

PSY U660 Cognition Seminar: Differences in Thinking
Professor John D. Coley
Spring Quarter, 2005

Office:	427 Nightingale Hall
Phone:	617.373.3548
Email:	jcoley@neu.edu
Office Hours:	TBA

Course Description

Most research in cognitive psychology, either explicitly or implicitly, assumes that cognitive processes function in basically the same way for all people. In other words, most research in cognitive psychology takes it for granted that cognitive processes are *universal*. In this seminar, instead of taking the universality of thinking for granted, we will focus on individual differences in cognitive processes. We will explore how factors like language, experience, culture, gender, and age may or may not lead to differences in basic cognitive processes like memory, reasoning, categorization, and conceptual development. We will read primary research in our exploration of these basic questions in comparative human cognition.

Course Objectives

My goals are that, by the end of the term, you will

- Be able to read, analyze, and critique primary sources in cognitive psychology.
- Be able to write clearly and coherently about issues in comparative human cognition.
- Be able to think critically about questions/issues in comparative human cognition and use psychological evidence to coherently argue a position on such issues.
- Understand the basic methodological issues involved in doing research in comparative human cognition, and use your understand to develop an original research proposal.

Required Readings

- Coursepack, available at Gnomon Copy.

I expect you to carefully do the readings *prior* to the class for which they are listed. As a class we will discuss the specific content of the readings, and then use the readings as a basis for other class activities. Therefore, you are responsible for understanding what you read, asking questions about what you don't understand, and being prepared to go beyond the readings in class.

Course Requirements and Grading Scheme

You will be evaluated on the basis of **Class Participation**, **Short Papers**, a **Research Proposal**, an **In-Class Presentation**, and a **Final Exam**. These will factor into your final grade as follows:

Class Participation	15%
Short Papers	15%
Research Proposal	40%
Presentation	10%
Final Exam	20%

Participation. Class participation includes active involvement in class discussions, exercises, and activities. I don't expect everyone to talk all the time, but I do expect everyone to make quality contributions on a regular basis. Attendance is expected, but attendance alone does not constitute participation. It's important to emphasize that this is a *seminar*. It will live or die based on what you put into it.

Short Papers. I will occasionally ask you to write short (1-2 page) papers. These will typically be a reaction to or reflection on a topic that we've discussed in class. They will not be research papers, but rather will ask you to argue a position or to make a connection between class material and everyday experience.

Research Proposal. Throughout the quarter we will be working on research proposals. These will be done in teams of two students. For your proposal you will choose a topic in cognitive psychology that interests you, find and integrate related research, propose a comparative research question about some aspect of your topic, and develop a study to answer this question. More information on research proposals will be provided as the class progresses.

Presentation. During the last several weeks of the semester, each team will present their research proposal to the class for discussion and feedback. More information on presentations will be provided in class.

Final. The final will require you to integrate what you've learned throughout the seminar in order to draw some broad conclusions about individual differences in cognition.

Reading List

Reading Primary Sources/Language & Thought

- Elmes, D.G., Kantowitz, B.H., & Roediger III, H.L. (2003). Chapter 12: Exploring the literature of psychology, from *Research methods in psychology* (7th Edition). Belmont, CA: Wadsworth/Thomson Learning.
- Hunt, E & Agnoli, F. (1991). The Whorfian hypothesis: A cognitive psychology perspective. *Psychological Review*, 98(3), 377-389.
- Stepanova, O. & Coley, J.D. (2002). The green-eyed monster: Concepts of envy and jealousy in Russian and English. *Journal of Cognition & Culture*, 2(4), 235-262.

Methodology

- Cole, M. & Means, B. (1981). What happens when all other things are not equal? From *Comparative studies of how people think: An introduction* (34-67). Cambridge, MA: Harvard University Press.

More Language & Thought

- Li, P. & Gleitman, L. (2002). Turning the tables: Language and spatial reasoning. *Cognition*, 83, 265-294.
- Levinson, S.C., Kita, S., Haun, D.B.M., & Rasch, B.H. (2002). Returning the tables: Language affects spatial reasoning. *Cognition*, 84, 155-188.

Spatial Memory & Reasoning

- Kimura, D. (1999). Spatial abilities. From *Sex and cognition* (43-66), Cambridge MA: MIT Press.
- James, T. & Kimura, D. (1997). Sex differences in remembering the locations of objects in an array: Location-shifts versus Location-Exchanges. *Evolution & Human Behavior*, 18, 155-163.
- Saucier, D., Bowman, M. & Elias, L. (2003). Sex differences and the effect of articulatory or spatial dual-task interference during navigation. *Brain and Cognition*, 53, 346-350.

Holistic & Analytic Thought

- Morris, M.W. & Peng, K. (1994). Culture and cause: American and Chinese attributions for social and physical events. *Journal of Personality and Social Psychology*, 67(6), 949-971.
- Masuda, T. & Nisbett, R.E. (2001). Attending holistically versus analytically: Comparing the context sensitivity of Japanese and Americans. *Journal of Personality and Social Psychology*, 81, 922-934.

