

# Seminars

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## Departmental Seminars

Seminars are held on **Thursdays from 4.30 to 6.00pm in Seminar Room 2**, Department of History and Philosophy of Science, Free School Lane, Cambridge. There is tea beforehand from 4pm in Seminar Room 1. Organised by Alex Broadbent.

- 14 January **Alexander Wragge-Morley (HPS, Cambridge)**  
Description, design and aesthetics in the work of John Ray and contemporaries
- 21 January **Luc Bovens (LSE)**  
Ethics, risk and public works: models of optimal risk reduction
- 28 January **Simon Werrett (University of Washington, Seattle)**  
Scavengers of nature: recycling in the history of science and medicine
- 4 February **Jeremy Howick (UCL)**  
Why expert judgment isn't evidence: a qualified defence of the EBM position
- 11 February **Anna Maerker (Oxford Brookes University)**  
Toys in *Monkeyland*: the utility of anatomical models and medical expertise in late eighteenth-century Vienna
- 18 February **Donald Mackenzie (University of Edinburgh)**  
The credit crisis as a problem in the sociology of knowledge
- 25 February **Donald Gillies (UCL)**  
Lessons from the history and philosophy of science for research assessment systems
- 4 March **Kevin Brosnan (HPS, Cambridge)**  
Dissolving a Darwinian dilemma for moral realism
- 11 March **Tim Crane (Philosophy, Cambridge)**  
The solution to the problem of mental causation

## Tarner Lectures 2010

Trinity College presents the Tarner Lectures on the Philosophy of the Sciences.

This year's lecturer is **Professor Simon Schaffer (HPS, Cambridge)**.

The four lectures will be held in **Mill Lane Lecture Room 1 on Tuesdays at 5pm** in the second half of Lent Term.

*'When the stars threw down their spears: histories of astronomy and empire'*

- 16 February Lecture 1: A pattern science
- 23 February Lecture 2: An antique land
- 2 March Lecture 3: A disciplined eye
- 9 March Lecture 4: A world elsewhere

# Abstracts

14 January **Alexander Wragge-Morley (HPS, Cambridge)**

Description, design and aesthetics in the work of John Ray and contemporaries

The place and meaning of ‘description’ in early modern natural history, philosophy and theology has barely received attention from historians of science. In this talk I will introduce examples of descriptive work in verbal, graphic and ‘sculptural’ forms of representation employed by John Ray, Nehemiah Grew and Robert Hooke. I argue that the representational strategies they employed in natural histories, whether pursued in words or images, cleaved to certain priorities of aesthetics. We can relate these to their broader natural philosophical and theological projects. I will also suggest that the verbal descriptions that made up natural history in Ray’s time demand aesthetic interpretation. That is, we need to think about the poetics and rhetoric of description if we are to understand its representational strategies.

21 January **Luc Bovens (LSE)**

Ethics, risk and public works: models of optimal risk reduction

A public works programme requires that a number of more and less hazardous tasks are being performed by a number of different people over a period of time. Now we wish to minimise the risk to the workers involved in the programme. But what does this mean? Even if we constrain ourselves to the risk of death, there are multiple interpretations of the ideal of risk minimisation. Do we wish to minimize the number of expected deaths amongst workers? Do we wish to reduce the risk that is imposed on the most vulnerable workers? Do we wish to minimise the chance that even one worker dies? Do we wish to minimise the chance that more than an acceptable threshold of deaths will occur? These all constitute different ideals of risk minimisation. When we invest in risk minimisation, we need to take into account certain technological constraints. Some investments may be highly effective in that they make substantial reductions to the risk involved in certain tasks, whereas other investment decisions may be less effective in doing so. We construct models to determine how we should allocate investments to reduce the spread of risk, given a particular technology and given particular ideals of risk minimisation.

