Syllabus PSYD57

Cognition, Health, Culture, and Decision Making

Professor Kevin Dunbar
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Class times Thursday 3-5:00pm

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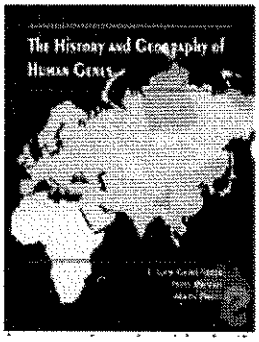
Office hours: Thursdays 2-3pm or by appointment

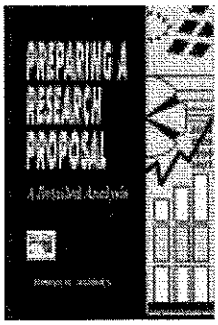


Course Description. In this seminar we will investigate the ways that cognition and culture interact to produce modes of thinking that have important effects on every aspect of our behavior, particularly decisions about health, food, and the environment. How do we understand, explain, and predict people's behavior in such diverse contexts? We will begin by investigating the cognitive abilities that people are born with. These are universal cross cultural knowledge representations of biology, physics, number, language, and social relations. Then, we will explore the ways that people represent this "core" knowledge, the schemas, mental models and frames that are changed adapted and interpreted by different cultures in different ways. We have a conundrum: How can people born with innate predispositions have varied social, cultural and cognitive practices. Our goal here is to propose general mechanisms that culture and cognition use to shape our views of the world. The major issue is how can genes and environment interact to produce cultural universals and cognitive diversity. By the end of the course we should see how this is possible.

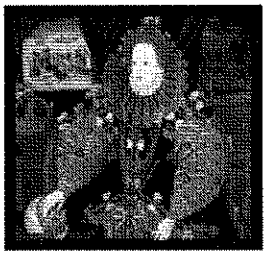
Course Structure

The first two weeks will be when the professor outlines the basic issues, themes, and concepts that will provide a framework for the remainder of the course. In the following weeks three students will present a summary of one of the three readings for that week - one reading per student. Students must meet with each other before the class and determine how to present the papers in an engaging and informative manner. You can have games, quiz shows, be the scientist, be the subject, be the media interpretation (which is often critical). The goal is to present the papers in an awe-inspiring manner. The last half hour of the class will be devoted to a class discussion of the themes that unify the readings for that week. Each student who is not presenting for that week will also hand in a one page reaction paper to the three readings for that week (see the section on reaction papers).

Blackboard
All readings for the course will be posted on blackboard. Blackboard is a great medium for fostering class discussion outside the class itself and the three presenters for that week should post three questions for each of their three readings the weekend before the class, preferably post the questions on Friday. All students should cogitate on the questions and come to class ready to discuss and provide cogent answers to the questions. Blackboard will also be used to post grades.



Final essay: A research proposal. You must write a research proposal on a topic that is central to the course. The topic should be approved by the professor by February 12 2009. To obtain approval you must submit a 1 page summary of your proposal on February 12. You must also give a short 2 minute presentation of your research proposal on February 26th at the poster presentations. This will be difficult but doable. You will use powerpoint to present the poster. You need a clear rationale, hypotheses, method and expected results. The final research proposal is due in at the beginning of the last class. The essay should be 10 pages double spaced1 inch margins in times 12 point font. Use APA style. Late papers will not be accepted unless accompanied by a medical note from a university approved healthcare provider.



