

PY4634 PHILOSOPHY OF LOGIC

Department of Philosophy
University of St Andrews

Semester 1, 2014-2015

Module Coordinator: Dr Aaron J. Cotnoir

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Office Hours: Friday, 10.00–11.00 (or by appointment)

Lectures: every Monday, 14.00–16.00, Edgecliffe G03

Tutorials: weekly starting week two, Friday, 11.00–12.00, Edgecliffe G01

Course Description

Distinguish three areas of investigation: (i) the study of *logic*; (ii) the application of the techniques of logic to tackle philosophical problems — *philosophical logic*; and (iii) the application of the techniques of philosophy to tackle questions about logic — *philosophy of logic*. In this module, we will engage with the philosophical study of logic in sense (iii).¹ The module has two parts: we address the nature and structure of *truth* in part I, and the nature and structure of consequence in part II.

In part I of the course, we will consider several important theories of truth. What are the correct bearers of truth (e.g. sentences, propositions)? Does truth consist in correspondence to facts? Or is truth a more pragmatic or explanatorily thin property? Can truth be defined? Does truth have one nature, or many natures, or none at all?

In part II of the course, we will consider several important theories of logical consequence. How is consequence related to truth? Does the correct theory of consequence involve proofs or models? Is logic revisable, or is it a presupposed foundation for any such revision? Is it normative for thought or otherwise related to rationality? Finally, are there many correct consequence relations, or only one, or none at all?

Learning Outcomes

By the end of the module, students should have gained an understanding of some central theories that address the questions above. They will be expected to be familiar with the main considerations for and against those theories. They will also have increased their skill at analysing texts, formulating, defending, and criticising arguments, and articulating their own ideas in written work and in discussion.

¹Modules are devoted to *logic* in sense (i): namely, PY1006, PY2001, PY4612. Modules devoted to *philosophical logic* in sense (ii) are primarily PY4601, and portions of many others.

Assessment

Workload This module is worth 30 credits; hence it should typically occupy half of your working week. The standard university working week is 37.5 hours, so this module should occupy about 18 hours per week, of which only three are spent in class. You will neither achieve the grade of which you are capable, nor gain much satisfaction from the course, unless you plan your study accordingly.

Weighting and components 50% coursework, 50% exam, mandatory tutorials. You will pass the module only if you turn in both coursework essays, take the exam, and miss at most two tutorial sessions. Reassessment is permitted for those who fail with an overall grade of > 4.0.

Coursework Two essays to be submitted over MMS. The deadline for the first essay is 23:59 on Friday of Week 5, 17 October 2014; the second is due at 23:59 on Friday of Week 10, 21 November 2014.

Essay 1 *What is the nature of truth? State and explain your view, and respond to the best objection against it.*

Essay 2 *What is the nature of logical consequence? State and explain your view, and respond to the best objection against it.*

- ▶ Essays must be word-processed and double-spaced. Formatting in .pdf is preferred, but .rtf or .doc is acceptable.
- ▶ On the first page of your essay, write your matriculation number, the module name and number, and the following statement: *'I hereby declare that the attached piece of written work is my own work and that I have not reproduced, without acknowledgement, the work of another.'*
- ▶ Essays must not exceed 1750 words including everything but your bibliography; you must provide a word count at the end of your essay.
- ▶ Your bibliography must give full details of all sources consulted. Further information about academic integrity and plagiarism can be found in the Philosophy Handbook for Undergraduates.

Tutorials Attendance at tutorials is compulsory. *Three or more unexcused absences will result in a failure 'oX', which does not permit reassessment.* For each tutorial session, complete the assigned reading and come with questions in mind.

Exam The exam will last three hours and will consist of a number of short-answer questions on topics from throughout the semester. More details will be provided in revision week.

For details please read the *Philosophy Handbook for Undergraduates* carefully regarding absences, late assignments, academic alerts, plagiarism etc. Ignorance of the information in the handbook will not be accepted as an excuse for failing to meet module requirements.
See: <http://www.st-andrews.ac.uk/philosophy/current/ugrad/>

Provisional Schedule

Pre-Sessional Readings: * Ch. 1–2 of Read, S. *Thinking About Logic*, OUP, 1995 ²

WEEK 1 Semantic Truth

Readings

- * Tarski, A. ‘The Semantic Conception of Truth and the Foundations of Semantics’ in Lynch (ed.) *The Nature of Truth*, MIT Press, 2001.
- * Etchemendy, J. ‘Tarski on Truth and Logical Consequence’ in Jacquette (ed.) *Philosophy of Logic: An Anthology*, Blackwell, 2002. [§“Truth” only]

Recommended Background

- Ch. 2 of Burgess & Burgess, *Truth*, Princeton University Press, 2011

WEEK 2 Realism about Truth

Readings

- * Field, H. ‘Tarski’s Theory of Truth’ in Lynch (ed.) *The Nature of Truth*, MIT Press, 2001. Also reprinted in Jacquette (ed.) *Philosophy of Logic: An Anthology*, Blackwell, 2002.
- * Ch. 2 of Armstrong, D. *Truth and Truthmaking*, Cambridge University Press, 2004.
- David, M. ‘Correspondence Theory of Truth’ *Stanford Encyclopedia of Philosophy*.

Recommended Background

- Ch. 5 of Burgess & Burgess, *Truth*, Princeton University Press, 2011

WEEK 3 Anti-realism about Truth

Readings

- * Dummett, M. ‘Truth’ in Lynch (ed.) *The Nature of Truth*, MIT Press, 2001.
- * Davidson, D. ‘Truth and Meaning’ *Synthese*, 17(3): 304–323, 1967.
- Davidson, D. ‘Folly of Trying to Define Truth’ in Lynch (ed.) *The Nature of Truth*, MIT Press, 2001.