28 January **Simon Werrett (University of Washington, Seattle)**

Scavengers of nature: recycling in the history of science and medicine

Recycling has played an important role in post-war environmentalism, yet equivalent practices of salvage, re-use, and recovery have a much older history. This paper explores the history of recycling and its significance in the history of the sciences and medicine. Exploring sites such as chemical laboratories, coffee-house auctions, flea markets, and dust heaps, I examine the changing relationships between recycling, medicine, and science from the seventeenth to the twentieth centuries, and consider how practices of thrift, repair, re-use, and recovery helped shape a range of scientific and medical ideas, techniques and instruments in this period.

4 February **Jeremy Howick (UCL)**

Why expert judgment isn't evidence: a qualified defence of the EBM position

The view that experts have special access to knowledge goes back at least as far as Plato. In medicine this view has been particularly influential: experienced clinicians are often believed to possess tacit knowledge and intuition that cannot be reduced to mechanical rules. The deference to clinical judgment is reflected in the ways doctors are trained. After spending 2 or 3 years studying the basic sciences, medical students spend the next 2–3 years doing 'clinical' work, where they are essentially apprentices to more senior (expert) colleagues in the hospital. In stark contrast with the more traditional view, EBM proponents advocate the epistemic superiority of comparative clinical research, preferably from randomized trials. In this paper, I will contend that the EBM position on expert judgment as evidence is well supported by a plethora of largely ignored studies, but that other roles for expert judgment are equally important and deserve more discussion in the EBM literature.

11 February **Anna Maerker (Oxford Brookes University)**

Toys in *Monkeyland*: the utility of anatomical models and medical expertise in late eighteenth-century Vienna

In the mid-1780s the Austrian emperor Joseph II received anatomical wax models from the renowned Florentine workshop at the Museo La Specola for use at his newly founded surgico-medical academy Josephinum. Like its Tuscan counterpart, the expensive Viennese model collection raised considerable public interest after its arrival, but they also became the subject of controversy. In a public skirmish with the Josephinum's surgeons over the public utility of their expertise, local physicians denounced the models as vulgar. They chimed in with a printed satire, *Monkeyland*, which eloquently ridiculed the anatomical waxes as 'pretty toys' and its users at the new surgeons' academy as uncivilized 'butcher's apprentices'. The paper argues that surgeons eager to stress their usefulness for the state renounced the models' utility (despite their acknowledged accuracy) in order to side with doctors' claims to sophistication.

18 February **Donald Mackenzie (University of Edinburgh)**

The credit crisis as a problem in the sociology of knowledge

The financial markets need to be studied from the perspectives of the social studies of science and technology. The artefacts and technical systems they contain need to be taken seriously, and their role as sites of knowledge production needs examined. For example, how market participants value financial instruments is (amongst other things) an issue for the sociology of knowledge.

This talk will examine the role in the current credit crisis of 'evaluation cultures' (shared beliefs, practices, ways of calculating, and technical systems that are employed when market participants evaluate financial instruments). Employing documentary sources and a set of 55 predominantly oral-history interviews, the talk will present a historical sociology of the evaluation cultures surrounding the two categories of financial instrument crucial to the crisis (ABSs, asset-backed securities, and CDOs, collateralized debt obligations), and in particular will discuss the evaluation of and the role played by a fateful concatenation of the two, ABS CDOs.

25 February **Donald Gillies (UCL)**

Lessons from the history and philosophy of science for research assessment systems

The thesis of this paper is that material from the history and philosophy of science is highly relevant to the question of the efficacy of research assessment systems such as the RAE or REF. Systems of this kind are based on peer review or metrics. However, the study of historical examples such as Frege, Semmelweis, and Copernicus shows that both peer review and metrics have important defects and can lead to the rejection of innovative research. This phenomenon is explained using ideas of Kuhn and Lakatos. The conclusion drawn is that systems such as the RAE or REF are likely to make research output worse rather than better, and an alternative approach to research organization is suggested.

4 March **Kevin Brosnan (HPS, Cambridge)**

Dissolving a Darwinian dilemma for moral realism

Controversies over the implications of Darwinism for ethics have been swirling about for some time. Two of Darwin's contemporaries, Frances Cobbe and Henry Sidgwick, defend rather different views of the matter. While Cobbe maintained that Darwin's theory, if correct, delivered a deathblow to ethics, Sidgwick dismissed evolutionary theory as irrelevant to ethics. Descendants of these contrasting views are to be found in contemporary discussions. In this paper, I consider those of the deathblow variety that aim to undermine moral knowledge. I argue that moral knowledge may be difficult to establish, but that none of these difficulties arise from Darwinian considerations.

