

Seminars

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.

- 22 April **Mark Parascandola (National Institutes of Health, USA)**
Epistemic risk and public health science
- 29 April **Harry Collins (Cardiff University)**
Justice and automated match officiating
- 6 May **Vanessa Heggie (HPS, Cambridge)**
Respiratory physiology, experiment and Everest, from ghastly kitchens to gasping lungs
- 13 May **Katherine Angel (University of Warwick)**
Writing post-feminist history: female sexual dysfunction and biological psychiatry, 1960 to the present
- 27 May ***Fifteenth Annual Hans Rausing Lecture (McCrum Lecture Theatre)***
Myles W. Jackson (Polytechnic Institute of New York University and the Gallatin School of NYU)
From scientific instruments to musical instruments: the tuning fork, metronome and siren
- Fri 28 May **Myles W. Jackson (Polytechnic Institute of New York University and the Gallatin School of NYU)**
The CCR5 gene patent: biomedicine, intellectual property and commerce in the United States

Seminar Programmes are sent out at the start of every term to the names on our mailing list. Please contact the Department if you would like to be added to or removed from the mailing list, or if you change your address.

Seminar information is also available at www.hps.cam.ac.uk/seminars

Details of the Department's programme of graduate training workshops – for graduate students and postdoctoral researchers – are available at www.hps.cam.ac.uk/students/training and in the Graduate Handbook.

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Abstracts

22 April **Mark Parascandola (National Institutes of Health, USA)**

Epistemic risk and public health science

Throughout its history, empirical scientists have taken a conservative approach towards epistemic risk, minimizing inferences beyond observable data. However, at the same time, scientific research is conducted with the aim of advancing scientific knowledge and furthering its practical application in areas such as public health and medicine. Twentieth-century scientists and philosophers have developed methods for managing epistemic risk and quantifying degrees of uncertainty and evidential support. In the biomedical and public health sciences, these efforts have focused primarily on the use of the p value, along with a threshold for statistical significance ($P < 0.05$), and avoidance of Type I error. However, excessive reliance on p values comes at a high cost. The p value threshold avoids Type I error at the expense of Type II error. Moreover, this imbalance is counter to the aims of scientific research to increase knowledge and reduce uncertainty. Ultimately, there is no rule for determining what type or amount of epistemic risk is acceptable. Focusing on public health science, this paper will review the impact, often surreptitious, of assumptions and values on epistemic risk taking.

29 April **Harry Collins (Cardiff University)**

Justice and automated match officiating

Sports decision aids such as Hawk-Eye appear to be able to make clear judgements beyond the capability of any human umpire. This is often an illusion. The business of the introduction of technological aids for match officiating will be examined from first principles and it will be argued that justice can only be served if such aids always operate with a zone of uncertainty. Information about the technical capacity of a variety of such aids will be provided.

6 May **Vanessa Heggie (HPS, Cambridge)**

Respiratory physiology, experiment and Everest, from ghastly kitchens to gasping lungs

Mount Everest is an unpromising scientific field site; expensive to get to, in a politically sensitive area, and regularly lethally dangerous. It is also provocatively liminal, as a slight change of weather systems can convert a summitable peak into a death zone, where the barometric pressure is too low for the average human lung to absorb enough oxygen for even basic metabolic processes. Modelling Everest in the laboratory poses further challenges: the results of work using barometric chambers, mathematical formulae, and even plywood boxes to represent the mountain have been confirmed, complicated and contradicted by anecdote and field studies. In this paper I will use respiratory physiology, specifically disagreements over the use of supplemental oxygen, in order to examine the relationship between field Everest and modelled Everest, through the eyes of both researchers and climbers. As the ways in which we understand the mountain have led to a decentralisation of the laboratory in favour of the field, so this paper shifts from the ghastly kitchens of nineteenth-century French physiology (complete with vomiting sparrows and catatonic rats) to the 'gasping lungs' of oxygenless ascents, and medical examinations conducted over 29,000 feet above sea-level.

