GENERAL DESCRIPTION. There are brain-damaged patients who systematically exchange the left and right parts of the objects with which they interact. Other patients can see only one half of the objects, or can only eat from one half of the plate. Neuroscientists believe that cases such as these can help us understand how the brain represents the space around us—the space in which we live and move and in which we locate ordinary objects and events. Philosophers, on the other hand, view the representation of space as a privileged entry point into the study of the external world. Different objects occupy different places and different parts of an object are spatially related to the whole, but where do these spatial properties come from? If nothing existed except a single hand, would it have to be either a left hand or a right hand? If not, what would explain the difference between that world and its mirror image? And why do mirrors reverse left/right but not up/down? The aim of this seminar is to bring together these neuroscientific and philosophical perspectives in a joint effort to better understand the two sides of space—its inner representation in the brain and its outer realization in the objects around us.

PREREQUISITES. Instructor permission. Open to undergraduates and graduate students.

REQUIREMENTS. The final grade will be determined on the basis of (a) class participation (10%), (b) a short paper (3-5 pages) to be presented during one of the three discussion sessions (30%); (c) a final paper (60%).

READINGS. All required readings are collected in a packet that will be available in the Psychology Department Library, 409 Schermerhorn Hall.

A left hand? A right hand?
PHIL-PSYC G4485. MIND, BRAIN, AND SPACE

Schedule

9/13 Course Presentation

9/20 The Space through the Mirror
— L. Carroll: *Through the Looking-Glass and What Alice Found There* (1872), selection
— N. Block: ‘Why do mirrors reflect left/right but not up/down?’ (1974)
— D. Locke: ‘Through the Looking Glass’ (1977)

9/27 Hands, Gloves, and Space
— I. Kant, three texts on left & right (1768, 1770, 1783)

10/4 Explain the Difference!
— J. Bennett: ‘The difference between right and left’ (1970)
— G. Nerlich: ‘Hands, Knees, and Absolute Space’ (1973)
— M. Curd: ‘Showing and telling: Can the difference between right and left be explained in words?’ (1984)

10/11 Discussion session

10/18 Neglect and Ontology
— G. Rizzolatti and A. Berti, ‘Neural mechanisms of spatial neglect’ (1993)

10/25 Primordial Metaphysics: Objects in Infants’ Mind

11/8 Space and Action

11/15 Discussion session

11/22 Parts and Wholes
— C. B. Cave and S. M. Kosslyn: ‘The role of parts and spatial relations in object identification’ (1993)
— G. W. Humphreys: ‘Neural representation of objects in space: a dual coding account’ (1999)

11/29 Parts and Holes
— R. Casati and A. C. Varzi: *Holes and Other Superficialities* (1994), selection

12/6 Language and Space
— B. Landauer: ‘Multiple geometric representations of objects in languages and language learners’ (1996)

12/13 Discussion session