



Course Guide

PHIL10138: *Realism, Relativism, and Reality* 2017-18

Course Organizer: Professor Michela Massimi
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Office Location: room 5.03 DSB

Office Hours (semester 1 only):

Thursday 1pm -3pm

(outside office hour only by appointment, please

email: michela.massimi@ed.ac.uk).

Course Secretary: Ann-Marie Cowe
(Annmarie.Cowe@ed.ac.uk)

1. Course Aims and Objectives

What is truth in science? Why do scientists disagree sometimes on the same evidence? Is our scientific knowledge relative to different principles endorsed by rival scientific communities? When it comes to allocating research funds for scientific programmes, what principles should guide policy-making? Join this course to explore these cutting-edge questions for contemporary science. The course will map the territory of the vast debate between realism and relativism in science, with a focus on both classic texts and more contemporary approaches.

This course provides an introduction to the vast arena of philosophical inquiry that goes under the names of realism and relativism in science. What is truth in science? and why do experts disagree on scientific evidence? what good might relativism be? The course is structured in two Parts. In Part I, we read some classical texts (from Quine's ontological relativity, to Goodman's ways of worldmaking and Rorty's epistemic relativism, among others). Part II of the course zooms into contemporary debates on realism in science and on the values of truth, objectivity, disagreement and progress in scientific research

2. Intended Learning Outcomes

On completion of this course, the student will be able to:

1. By the end of this course, students will demonstrate a well-rounded view of central debates in philosophy of science
2. engage with essential readings by identifying strengths and weaknesses in the arguments
3. understand reasons for defending or rejecting specific philosophical views
4. analyse philosophical ideas and learn how to refine them
5. write with clarity and originality

3. Lecture Times and Locations

SEMESTER 1: Thursdays, 9.00am – 10.50pm. DAVID HUME TOWER, LG.06

4. Lecture Content

PART I: THE CLASSICS

Week 1

Quine's ontological relativity

Essential readings:

Quine, W.V.O. (1968) "Ontological relativity", *Journal of Philosophy* 65, 185-212.

Hardcastle, G. (2011) "Quine's Ontological Relativity". In Hales, S. (ed.) *A Companion to Relativism* (Blackwell), ch. 30.

Massimi, M. (2014) 'Natural Kinds and Naturalised Kantianism', *Noûs* 48, 416-449.

Week 2

Putnam's internal realism

Essential readings:

Putnam, H. (1982) *Reason, Truth, and History* (CUP), ch. 2.

Putnam, H. (1982) "Why there is not a ready-made world?", *Synthese* 51, pp. 141-167.

Week 3

Thomas Kuhn and incommensurable paradigms

Essential readings:

Kuhn, T. "Dubbing and redubbing: the vulnerability of rigid designation". In C. Wade Savage, J. Conant and J. Haugeland (eds.) *Minnesota Studies in the Philosophy of Science* 14, 298-318 (University of Minnesota Press).

Bird, A. (2011) "Thomas Kuhn's relativistic legacy". In Hales, S. (ed.) *A Companion to Relativism* (Blackwell), ch. 24

Massimi, M. (2015) "Working in a new world: Kuhn, constructivism, and mind-dependence", *Studies in History and Philosophy of Science* 50, 83-89.

Week 4

Nelson Goodman's Starmaking

Essential readings:

Goodman, N. (1973) *Ways of Worldmaking* (Hackett), ch. 6 and 7.

McCormick, P. J. (1996) (ed.) *Starmaking. Realism, antirealism and irrealism* (MIT), ch. 10.

Week 5

Rorty's epistemic relativism

Essential readings:

Rorty, R. (1979) *Philosophy and the Mirror of Nature* (Princeton University Press), pp. 322-342 ("Kuhn and incommensurability" and "Objectivity as Correspondence and as Agreement")

Rorty, R. (1993) "Putnam and the Relativist Menace", *Journal of Philosophy* 60, 443-461.

PART II: VARIETIES OF REALISM

Week 6

Scientific realism

Psillos, S. (2000) "The Present State of the Scientific Realism Debate", *British Journal for the Philosophy of Science* 51, 705-728

Chakravartty, Anjan (2017): "Scientific Realism", *Stanford Encyclopaedia of Philosophy*, Edward N. Zalta (ed.), URL: <https://plato.stanford.edu/entries/scientific-realism/#Bib>

Cartwright, N. (1983) *How the Laws of Physics Lie* (OUP), essay 2, 44-54.

Week 7

Kuhnian legacies: the historical turn

Chang, H. (2014) *Is water H₂O?* (Springer), ch. 4.

Kusch, M. (2015) "Scientific Pluralism and the Chemical revolution", *Studies in History and Philosophy of Science* 49, 69-79

Longino H. (1991) "Multiplying subjects and the diffusion of power", *Journal of Philosophy* 88, 666-674.

Week 8

Against relativism

Boghossian, P. (2006) *Fear of Knowledge. Against Relativism and Constructivism* (OUP), ch.5 and 6.

Rosen, G. (2007) "The case against epistemic relativism: reflections on Ch. 6 of *Fear of Knowledge*", *Episteme* 4, 10-29.