13 May **Katherine Angel (University of Warwick)**

Writing post-feminist history: female sexual dysfunction and biological psychiatry, 1960 to the present

‘Female Sexual Dysfunction’ (‘FSD’) is an umbrella term for diagnoses relating to desire, arousal, orgasm and pain that entered the American Psychiatric Association’s Diagnostic and Statistical Manual III in 1980. Using medical, public, and feminist discourse about FSD, as well as material from the APA archives, my paper will address the view of DSM-III as having marked a categorical shift from a psychodynamic to a biological psychiatry, and of American psychiatry as a ‘globalising virus’. It will also suggest that the existing critical work on FSD misconstrues the contemporary landscape through its narrow focus on medico-pharmaceutical discourse; examining a wider range of sources instead reveals a more complex ontological register that problematises accounts of both a multifactorial medicine and of the ‘biological self’. It also urges one to think about medicine and psychiatry as themselves post-feminist. My paper will emphasise the importance of moving beyond analyses of FSD that take second-wave feminism for granted (as well as those focusing on the rise of biological psychiatry and Big Pharma), towards an analysis of the contemporary legacy of the embattled relationships between psychiatry, psychoanalysis and feminism in the post-war period.

27 May ***Fifteenth Annual Hans Rausing Lecture (McCrum Lecture Theatre)***

Myles W. Jackson (Polytechnic Institute of New York University and the Gallatin School of NYU)

From scientific instruments to musical instruments: the tuning fork, metronome and siren

My talk analyzes how nineteenth-century acoustical instruments meant to standardize musical performance and measure various dimensions of sound, such as pitch and beat, were a century later put to use as musical instruments themselves. Metronomes (and their predecessors, the chronometer) and tuning forks migrated from bourgeois households and rehearsal halls to physics and physiological laboratories and then back to concert halls, where they were the primary instruments of a number of twentieth-century compositions. Similarly, sirens, another instrument employed by nineteenth-century acousticians for determining accurately musical pitch, were heard with increasing frequency in the twentieth-century musical halls of New York, Berlin, and Paris. Drawing upon a material cultural history of science and technology, this lecture will trace how these objects were redefined by their new roles as the generators, rather than the quantifiers, of musical qualities, by exploring both the use of mechanical apparatus to standardize critical aspects of early nineteenth-century music and the resulting debates surrounding what such standardization meant to the art. Did these machines hinder or enhance expression and creative genius? Could they thwart the attempts of virtuosi to take liberties with the composer’s original intentions? Twentieth-century composers, such as Györgi Ligeti, Edgard Varèse, and Warren Burt, used these same acoustical instruments to subvert the very notions they were created to define and reinforce.

Fri 28 May **Myles W. Jackson (Polytechnic Institute of New York University and the Gallatin School of NYU)**

The CCR5 gene patent: biomedicine, intellectual property and commerce in the United States

The patenting of the CCR5 gene has become emblematic both of how intellectual property law has changed the conduct and content of scientific knowledge as well as the social, political, and ethical implications of such a metamorphosis. Although historians of science have argued for decades now that scientific research is often not divorced from commercial interests, it seems that the patenting of human genes represents something very different not only in degree, but in kind. Although much has been written on the possible effects of gene patenting on future research, I proffer a specific, concrete example by investigating the material cultural history of CCR5, one that includes the history of molecular biology, the sociology of science and technology, and the history of intellectual property law. The CCR5 patent is particularly interesting because it occurs at a period when the status of patenting genes was being renegotiated, the accuracy of computer sequencing for determining the function and utility was being challenged, and the nature of the deposited object vis à vis the written specification was being redefined. In short, it is a story about the simultaneous instability of a patent claim and the instability of the validity of a scientific technique to make a scientific claim.

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.

- 26 April **Ralph O'Connor (University of Aberdeen)**
Dragons, insects and porcupines: locating the Victorian 'dinosaur'
- Wed 5 May Field-trip: Stowe Gardens, Buckinghamshire
- 10 May **Chitra Ramalingam (CRASSH, Cambridge)**
Experiments in description: Victorian physics and the natural history of electricity
- 17 May **Caitlin Wylie (HPS, Cambridge)**
Nature teaching on the blackboard: visual learning in early twentieth-century English school science
- 24 May **John Parker (Cambridge University Botanic Garden)**
The herbarium and the computer: investigating John Henslow's science
- Thu 10 June Garden Party: Christ's Fellows' Garden
Garden party talk to be given by **Shelley Innes (Darwin Correspondence Project)**

Twentieth Century Think Tank

The Think Tank offers broad coverage of 20th-century and contemporary topics in the history and philosophy of science. Some speakers may suggest readings or pre-circulate texts – if so these 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!

