

## Seminar in Philosophy of Neuroscience

*This is a preliminary syllabus and will change!*

Philosophy 167D/267D  
Symbolic Systems 206  
Fall Quarter 2015  
Professor: Paul Skokowski  
Stanford University  
Tuesdays, Thursdays 10:30am-11:50am  
Room: Bldg 260, Room 003  
Office Hours: Thursday 3:30-5pm, and by appt.  
Office: Bldg 100, Rm 101G

***Can philosophers talk with neuroscientists? We'll attempt to find out in this course.***

### **Some General Neuroscience Books:**

Purves, Brains: How They Seem to Work  
Rose, The Future of the Brain  
LeDoux, Synaptic Self  
Gazzaniga, Tales From Both Sides of the Brain  
Gazzaniga, The Mind's Past

### **Recommended Philosophy Books: Available online at Stanford Libraries**

Dretske, [Naturalizing the Mind](#)  
Tye, [Ten Problems of Consciousness](#)

(For some of the readings, you will be required to enable a proxy to the Stanford Libraries. To enable the proxy, visit: <http://library.stanford.edu/using/connect-campus> )

### **-- Background: Historical Approaches to Philosophy of Neuroscience & Mind**

#### **Week 1, Tuesday Sept 22nd: Course Overview**

Descartes, [Passions of the Soul, Sections 17-19 and 30-36](#)  
Skokowski, [One Philosopher is Correct \(Maybe\)](#). Australasian Journal of Logic, 2010, 9(1).  
*Further Suggested Reading:*  
Descartes, [2nd and 6th Meditations](#)  
Hobbes, [Of Sense](#)

#### **Week 1, Thursday Sept 24th: Logical Positivism and Behaviorism**

Schlick, [Positivism and Realism](#)  
Ryle, [Descartes' Myth](#), from *Concept of Mind*, 1949.  
*Further Suggested Reading:*  
Wittgenstein, [Philosophical Investigations, Sec. 293](#)

#### **Week 2, Tuesday Sept 29th: Identity Theory**

Place, [Is Consciousness a Brain Process?](#), British Journal of Psychology 47:44-50, 1956.  
Smart, [Sensations and Brain Processes](#), Philosophical Review 68:141-56, 1959.  
Putnam, *Brains and Behavior*, [here](#).  
*Further Suggested Reading:*  
Malebranche, [The Search for Truth](#)

## **Week 2, Thursday Oct 1st: Epiphenomenalism and Functionalism**

Putnam, *The Nature of Mental States* (or: Psychological Predicates, Art, Mind, and Religion, 1965.) - [here](#).

Huxley, *On the Hypothesis that Animals are Automata*

Read from "Thus far, the prepositions" through to "sum of existence." (misspelling: 'prepositions' should read 'propositions'!)

*Further Suggested Reading:*

Leibniz, *The Nature and Communication of Substances (from: New System, and Explanation of the New System)*

Gazzaniga, M., *The Mind's Past*, 1998.

## **Week 3, Tuesday Oct 6th: Functionalism**

Block, *Troubles with Functionalism*, in *Minnesota Studies in the Philosophy of Science* 9:261-325 (1978), and in *Readings in the Philosophy of Psychology*, Vol. 1, Ned Block (ed.) Harvard, 1980 - and [here](#).

Read from section 1.0 "One characterization of functionalism" through section 1.2, ending with "Call this argument the Absent Qualia Argument." p. 63-73.

## **Week 3, Thursday Oct 8th: Eliminative Materialism**

Paul Churchland, *Eliminative Materialism and the Propositional Attitudes*, also [here](#).

Gold and Stoljar, *A neuron doctrine in the philosophy of neuroscience*. Behavioral and Brain Sciences 22(5), 1999, and [here](#).

Patricia Churchland, *Can Neurobiology Teach Us Anything About Consciousness?*

*Further Suggested Reading:*

Paul and Patricia Churchland, *Intertheoretic Reduction: A Neuroscientist's Field Guide*

Jerry Fodor, *Special Sciences*, Synthese, 28(2), 1974, and in Ned Block (ed.), *Readings in the Philosophy of Psychology*, Vol. 1

Bickle, *Real Reduction in Real Neuroscience: Metascience, Not Philosophy of Science (and Certainly Not Metaphysics!)* - [here](#).