11 March **Tim Crane (Philosophy, Cambridge)**

The solution to the problem of mental causation

For some time it has been thought that non-reductive theories of the mind face a special problem of mental causation and that this problem needs to be solved by constructing metaphysical theories of the relationship between mental and physical entities (for example, theories of the 'realisation' relation) or of the relation of causation. In this paper I argue that this problem has a straightforward solution once the dubious assumptions which underlie it are revealed. The solution is neutral between physicalist and 'emergentist' views of the mind, and is also neutral between theories of causation.

# History of Medicine

Seminars are on **Tuesdays from 5.00 to 6.30pm in Seminar Room 1**. Tea is available from 4.40pm. All welcome!

Organised by Lauren Kassell and Nick Hopwood.

- 19 January **Veronika Lipphardt (MPI for the History of Science, Berlin)**  
'Isolates' and 'crosses': human evolution and population genetics in the mid-twentieth century
- 9 February **Claudia Stein (University of Warwick)**  
The birth of biopower in eighteenth-century Germany

To avoid clashing with Simon Schaffer's Turner Lectures the History of Medicine seminar will not meet in the second half of term.

**Generation to Reproduction Reading Group:** see page 13

# Cabinet of Natural History

Seminars are held on **Mondays at 1pm in Seminar Room 1**. You are welcome to bring your lunch with you.

Organised by Susannah Gibson.

- 18 January **Peter C. Kjaergaard (Universities of Aarhus & Cambridge)**  
The curious case of the London Skull: the making of a British human ancestor
- 25 January **Raf de Bont (Universities of Leuven & Cambridge)**  
The lake as a microcosm: Otto Zacharias and the civic origins of limnology
- 1 February **Kelley Swain (Poet in Residence, Whipple Museum)**  
Beale, Bennett, Scoresby (and Melville!): a 'natural' history of cetology
- 8 February **Joe Cain (University College London)**  
Rethinking the synthesis period in evolutionary studies, 1930s and 1940s
- 15 February **Allison Ksiazkiewicz (HPS, Cambridge)**  
Geology, caves, and original architecture: ideas of origins and early nineteenth-century geology
- 22 February **Jim Secord (HPS, Cambridge) & Peter C. Kjaergaard (Universities of Aarhus & Cambridge)**  
Reflections on Darwin 2009: a discussion
- 1 March **David Feller (HPS, Cambridge)**  
William Buckland's oral history of deep time, or, things that made him go mmmmmmmmmmm
- 8 March **Jackie Mountain (The London Consortium – Birkbeck)**  
English visitors to Vesuvius and Solfatara in the early seventeenth century

# Twentieth Century Think Tank

The Think Tank offers broad coverage of 20th-century and contemporary topics in the history and philosophy of science. Copies of all texts can be found in the TCTT box in the Whipple Library. **Meetings are usually every other Tuesday, 1–2.30pm in Seminar Room 1.** Everyone is welcome, and feel free to bring lunch!

12 January **Peter Bowler (Queen’s University Belfast)**

British popular science magazines in the early 20th century

Reading: 1. Peter Bowler, ‘Popular Science Magazines’, in *Science for All: The Popularization of Science in Early Twentieth-Century Britain* (University of Chicago Press: 2009), Ch. 9, pp. 161–184.

2. Peter Broks, ‘Science, media and culture: British magazines, 1890–1914’, *Public Understanding of Science*, Vol. 2, No. 2 (1993), 123–139.

19 January **Robert Asher (Zoology, Cambridge)**

Materialism, agency vs. cause, and the top ten reasons to be a creationist

Reading: 1. K.B. Miller, ‘The misguided attack on methodological naturalism’, in J.S. Schneidermann and W.D. Allmon (eds.), *For the Rock Record* (Berkeley: University of California Press, 2009), pp. 117–40.