For more information email hps-think-tank@lists.cam.ac.uk

- 27 April **Boris Jardine (HPS, Cambridge)**
Britain without capitalists: left science and utopianism in the 1930s
- 4 May **Lydia Wilson (HPS, Cambridge)**
Methodologies in scientific heritage: the preservation of dead disciplines
- 18 May **Leon Antonio Rocha (Yale University School of Medicine)**
Of 'Flying Eagles' and 'Baby Killers': the politics of sweetened condensed milk in Southeast Asia, 1880s–1980s
- 1 June **Michael Bravo (Scott Polar Research Institute, Cambridge)**
Too good to be true? Decolonising science at research stations in the late 20th century

Graduate workshops

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.

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 followed by roughly 45 minutes of Q&A. 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**. If you have any questions or would like to have your work discussed please contact Sacha Golob.

Reading and discussion groups

Metaphysics Reading Group

This term we will be reading *The Oxford Handbook of Causation*, edited by Helen Beebe and Peter Menzies. We meet on **Mondays, 1.00–2.30pm in the HPS Lodge**. All welcome.

Organised by Alex Broadbent.

- 26 April Chapter 7 – Regularity Theories, Stathis Psillos
- 3 May Chapter 10 – Causal Process Theories, Phil Dowe
- 10 May Chapter 11 – Agency and Interventionist Theories, Jim Woodward
- 17 May Chapter 14 – Causal Modelling, Christopher Hitchcock
- 24 May Chapter 17 – Platitudes and Counterexamples, Peter Menzies
- 31 May Chapter 23 – Causation and Statistical Inference, Clark Glymour
- 7 June Chapter 29 – Causation and Explanation, Peter Lipton

Kant Reading Group

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.

This term we will be looking at Kant criticism. Readings will be placed in the Kant Reading Group box in the Whipple Library at the start of term.

- 29 April Hegel's Criticism of Kant's Practical Philosophy (presenter: Sasha Mudd)
- 6 May Hegel's Criticism of Kant's Theoretical Philosophy (presenter: TBA)
- 13 May Schopenhauer on Kant (presenter: TBA)
- 20 May Heidegger on Kant (presenter: Sacha Golob)

Scientific Images Discussion Group

Meetings will take place fortnightly on **Thursdays, 11am–12noon, in Seminar Room 1**. All welcome. For more information contact Geoff Belknap.

- 13 May **Efram Sera Shriar (University of Leeds)**
Identifying and classifying man: the ethnology of Robert Gordon Latham
- 27 May **Andrew Jarvis (Faculty of History, Cambridge)**
Reading early photographs of Burma and Sri Lanka
- 10 June **Jamie Stark (University of Leeds)**
Different appearances of anthrax on the skin: cautionary notices from early-twentieth century industry

Science and Literature Reading Group

This term we will focus on the **fairy-tales of science**, reading a selection of nineteenth-century works that combined new discoveries with the myths and legends of old. We'll also create some of our own new stories, in a creative-writing workshop.

We meet on **Mondays from 7.30–9pm in the Skillicorn Room at Homerton College**: please note our new venue, and the rather irregular scheduling due to the May bank holidays.

Readings will be made available in photocopied packs in the Whipple Library and Homerton library from the beginning of term, and many of the selections we have chosen are also online (links on the HPS website and our blog).

Organised by Daniel Friesner (Science Museum) and Melanie Keene (Homerton College). See our blog at <http://sci-lit-reading-group.blogspot.com> for news and updates. Email Melanie to join our dedicated mailing list. *All welcome!*

General Introductory Reading

Arabella Buckley, *The Fairyland of Science* (1879), lecture 1.

10 May – Stars

'A Flight Through Space', John Cargill Brough, *The Fairy-Tales of Science* (1859).

'Training the Pole-Star', and 'The Tail of a Comet', Elizabeth W. Champney, *In the Sky-Garden* (1877).

'Sunbeams and the work they do', Arabella Buckley, *The Fairyland of Science* (1879), lecture 2.

'The Magician's Chamber by Moonlight', Arabella Buckley, *Through Magic Glasses* (1890).

17 May – Insects

'The Fresh-Water Siren', 'Acheta Domestica' [L. M. Budgen], *Episodes of Insect Life* (1849), vol. I, chapter 9.

'A Lesson of Faith' and 'Knowledge not the Limit of Belief', Margaret Gatty, *Parables From Nature* (1855–)

'Metamorphoses', John Cargill Brough, *The Fairy-Tales of Science* (1859)

'A.L.O.E.' [C. M. Tucker], *Fairy Frisket; or, Peeps at Insect Life* (1874), chapters 10–11.