MacFarlane, J. (2008) "Boghossian, Bellarmine, and Bayes", *Philosophical Studies* 141, pp. 391-398.

Baghramian, Maria (2004) *Relativism*, Introduction 1-19.

Week 9

Real Realism

Kitcher, P. (2001) "Real realism: the Galilean Strategy", *Philosophical Review* 110, 151-197.

Massimi, M. (2016) "Bringing real realism back home: a perspectival slant". In J. Pfeifer and M. Couch (eds.) *The Philosophy of Philip Kitcher*, (OUP), Open Access draft available at www.perspectivalrealism.org/publications

Week 10

Structural Realism

Worrall, J. (1994) "How to remain reasonably optimistic: Scientific realism and the Luminiferous Ether", *Philosophy of Science Proceedings of the Biennial Meeting*, 334-342.

Ladyman, J. (2011) "Structural realism vs standard scientific realism: the case of phlogiston and dephlogisticated air", *Synthese* 180, 87-101.

Week 11

Perspectival Realism

Giere, R. (2006) *Scientific Perspectivism* (UCP), ch. 4

Massimi, M. (forthcoming) "Perspectivism", in J. Saatsi (ed.) *The Routledge Handbook to Scientific Realism*.

5. Readings

In addition to the readings listed under "4. Lecture content", students may want to read some of the many books and articles available on each of these topics. Here below are some suggestions (certainly not an exhaustive list) for further readings.

Boghossian, P. "What is relativism?". In Lynch, M. and Greenough, P. (eds.) *Truth and Realism* (OUP), pp. 13-37.

Brandom, R. (2000) *Rorty and His Critics* (Blackwell).

Horgan, T. and Timmons, M. (2002) "Conceptual relativity and metaphysical realism", *Nous* 36, 74-96.

Ellis, B. (1988) "Internal realism", *Synthese* 76: 409-434.

Fine, A. (1984) "And not antirealism either", *Noûs* 18, 51-65.

Krausz, M. (2010) *Relativism. A contemporary Anthology*. (Columbia University Press).

Putnam, H. (1983) *Realism and Reason* (Cambridge University Press).

_____ (1990) *Realism with a Human Face* (Harvard University Press)

Price, Huw (2011) *Naturalism without mirrors* (OUP)

Saatsi, J. (forthcoming) *The Routledge Handbook to Scientific Realism*.

Wright, C. (1992) *Truth and Objectivity* (Harvard University Press).

_____ (2000) "Truth as sort of epistemic: Putnam's peregrinations", *Journal of Philosophy* 97, 335-364.

6. Assessment Information

Undergraduate students will be assessed by:

- a mid-term essay of 1,500 words (worth 40%) due **Thursday 26th October by 12pm (mid-day)**
- weekly participation and coursework (worth 10%)
- a end-of-term essay of 2,000 words (worth 50%) due **Thursday 14th December 2017 by 12pm (mid-day)**

Master students will be assessed by an essay of 2,500 words (worth 100%) and due **on Monday 18th December 2017, 12 noon**, on a topic of their own choosing to be agreed upon with the course organizer. Formative essays provide an opportunity for MSc students to practice their essay writing and do not count towards the final mark. Deadline for formative assessment **Thursday 26th October, noon**.

Weekly participation and coursework

Every student should come to class each week having carefully read the assigned texts and written down (a) 1-2 sentences of what they take to be the one or two main claims of the text, and (b) no more than 500 words explaining a possible objection to the argument for that/those claims. Both (a) and (b) are due at the beginning of class. Consistent weekly participation in the seminar discussion is an integral part of the assessment for this course and is worth a total of 10% of your final mark. The course organiser will indicate week by week which reading is assigned for seminar discussion for the following week.

8. Learn

Please note, all the relevant essential readings are available online via LEARN for this course. Electronic submissions is also via Turn-it-In in LEARN. For essay submission instructions please see the instructions on LEARN. Please note you should not include your name or matriculation number on coursework, only your exam number.

9. Common Marking Scheme

| | | |
|----|--------|--|
| A1 | 90-100 | Excellent <i>Outstanding in every respect, the work is well beyond the level expected of a competent student at their level of study.</i> |
| A2 | 80-89 | Excellent <i>Outstanding in some respects, the work is often beyond what is expected of a competent student at their level of study.</i> |
| A3 | 70-79 | Excellent <i>Very good or excellent in most respects, the work is what might be expected of a very competent student.</i> |

| | | |
|---|-------|---|
| B | 60-69 | Very Good <i>Good or very good in most respects, the work displays thorough mastery of the relevant learning outcomes.</i> |
| C | 50-59 | Good <i>The work clearly meets requirements for demonstrating the relevant learning outcomes.</i> |
| D | 40-49 | Pass <i>The work meets minimum requirements for demonstrating the relevant learning outcomes.</i> |
| E | 30-39 | Marginal fail <i>The work fails to meet minimum requirements for demonstrating the relevant learning outcomes.</i> |
| F | 20-29 | Clear fail <i>The work is very weak or shows a decided lack of effort.</i> |
| G | 10-19 | Bad fail <i>The work is extremely weak.</i> |
| H | 0-9 | Bad fail <i>The work is of very little consequence, if any, to the area in question.</i> |

The marking scheme used for all coursework and for degree and resit examinations is the University Common Marking Scheme. The principal grades and descriptors, as approved by the School of PPLS, of the University's Extended Common Marking Scheme, are as follows.

