

# Departmental Seminars

Seminars meet on **Thursdays at 4.30pm in Seminar Room 2**, Department of History and Philosophy of Science, Free School Lane, Cambridge. There is tea beforehand in Seminar Room 1 at 4.15pm.

Organised by Tim Lewens.

28 April **Andy Clark (University of Edinburgh)**

Action, access and the zombie-free zone

5 May **Paul E. Griffiths (University of Queensland)**

The conceptual impact of the genomic revolution

12 May **Susan Hurley (University of Warwick and All Souls College, Oxford)**

The shared circuits model: how control, mirroring and simulation can enable imitation and mind reading

Tenth Annual Hans Rausing Lecture

## Technology Studies for Terrorists: A Short Course

**Professor Langdon Winner  
(Rensselaer Polytechnic Institute, New York)**

Thursday 19 May at 4.30pm  
The Old Labs, Newnham College, Cambridge

Following the terrorist attacks of 9/11, leaders of the USA decided that the event was the first step in a war – ‘the war on terrorism’. This way of framing the situation has already cost hundreds of billions of dollars and tens of thousands of lives, casting a dark shadow on human rights worldwide. Is there a better way to think about the problems that terrorism poses? Recent scholarship in technology studies suggests some promising paths, strategies that could be more fruitful in understanding the malady and offering remedies.

# Abstracts

28 April **Andy Clark (University of Edinburgh)**  
Action, access and the zombie-free zone

Can any set of facts about an agent's access to information, patterns of action, or tendencies to make judgments, actually imply the presence of full-blown qualitative consciousness (phenomenal awareness)? I shall argue for a positive response. In particular, I shall suggest that the key factor concerns direct, non-inferential access to *indirect* indicators of the kind of information-processing that is at work while we solve specific problems. Prime contenders for such indirect indicators include access to our own sensorimotor expectations, or (more abstractly, and perhaps more convincingly) awareness of the space of actions we are poised to perform. To imagine creatures possessed of such indirect access to their own information-processing routines is, I argue, to enter a necessarily zombie-free zone.

5 May **Paul E. Griffiths (University of Queensland)**  
The conceptual impact of the genomic revolution

Molecular bioscience in the 'postgenomic' era constitutes a fascinating and challenging case study of the role of conceptual change in science. Bioscientists cope with discoveries which challenge their basic assumptions through conceptual innovation, extending and changing the meaning of such apparently precise biological terms as 'exon' or 'cis-position' in a way that Hans-Jörg Rheinberger has described as 'exuberant'. This disregard for the traditional virtues of precision and stability in technical language makes perfect sense if we recognize that these biological concepts are primarily tools – ways of classifying experience forged by experimentalists to meet their specific needs and reformed as those needs change. I outline this perspective on empirically driven conceptual change and discuss research documenting the shift from a gene-centred view to a broader, genomics-oriented approach in contemporary molecular biology. I focus on an online survey conducted by myself and collaborators in 2003-4 in which biologists were asked to annotate conceptually challenging cases of genome transcription with the aim of revealing the range of conceptions of the gene operative in contemporary bioscience. The study seems to corroborate the widespread view amongst biology commentators that the textbook conception of the gene, the so-called 'classical molecular gene', is simply not up to the job of characterizing the full range of genomic elements that have turned out to play some of the traditional roles assigned to the gene. The concepts used by contemporary bioscientists to describe the significant functional and structural components of the genome are both diverse and flexible. A broader appreciation of these novel ways of conceptualizing the genome and its role in the production of bodies and behaviour could transform the understanding of genetic research by the rest of the academy and perhaps eventually by the community at large.

12 May **Susan Hurley (University of Warwick and All Souls College, Oxford)**  
The shared circuits model: how control, mirroring and simulation can enable  
imitation and mind reading

Imitation and mind reading are distinctively human social-cognitive skills, which contribute in fundamental ways to being a person. The shared circuits model explains how they can be enabled by subpersonal functional mechanisms of control, mirroring and simulation. It unifies a wide body of evidence and theorizing about social cognition, and illustrates the philosophical view that embodied cognition can emerge from active perception, by avoiding a 'classical sandwich' architecture in which central cognition is insulated from the world between twin buffers of perception on the input side and action on the output side (Hurley 1998, 1991).

