Perception and Action: From Inner Zombies to the Predictive Brain

Course Organiser: Dr. Keith Wilson (k.wilson@ed.ac.uk, @drkeithwilson)
Office Location: Room 6.07, Dugald Stewart Building
Office Hour: Thursdays 2–3pm (TBC), bookable via Calendy

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M.Sc. Course Secretary: Ms Becky Verdon (rebecca.verdon@ed.ac.uk, 0131 651 5002)
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1. Overview

This course examines conceptual issues arising from recent philosophical and empirical work on the nature of perception and action. The topics include philosophical, psychological, neuroscientific, and computational perspectives on issues such as:

- What is perception, and how does perception relate to action?
- How many senses do we have, and is it possible to use one sense, e.g. touch, to replace another, e.g. vision?
- How should we explain the subjective character of hallucinations and illusions?
- What does change-blindness really suggest about our knowledge of the visual scene?
- Do sensorimotor or Bayesian theories offer an adequate account of perception and action?
- Do the philosophical distinctions between perception, cognition and action accurately reflect the underlying brain processes?

Note: lectures for the M.Sc. course (PHIL11126) are shared with the undergraduate course (PHIL10148).

2. Objectives and Outcomes

By the end of this course, students should gain:

- A sound understanding of some of the main conceptual issues arising from recent empirical work on the nature of perception and action
- An ability to think and write critically and knowledgeably about these themes
- An ability to present their ideas and arguments in informal discussion in the seminars

3. Assessment

The undergraduate course will be examined on the basis of two pieces of assessed work:

- Mid-term essay: 1,500 words, consisting of 40% of the overall assessment mark, due by 12 noon, Thursday 1st March 2018.
- End-of-semester essay: 2,500 words, consisting of 60% of the overall assessment mark, due by 12 noon, Thursday 26th April 2018.
The M.Sc. course will be examined on the basis of one piece of assessed work:

- **End-of-semester essay**: 2,500 words, consisting of 100% of the overall assessment mark, due by **12 noon, Monday 23rd April 2018**.

Essays should answer a question from an agreed list provided on Learn, and should be uploaded electronically to Learn. Please contact the relevant Course Secretary in the Teaching Office if you are having problems uploading your essay. (Further details regarding M.Sc. assessments will be provided via Learn.)

*Note*: The word count of your essay should **include** footnotes, but **exclude** bibliography, and must not exceed the specified limit. The precise word count must be written on the coversheet, and overlong essays will be penalised as per departmental policy.

Please consult your PPLS Student Handbook for further information about general regulations and advice around coursework and assessments.

4. **Lectures and Seminar Readings**

You must read the **essential reading**, which is starred and highlighted in **bold**, in preparation for the seminars, and preferably one or more of the **optional readings** where possible. Additional **further readings** are provided for reference; e.g. if the topic interests you and/or you intend to write an essay on this topic. Useful sources and background reading may also be found in the Additional Reading section below. (Note that essential readings are available online via Learn.)

**Week 1: The Problem of Perception**

What problems do the phenomena of perceptual illusions and hallucinations present for common-sense accounts of experience and perceptual knowledge? *(Note: M.Sc. students are recommended to read the Martin paper instead of, or in addition to, Russell.)*

**Essential reading:**


**Recommended reading:**


**Further reading:**

Week 2: ‘Direct’ versus ‘Indirect’ Perception

How should we respond to the traditional argument from illusion, and what does it mean to say that perception is either ‘direct’ or ‘indirect’?

Essential reading:
★ Snowdon, Paul (1992). ‘How to Interpret “Direct Perception”’. In The Contents of Experience, T. Crane (ed.). Cambridge: Cambridge University Press, sects. 1–6, pp. 48–78. (See also sects. 9–11 on the argument from illusion; M.Sc. students should read the whole paper.)

Recommended reading:

Further reading:

Week 3: Content and Phenomenal Character

Do perceptual experiences represent objects and properties in the world, and if so, what kind of content do they have?

Essential reading:

Recommended reading:


*Further reading:*


**Week 4: Hallucination and Illusion**

Do we need representational content to explain the subjective character of hallucinations and illusions?

*Essential reading:*


*Recommended reading:*


*Further reading:*


**Week 5: Individuating the Senses**

How many senses do we have, and is it possible to use one sensory modality, e.g. touch, to replace another, e.g. vision?

*Essential reading:*


*Recommended reading:*

• Macpherson, Fiona (2011a). ‘Taxonomising the Senses’. *Philosophical Studies* 153 (1): 123–42. (See also the introduction to Macpherson 2011b below.)


*Further reading:*


**Week 6: Multisensory Perception**

Are there genuinely multimodal perceptual experiences, and if so, what does this tell us about how the brain processes sensory information?

*Essential reading:*

★ O’Callaghan, Casey (2015). ‘Not All Perceptual Experience is Modality Specific’. In Stokes, Matthen and Biggs (eds.), pp. 133–165.

*Recommended reading:*

• Spence, Charles & Tim Bayne (2015). ‘Is Consciousness Multisensory?’. In Stokes, Matthen and Biggs (eds.), pp. 95–132. (See also Bayne in Bennett & Hill 2014, pp. 15–36.)


Further reading:
• Briscoe, Robert Eamon (2016). ‘Multisensory Processing and Perceptual Consciousness: Part I’. Philosophy Compass 11 (2): 121–33. (Note: Part II is currently forthcoming.)

Week 7: Change Blindness
What does change-blindness really suggest about our knowledge of the visual scene?

Essential reading:

Recommended reading:

Further reading:

Week 8: Sensorimotor Contingency Theory
What is sensorimotor contingency theory, and does it offer an adequate account of perception and action?

Essential reading:
Recommended reading:


Further reading:


Week 9: Bayesian Brains and Predictive Processing

Are our brains Bayesian prediction machines, and if so, what implications does this have for philosophical accounts of experience and action?

Essential reading:


Recommended reading:


Further reading:

Week 10: Perception, Cognition, Action

Do traditional philosophical distinctions between perception, cognition and action accurately reflect the underlying brain processes?

Essential reading:


Recommended reading:


Further reading:


Week 11: Reflections on Rethinking Perception and Action

Revision lecture: how should we characterise the relation between perception, action, and the world?

Recommended reading:


There is no essential reading this week. Instead, the class will be divided into groups and each group asked to take 15 minutes to agree upon 5 things we’ve learnt about perception and action, and 5 outstanding puzzles. Each group will then appoint a spokesperson to share their lists, and we will discuss each item in turn, noting where the two groups agree and differ in their estimation of the lessons and outstanding puzzles. Please feel free to raise any other questions about the course content that you’d like to discuss.
5. Additional Reading

Suggested sources for further and general background reading include:

(1) General Collections

- *The Senses: Classic and Contemporary Philosophical Perspectives.* Edited by Fiona Macpherson (Oxford University Press, NY, 2011)
- *Perception and Its Modalities.* Edited by Dustin Stokes, Mohan Matthen and Stephen Biggs (Oxford University Press, 2015)
- *Sensory Integration and the Unity of Consciousness.* David J. Bennett, and Christopher Hill. (MIT Press, Camb. MA, 2014)
- *Disjunctivism: Perception, Action, Knowledge.* Edited by Adrian Haddock and Fiona Macpherson (Oxford University Press, 2008)

(2) Introductory Texts (to be sampled rather than followed in sequence)

- J. Hohwy, *The Predictive Mind.* (Oxford University Press, 2013)

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