

Philosophy of Mind: Brains, Consciousness, and Thinking Machines

Course Guidebook

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State University of New York at Stony Brook



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Patrick Grim is Distinguished Teaching Professor of Philosophy at State University of New York at Stony Brook. Graduating with highest honors in both Anthropology and Philosophy from the University of California at

Santa Cruz, Professor Grim was named a Fulbright Fellow to the University of St. Andrews, Scotland, from which he received his B.Phil. He received his Ph.D. from Boston University with a dissertation on Ethical Relativism, spent a year as a Mellon Faculty Fellow at Washington University, and has been teaching at Stony Brook since 1976. In addition to being named SUNY Distinguished Teaching Professor, he has received the President's and Chancellor's Awards for excellence in teaching.

Professor Grim has published extensively on such topics as theoretical biology, linguistics, decision theory, artificial intelligence, and computer science. His work spans ethics, philosophical logic, game theory, philosophy of science, philosophy of law, philosophy of mind, philosophy of language, contemporary metaphysics, and philosophy of religion. Professor Grim is the author of *The Incomplete Universe: Totality, Knowledge, and Truth*; the co-author of *The Philosophical Computer: Exploratory Essays in Philosophical Computer Modeling*; the editor of *Philosophy of Science and the Occult*; and a founding co-editor of more than 20 volumes of *The Philosopher's Annual*, an anthology of the best articles published in philosophy each year. He has taught a course titled *Questions of Value* for The Teaching Company.

Professor Grim is perhaps best known for his critical logical arguments in the philosophy of religion and for his groundbreaking work in philosophical computer modeling. In this course, he draws from his broad interdisciplinary background to concentrate on philosophical issues of minds and machines,

brains and subjective experience, the phenomena of perception, and the mysteries of consciousness. ■

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Philosophy of Mind: Brains, Consciousness, and Thinking Machines

Scope:

What is the relation between the brain and the mind? Is free will an illusion? Could a machine ever be creative? What is consciousness? The discipline known as *philosophy of mind* encompasses a range of questions about subjective experience, perception, intelligence, emotion, and the role of the mental in a physical universe.

Contemporary philosophy of mind is actively interdisciplinary. A broad range of disciplines is involved in the ongoing attempt to understand what minds are and how they work: psychology, neuroscience, cognitive science, artificial intelligence, computer science, and even robotics. This course highlights scientific results, provocative theories, and technological accomplishments in all of these fields in an exploration of what we know about our own mental functioning and what we do not. The overriding goal of the course is to develop a deeper philosophical understanding of our minds and of ourselves.

Each of the lectures focuses on a handful of intriguing questions in philosophy of mind: Is intelligence the same as IQ? Do minds function as parts or wholes? Do you see the same color I see? Do animals have a sense of self? Will our machines become smarter than we are? How can I know what other people think? Topics of investigation include color perception, body image, artificial intelligence, the structure of the adaptive brain, free will, self-identity, and current controversies regarding the nature of consciousness.

Thought experiments are an important conceptual tool. Here, science-fiction zombies, transporters, the inverted spectrum, Wittgenstein's beetles in the boxes, the Molyneux problem, Daniel Dennett's Chase and Sanborn, John Searle's Chinese room, and Ned Block's Chinese gym all play a role in philosophical exploration. The characteristics of injured brains offer a further conceptual resource, both real and tragic: the color-blind painter, the surprising phenomenon of blindsight, split answers from split-brain

patients, the isolation of autism, phantom limbs, prosopagnosia (the inability to recognize faces), the facts of psychopathology, and the strange case of Phineas Gage.

The history of ideas is woven throughout the course, from Greek concepts of the soul to the notion of mental substance in Descartes, sense-data in Locke and the Empiricists, Behaviorism in B. F. Skinner and Wittgenstein, and Functionalism in contemporary philosophy and cognitive science. Parallel ideas in philosophy, psychology, and the neurosciences are emphasized in examinations of eyewitness testimony, a mind in the world, the insanity defense, our understanding of other people, the “inner theater,” and questions of conscious experience. The history of technology also plays a part, from ancient calculating devices to contemporary computers, from the golden age of automata to robots on Mars. Examples are frequently drawn from literature and the arts, with illustrations from Ovid’s myth of Pygmalion through Shakespeare’s *Macbeth* to science fiction films, such as *Blade Runner* and *The Matrix*.

Questions of mind are among the most hotly debated in philosophy today. This course outlines major positions in the debate in terms of their prominent contemporary defenders. Reductive Materialism and the new Dualism are considered using the work of Paul Churchland and Patricia Smith Churchland on one side and arguments from David Chalmers, Thomas Nagel, and Frank Jackson on the other. Functionalism and its critics are considered using the positions of Hilary Putnam and Daniel Dennett on one side with counterarguments from John Searle and Ned Block on the other. The philosophical debates spill over into other disciplines as well. The course features theory in computer science and the future of robotics by Rodney Brooks, Hans Moravec, Marvin Minsky, and Ray Kurzweil. It highlights work in psychology and neuroscience by J. J. Gibson, Francis Crick and Christof Koch, Oliver Sacks, Antonio Damasio, and V. J. Ramachandran.

The goal here, as in all philosophy, is conceptual clarification and rational argument. Philosophy has always thrived on controversy, and one goal of the course is to clarify core controversies in philosophy of mind by laying them out in terms of a range of intellectual options. What are the arguments behind Dualism and the considerations that have led most contemporary

thinkers to reject it? What is it that we see when we see color? Are there reasons to think that consciousness is *forever* beyond the reach of science? The aim of the lectures is always to open and articulate intellectual options, to capture the excitement of intellectual controversy, but never to lay down a single dogmatic position. Even where it is argued that one position is more plausible than another, the lectures attempt to present each side fairly enough so that the student may arrive at a different conclusion. One point about minds on which everyone agrees is that there is a great deal we do not yet know. It is important for continued progress to avoid closing off options too quickly.

The road map for the course starts with six lectures that lay out basic concepts, classical theories, and current hypotheses in philosophy of mind. Functionalism has emerged as a dominant trend in current research and continues as a theme in the next six lectures. This part of the course concentrates on perception, and our conceptions of ourselves and minds as they function in the world. Real robots play an interesting role in that exploration. In the third section of the course, we will focus on questions of intelligence—yours and mine—but also the idea of artificial intelligence. Strong conceptual connections through the course tie together an interdisciplinary examination of mind: Concepts introduced against a philosophical background may be illuminated in a later lecture with results from the neurosciences, compared with achievements in artificial intelligence, and then examined philosophically once again. The final six lectures of the course focus on subjective experience and the continuing mystery of consciousness.

The study of mind is inevitably double-edged. Here, as in all areas of inquiry, we use our minds to try to understand something. But in this area of inquiry, the object of the study—the thing we want to understand—is the mind itself. The fact that the mind is both subject and object of investigation opens wonderful opportunities for learning. The lectures sometimes rely on simple experiments, and because the subject of these experiments is mind, each listener will have all the equipment needed to participate. Auditory experiments are used at a number of points in the lectures to illustrate surprising aspects of the way in which we process sounds. Visual experiments appear in the lecture outlines, with further links to examples online.

Students can expect to gain from the course a rich understanding of rival theories and continuing philosophical controversies regarding minds and brains. Set in the context of intellectual history, that understanding will also be informed by some of the latest and most exciting work in psychology, the study of the brain, and information sciences. Everything we learn about minds makes them seem more interesting rather than less so. There is nothing more obvious than our own subjective experience, but there is also nothing more mysterious. ■