2. E. Sober, *Evidence and Evolution* (Cambridge: CUP, 2008), Ch. 2, pp. 109–88.

9 February **Boris Jardine (HPS, Cambridge)**

The constructive idea: art and science in ’30s London and Cambridge

Reading: 1. Peder Anker, ‘The Bauhaus of Nature’, *Modernism/modernity*, Volume 12, Number 2 (April 2005), 229–251, especially pp. 230–2.

2. B. Nicholson, N. Gabo & L. Martin (eds.), *Circle: An International Survey of Constructivist Art* (London: Faber & Faber, 1937), chapters by J.D. Bernal, Naum Gabo, and Herbert Read.

23 February **Jesse Olszynko-Gryn (HPS, Cambridge)**

Population control and the social sciences

Reading: 1. M. Connelly, ‘Population Control is History: New Perspectives on the International Campaign to Limit Population Growth’, *Comparative Studies in Society and History*, Vol. 45, No. 1 (Jan., 2003), 122–147.

2. A. Bashford, ‘Population, Geopolitics, and International Organizations in the Mid Twentieth Century’, *Journal of World History*, Vol. 19, No. 3 (Sept. 2008), 327–348.

# Graduate workshops

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## HPS History Workshop

The HPS History Workshop is a seminar group devoted to peer discussion of work in progress in all areas of the history of science, medicine and technology. All HPS postgraduate students with an interest in history are welcome to present draft MPhil essays, PhD chapters, conference papers, etc. The workshop encourages friendly and constructive feedback while providing a fortnightly point of contact for postgraduate historians at HPS.

Sessions will be held on alternate **Wednesdays in Seminar Room 1, 12noon–2pm**. Speakers are reminded that talks **must not** exceed 30 minutes.

Organised by Alexander Wragge-Morley.

20 January **Maggie Jack:** A scientific toy for red-blooded boys: the Gilbert chemistry set and non-journalistic popularization of science

**Jesse Olszynko-Gryn:** Nunataks: historical phytogeography and botanical nation building in 1930s Québec

3 February **Nils Petter Hellström:** White maps of Africa – the making of blank spaces

**Jiri Hudecek:** (Title to be announced)

17 February Special workshop on public speaking (volunteers will be required)

3 March **Katie Taylor:** Mathematical culture in Elizabethan England

**Kathryn Ticehurst:** Edmund Selous: birdwatching and interpreting animal behaviour in Britain, 1900

## Philosophy Workshop

The Philosophy Workshop is a fortnightly peer group seminar devoted to the discussion of on-going work by researchers in philosophy. All MPhils, PhD students, post-docs, affiliated scholars, visiting scholars, and teaching officers across the University are invited. Papers will normally be circulated by email one week in advance of each meeting, where the author will give a brief synopsis. The aim of the seminar is to provide a forum for informal, constructive interaction amongst those currently engaged in philosophical research.

Meetings take place **every other Wednesday from 1–2pm in Seminar Room 1**, and are open to all researchers. For more information, and to receive the papers by email, please contact Sacha Golob.

# Reading and discussion groups

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## Metaphysics Reading Group

This term we will be reading a selection of papers by David Lewis. Readings are available in a box in the Whipple Library.

We meet on **Mondays, 1.00–2.30pm in the HPS Lodge**. All welcome.

Organised by Alex Broadbent.

- 18 January 1970, 'How to Define Theoretical Terms', *Journal of Philosophy*, 67: 427–446.
- 25 January 1983, 'New Work For a Theory of Universals', *Australasian Journal of Philosophy*, 61: 343–377.
- 1 February 1973, 'Causation', *Journal of Philosophy*, 70: 556–567.
- 8 February 1979, 'Counterfactual Dependence and Time's Arrow', *Noûs*, 13: 455–476.
- 15 February 1986, 'Events' in Lewis, *Philosophical Paper Volume 2*, 1986, pp. 241–269.
- 22 February 1994, 'Humean Supervenience Debugged', *Mind*, 103: 473–490.
- 1 March 2004, 'Causation as Influence' unabridged version, in John Collins, Ned Hall, and L.A. Paul (eds.), *Causation and Counterfactuals*, Cambridge: MIT Press, pp. 75–106.
- 8 March 1996, 'Elusive Knowledge', *Australasian Journal of Philosophy*, 74: 549–567.