Categorization

- Ji, L., Zhang, Z. & Nisbett, R.E. (2004). Is it culture or is it language? Examination of language effects in cross-cultural research on categorization. *Journal of Personality and Social Psychology*, 87, 57-65.
- Tanaka, J. B. & Taylor, M. (1991). Object categories and expertise: Is the basic level in the eye of the beholder? *Cognitive Psychology*, 23, 457-482.

Inductive Reasoning

- Coley, J.D., Shafto, P., Stepanova, O., & Barraff, E. (2005). Knowledge and category-based induction. In Ahn, W., Goldstone, R. L., Love, B. C., Markman, A. B., & Wolff, P. (Eds.), *Categorization inside and outside the laboratory: Essays in honor of Douglas L. Medin*. Washington, DC: American Psychological Association.
- Choi, I., Nisbett, R.E. & Smith, E.E. (1997). Culture, category salience, and inductive reasoning. *Cognition*, 65, 15-32.

Conceptual Development: Folk Biology

- Coley, J.D., (2000). On the importance of comparative research: The case of folkbiology. *Child Development*, 71, 82-90.
- Hatano, G., Siegler, R.S., Richards, D.D., Inagaki, K., Stavy, R. & Wax, N. (1993). The development of biological knowledge: A multi-national study. *Cognitive Development*, 8, 47-62.
- Ross, N., Medin, D.L., Coley, J.D. & Atran, S. (2003). Cultural and experiential differences in the development of biological induction. *Cognitive Development*, 18, 25-47.

Conceptual Development: Folk Psychology

- Lillard, A.S. (1998). Ethnopsychologies: Cultural variations in theories of mind. *Psychological Bulletin*, 123, 3-32.
- Wellman, H.M. (1998). Culture, variation, and levels of analysis in folk psychologies: Comment on Lillard (1998). *Psychological Bulletin*, 123, 33-36.
- Gauvain, M. (1998). Culture, development, and theory of mind: Comment on Lillard (1998). *Psychological Bulletin*, 123, 37-42.
- Lillard, A.S. (1998). Ethnopsychologies: Reply to Wellman (1998) and Gauvain (1998). *Psychological Bulletin*, 123, 43-46.
- Avis, J. & Harris, P. (1991). Belief-desire reasoning among Baka children: Evidence for a universal conception of mind. *Child Development*, 62, 460-467.
- Baron-Cohen, S., Leslie, A.M. & Frith, U. (1985). Does the autistic child have a "theory of mind"? *Cognition*, 21, 37-46.
- Charman, T. & Baron-Cohen, S. (1995). Understanding photos, models and beliefs: A test of the modularity thesis of theory of mind. *Cognitive Development*, 10, 287-298.

Course Schedule

<i>Dates</i>	<i>Topic</i>	<i>Readings</i>	<i>Research Proposal</i>
1/6	COURSE OVERVIEW		
1/10-1/13	HOW TO READ PRIMARY SOURCES LANGUAGE & THOUGHT	<ul style="list-style-type: none"> • Elmes et al. (2003) • Hunt & Agnoli (1991) • Stepanova & Coley (2002) 	Finalize Teams
1/20	METHODOLOGY	<ul style="list-style-type: none"> • Cole & Means (1981) 	Topic Paragraph Due Jan 20th
1/24-1/27	MORE LANGUAGE & THOUGHT	<ul style="list-style-type: none"> • Li & Gleitman (2002) • Levinson et al. (2002) 	Workshop: Focusing Research Questions
1/31-2/3	SPATIAL MEMORY & REASONING	<ul style="list-style-type: none"> • Kimura (1999) • James & Kimura (1997) • Saucier et al. (2003) 	List of References Due Feb 3rd
2/7-2/10	HOLISTIC & ANALYTIC THOUGHT	<ul style="list-style-type: none"> • Morris & Peng (1994) • Masuda & Nisbett (2001) 	Workshop: Comparative Design & Methods
2/14-2/17	CATEGORIZATION	<ul style="list-style-type: none"> • Ji et al. (2004) • Tanaka & Taylor (1991) 	
2/21-2/24	INDUCTIVE REASONING	<ul style="list-style-type: none"> • Coley et al. (2005) • Choi et al. (1997) 	
3/7-3/10	CONCEPTUAL DEVELOPMENT: FOLK BIOLOGY	<ul style="list-style-type: none"> • Coley (2000) • Hatano et al. (1993) • Ross et al. (2003) 	Proposal Draft Due Mar 10th
3/14-3/17	CONCEPTUAL DEVELOPMENT: FOLK PSYCHOLOGY	<ul style="list-style-type: none"> • Lillard (1998a) • Wellman (1998) • Gauvain (1998) • Lillard (1998b) 	
3/21-3/24	CONCEPTUAL DEVELOPMENT: FOLK PSYCHOLOGY	<ul style="list-style-type: none"> • Avis & Harris (1991) • Baron-Cohen et al. (1985) • Charman & Baron-Cohen (1995) 	
3/28-4/11	RESEARCH PROPOSAL PRESENTATIONS FLEX TIME		Final Proposal Due Apr 14th