

Conceptual Issues in Cognitive Science

Symbolic Systems Small Seminar

This is a preliminary syllabus and will change!

SymSys 207
Winter Term 2023
Instructor: Paul Skokowski
Stanford University
Wednesdays 11:30am-1:20pm
Bldg 200, Room 107
Office Hours: By Appointment

Grading: 80% Participation (discussed 1st day of class); 20% Final Paper

***** MOST READINGS ARE AVAILABLE ON CANVAS WEBSITE *****

**** Please do readings for Week 1 before first class ****

Week 1, Jan 11th: Course Overview & Review of Theories of Mind I

Skokowski, [One Philosopher is Correct \(Maybe\)](#), or [here](#). Australasian Journal of Logic, 2010, 9(1).

Descartes, *The Passions of the Soul* - [here](#).

Huxley, [On the Hypothesis that Animals are Automata](#) - Read from "Thus far, the prepositions" through to "sum of existence." (note misspelling: 'prepositions' should read 'propositions!')

Further Suggested Reading:

Descartes, *Meditations on the First Philosophy* (2nd and 6th) - [here](#).

Leibniz, [The Nature and Communication of Substances](#)

Week 2, Jan 18th: Review of Theories of Mind II: Logical Positivism, Behaviorism, Identity Theory and Functionalism

Ryle, [Descartes' Myth](#), from *Concept of Mind*, 1949.

Putnam, *Brains and Behavior*, [here](#).

Place, [Is Consciousness a Brain Process?](#), British Journal of Psychology 47:44-50, 1956.

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

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, ([Read section 1.2, p. 275-278, here](#)) 1980.

Further Suggested Reading:

Schlick, [Positivism and Realism](#)

Wittgenstein, *Philosophical Investigations*, Sec. 293 (Canvas)

AJ Ayer, *The Nature of Philosophical Analysis*, Ch. 3 in *Language, Truth and Logic*

Smart, [Sensations and Brain Processes](#), *Philosophical Review* 68:141-56, 1959.

Armstrong, *The Causal Theory of the Mind*, [here](#).

Week 3 Jan 25th: Brain, Reduction, and Belief

Churchland, [Eliminative Materialism and the Propositional Attitudes](#)

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

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

Dennett, *True Believers*, [here](#).
Patricia Churchland, Can Neurobiology Teach Us Anything About Consciousness?
Further suggested readings:
Jerry Fodor, *Special Sciences*, Synthese, 28(2), 1974

Week 4, Feb 1st: Neuroimaging

Coltheart, M, *What has functional neuroimaging told us about the mind (so far)?*
Coltheart, M, Perhaps functional neuroimaging has not told us anything about the mind (so far).
Roskies, A., [Brain-mind and structure-function relationships: A methodological response to Coltheart](#)
Hardcastle and Stewart, *What Do Brain Data Really Show?*
Further Suggested Reading:
Klein, C, *Images are not the Evidence in Neuroimaging*.

Week 5, Feb 8th: Qualia in a Physical World

Jackson, [Epiphenomenal Qualia](#), Philosophical Quarterly 32:127-36, 1982.
Nagel, [What is it Like to be a Bat?](#), The Philosophical Review, LXXXIII(4), 435-450. Another version [here](#).
Tye, *Colours and other Secondary Qualities*. Read Section 5.3, pp. 144-150. (You can also read the previous pages if interested.)
Godfrey-Smith, *Varieties of Subjectivity*. Philosophy of Science, 87, 2020.
Further Suggested Reading:
Skokowski, Excerpt from *Three Dogmas of Internalism* in Skokowski (ed.), *Information and Mind*, Stanford: CSLI Press, 2020.
Skokowski, [Temperature, Color and the Brain: An Externalist Reply to the Knowledge Argument](#), *Review of Philosophy and Psychology*, 9(2), 2018. (Also on Canvas)
An extra nugget for reading:
[The Brain on Sonar](#), National Geographic, 2011.

Week 6, Feb 15th: Time Perception and Neuroscience

Visitor: David Eagleman, Stanford Neuroscience
Eagleman and Sejnowski, "Motion Integration and Postdiction in Visual Awareness"
Eagleman, "Human time perception and its illusions"

Week 7, Feb 22nd: The Problem of Pain I

M. Aydede, [Pain](#)
Tye, [Pains](#), Sec. 4.5 of *Ten Problems of Consciousness*.
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.)
Tye, [Another Look at Representationalism about Pain](#)

Week 8, March 1st: Integrated Information Theory

Albantakis, L., *Integrated Information Theory*, 2020
Tononi and Koch, *Consciousness: here, there and everywhere?*
Bayne, T., *On the axiomatic foundations of the integrated information theory of consciousness*
Pockett, S., *Problems with theories that equate consciousness with information or information processing*
Further Suggested Reading:
Cerullo, *The Problem with Phi: A Critique of Integrated Information Theory*
Skokowski, P., [Sensing Qualia](#). *Frontiers of Systems Neuroscience*, 2022. [[Download the pdf from the link at Frontiers, as there are a couple of typos in the web-version.](#)]
Oizumi et al., *From the Phenomenology to the Mechanisms of Consciousness: Integrated Information Theory 3.0*
Haun, A., and Tononi, G. (2019). *Why does space feel the way it does? towards a principled account of spatial experience*. *Entropy*. 21, 1160. doi: 10.3390/e21121160
Pautz, A., *What is the Integrated Information Theory of Consciousness?*, *Journ. Cons. Stud.* 2019.

Week 9, Mar 8th: *The Problem of Pain II*

Visitor: Howard Fields, UCSF Neuroscience

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

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

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

Week 10, March 15th: *Neuroscience and Free Will*

Visitor: Bill Newsome, Stanford Wu Tsai Neurosciences Institute

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

Haggard, P., *Nature Reviews Neurosciences*, [Human volition: towards a neuroscience of will](#), 2008.

Gholipour, B., [A Famous Argument against Free Will has been Debunked](#), *The Atlantic*, Sept. 2019.

Further Suggested Reading:

Roskies, G. 2010. How does neuroscience affect our conception of volition?

Libet, B. 1999. Do we have free will?

Roskies, A.. Why Libet's studies don't pose a threat to free will.

Libet et al., Subjective Referral of the Timing for a Conscious Sensory Experience.