5-10 (pluralism developed), chs. 11-14 (formal systems).


http://www.jstor.org/stable/3506075

**THE NATURE OF LOGIC AND MATHEMATICS**

**Logic: Analytic vs Empirical**

DUMMETT, Michael, *Truth and Other Enigmas* (London: Duckworth, 1978), ch. 16 'Is logic empirical?'

**Conventionalism about Logic and Mathematics**


**Logicism: Traditional and Contemporary**

(i) Introductory


(ii) Fregean Logicism


(iii) The Context Principle


(iv) Neo-Fregean Logicism


(v) Russellian Logicism


Intuitionism: Traditional and Contemporary

(i) The Nature of Mathematical Intuition


(ii) Kant

*KANT, Immanuel, Critique of Pure Reason*. [Consult index for sections on 'arithmetic', 'geometry' or 'mathematics']


(iii) Brouwerian Intuitionism

*GEORGE, Alexander, and Daniel J. VELLEMAN, Philosophies of Mathematics* (Oxford: Blackwell, 2002), ch. 4 'Intuitionism'.


(iv) Dummettian Intuitionism


Structuralism

(i) General


DEDEKIND, Richard, Essays on the Theory of Numbers (New York: Dover, 1963), 'The nature and meaning of numbers', only Preface, pp. 31-43. Also available on Moodle


POTTER, Michael, Reason’s Nearest Kin (Oxford: Oxford University Press, 2000), ch. 3 ‘Dedekind”. Also available online at: http://doi.org/10.1093/acprof:oso/9780199252619.003.0004

(ii) Modal Structuralism


Fictionalism

(i) Benacerraf's Problem


(ii) The Indispensability Argument


LENK, Mary, Mathematics and Reality (Oxford: Oxford University Press, 2010), chs. 3-5. Also available online at: http://doi.org/10.1093/acprof:oso/9780199280797.001.0001


(iii) The Dispensability Argument


We welcome your suggestions for further readings that will improve and diversify our reading lists, to reflect the best recent research, and important work by members of under-represented groups. Please email your suggestions to phillib@hermes.cam.ac.uk including the relevant part and paper number. For information on how we handle your personal data when you submit a suggestion please see https://www.information-compliance.admin.cam.ac.uk/data-protection/general-data.