

Recent Announcements

SP20: PHIL FNDTNS COGNITIVE/INFO SCI: 11967

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PHILOSOPHICAL FOUNDATIONS OF COGNITIVE SCIENCE



When and Where? Fridays: 2.30-5pm [SY 105]

Who? Prof Ann-Sophie Barwich / Office Hours by appointment (abarwich@iu.edu (<mailto:abarwich@iu.edu>))
/ Morrison Hall 310.

Course Description:

Cognitive Science is a relatively young but vastly advancing, multidisciplinary field at the intersection of experimental studies of the brain and general theories of cognition. This course revisits key philosophical topics underpinning the modern science of mind and aims to apply this understanding to selected cutting-edge topics. This Spring (2020), our focus concerns the relation between philosophy and neuroscience in the study of cognition. Specifically, we will engage with the influential neurophilosophical and neurocomputational program of Patricia and Paul Churchland, in tandem with their critics in philosophy and science. The goal is to analyze our preconceived notions about how mind and body are connected, how contemporary science has changed our understanding regarding the material cause of mind, and what role philosophical inquiry still has in modern cognitive science.

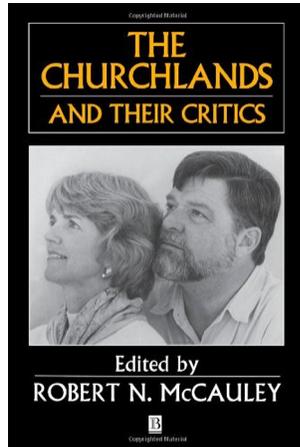
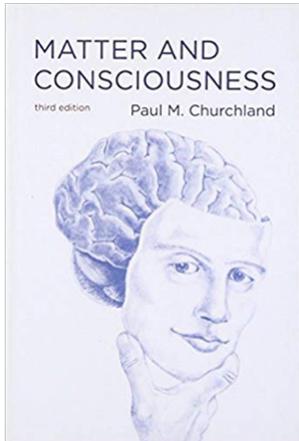
Texts:

(1) Churchland, P.M., 1984. *Matter and Consciousness*. Cambridge, MA: MIT Press.

https://www.amazon.com/Matter-Consciousness-Press-Paul-Churchland/dp/0262519585/ref=sr_1_2?keywords=Matter+and+consciousness.+MIT+press.&qid=1578360705&s=books&sr=1-2
 (https://www.amazon.com/Matter-Consciousness-Press-Paul-Churchland/dp/0262519585/ref=sr_1_2?keywords=Matter+and+consciousness.+MIT+press.&qid=1578360705&s=books&sr=1-2)

(2) McCauley, R.N. ed., 1996. *The Churchlands and their Critics*. Cambridge, MA: Blackwell.

<https://www.amazon.com/Churchlands-their-Critics-Robert-McCauley/dp/0631189696>
 (<https://www.amazon.com/Churchlands-their-Critics-Robert-McCauley/dp/0631189696>)



Course Objective:

By the end of this course, you should have a broader knowledge of the central philosophical concepts, themes, and motivations involved in contemporary debate of the explanatory aims of cognitive science and neuroscience. By the end of the course, you should have the ability to read works written for professional academic cognitive scientists and philosophers of cognitive science, and to summarize them accurately both orally and in writing using your own words. You should also be able to relate foundational issues in cognitive science to your own research interests.

Grading Basis:

Grades will be based holistically on overall performance. Attendance is mandatory.

Assignment for this course involve:

1. Reaction pieces 1-9 due to Friday noon, beginning Week 6 (2/21) --> max. 400 words
2. Paper proposal Week 2 (due 10am on Thursday 1/23)** --> 2 pages
3. First draft of paper Week 9 / writing workshop (due midnight on Wednesday 3/11) --> approx. 10 pages
4. Second draft of paper / writing workshop Week 13 (due midnight on Wednesday 4/8) --> 10-15 pages

5. Final paper Week 15 (due 4/26) --> approx. 15 pages
6. Classroom participation***

* Weekly reaction pieces start in Week 6 and are due before noon each Friday before class.

Electronic delivery (Canvas upload) in word or pdf.

This should not be a summary or restatement of the reading. Rather, write an argumentative response to something you read (like a blog post, take the writing style Times Higher Education/the Chronicle as a sample). State what you liked or disliked most about the idea(s) and why, with special attention to the strength of the arguments that were presented.

** Three approaches to writing a paper for this class:

1. Write a standard piece of critical philosophy — i.e., describe an argument from an assigned reading for the course, and criticize it by pointing out where it depends on assumptions that one shouldn't believe, or fails to live up to a standard of logical reasoning.
2. Write survey of positions concerning one of the foundational issues we have encountered in the course... for example, concerning all the ideas about what concepts are or are not, cover the arguments that have been give pro and con and assess their relative strengths and weaknesses, even if you don't yourself come down on any particular side.
3. Describe a way that a foundational issue that we have covered in the course affects theorizing, or could provide ideas for experimental design or model construction, in some area of cognitive science that interests you, especially one that is close to your own research.