24 May – Water

'The Drop of Water', Hans Christian Andersen (1848)

'The Water-Drops: A Fairy Tale', [Henry Morley], *Household Words*, 17 August 1850, pp. 482–9.

'Water Bewitched', John Cargill Brough, *The Fairy-Tales of Science* (1859).

'The Autobiography of a Drop of Water', Annie Carey, *Autobiographies...* (1870).

'A Drop of Water on Its Travels', Arabella Buckley, *The Fairyland of Science* (1879).

7 June – Creative-Writing Workshop

'Things Are Not What They Seem', 'Matty Crompton' [A.S. Byatt], from 'Morpho Eugenia', *Angels and Insects* (1992).

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 the speaker.

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 and Jesse Olszynko-Gryn.

30 April **Raymond Geuss (Faculty of Philosophy, Cambridge)**
History and genealogy

Readings:

1. Friedrich Nietzsche, *On the Genealogy of Morality* (1994), Second Essay, 'Guilt, Bad Conscience, and Related Matters,' sections 12 and 13.
2. Michel Foucault, 'Nietzsche, Genealogy, History,' in *The Foucault Reader* (1984).
3. Bernard Williams, *Truth and Truthfulness* (2002), chs. 1, 2, and 3, pp. 1–62.
4. Raymond Geuss, 'Nietzsche and Genealogy', in *Morality, Culture and History* (1999), pp. 1–28.
5. Raymond Geuss, 'Genealogy as Critique', in *Outside Ethics* (Princeton University Press, 2005), pp. 153–160.
6. Raymond Geuss, 'Preface to the Paperback Edition', in *Public Goods – Private Goods* (2003), pp. vii–xxiii.

14 May **Katharina Kraus (HPS, Cambridge)**
Foucault's historical apriori

Readings:

1. Michel Foucault, *Mental Illness and Psychology* (1976), Part II: ('Madness and Culture'), pp. 59–88.
2. Michel Foucault, *The Order of Things* (1970), ch. 9, pp. 330–373.
3. Michel Foucault, *The Archaeology of Knowledge* (1972), Part I (Introduction) and Part III, section 5, 'The Historical apriori and the Archive', pp. 3–20, 142–148.
4. Béatrice Han, 'Is Early Foucault A Historian? History, history and the Analytic of Finitude', *Philosophy and Social Criticism* 31 (2005): 585–608.
5. Immanuel Kant, *Critique of Pure Reason* (1998) B 3–6, pp. 137–138.

28 May **Ayesha Hameed (Goldsmiths, University of London)**
On coastlines, border crossings and natural history

Readings:

1. Walter Benjamin, 'Naples', 'One Way Street', and 'On Language as Such and the Language of Man', in *Walter Benjamin Selected Writings, vol. 1: 1913–1926* (1996).
2. Theodor Adorno, 'The Idea of Natural History', *Telos* 57 (1985): 97–124.
3. Gilles Deleuze and Félix Guattari, *Anti-Œdipus* (1977), Ch. 1 Section 1 ('Desiring Production'), pp. 1–8.
4. *Optional background reading*: Beatrice Hanssen, *Walter Benjamin's Other History: Of Stones, Animals, Human Beings and Angels* (1998).

Evolution Reading Group

This term the Evolution Reading Group will be thinking about methods used to study evolution. Our readings span the 19th and 20th centuries and address diverse fields of science. We will focus on how crucial methods were developed and how these methods shaped the resulting scientific knowledge. In each session we will discuss a secondary source and a corresponding primary source. Please find all readings in our box in the Whipple Library.

We meet on **alternate Thursdays at 1pm in Seminar Room 1**. For more information, please contact Jenny Bangham, Richard Barnett or Caitlin Wylie.

22 April Botanical Methods

Jim Endersby, *Imperial Nature*, Ch 2 'Collecting', & an article by Joseph Hooker

6 May Geological Methods

Jim Secord, *Controversy in Victorian Geology*, Ch 2 'Collaboration and Contrasts', & an article by Adam Sedgwick

20 May Palaeoanthropological Methods

Matthew Goodrum & Cora Olson, 'The quest for an absolute chronology in human prehistory: anthropologists, chemists and the fluorine dating method in palaeoanthropology', *BJHS*, 2009, & a primary source TBA

3 June Genetics Methods

Robert Kohler, 'Drosophila and Evolutionary Genetics: The Moral Economy of Scientific Practice', *History of Science*, 29; 4 (1991) p. 335, & a primary source TBA

Language groups

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 23 April and the last on 4 June. 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. 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.