The central ideas of the shared circuits model are as follows. The starting point is dynamic on-line control in which an organism is tightly coupled through feedback to its embedding environment. Onto this are layered certain capacities for monitored inhibition and off-line simulation. Rich informational resources and distinctions emerge from such a layered architecture, enabling important cognitive capacities of persons. More specifically: predictive simulation of the effects of motor output can improve motor control and generate information for the distinction between action by the self and perception of the world. If predictive simulation is taken off-line, so that actual motor output is inhibited, and such inhibition is monitored, this can generate information about the results associated with alternate possible as opposed to actual actions, and enable imagination and counterfactual instrumental reasoning. Predictive simulation might come to be reversed, so that observing actions by others in a social group induces the copying or mirroring of elements of observed actions, including movements (as in response priming) or their results (as in emulation). Copying observed actions has various functions, in particular when mirroring is articulated to reflect the instrumental structure of observed actions, relating observed movements to their results flexibly as novel means to ends (as in imitative learning). Moreover, the capacity for simulation in the form of monitored inhibition of the output of such mirroring of perceived action could generate information for the distinction between one's own actions and the observed actions of others, and enable understanding of the observed behaviour of others as instrumentally structured or intentional. Finally, the capacity for monitored simulation of input specifying possible actions plus inhibited mirroring of such possible actions could generate information about the possible as opposed to actual actions of others (as well as self), and the possible causes and effects of such possible actions, enabling strategic social intelligence. While more advanced forms of strategic social cognition that require tracking multiple others and their multiple possible actions may depend on interpretative theorizing and/or language, the shared circuits model shows how imitation and mind reading may be enabled at a foundational level by practical mechanisms of control, mirroring and simulation.

# From Generation to Reproduction

This seminar, which is funded by our Wellcome Trust enhancement award in the history of medicine, will be a forum for discussion of how, since 1500, our world of reproductive practices and controversy was created. We meet on **Tuesdays from 5pm to 6.30pm in Seminar Room 2**. Tea is available from 4.40 in Seminar Room 1. All welcome!

Organised by Nick Hopwood.

- 3 May **Katharine Park (Harvard University)**  
The mother's part: opening the uterus in Renaissance Italy
- 10 May **Martin Richards (SPS, Cambridge)**  
Perfecting people at the Oneida community (1867-79): justifications from animal and plant breeding and theology
- 17 May **Barbara Duden (University of Hanover)**  
'Pop-genes': how gene-talk uproots perception and mobilizes to manage risks
- 24 May **Helga Satzinger (Wellcome Trust Centre at UCL)**  
The chromosomal theory of heredity and the problem of gender equality

# Psy Studies

## History of Psychiatry, Psychology, Psychoanalysis and Allied Sciences

Seminars are held fortnightly on **Wednesdays at 5pm in Seminar Room 1**. Tea is available from 4.40pm. All welcome.

Organised by John Forrester and Deborah Thom.

- 11 May **Carole Reeves (Wellcome Trust Centre for the History of Medicine, London)**  
Migration and mental illness: Jewish immigrants in Colney Hatch Lunatic Asylum, 1880-1920

# Psychoanalysis and the Humanities

Seminars are held fortnightly on **Wednesdays at 5pm in the Faculty of English, 9 West Road**. All welcome.

Organised by Mary Jacobus and David Hillman.

- 4 May **Renate Salecl (Churchill College, Cambridge)**  
Tyranny of choice: guilt and anxiety in limitless word
- 18 May **Vicky Lebeau (University of Sussex)**  
'The child in question': psychoanalysis and the image

# Cabinet of Natural History

The seminar will meet on **Mondays at 1pm in Seminar Room 1**. You are most welcome to bring your lunch with you.

Organised by Melanie Keene.

- 2 May **Brian Ogilvie (University of Massachusetts, Amherst)**  
Description and persuasion in seventeenth-century entomological illustrations
- 16 May **Diarmid Finnegan (University of Edinburgh)**  
'Islands on the land': alpine naturalising and evolution in Victorian Scotland
- 23 May **Charlotte Sleigh (University of Kent)**  
Scientific sheep and anthropomorphic goats: generic norms of amateur natural history in early twentieth-century America
- 30 May **Juliana Adelman (National University of Ireland, Galway)**  
The dawn animal of Canada: J.W. Dawson, W.B. Carpenter, the 'Galway Professors' and the controversy over *Eozoon Canadense*
- 13 June **CABINET OF NATURAL HISTORY GARDEN PARTY**  
12noon in King's College Fellows' Garden, Queen's Road  
Featuring a short talk by **Melanie Keene**:  
'An object in every walk': Gideon Mantell and the art of seeing pebbles
- Wed 15 June **TRIP TO DOWN HOUSE**

# Science and Literature Reading Group

In association with the Department of English, Drama & Writing at APU. We meet fortnightly on Wednesdays, upstairs in Darwin College at 8pm. Everybody welcome, from any world whatsoever; no prior knowledge (of any kind) required.