*** This is a discussion-oriented course. Classes will involve moderated discussions. I reserve the right to schedule individual presentations to the class if the discussion is not flowing well in class (it usually does). Also, if you do not speak up regularly during class discussions, you may be required to take an oral exam to be scheduled at the instructor's discretion during finals week.

Course Policy:

NO LAPTOPS. Turn off cell phone ringers during class.

Potential changes to the syllabus will be communicated. You are responsible for checking Canvas/ your official IU email account regularly for course communications.

Active participation is expected. Prompt and regular attendance is expected barring extraordinary circumstances.

SCHEDULE

WEEK 1 (1/19): Introduction

WEEK 2 (1/24): No class BUT watch the online lecture (on writing) & meet up in small writing groups to discuss your first ideas for project-abstract

Readings: (1) Churchland, 2013. *Matter and Consciousness*, Introduction;
and (2) McCauley. *The Churchlands and their Critics*, Introduction.

PART 1: KEY CONCEPTS & POSITIONS IN THE PHILOSOPHY OF MIND

WEEK 3 (1/31): The Mind-Body Problem

Reading: Churchland, 2013. *Matter and Consciousness*, Chapter 2.

Watch: Daniel Dennett on consciousness as an illusion (21 mins):

https://www.ted.com/talks/dan_dennett_the_illusion_of_consciousness

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Dan Dennett
The Illusion of Consciousness

WEEK 4 (2/7): The Epistemological Problem

Readings: Churchland, 2013. *Matter and Consciousness*, Chapter 4.

WEEK 5 (2/14): The Methodological Problem

Readings: Churchland, 2013. *Matter and Consciousness*, Chapter 5.

PART 2: NEUROPHILOSOPHY - BETWEEN THE DISCIPLINES

WEEK 6 (2/21): Reductionism & Theory Development

Readings: McCauley. *The Churchlands and their Critics*.

(1) Critique: Explanatory Pluralism and the Co-evolution of Theories in Science (Robert N. McCauley)

(2) Reply: McCauley's Demand for a Co-level Competitor

WEEK 7 (2/28):

Readings: McCauley. *The Churchlands and their Critics*.

(1) Critique: From Neurophilosophy to Neurocomputation: Searching for the Cognitive Forest (Patricia Kitcher)

(2) Reply: Kitcher's Empirical Challenge: Has There Been Progress in Neurophilosophy?

WEEK 8 (3/6)

Readings: McCauley. *The Churchlands and their Critics*.

- (1) Critique: Dealing in Futures: Folk Psychology and the Role of Representations in Cognitive Science (Andy Clark)
- (2) Reply: Clark's Connectionist Defense of Folk Psychology

First draft of paper (due midnight on Wednesday 3/11)

WEEK 9 (3/13): WRITING WORKSHOP 1

WEEK 10 (3/20): SPRING BREAK

WEEK 11 (3/27):

Readings: McCauley. *The Churchlands and their Critics*.

- (1) Critique: Paul Churchland's PDP Approach to Explanation (William G. Lycan)
- (2) Reply: On the Nature of Explanation: William Lycan

WEEK 12 (4/3):

Readings: McCauley. *The Churchlands and their Critics*.

- (1) Critique: What Should a Connectionist Philosophy of Science Look Like? (William Bechtel)
- (2) Reply: Bechtel on the Proper Form of a Connectionist Philosophy of Science

Second draft of paper (due midnight on Wednesday 4/8)

WEEK 13 (4/10): Class discussion and WRITING WORKSHOP 2

Readings: McCauley. *The Churchlands and their Critics*.

(1) Two Critiques: Paul Churchland and State Space Semantics (Jerry Fodor and Ernie Lepore) **AND** Reply to Churchland (Jerry Fodor and Ernie Lepore)

(2) Replies: Fodor and Lepore: State-Space Semantics and Meaning Holism **AND** Second Reply to Fodor and Lepore

WEEK 14 (4/17):

Readings: McCauley. *The Churchlands and their Critics*.

(1) Critique: Images and Subjectivity: Neurobiological Trials and Tribulations (Antonio and Hanna Damasio)

(2) Reply: Neuropsychology and Brain Organization: The Damasios

WEEK 15 (4/24):

Readings: McCauley. *The Churchlands and their Critics*.

(1) Critique: The Furniture of Mind: A Yard of Hope, a Ton of Terror? (John Marshall and Jennifer Gurd)

(2) Replies: Conceptual Analysis and Neuropsychology: John Marshall and Jennifer Gurd **AND** Do We Propose to Eliminate Consciousness?

Final paper (due 4/26)

WEEK 16: FINALS (no class)

Course Summary:

Date

Details
