

PSYCHOLOGY 456  
**THEORY OF MIND**

Winter 2013

Mon: 10:00-11:30, Wednesday: 8:30-10:00, H223

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*Syllabus*

*Introduction*

Theory of mind is the everyday understanding that people do things because of their mental states such as *intentions*, *beliefs*, and *desires*. We call it a “theory” because we cannot see these mental states -- they are theoretical constructs. These theoretical constructs, though, are powerful and allow us to understand the proximal causes of human behavior. Using our theory of mind, we can both explain what a person has done, and predict what that person will do in the future. Some researchers and theorists use the term “folk psychology” to describe theory of mind. It is our everyday, non-scientific, understanding of the basic psychological mechanisms that cause everyday behavior.

For some time now, developmental psychologists have been studying the developmental timetable and trajectory of young children’s theory of mind. Hundreds of studies have been published investigating young children’s understanding of psychological states and how they affect behavior. This literature is diverse yet coherent, and arguably we know more about this one particular aspect of human cognitive development than any other. Because of its richness, researchers have used theory of mind as a window on children's cognitive development more generally; as the basic phenomena that constitute theory of mind reasoning are gradually uncovered, so too are fundamental insights into the very mechanisms by which development takes place. Clinicians have also found theory of mind to be useful. Difficulties in theory of mind development have been linked to Autism, conduct disorder, language delays and a host of other developmental difficulties. Thus, theory of mind development is not only an interesting topic of study, it is also of practical importance. This class

will serve as a survey introduction to this large body of research.

### *Structure of the Course*

Like most 400-level seminars at Queen's, students themselves will be responsible for leading and participating in our in-class discussions. Most classes will begin with me giving a brief presentation that synthesizes the reading material for the day while providing a bit of context. Students will then be responsible for leading a discussion of that material that has been prepared for that day. For each of these discussion periods, some students will be assigned to be discussion leaders (each will be a leader a few times throughout the term). After the discussion, I will wrap-up the topic, and then move on to introduce the new material that will make up the topic for discussion in the next class. *All members of the class are expected to attend each class having read the assigned material to participate in group discussion.*

The final five class sessions will be group presentations in which groups of 4-5 will tell the class about research in an area of special interest in which a theory of mind framework has been applied. A full list of topics (e.g., "Theory of mind and autism") will be made available midway through the term, along with a set of guidelines for creating these group presentations.

For the term paper, each student will submit a research proposal in APA format including an introduction, methods, brief discussion of expected results, and discussion section. I expect that the research proposal will be on a topic related to children's theory of mind development, and will show evidence of having acquired an understanding of the methodological and theoretical issues that characterize the field. A set of guidelines for completing the term paper will be made available by the end of Week 6, and will be discussed in detail in class. Also, an example term paper will be posted on the class website.

### *Evaluation*

10% -- Attendance and contributions to the class discussion

25% -- Group Presentation

20% -- Discussion questions

45% -- Research Proposal, due as the final project at the end of the course.

All components of this course will receive numerical percentage marks. The final grade you receive for the course will be derived by converting your numerical course average to a letter grade according to Queen's Official Grade Conversion Scale:

Grade	Numerical Course Average (Range)
A+	90-100
A	85-89
A-	80-84
B+	77-79
B	73-76
B-	70-72
C+	67-69
C	63-66
C-	60-62
D+	57-59
D	53-56
D-	50-52
F	49 and below

### *Academic Integrity & Copyright*

*Academic Integrity.* Academic integrity is constituted by the five core fundamental values of honesty, trust, fairness, respect and responsibility (see [www.academicintegrity.org](http://www.academicintegrity.org)). These values are central to the building, nurturing and sustaining of an academic community in which all members of the community will thrive. Adherence to the values expressed through academic integrity forms a foundation for the "freedom of inquiry and exchange of ideas" essential to the intellectual life of the University (see the Senate Report on Principles and Priorities <http://www.queensu.ca/secretariat/policies/senateandtrustees/principlespriorities.html>).

Students are responsible for familiarizing themselves with the regulations concerning academic integrity and for ensuring that their assignments conform to the principles of academic integrity. Information on academic integrity is available in the Arts and Science Calendar (see Academic Regulation 1 <http://www.queensu.ca/arts/academic-calendars/2012-2013-calendar/academic-regulations/regulation-1>), on the Arts and Science website (see <http://www.queensu.ca/arts/academics/undergraduate/academic->

integrity), and from the instructor of this course. Departures from academic integrity include plagiarism, use of unauthorized materials, facilitation, forgery and falsification, and are antithetical to the development of an academic community at Queen's. Given the seriousness of these matters, actions which contravene the regulation on academic integrity carry sanctions that can range from a warning or the loss of grades on an assignment to the failure of a course to a requirement to withdraw from the university.