## Kant Reading Group

This term the Kant Reading Group will continue reading the 'Transcendental Doctrine of Method' from the *Critique of Pure Reason*.

Meetings are held in the **HPS Lodge from 2–3.30pm on Thursdays**. They begin with a short presentation and are followed by general discussion. All are welcome. Please contact Sasha Mudd for further information.

- 21 January A795/B823 – A801/B829
- 28 January A801/B829 – A810/B838
- 4 February A810/B838 – A818/B846
- 11 February A818/B846 – A826/B854
- 18 February A826/B854 – A834/B826
- 25 February A834/B826 – A839/B867
- 4 March A839/B867 – A851/B879
- 11 March General discussion



# Science and Literature Reading Group

The Science and Literature Reading Group meets **fortnightly on Mondays from 7.30–9pm in Room G03, Mary Allan Building, Homerton College.**

Please see our blog at <http://sci-lit-reading-group.blogspot.com> for news, updates, and further information. Organised by Daniel Friesner (Science Museum) and Melanie Keene (Homerton College). Email Melanie to join our dedicated mailing list or if you are interested in introducing one of the readings. All welcome!

This term we will focus on **alchemy and chemistry**, reading an array of texts from different genres and time periods. Readings will be made available from the beginning of term in the group's Whipple Library box file.

18 January Selections from Elias Ashmole (ed.), *Theatrum Chemicum Britannicum* (London: 1652).

Reprinted as No. 39 of *The Sources of Science* by Johnson Reprint Corporation, New York & London, 1967, and available online. (Note that pp. 281–288 are misnumbered in the printed text.) We will look at: 'Pearce the Black Monke upon the Elixir' (pp. 269–274), 'The Breviary of Naturall Philosophy. Compiled by the unlettered Scholar Thomas Charnock' (pp. 291–303 in the printed text; 287–303 online), 'The Vision of Sr George Ripley' (pp. 374).

1 February Honoré de Balzac, *La Recherche de l'absolu* (1834).

This has been translated into English at least three times; we will use the translation by Ellen Marriage as *The Quest of the Absolute* (1895), as this is the cheapest one to buy in paperback reprint. Various texts are also available online from Google Books, Internet Archive and Project Gutenberg.

15 February Primo Levi, *L'altrui mestiere* (1985).

Translated by Raymond Rosenthal as *Other People's Trades*, Michael Joseph Ltd, London, 1989. This is a collection of short essays, which originally appeared in the Turin newspaper *La Stampa*. We will look at: 'The Mark of the Chemist' (pp. 86–90), 'The Language of Chemists (I)' (pp. 100–105), 'The Language of Chemists (II)' (pp. 106–110), 'Ex-Chemist' (pp. 174–176).

in conjunction with two chapters from

Oliver Sacks, *Uncle Tungsten: Memories of a Chemical Boyhood* (2001).

Reprinted by Picador, London, 2002. Chapter 7, 'Chemical Recreations' (pp. 67–76), Chapter 8, 'Stinks and Bangs' (pp. 77–90).

1 March Tony Harrison, *Square Rounds* (Faber and Faber, London, 1992).

## Scientific Images Discussion Group

Meetings will take place fortnightly on **Thursdays, 11am–1pm, in Seminar Room 1**. All welcome. For more information contact Geoff Belknap.

- 14 January Reading group – texts will be circulated prior to the session
- 28 January **Kelley Wilder:** Where is the archive?
- 11 February **Derek Jones:** Mapping the sky – a brief history  
**Caitlin Wylie:** *Nature Teaching on the Blackboard:* educational images from early twentieth century teaching manuals
- 25 February **Robert Budd:** Regarding the double helix: a ‘sword’ from the field of battle  
**Mark Steadman:** The curator’s camera: recovering Victorian museum life through photographic lantern slides

## Astronomical Images

These meetings are part of the AHRC project ‘Diagrams, Figures and the Transformation of Astronomy, 1450–1650’, which analyzes the production, function and terminology of early modern astronomical imagery.