To introduce any session or for more information please contact Katy Price.

## Other Worlds

- 4 May Margaret Cavendish, *The Blazing World* (1666), ISBN: 0140433724
- 18 May Bernard le Bovier de Fontenelle *Conversations on the Plurality of Worlds* (1686).  
Extract available at: [www.wwnorton.com/nael/18century/topic\\_3/discovery.htm](http://www.wwnorton.com/nael/18century/topic_3/discovery.htm)
- 1 June Humphry Davy, *Consolations in Travel* (1830)
- 15 June Aristophanes, *The Birds* (414 BCE), ISBN: 0140449515 and numerous free texts on the web

Extracts from Fontenelle and Davy will be on sale in a pack available from the Whipple Library, from Wednesday 20 April onwards. The full texts can be found in Cambridge University Libraries.

# Epistemology Reading Group

We will be reading articles from Peter Ludlow, Yujin Nagasawa and Daniel Stoljar (eds) *There's Something about Mary: Essays on Phenomenal Consciousness and Frank Jackson's Knowledge Argument* (MIT, 2004). The book is available in paperback and two copies are on reserve in the Whipple Library. Each meeting of the group will focus on one or two essays, with a member of the group offering a preliminary evaluation, followed by a general discussion.

Meetings will take place on **Thursdays at 2pm in Seminar Room 1** and are open to all. Organised by Peter Lipton.

- 28 April Daniel Stoljar and Yujin Nagasawa, 'Introduction'
- 5 May Daniel Dennett, "'Epiphenomenal" Qualia?' and Howard Robinson, 'Dennett on the Knowledge Argument'
- 12 May David Lewis, 'What Experience Teaches'
- 19 May Philip Pettit, 'Motion Blindness and the Knowledge Argument'
- 26 May Michael Tye, 'Knowing What it is Like: The Ability Hypothesis and the Knowledge Argument'
- 2 June Paul Churchland, 'Knowing Qualia: A Reply to Jackson'
- 9 June John Bigelow and Robert Pargetter, 'Acquaintance with Qualia'
- 16 June Earl Conee, 'Phenomenal Knowledge'

# Wittgenstein Reading Group

We will continue going through the *Philosophical Investigations* (Blackwell, 1953). Meetings will take place fortnightly on **Tuesdays 3.00-4.30pm in the HPS Lodge**.

For further information please contact Lorenzo Bernasconi or Bill Grundy.

- 26 April §§363-97: imagination and mental images  
§§571-610: mental states and processes: expectation, belief
- 10 May §§398-411: the first-person pronoun 'I' and the nature of the self  
§§412-27: consciousness  
§§611-28: the will
- 24 May §§428-65: intentionality – the harmony between language and reality  
§§629-60: intending  
§§661-93: meaning something
- 7 June §§466-90: induction and the justification of empirical beliefs  
§§547-70: identity and difference of linguistic meaning

# History of Science Workshop

The History of Science Workshop is a seminar group devoted to peer discussion of work in progress on the history and historiography of science, for example PhD chapters, dissertations, articles intended for publication, or conference papers. The seminar aims to provide an informal arena for the exchange of ideas among students of the history of science in HPS and elsewhere.

We meet on **alternate Wednesdays at 1pm in Seminar Room 1**. Papers are circulated by e-mail before each meeting, and a copy is left in our box file in the Whipple Library. Please contact Anke Timmermann if you are interested in giving a paper or adding your name to the e-mail list.

- 4 May **Patrick Boner**: Kepler on the origins of comets and other celestial novelties
- 18 May **Anke Timmermann**: The curious incident of the recipes in the manuscripts – an alchemical whodunnit
- 1 June **Leon A. Rocha**: Transsexualism and gender identity disorder
- 15 June **Melinda Baldwin**: ‘These are not the characteristics of the sweet, home-loving little girl’: Dame Kathleen Lonsdale and gender bias in British science

# Philosophy Workshop

The PW is a fortnightly peer group seminar devoted to the discussion of on-going work by researchers in philosophy. Short papers will normally be circulated by e-mail 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 at 1pm in Seminar Room 1**, and are open to all researchers. For more information, or to add your name to the list of e-mail recipients, contact Mark Sprevak.

- 11 May **Steve John**: Liberty, equality, security: some thoughts on the lost value of political philosophy
- 25 May **Neil Manson**: Philosophy, commitment, and questions of consensus
- 8 June **Angela Breitenbach**: Kant’s teleological conception of nature
- 22 June **Yoon Choi**: Kant and the Unity of Reason Thesis

# Latin Therapy Group

The Latin Therapy Group meets on **Fridays at 4pm in the HPS Lodge** to practise the art of translation, improve our Latin grammar, and determine who deserves the most sympathy on account of the difficulty of their sources – all in a mutually supportive environment! Well-known (usually classical) texts of relevance to the history of science are studied, as well as texts on which members of the group are working. All are welcome to attend.