Recommended Background

- Ch. 6 of Burgess & Burgess, *Truth*, Princeton University Press, 2011

²[Note: * indicates the reading is required.]

WEEK 4 Deflationism about Truth

Readings

- * Quine, W.V.O. 'Truth' in Lynch (ed.) *The Nature of Truth*, MIT Press, 2001.
- * Horwich, P. 'A Defense of Minimalism' in Lynch (ed.) *The Nature of Truth*, MIT Press, 2001.
- Beall, JC and Armour-Garb, B. 'Deflationism: the Basics' in JC Beall and B. Armour-Garb (eds.) *Deflationary Truth*, Open Court, 2005.

Recommended Background

- Ch. 3 of Burgess & Burgess, *Truth*, Princeton University Press, 2011

WEEK 5 Pluralism about Truth

!! ESSAY 1 DUE FRIDAY !!

Readings

- * Wright, C. 'A Plurality of Pluralisms' in N.J.J.L. Pedersen and C. D. Wright (eds.) *Truth and Pluralism*, Oxford University Press, pp. 123–156, 2013.
- * Lynch, M. 'A Functionalist Theory of Truth' in Lynch (ed.) *The Nature of Truth*, MIT Press, 2001.
- Wright, C. 'Minimalism, Deflationism, Pragmatism, Pluralism' in Lynch (ed.) *The Nature of Truth*, MIT Press, 2001.

Recommended Background

- Pedersen, N.J.J.L. & Wright, C.D. 'Pluralist Theories of Truth', *Stanford Encyclopedia of Philosophy*

WEEK 6 Model-Theoretic Consequence

Readings

- * Tarski, A. 'On the Concept of Logical Consequence' reprinted in Jacquette (ed.) *Philosophy of Logic: An Anthology*, Blackwell, 2002.
- * Etchemendy, J. 'Tarski on Truth and Logical Consequence' in Jacquette (ed.) *Philosophy of Logic: An Anthology*, Blackwell, 2002. [§"Logical Consequence"]
- Etchemendy, J, *Concept of Logical Consequence*, Ch. 6 "Modality and Consequence", Harvard University Press, 1990.
- Sher, G. 'Did Tarski Commit "Tarski's Fallacy"?' *Journal of Symbolic Logic*, 61(2): 653–686, 1996.

Recommended Background

- Beall, J.C. & Restall, G. 'Logical Consequence', *Stanford Encyclopedia of Philosophy*

WEEK 7 Proof-Theoretic Consequence

Readings

- * Prawitz, D. 'Logical Consequence from the Constructivist Point of View' in *Handbook of Philosophy of Mathematics and Logic*, Shapiro (ed.), OUP, 2005.
- * Prior, A. 'The Runabout Inference Ticket' *Analysis*, 21(2): 38–39, 1960.
- Belnap, N. 'Tonk, Plonk, Plink'. *Analysis*, 22(6), 130–134, 1962.

Recommended Background

- Ch. 1 of Hjortland, O. 'Structure of Logical Consequence', PhD Thesis, 2009.
<http://research-repository.st-andrews.ac.uk/bitstream/10023/892/6/01eThomassenHjortlandPhD2othesis.PDF>

WEEK 8 Revision of Logic

Readings

- * Quine, W.V.O. 'Deviant Logics' in *Philosophy of Logic*, 1986.
- * Ch. 1 of Haack, S. *Deviant Logic: Some Philosophical Issues*, 1974.
- * Bueno, O. and Colyvan, M. "Logical Non-Apriorism" in *The Law of Non-Contradiction*, Priest, Beall, & Armour-Garb (eds.), OUP, 2004
- Resnik, M. 'Revising Logic' in *The Law of Non-Contradiction*, Priest, Beall, & Armour-Garb (eds.), OUP, 2004

Recommended Background

- Field, H. 'The Revision of Logical Laws' *Silver Dialogues*, online.
<http://silverdialogues.fas.nyu.edu/docs/IO/24445/Field.pdf>

WEEK 9 Normativity of Logic

Readings

- * Chs. 1–2 of Harman, G. *Change in View*, MIT Press, 1986.
- * McFarlane, J. 'In what sense (if any) is logic normative for thought?', 2004.
- Field, H. 'The Normative Role of Logic' *Proceedings of the Aristotelian Society*, 2009

Recommended Background

- Williamson, T. 'Logic and Neutrality', *The Stone*, New York Times, 2012.
<http://opinionator.blogs.nytimes.com/2012/05/13/logic-and-neutrality/>

WEEK 10 Logical Pluralism

!! ESSAY 2 DUE FRIDAY !!

Readings

- * Beall, J.C. & Restall, G. 'Logical Pluralism', *Australasian Journal of Philosophy*, 2000.
- * Read, S. 'Monism: The One True Logic' in de Vidi & Kenyon (eds.), *A Logical Approach to Philosophy*, Springer, 2006.
- Ch. 12 of Priest, G. *Doubt Truth to be a Liar*, Oxford University Press, 2005.

Recommended Background

- Cook, R. 'Let a Thousand Flowers Bloom: A Tour of Logical Pluralism', *Philosophy Compass*, 2010.

WEEK 11 Logical Nihilism

Readings

- Cotnoir, A.J. 'Logical Nihilism' (ms.)

WEEK 12 Revision Week