All meetings will be held on **Thursdays at 11am–1pm in Seminar Room 1**. All are welcome – do please feel free to bring lunch! Email Katie Taylor to be added to the mailing list.

- 21 January TBC
- 4 February **Emma Perkins (HPS, Cambridge)**  
Tycho Brahe’s architectonic structures suitable for astronomical observations
- 18 February **Isabelle Pantin (ENS, Paris)**  
The iconography of the De Sphaera traditions
- 4 March **Renée Raphael (HPS, Cambridge)**  
The legacy of Galileo’s condemnation: teaching Copernicanism in the seventeenth-century Jesuit Collegio Romano

## History and Theory Reading Group

History and Theory is a fortnightly reading group devoted to matters of historiography. The group discusses readings relating to problems of historical research, interpretation, and explanation. Each meeting is based around a selection of texts chosen and introduced by a speaker from the Department.

The group meets on **alternate Fridays, 2.30–4pm in the HPS Lodge**. Readings will be placed in the History and Theory box in the Whipple Library. All welcome! Organised by Nick Whitfield.

## Evolution Reading Group

This group discusses readings in the themes, ideas and individuals associated with theories of evolution in the eighteenth, nineteenth and twentieth centuries. Each meeting is based around a single text, extract or article, introduced by a member of the group. We discuss both primary sources and secondary texts, and draw on a range of perspectives in history, philosophy and ethics.

Meetings are held on **alternate Thursdays at 1pm in Seminar Room 1**. All are welcome, and please feel free to bring lunch. For more information, please contact Jenny Bangham, Richard Barnett or Caitlin Wylie.

- 21 January Horace Smith, *Brambletye House: or, Cavaliers and Roundheads*, 3 vols, 3rd ed. (London: Colburn, 1826), chapters XI – XIII, pp. 97–128. Available on Google Books.
- 4 February Kelley Swain, *Darwin's Microscope* (Flambard Press, 2009), poems 'Fossil Memories', 'Towards Perfection', 'Tectonic Motion', 'Spherical Motion'; Ruth Padel, *Darwin: A Life in Poems* (Chatto & Windus, 2009), chapter 2, 'Journey'.
- 18 February Peter Sis, *The Tree of Life: Charles Darwin* (Walker Books, 2003).
- 4 March Ronald L. Numbers, *The Creationists: The Evolution of Scientific Creationism* (University of California Press, 1993), introduction, pp ix–xvii, and chapters 10 & 11, pp 184–240.

## Generation to Reproduction Reading Group

This year the group will discuss pre-circulated papers, classics as well as our own work, in the area of our Wellcome strategic award in the history of medicine.

This term's meetings will be at **5–7pm on Tuesdays 26 January and 2 February**. To join the group, please email [generate@hermes.cam.ac.uk](mailto:generate@hermes.cam.ac.uk).

# Language groups

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## Latin Therapy

Latin Therapy will meet **every Friday during term time in the HPS Lodge from 4–5.30pm**. For this term, the first meeting will take place on 15 January and the last on 5 March. All levels are welcome and beginners are strongly encouraged to come along. Each week we will cover some introductory grammar, followed by a text suggested by members. The pain of the ablative absolute will be salved with copious tea and biscuits!

More information can be found at our website: [www.hps.cam.ac.uk/latintherapy](http://www.hps.cam.ac.uk/latintherapy). To be added to the mailing list, or to suggest a text, please contact Katie Taylor.

## Greek Therapy

We are a small informal group seeking to improve our Ancient Greek with the help of our tutor, Liz Smith. We are currently finishing a translation of Porphyry's *Life of Pythagoras* and we hope to move on to some easy Plato soon. Any level of Greek very welcome.

Meetings are provisionally scheduled for **5.30pm on Tuesdays** in full term (but this is flexible). All are welcome. For further information please contact Lydia Wilson.