## **-- Brain and the Hard Problem of Consciousness I**

### **Week 4, Tuesday Oct 13th:**

Nagel, *What is it Like to be a Bat?*, *The Philosophical Review*, LXXXIII(4), 435-450. Another version [here](#).

*Humans Can Learn to "See" With Sound*, National Geographic, 2010.

### **Week 4, Thursday Oct 15th:**

Chalmers, *The Puzzle of Conscious Experience*, *Scientific American* 273(6):80-6, 1995.

Searle, J. *How to Study Consciousness Scientifically*. *Brain Research Reviews* 16:379-387, 1998.

Chalmers, *Facing up to the Hard Problem of Consciousness*, *Journal of Consciousness Studies*, 2(3): 200-219, 1995.

*Further suggested readings:*

David Chalmers, *What is a Neural Correlate of Consciousness?* in Metzinger (ed.), *The Neuronal Correlates of Consciousness*, MIT, 2000.

### **Week 5, Tuesday Oct 20th:**

#### **GUEST SPEAKER: KIM MEADOR, Stanford Neurology**

Meador, K., et al., *Neuroimaging Somatosensory Perception and Extinction*

Meador, K., et al., *Gamma coherence and conscious perception*, *Neurology* 59, 2002.

## **-- The Problem of Pain**

**Week 5, Thursday Oct 22nd:**

M. Aydede, [Pain](#)

Tye, [Pains](#), Sec. 4.5 of *Ten Problems of Consciousness*.

Tye, [Another Look at Representationalism about Pain](#)

*Further suggested readings:*

Skokowski, [Is the Pain in Jane Felt Mainly in her Brain?](#)

Kripke, [Naming and Necessity](#), Lecture III, 144-155. (Search for 'Descartes'. Read from the previous paragraph through the last paragraph before the Addendum.)

**Week 6, Tuesday Oct 27th:**

**GUEST SPEAKER: HOWARD FIELDS, UCSF Neuroscience**

Fields, H., [Setting the Stage for Pain.](#)

Fields, H., [Pain: An Unpleasant Topic.](#)

*Further suggested readings:*

Fields, H., [State-Dependent Opioid Control of Pain.](#)

**-- Externalism**

**Week 6, Thursday Oct 29th:**

Tye, [Ten Problems of Consciousness](#), Sec. 4.0-4.4, 4.7; Ch. 5

Dretske, [Naturalizing the Mind](#), Ch. 1, Ch. 3 (Sec 3.0-3.3)

*Further suggested readings:*

Skokowski, Review of 'Naturalizing the Mind', *Mind and Language*, 11(4), 1996. [[PDF-Penultimate Draft](#)]

G.E. Moore, [The Refutation of Idealism](#), *Mind*, 12, (1903).

**Week 7, Tuesday Nov 3rd:**

**GUEST SPEAKER: MICHAEL TYE, Philosophy, University of Texas**

<http://www.peta.org/issues/animals-used-for-food/fish-feel-pain.aspx>

<http://www.telegraph.co.uk/science/science-news/9797948/Fish-cannot-feel-pain-say-scientists.html>

<http://www.psychologytoday.com/blog/animal-emotions/201406/the-emotional-lives-crayfish-stress-and-anxiety>

**-- Molyneux's Problem**

**Week 7, Thursday Nov 5th:**

Locke, 1693, Letter to William Molyneux, 28 March, in [The Correspondence of John Locke](#) (9 vols.), E.S. de Beer (ed.), Oxford: Clarendon Press, 1979, vol. 4, no. 1620.

Molyneux, W., 1688, Letter to John Locke, 7 July, in [The Correspondence of John Locke](#) (9 vols.), E.S. de Beer (ed.), Oxford: Clarendon Press, 1978, vol. 3, no. 1064.

Molyneux, 1693, Letter to John Locke, 2 March, in [The Correspondence of John Locke](#) (9 vols.), E.S. de Beer (ed.), Oxford: Clarendon Press, 1979, vol. 4, no. 1609.

Locke, 1690, *An Essay Concerning Human Understanding*, London, printed by Eliz. Holt, for Thomas Basset. Second edition 1694. Fourth edition 1700, edited with an Introduction by P.H.