Reaction papers. Each week that you are not presenting you should submit a reaction paper stating what was novel in the paper, what faults are in the paper, and how the paper stands as a piece of research. You may also suggest an alternate paper that does a better job of explaining the issues. The goal here is to get you to think deeply about the paper. Must be one page long. Your reaction paper will be evaluated for clarity and thoughtfulness. The more thorough the paper, the better the grade. The purpose of these papers is to encourage your active engagement with the readings and to provide a foundation for class discussions. These reaction papers are intended as writing exercises. You should become accustomed to expressing ideas in written form. Reaction papers should address a question about the paper that is thought up by you. Here are some examples of questions you might address in a reaction paper: What was the most interesting part of the reading? Explain why. Did something strike you as odd? Try to understand what it was doing there. Is there any part of the reading that was not understood? Use this writing assignment to try to figure it out. How does it relate to class discussion from a previous week? Compare some aspect of the current reading assignment with a previous one. Choose a quotation from the reading and analyze it closely.

Grading. In class presentations (25%), attendance (5%) reaction papers (15%) proposal presentation (15%). Final essay (25%), participation (15%)

Topics and dates

Week 1 Jan 8 Course Overview, handouts etc
Week 2 Jan 15 Basic principles and concepts in complex cognition: Schemas, frames, concepts
Week 3 Jan 22 Conceptions of Illness, disease & health
Week 4 Jan 29 Cognitive Development and Culture: The case of Core knowledge
Week 5 Feb 5. Mental models and causal beliefs
Week 6 Feb 12 The Geography of thought: Eastern and Western modes of reasoning
Week 7 Feb 19 ---------- No Class READING WEEK----------
Week 8 Feb 26 Proposal presentations
Week 9 Mar 4 Folk thinking
Week 10 Mar 11 Culture and the Development of conceptions of illness, disease, and the physical universe
Week 11 Mar 18 How culture changes the brain
Week 12 Mar 25 From genetic evolution to cultural evolution
Week 13 April 1 Putting it all together How we can have core concepts and cultural variation

Readings

Week 1 Jan 8 Course Overview, handouts etc

Unifying Biological and Cultural Psychology, Eric Bredo, The Journal of Learning Sciences, 9(2), 221-232.

The cognitive foundations of cultural stability and diversity
Sperber, Dan[1]; Hirschfeld, Lawrence A.[2]
Trends in cognitive sciences (Regular ed.), vol. 8, no. 1, pp. 40-46, 2004

Week 2 Jan 15 Basic principles and concepts in complex cognition: Concepts and mental models (Professor Leads)

Brown, R. (1976) Reference: In memorial tribute to Eric Lenneberg. Cognition. 4, 125-153.

Development of Color Categories in Two Languages: A Longitudinal Study. By Roberson, Debi; Davidoff, Jules; Davies, Ian R. L.; Shapiro, Laura R. Journal of Experimental Psychology: General. 2004, 133, 554-571

Gentner, D. (2002) Mental models Psychology of. In N. J. Smelser & P. B. Bates (Eds.), International Encyclopedia of the Social and Behavioral Sciences (pp. 9683-9687). Amsterdam: Elsevier Science.

Week 3 Jan 22 Conceptions of illness, disease & health (Student led +reaction)

Thagard, P. (2007). The concept of disease: Structure and change. On line article

Henderson and Maguire. (2000). Three Mental Models of disease inheritance. Social Science and Medicine. 50, 293-301.

Patel, Arocha, & Zhang Thinking and reasniing in medicine. (2005). In Holyoak and Morrison Eds. Cambrige handbook of thinking and reasoning. Cambridge University Press.

Week 4 Jan 29. Cognitive Development and Culture: The case of Core knowledge (student led+reaction)

Cantlon, J. F. & Brannon, E. M. (2007). Adding up the effects of cultural experience on the brain. Trends in Cognitive Sciences, 11(1), 1-4

Spelke, E. S. & Kinzler, K. D. (2007). Core Knowledge. Developmental Science 10, 89—96.

Dehaene, S, Izard, V., Pica, P., & Spelke, E.S. (2006). Core knowledge of geometry in an Amazonian Indigene group. Science, 311-384.

Week 5 Feb 5. Mental models and causal beliefs (student led+ reaction)

Leiser, D., Doitch, E., & Meyer, J. (1996) mothers lay models of the causes and treatment of fever. Social Science and Medicine, 43 379-387.