*Copyright of Course Materials.* This material is copyrighted and is for the sole use of students registered in PSYC 456. This material shall not be distributed or disseminated to anyone other than students registered in PSYC 456. Failure to abide by these conditions is a breach of copyright, and may also constitute a breach of academic integrity under the University Senate's Academic Integrity Policy Statement.

## *Schedule of Class Meetings, Topics and Readings*

*Week 1: What is a theory of mind?*

Monday, Jan. 7: Introduction to the Class

Wednesday, Jan. 9: “Social” cognition in the wild

Dally, J. M., Emery, N. J. & Clayton, N. S. (2006). Food-caching western scrub-jays keep track of who was watching when. *Science*, 312, 1662-1665.

<http://search.proquest.com/psycinfo/docview/621344411/13414A/B9E6DEE884B6/7?accountid=6180>

*Weeks 2 & 3: Diagnosing theory of mind in children*

Monday, Jan 14: The “false belief” task

Moses, L. J. & Flavell, J. H. (1990). Inferring false beliefs from actions and reactions. *Child Development*, 61, 929-945.

<http://search.proquest.com/psycinfo/docview/617883185/13414C/716C4268ED908/1?accountid=6180>

Gopnik, A. & Astington, J. W. (1988). Children’s understanding of representational change and its relation to the understanding of false belief and the appearance reality distinction. *Child Development*, 59, 26-37.

<http://search.proquest.com/psycinfo/docview/617422195/13414C/35E3353688A4/1?accountid=6180>

Wednesday, Jan 16: Competence/Performance: Executive functioning and false belief understanding

Carlson, S. M. & Moses, L. J. (2001). Individual differences in inhibitory control and children’s theory of mind. *Child Development*, 72, 1032-1053.

<http://search.proquest.com/psycinfo/docview/619586206/13414C8016739A6C75D/3?accountid=6180>

Monday, Jan 21: Maybe infants "understand" false belief?

Onishi, K. H. & Baillargeon, R. (2005). Do 15-month-old infants understand false beliefs? *Science*, 308, 255-258.

<http://search.proquest.com/psycinfo/docview/620728097/13414D9B6F477C27DBF/1?accountid=6180>

Wednesday, Jan 23: Well, for preschooler's, it's more than inhibitory control

Sabbagh, M. A., Xu, F., Carlson, S. M., Moses, L. J. & Lee, K. (2006). The development of executive functioning and theory of mind: A comparison of Chinese and U.S. preschoolers. *Psychological Science*, 17, 74-81.

<http://search.proquest.com/psycinfo/docview/621015343/13414DC99C1D7CD7D6/1?accountid=6180>

*Week 4: Theory of mind is more than false belief...*

Monday, Jan 28: Desire understanding in very young children

Repacholi, B. M. & Gopnik, A. (1997). Early reasoning about desires: Evidence from 14- and 18-month-olds. *Developmental Psychology*, 33, 12-21.

<http://search.proquest.com/psycinfo/docview/619037672/13414DE97AA6F02FC67/1?accountid=6180>

Wednesday, Jan 30: Emotion an attention understanding in very young children

Philips, A. T., Wellman, H. M. & Spelke, E. S. (2002). Infants' ability to connect gaze and emotional expression to intentional

action. *Cognition*, 85, 53-78.

<http://search.proquest.com/psycinfo/docview/619921419/13414DF3A3E40501715/1?accountid=6180>

Wellman, H. M., Lopez-Duran, S., LaBounty, J., & Hamilton, B. (2008). Infant attention to intentional action predicts preschool theory of mind. *Developmental Psychology*, 44, 618-623.

<http://search.proquest.com/psycinfo/docview/622115357/13414DFF4D77D6D088C/1?accountid=6180>

*Week 5: Theory of mind and learning*

Monday, Feb 4: Understanding teaching and learning

Ziv, M. & Frye, D. (2004). Children's understanding of teaching: The role of knowledge and belief. *Cognitive Development*, 19, 457-477.

<http://search.proquest.com/psycinfo/docview/620610708/13414E1AD4823402CD8/1?accountid=6180>

Davis-Unger, A. C. & Carlson, S. M. (2008). Development of teaching skills and relations to theory of mind in preschoolers. *Journal of Cognition and Development*, 9, 26-45.

<http://search.proquest.com/psycinfo/docview/622190692/13414E234EB1A722DD1/1?accountid=6180>

Wednesday, Feb 6: Predicting success in school

Lecce, S., Caputi, M. & Hughes, C. (2011). Does sensitivity to criticism mediate the relationship between theory of mind and academic achievement? *Journal of Experimental Child Psychology*, 110, 313-331.

