

Advanced Topics in Philosophy of Mind

King's College London

Winter 2018

Lecturer:

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Office Hours and Location: W12-1 and F11-12 (or by appointment), Strand Campus, Philosophy Building, Room 902A

Course Description

This module is an introduction to the philosophical foundations of neuroscience, also known as the philosophy of neuroscience. Students will be challenged to think carefully about important connections between the philosophy of mind and contemporary neuroscience. We will isolate and assess several philosophical questions to which contemporary neuroscience gives rise. Topics will include the nature of neuroscientific explanation, the epistemology of neuroimaging, and the role of mental representation.

Course Reading

Weekly readings will mostly be made available on KEATS. Students must locate optional readings on their own, either through the KCL library system or some other resource.

Evaluation

1. Formative Assessment: 1 x 1500-word Formative Essay. Due: by 4 p.m. on 26 February, 2018.
2. Summative Assessment: 2 x 1500-word Summative Essays. Due: by 4 p.m. on 25 April, 2018.
 - Note: each summative essay contributes 50% to your final mark. Topics for the formative and summative essays will be distributed well in advance.

Course Schedule

1. Course Introduction

Reading: Bickle, J. et al. 'Philosophy of Neuroscience' *Stanford Encyclopedia of Philosophy*
(<https://plato.stanford.edu/entries/neuroscience/>)

2. Explanation I: Reduction

Reading: Churchland, P. M. and P. S. Churchland. (1994) 'Intertheoretic Reduction: A Neuroscientist's Field Guide'

Optional: Bickle, J. (2008) *Psychoneural Reduction*

3. Explanation II: Mechanism

Reading: P. Machamer, L. Darden and C. Craver. (2000) ‘Thinking about Mechanisms’; Craver, C. (2007) *Explaining the Brain* [Chapter 1]

Optional: Craver, C. (2007) *Explaining the Brain* [Chapter 7]

4. Explanation III: Levels of Explanation

Reading: Maar, D. (1982) *Vision*. [Chapter 1]; Piccinini, G. and C. Craver. (2011) ‘Integrating Psychology and Neuroscience: Functional Analyses as Mechanism Sketches’

Optional: Craver, C. (2007) *Explaining the Brain* [Chapter 5]

5. Neuroimaging I: Localization of Function

Reading: Davies, M. (2010) ‘Double Dissociation: Understanding its Role in Cognitive Neuropsychology’ [esp. pp 1–25].

Optional: Bechtel, B. (2001) ‘Decomposing and Localizing Vision’

6. Neuroimaging II: Reverse Inference Problem

Reading: Poldrack, R. (2006) ‘Can Cognitive Processes be Inferred from Neuroimaging Data?’

Optional: Roskies, A. (2007) ‘Are Neuroimages like Photographs of the Brain?’; Pessoa, L. (2014) ‘Understanding Brain Networks and Brain Organization’; Anderson, M. (2014) *After Phenology*; Hutzler, F. (2014) ‘Reverse Inference not a Fallacy Per Se’

7. Neuroimaging III: Cognitive Ontology

Reading: Klein, C. (2012) ‘Cognitive Ontology and Region- versus Network-Oriented Analyses’

Optional: Price and Friston (2005) ‘Functional Ontologies for Cognition’.

8. Representation I: A Role for Representation in Neuroscience?

Reading: Piccinini, G. (2008) ‘Computation without Representation’; Clark, A. (2001) *Mindware* [Chapter 1]

Optional: Piccinini, G. (2009) ‘Computationalism in the Philosophy of Mind’; Davies, M. (1995) ‘Consciousness and the Varieties of Aboutness’; Egan, F. (1995) ‘Computation and Content’

9. Representation II: Representational Vehicles

Reading: Cao, R. (2012) ‘A Teleosemantic Approach to Information in the Brain’; Shea, N. (2007) ‘Content and its Vehicles in Connectionist Systems’

10. Representation III: Representation Naturalized

Reading: Millikan, R. (1989) ‘Biosemantics’

Optional: Shea, N. (2007) ‘Naturalising Representational Content’; Fodor, J. (1987) *Psychosemantics*

Course Business

1. *Plagiarism and Academic Misconduct.* King's College London takes plagiarism (and academic misconduct more generally) very seriously. You are responsible for knowing what plagiarism is, and also for knowing the particular plagiarism penalties. Plagiarism includes (but is not limited to) the use of a thinker's ideas or words without proper citation; the purchase of assignments; the use of internet resources without proper citation; and the submission of work written (in whole or in part) by another.
2. *How to Avoid Plagiarising:* Most students plagiarise because they believe themselves to be without options. But no student will ever be without options in this module. If you find yourself in trouble, and tempted to cheat, contact me *immediately*. If you haven't *yet* cheated, a solution can always be found.
3. *Your Course Contact.* I am your primary contact for this course. I will usually not answer emails that ask for information readily available on either KEATS or the course syllabus, so it is always a good idea to begin by checking those two places. I will also usually not answer emails that ask for information easily obtainable through regular class attendance. Lastly, I will not answer emails that ask substantive philosophical questions—those with such questions should bring them to my office hours. I will respond to all other emails within two working days.