For more information, and to be added to the mailing list, please contact Patrick Boner. Information is also available on the Latin Therapy website, at [www.hps.cam.ac.uk/latintherapy](http://www.hps.cam.ac.uk/latintherapy)

# STS Workshop

Meetings are held on **Thursdays, 12noon to 1.30pm in Seminar Room 2**. All welcome.

Organised by Jon Agar, Rob Doubleday and Martin Kusch.

- 28 April **James Wilsdon** (Demos, London) talks on 'Lost in translation? Science, democracy and public value'
- 5 May **Jon Agar** (HPS, Cambridge) talks on 'From sea change to loose change: how market-talk entered science policy'
- 12 May Discussion with **Dominique Pestre** (EHESS, Centre Koyré, Paris) on the basis of two of his papers (copies of these papers will be on reserve in the Whipple)
- 19 May Discussion with **Langdon Winner** (STS, Rensselaer Polytechnic Institute, Troy, N.Y.) on his work in the philosophy of technology

## Modal Logic Reading Group

The Modal Logic Reading Group meets **Mondays at 3pm in the HPS Lodge**. It offers an informal environment for those wishing to discuss various modal, and other non-classical, logics. We will be working primarily from Hughes, G.E. & Cresswell, M.J. (1966) *A New Introduction to Modal Logic* (London: Routledge). A copy of Hughes & Cresswell and copies of the other listed readings are on reserve in the Whipple Library.

For more information, contact Paul Dicken.

- 2 May Hughes & Cresswell, ch 4 'Testing for Validity'
- 9 May Hughes & Cresswell, ch 13 'The Lower Predicate Calculus'
- 16 May Orenstein, A. (2002) 'Intensional Contexts', *W. V. Quine* (Chesham: Acumen), pp. 149-171
- 23 May Melia, J. (1992) 'Against Modalism', *Philosophical Studies* 68, pp. 35-56; see also Melia, J. (2003) *Modality* (Chesham: Acumen), pp. 81-98
- 30 May Hughes & Cresswell, ch 5 'Conjunctive Normal Form'
- 6 June Hughes & Cresswell, ch 6 'Completeness'
- 13 June Prior, A. N. (1969) 'Recent Advances in Tense Logic', *Monist* 53, pp. 325-39; reprinted in Prior, A. N. (2003) *Papers on Time and Tense* (Oxford: Oxford University Press), pp. 103-116
- 20 June Boolos, G. (1998) 'Gödel's Second Incompleteness Theorem Explained in Words of One Syllable' *Logic, Logic and Logic* (Harvard: Harvard University Press), pp. 411-413; see also 'Afterword: Fundamental Theorems of Provability Logic', pp. 414-419



# Reading Kant

We meet on **Tuesdays 1.00-2.30pm in the HPS Lodge.**

Organised by Angela Breitenbach, Alix Cohen, Stephen John and Marina Frasca-Spada.

- 3 May First Introduction to the Critique of Judgment, §§ 1-4  
Presentation: Angela Breitenbach
- 10 May First Introduction to the Critique of Judgment, §§ 5-8  
Presentation: Alix Cohen
- 17 May First Introduction to the Critique of Judgment, §§ 9-12  
Presentation: Yoon Choi
- 24 May Analytic of the Aesthetic Power of Judgment, First Book: Analytic of the Beautiful, §§ 1-9  
Presentation: Axel Gelfert
- 31 May Analytic of the Aesthetic Power of Judgment, First Book: Analytic of the Beautiful, §§ 10-22  
Presentation: Steve John
- 21 June Analytic of the Aesthetic Power of Judgment, Second Book: Analytic of the Sublime, §§ 23-27  
Presentation: Nick Jardine
- 28 June Analytic of the Aesthetic Power of Judgment, Second Book: Analytic of the Sublime, §§ 28-29  
Presentation: Sasha Mudd

## Medieval Philosophy Reading Group

The Medieval Philosophy Reading Group will meet on Wednesdays, 1.00-2.00pm, in L1 Great Court, Trinity College. The first meeting will be on Wednesday 4 May. We shall be studying a selection of texts by Duns Scotus, using as our main source his *Philosophical Writings*, translated by Allan Wolter. We shall start with the section 'Concerning Metaphysics'.

For more information contact John Marenbon.

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 on our website at [www.hps.cam.ac.uk/seminars](http://www.hps.cam.ac.uk/seminars)

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