

Multiple Perspectives on Consciousness for Cognitive Science

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The huge contemporary literature on consciousness spans multiple disciplines, including psychology, philosophy, and neuroscience. This tutorial will introduce participants to major proposals about consciousness, and their empirical and methodological implications. The goal is to prepare participants to explore the consciousness literature in greater depth.

Our consideration of perspectives on consciousness will be organized by considering how these perspectives address core questions about consciousness, including: (a) How can *subjectivity* and *agency* be accommodated in a scientific theory of consciousness? (b) How can *conscious* and *nonconscious* or *unconscious* processes and representations be systematically distinguished? (c) How can conscious mental states be assessed or measured? (d) How can dissociations and impairments of consciousness be understood? The literatures to be considered address these questions in analytic, functional, computational, and implementational terms.

Philosophical Perspectives

Philosophers approach the problem of consciousness from a variety of analytic perspectives, some focusing on contemporary formulations of the mind-body problem and others on analyses of subjective experience. Among the philosophical perspectives we will consider are John Searle's (1992) analysis of consciousness in terms of intentionality, David Chalmers's (1996) distinction between "easy" and "hard" problems of consciousness, David Rosenthal's (1993) "higher order thought" proposal, and Daniel Dennett's (1991) "multiple drafts" theory of consciousness.

Neuroscience Perspectives

Neuroscientists have made a wide variety of proposals concerning the neural correlates of consciousness (NCC). A starting assumption is that a subset of current neural activity is correlated with current conscious experience. There is controversy, however, concerning how that subset is to be identified. For example, the NCC might be limited to particular types of cells or anatomical structures, or comprise global patterns of synchronized neural activity. We will consider recent proposals concerning NCC by Crick and Koch (1998), Damasio (2000), and Edelman and Tononi (2000).

Psychological Perspectives

Psychological perspectives on consciousness generally focus on functionally-defined aspects of cognition. For

example, psychologists have identified consciousness with working memory (Baars, 1988), attention (Schneider & Pimm-Smith, 1997), metacognition (Nelson, 1996), and with the structure of mental states (Carlson, 1997). Cognitive research often focuses on distinguishing conscious and nonconscious influences on psychological processes such as learning (Dienes & Berry, 1997) and perception (Merikle, Smilek, & Eastwood, 2001). This research has generated a rich literature on methods for assessing consciousness.

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