<http://search.proquest.com/psycinfo/docview/883435523/13414E2B25368126B7B/1?accountid=6180>

*Week 6: Theory of mind and moral development*

Monday, Feb 11: *Mens rea*.

Killen, M., Mulvey, K. L., Richardson, C., Jampol, N. & Woodward, A. (2011). The accidental transgressor: Morally-relevant theory of mind. *Cognition*, 119, 197-215.

<http://search.proquest.com/psycinfo/docview/867315613/13414E342BCC647092/1?accountid=6180>

Wednesday Feb 13: Reciprocal associations

Smetana, J. G., Jambon, M., Conry-Murray, C., & Sturge-Apple, M. L. (2011). Reciprocal associations between young children's developing moral judgments and theory of mind. *Developmental Psychology*.

<http://search.proquest.com/psycinfo/docview/898672266/13414E3EBBA25B2B346/1?accountid=6180>

*Week 7: Peer relations*

Monday, Feb 25: Being good at playing with others

Astington, J. W. & Jenkins, J. (1995). Theory of mind development and social understanding. *Cognition and Emotion*, 9, 151-165.

<http://search.proquest.com/psycinfo/docview/618704337/13414E4752F6EE03852/5?accountid=6180>

Watson, A. C., Nixon, C. L., Wilson, A. & Capage, L. (1999). Social interaction skills and theory of mind in young children. *Developmental Psychology*, 35, 386-391.

<http://search.proquest.com/psycinfo/docview/619415764/13414E59C8B7FB04CCF/1?accountid=6180>



Wednesday, Feb 27: Being popular and making friends

Slaughter, V., Dennis, M. J. & Pritchard, M. (2002). Theory of mind and peer acceptance in preschool children. *British Journal of Developmental Psychology*, 20, 545-564.

<http://search.proquest.com/psycinfo/docview/619779207/13414E645C4AE3D3B9/1?accountid=6180>

Moore, C., Bosacki, S. L., & Macgillivray, S. (2011). Theory of mind and social interest in zero-acquaintance play situations. *Child Development*, 82, 1163-1172.

<http://search.proquest.com/psycinfo/docview/882095971/13414E6B1953558B2F/1?accountid=6180>

*Week 8: Biological bases of Theory of Mind*

Monday, Mar 4: Brain development

Sabbagh, M. A., Bowman, L. C., Evraire, L. E., Ito, J. M. B. (2009). Neurodevelopmental correlates of theory of mind in preschool children. *Child Development*, 80, 1147-1162.

<http://search.proquest.com/psycinfo/docview/622062863/13414E76A6768AE3635/1?accountid=6180>

Wednesday, Mar 6: Genetic and temperamental effects

Lackner, C. L., Sabbagh, M. A., Hallinan, E., Liu, X., & Holden, J. J. A. (2011). Dopamine receptor D4 gene variation predicts preschoolers' developing theory of mind. *Developmental Science*.

<http://onlinelibrary.wiley.com/doi/10.1111/j.1467-7687.2011.01124.x/full>

Wellman, H. M., Lane, J. D., LaBounty, J. & Olson, S. L. (2011). Observant, nonaggressive temperament predicts theory of mind development. *Developmental Science*, 14, 319-326.

[http://www.ncbi.nlm.nih.gov/pubmed?term=Observant,nonaggressive temperament predicts theory of mind development.](http://www.ncbi.nlm.nih.gov/pubmed?term=Observant,nonaggressive%20temperament%20predicts%20theory%20of%20mind%20development)

*Week 9: Experience and Theory of Mind development.*

Monday, Mar 11: Language

Ruffman, T., Slade, L., & Crowe, E. (2002). The relation between children's and mothers' mental state language and theory-of-mind understanding. *Child Development, 73*, 734-751.

<http://search.proquest.com/psycinfo/docview/619882220/13414EC784361929EA7/1?accountid=6180>

Pyers, J. E. & Senghas, A. (2009). Language promotes false-belief understanding: Evidence from learners of a new sign language. *Psychological Science, 20*, 805-812.

<http://search.proquest.com/psycinfo/docview/622056015/13414ED35FE14D15E42/1?accountid=6180>

Wednesday, Mar 13: Siblings and Peers

McAlister, A. & Peterson, C. C. (2006). Mental playmates: Siblings, executive functioning, and theory of mind. *British Journal of Developmental Psychology, 24*, 733-751.

<http://search.proquest.com/psycinfo/docview/621506597/13414EDCF064E212802/1?accountid=6180>

Wang, Y. & Su, Y. (2009). False belief understanding: Children catch it from classmates of different ages. *International Journal of Behavioral Development, 33*, 331-336.

<http://search.proquest.com/psycinfo/docview/622058794/13414EEA5214984B74C/1?accountid=6180>

*Weeks 10, 11, & 12: Group Presentations*