A1 90-100 Excellent

Outstanding in every respect, the work is well beyond the level expected of a competent student at their level of study. It

- Shows creative, subtle, and/or original independent thinking
- Demonstrates breadth of knowledge and deep understanding of the subject matter
- Draws on a wide, relevant literature base
- Demonstrates an excellent standard of synthesis and evaluation and a critical and insightful analysis of the literature
- Is well focused, with concentration on the main issues to be addressed
- Presents a compelling case by means of clear logically structured argument or debate, well supported with evidence
- Is written with flair
- Has, where appropriate, complete and correct referencing
- Is flawless in grammar and spelling

A2 80-89 Excellent

Outstanding in some respects, the work is often beyond what is expected of a competent student at their level of study. It

- Shows original, sophisticated independent thinking
- Demonstrates a thorough understanding of the subject matter
- Draws on a wide, relevant literature base

- Demonstrates critical and insightful analysis of the literature
- Is well focused, with concentration on the main issues to be addressed
- Presents a strong case by means of clear, logically structured argument or debate, supported with evidence
- Shows a good standard of academic writing
- Has, where appropriate, complete and correct referencing
- Shows a high standard of grammar and spelling

A3 70-79 Excellent

Very good or excellent in most respects, the work is what might be expected of a very competent student. It

- Explores the topic under discussion fully
- Shows some complex and/or sensitive independent thinking Complexity and or sensitivity is reflected in the argument
- Demonstrates a sound understanding of the subject matter
- Draws in a wide relevant literature base
- Demonstrates critical analysis of the literature
- Is well focused, with concentration on the main issues to be addressed
- Presents a good case by means of clear logically structured argument or debate, supported by evidence
- Shows a competent standard of fluent academic writing
- Has, where appropriate, complete and correct referencing
- Shows a good standard of grammar and spelling

B 60-69 Very Good

Good or very good in most respects, the work displays thorough mastery of the relevant learning outcomes. It

- Demonstrates a good understanding of the area in question
- Draws on adequate references
- Demonstrates good synthesis, analysis, reflection and evaluation of the literature
- Concentrates on the main issues to be addressed
- Presents an adequate case by means of clear, well structured, logical argument supported with evidence.
- Has, where appropriate, complete and correct referencing of sources
- Shows a good standard of grammar and spelling

C 50-59 Good

The work clearly meets requirements for demonstrating the relevant learning outcomes. It

- Shows evidence of sufficient knowledge and understanding of the material
- Uses references appropriately to support the argument, though they may be limited in number or reflect restricted reading.
- Demonstrates limited critical analysis and evaluation of sources of evidence.
- Addresses the area in question clearly and coherently
- Has satisfactory structure, presentation, and expression
- Has, where appropriate, complete referencing of sources, though there may be minor flaws in referencing technique

D 40-49 Pass

The work meets minimum requirements for demonstrating the relevant learning outcomes.

It

- Demonstrates a sufficient level of knowledge and understanding but at a basic level, and there may be minor inaccuracies
- Lacks detail, elaboration or explanation of concepts and ideas.
- Displays limited synthesis and analysis of the literature
- Presents a highly descriptive account of the topic with no real critical analysis
- Presents a weak argument which is not logically structured or which lacks clarity or is based on unsubstantiated statements
- Has, where appropriate, complete referencing of sources, though there may be flaws in referencing technique.
- Has largely satisfactory expression, though there may be minor spelling or grammatical errors

E 30-39 Marginal fail

The work fails to meet minimum requirements for demonstrating the relevant learning outcomes. It

- Does not demonstrate a sufficient level of knowledge and understanding
- Utilises only limited reference sources and offers poor analysis of them
- May not adequately address the area in question, because its content is too limited or because there are some inaccuracies
- Presents a poorly structured, poorly developed, or incoherent argument, or no argument at all
- Has an awkward writing style or poor expression of concepts
- **Has incomplete or inadequately presented references**
- Shows a lack of attention to spelling and grammar.

F 20-29 Clear fail

The work is very weak or shows a decided lack of effort. It

- Displays very poor or confused knowledge and understanding
- **Does not address the area in question.**
- Presents no argument or one based on irrelevant and erroneous content
- Displays an unacceptable academic writing style and /or presentation
- Has incomplete or inadequately presented references, if any

G 10-19 Bad fail

The work is extremely weak. It

- Displays no knowledge or understanding of the area in question
- Presents incomplete, muddled, and/or irrelevant material
- Provides no coherent discussion of the area in question
- Has incomplete or inadequately presented references, if any

H 0-9 Bad fail

The work is of very little consequence, if any, to the area in question. It

- Is incomplete in every respect.