I. Bulletin description
PSYC G4240. Theory of mind and intentionality (seminar)
4 points. A. Horowitz. Wednesdays 2:10-4, Room 405 Schermerhorn Hall

Prerequisites: At least two psychology courses and instructor's permission

Survey and critical analysis of the developmental and neurological research on theory of mind--the attribution of mental states like belief, desire, and knowledge to others--in humans and non-human animals. Emphasis will be on the role of intentionality, the stages of acquisition, the neurological and genetic bases, and seen deficits in theory of mind.

II. A full description of the content of the course
Many of the most interesting and complex characteristics of human behavior--the use of language, the development of culture, self-awareness, and the ability to pretend--have been linked to one fascinating ability: having a "theory of mind". In this seminar we will conduct a rigorous survey of the range of psychological studies of theory of mind and intentional behavior in humans, and, to a lesser extent, in non-human animals. We will approach the study of theory of mind in six ways, beginning with (1) an examination of the concepts of mind and intention, as formulated by psychologists and philosophers. For the remainder of the class, we will review and evaluate evidence from psychological and neuropsychological research, including (2) the first theory-of-mind experiments, including the "false-belief" test; (3) experiments addressing the developmental steps and precursors to theory of mind; (4) experiments designed to test non-verbal (especially non-human) subjects; (5) the neurological correlates of theory of mind; and (6) the link between autism and theory of mind. Throughout, we will attend to the concepts ostensibly and actually tested and the experimental designs used.
III. The rationale for giving the course
This seminar on theory of mind provides a context from which to examine important elements of the scientific study of behavior: the refinement of the concept to be studied; the importance of good experimental design; and the applicability of neural research to behavioral science. Approaches from the fields of developmental psychology, comparative cognition, neuroscience, and abnormal psychology are brought to bear on our topic, and thus make PSYC G4240 suitable for advanced undergraduates and Psychology majors, for Post-baccalaureate Psychology students, and for graduate students in Psychology.

It will fulfill the following degree requirements:
• For graduate students in Psychology, PSYC G4240 will apply toward the “two seriously graded seminars” requirement.
• For the Psychology major or concentration in the College and for the Psychology Post-bac, PSYC G4240 will satisfy the Group I (Perception and Cognition) requirement.
• For the Neuroscience & Behavior joint major, G4240 will satisfy the 5th Psychology requirement of a Department-approved "advanced psychology seminar."
• For the Psychology Postbac certificate, PSYC G4220 will fulfill the advanced seminar requirement.
• For the science requirements of the College and General Studies, G4240 will satisfy one term of the requirement, provided that students have taken the prerequisite courses and have obtained the permission of the instructor.
• For the Barnard Psychology major, PSYC G4240 could be used to fulfill the senior seminar requirement.

IV. The reading list and weekly syllabus

January 20: Introduction

January 27: Considerations of mind


February 3: Theories of "theory of mind"


**February 10:** Intentionality in the explanation of the behavior of oneself and others


**February 17:** Classic ToM studies


**February 24 & March 3:** When and how does an infant parse actions as intentional?


March 10: Nonverbal and nonhuman ToM studies


March 17: No classes

March 24: Do ToM/intention studies demonstrate what they intend?


March 31: Precursory behaviors to a theory of mind ability and attribution of intention


April 7: Project outline due

April 7 & April 14: A neural basis for theory of mind?


**April 21: Autism and theory of mind**


**April 28: Other approaches to studying mind; ramifications of research into theory of mind**


**May 5: Final project due**

**May 5: Final comments**
V. Course requirements

Each week, every student will submit discussion questions based on the assigned readings. Two students will take the role of discussion leader and recorder. The leader will present a summary and short critique of the readings, as well as presenting a review of one outside (unassigned) paper or chapter related to the topics of that week. In addition, the leader will use the submitted questions to guide a discussion among the seminar members. The recorder will take notes of the class to be posted on Courseworks, available for review by all students.

**Participation and weekly discussion papers:** 20% of final grade

**Class presentation and recording roles:** 40% of final grade

Every student will complete an independent paper of 20 pages taking the form of a) a proposal of an original empirical study of theory of mind; or b) a paper connecting theory of mind or intentionality to other topics, such as the development of morality, a sense of self, etc. In either event, this final paper should extrapolate from the research reviewed over the semester to propose a new model of research or to consider the ramifications of the research on other areas of psychology or other fields such as law or philosophy.

**Final project:** 40% of final grade