Subbotsky, E. & Quinteros, G. (2002). Do cultural factors affect causal beliefs? Rational and Magical thinking in Britain and Mexico. British Journal of Psychology, 93, 519-543.

Peng, K. & Knowles, E. (2003). Culture, education, and the attribution of physical causality. Personality and social Psychology Bulletin, 29, 1272-1284.

Week 6 Feb 12 The Geography of thought: Eastern and Western modes of reasoning (student led + reaction)

Culture and point of view, Nisbett, RE; Masuda, T,Proceedings of the National Academy of Sciences, USA [Proc. Natl. Acad. Sci. USA]. Vol. 100, no. 19, pp. 11163-11170. 16 Sep 2003.

Cultural influences on neural substrates of attentional control.
Hedden, Trey[1]; Ketay, Sarah[2]; Aron, Arthur[2]; Markus, Hazel Rose[1]; Gabrieli, John D. E.[3]
Psychological Science. Vol 19(1), Jan 2008, pp. 12-17

Maddux, W. & Yuki, M. 2006. The "Ripple Effect": Cultural Differences in Perceptions of the Consequences of Events. Personality and Social Psychology Bulletin , 32, 669-683

Week 7 Feb 19 ---------- No Class READING WEEK----------

Week 8 Feb 26 Proposal presentations

Each student will present their proposal for research with a background, method, and expected findings. Also students should address the question of what they would do if the research does not work out as expected. This will be difficult as you must get your core ideas across in 2 minutes.

Week 9 Mar 4 Folk thinking (student led + reaction)

Waxman, S., & Medin, D. & Ross, N. (2007) Folkbiological reasoning from a cross-cultural developmental perspective: Early essentialist notions are shaped by cultural beliefs. Developmental Psychology, 43, 294-308.

Keil, F.C. (2003) Folkscience: Coarse interpretations of a complex reality. Trends in Cognitive Sciences, 7, 368-383.

Gigerenzer, G., & Edwards, A. Simple tools for understanding risk: From Innumeracy to insight. British Medical Journal, 327, 741-744.

Week 10 Mar 11 Culture and the Development of conceptions of illness, disease, and the physical universe. (student led +reaction)

Carey, S. (1985). Conceptual Change in Childhood. Cambridge, MA: Bradford Books, MIT Press. Chapters 1 and 5.

Hejmadi, A., Rozin, P. Siegal, M. (2004). Once in contact always in contact: contagious essence and conceptions of purification in American and Hindu Indian children. Developmental Psychology, 40, 467-476.

Samarapungavan, A., Vosniadou, S., & Brewer, W.F. (1998). Mental Models of the Earth, Sun and the Moon: Indian Children's Cosmologies. *Cognitive Development, 11,* 491-521.

Week 11 Mar 18 How culture changes the brain (student led +reaction)

Talk by Marco Iacoboni: You Tube http://www.youtube.com/watch?v=ESM7b-X8zhQ

Functional Fixedness in a Technologically Sparse Culture
German, Tim P.[1]; Barrett, HClark[2]
Psychological Science, vol. 16, no. 1, pp. 1-5, January 2005

Neuroimaging: Growing Pains for fMRI by Greg Miller, *Science*, 320, 1412-1414.

This is Your Brain on Politics: New York Times Article

Week 12 Mar 25 Genes, Culture and evolution (student led+reaction)

Kevin Laland 2002, Gene, Culture Co-Evolution

Isles AR & Wilkinson LS. Imprinted genes, cognition and behaviour. Trends in Cognitive Sciences 4(8): 309-318 (2000)

Wilson, D.S., van Vugt, M., & O'Gorman, R. (2008). Multilevel selection and major evolutionary transitions: Implications for psychological science. Current Directions in Psychological Science, 17, 6-9.

Week 13 April 1. Putting it all together Underlying principles of cognition, culture and health

Research proposal due at beginning of class.