Nidditch, Oxford: Clarendon Press, 1975. [Book II, Ch. IX "Of Perception."](#)

Sinha and Held, *F1000 Medicine Reports*, 4:17, September, 2012. [Sight Restoration.](#)

Held et al., *Nature Neuroscience*, 14:5, May 2011. [The newly sighted fail to match seen with felt.](#)

*Further suggested readings:*

Held, R., [Visual-Haptic Mapping and the Origin of Cross-Modal Identity](#), *Optometry and Vision Sciences*, 86(6) 2009.

Wiesel TN, and Hubel DH. (1965). Comparison of the effects of unilateral and bilateral eye closure on cortical unit responses in kittens. *J Neurophysiol.* 28:1029-1040.

## -- Brain and The Hard Problem of Consciousness II

### Week 8, Tuesday Nov 10th:

Searle, J. *Consciousness*. *Ann. Rev. Neurosci.* 23:557-78, (2000). (Choose Annual Reviews, Neuroscience, to download).

Searle, [Theory of Mind & Darwin's Legacy](#), in *Proceedings of the National Academy of Sciences*, 2013.

Searle, [Minds, Brains, and Programs](#)

**\*\* Note Different Location and Time! \*\***

### Week 8, Friday Nov 13th:

**\*\*\* GUEST SPEAKER: JOHN SEARLE, UC BERKELEY**

**\*\*\* Littlefield Center, 11:30 AM - 12:30 PM \*\*\***

Searle, [What Your Computer Can't Know](#)

## -- Higher Order Theories

### Week 9, Tuesday Nov 17th:

Lau, H, and Rosenthal, D., [Empirical support for higher-order theories of conscious awareness](#), *Trends in Cognitive Sciences*, 15:8 p.365-373, Aug 2011. [Click on 'Full text links' in upper-right, choose Stanford University from pull-down menu, then choose full text or pdf to download.]

Lau, H, [Theoretical motivations for investigating the neural correlates of consciousness](#), *WIREs Cognitive Sciences*, 2:1 p.1-7, Feb 2011. [Find Wiley Interdisciplinary Reviews on Stanford Libraries eJournals section. Search for this article, or for Hakwan Lau.]

Dretske, [Naturalizing the Mind](#), Ch. 4

*Further suggested readings:*

Hakwan Lau, [Are We Studying Consciousness Yet?](#)

## -- Neuroscience and Free Will

### Week 9, Thursday Nov 19th:

**\*\*\* Class and BBQ at 5:00 PM at Skokowski House \*\*\***

**\*\* Note Different Location and Time! \*\***

**GUEST SPEAKER: BILL NEWSOME, Director, Stanford Neurosciences Institute**

Desmurget et al., *Movement Intention After Parietal Cortex Stimulation in Humans*, *Science* 324, 2009. [Here](#), after free registration.

Newsome, W., *Neuroscience, Explanation and the Problem of Free Will*, in Gazzaniga (ed.), *The Cognitive Neurosciences IV*. [Here](#)

Salzman et al., *Cortical microstimulation influences perceptual judgements of motion direction*, *Nature* 346(6280), 1990. [Here](#)

**\*\*\* Thanksgiving Holiday Week Nov 22<sup>nd</sup> – Nov 29<sup>th</sup>: NO CLASS \*\*\***

## -- Brain and The Hard Problem of Consciousness III

### Week 10, Tuesday Dec 1st:

Jackson, [Epiphenomenal Qualia](#), *Philosophical Quarterly* 32:127-36, 1982.

M. Tye, [Ten Problems of Consciousness](#), Ch. 6,7.

*Further suggested readings:*

Miceli, G., et al. (2001) [The dissociation of color from form and function knowledge](#), Nature Neuroscience 4(6): 662-67.

**Week 10, Thursday Dec 3rd:**

**GUEST SPEAKER: JOSEF PARVIZI, Neurology, Stanford**

Parvizi J, et al., [The will to persevere induced by electrical stimulation of the human cingulate gyrus](#). Neuron. 2013 Dec 18;80(6):1359-67. doi: 10.1016/j.neuron.2013.10.057. Epub 2013 Dec 5.