

Syllabus PSYD56

Creativity, Reasoning and Problem Solving

WINTER-SPRING 2009

Professor: Kevin Dunbar

Office: SW521

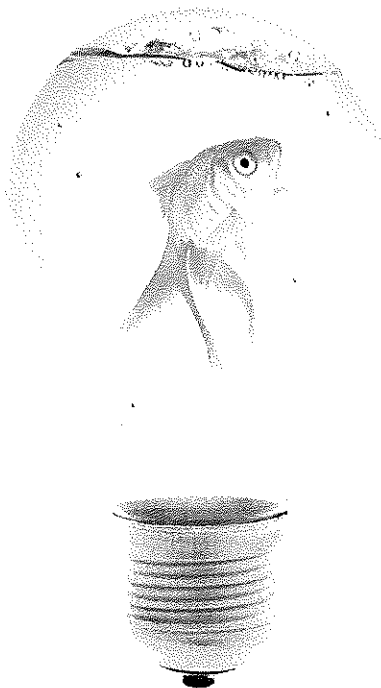
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Class time: Mondays 1pm-3pm SV 640

Office hours: Mondays 12-1 and Mondays 3-4, or by appointment

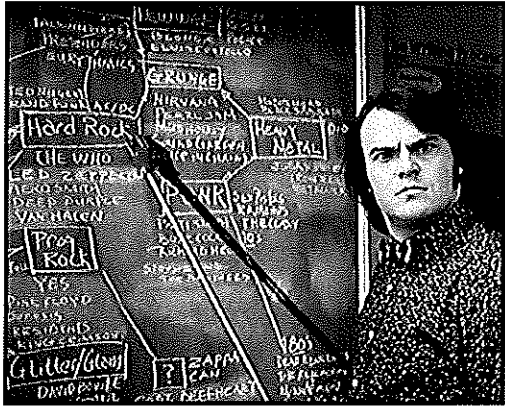
Course Description. What is the creative mind? What makes a great problem solver and how do these amazing abilities arise? Are there circumstances that make people more or less creative, or are people born this way? In this course we will explore these issues in a highly interactive, and hopefully creative way.



Course Structure

The first two weeks will be when the professor outlines the issues, themes, and concepts that will provide a framework for 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. Two of the readings will be research-based articles and the third will be a chapter from the textbook. The goal of students presenting the research-based readings is to stimulate thinking and discussion and not just repeat what was in the articles (as we will all have read the readings!). The goal of the student presenting a book chapter will be to relate the chapter to the other two readings. The purpose of the textbook is to provide the intellectual glue that binds the course together. Naturally I will be helping the class propel the course along this path. For the other two readings you must present the readings in an engaging manner. You can have games, quiz shows, be

the scientist, be the artist, actor, musician etc be the subject, be the media interpretation (which is often wrong). The goal is to present the papers in an awe-inspiring manner. The last fifteen minutes 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 (maximum length) reaction paper to the three readings for that week (see the section on reaction papers).



Textbook and Blackboard

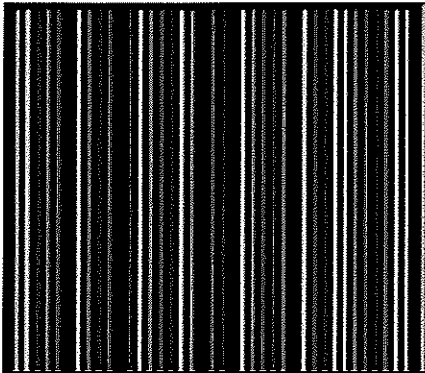
The textbook (Creativity; By Mark Runco 2007) is available in the bookstore. All the research readings for the course will be posted on blackboard. Blackboard is a great medium for fostering class discussion outside the class itself and the three presenters for that week should post one key question for their reading the Thursday before class. 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. This is a seminar-like course that allows us to probe the deeper nature of what it means to be creative, solve problems, and reason. You must write a research proposal on a topic that is central to the course. It should be on one of the sections taken from "The Encyclopedia of Creativity." The topic should be approved by me by February 16 2009. To obtain approval you must submit a 1 page summary of your proposal on February 12. The proposal summary will have (1) a clear rationale, (2) hypotheses, (3) proposed method (4) expected results, and (5) three references. The final proposal will have the same sections, but will be longer. There will be no abstract, but you should have an extra page with 10 references that are relevant to the proposal at the end of the proposal. The final research proposal is due in at the beginning of the last class. The essay should be 5 pages double spaced 1 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 one page (single spaced) 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 and not about an extraneous topic). Must be one page long. Your reaction paper will be evaluated for clarity, grammar, spelling, 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.



Evaluations

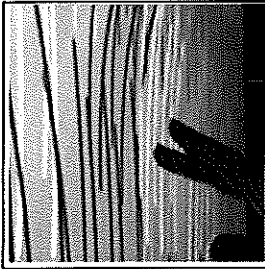
In class presentations (30%)
In-class participation (10%)
Reaction papers (30%)
Final essay (25%)
Attendance (5%)

** will have more than 20% returned by 10th week, as per Nivukshi P.*

Topics and dates

Week 1 - January 5th: Course Overview, handouts etc
Week 2 - January 12th: Cognition and Creativity
Week 3 - January 19th: Developmental Trends and Influences on Creativity
Week 4 - January 26th: Biological Perspectives on Creativity
Week 5 - February 2nd: Heath and Clinical Perspectives
Week 6 - February 9th: Social, Attributional, and Organizational Perspectives
Week 7 - February 16th ----- No Class READING WEEK-----
Week 8 - February 23rd: Educational Perspectives
Week 9 - March 2nd: History and Historiometry
Week 10 - March 9th: Culture and Creativity
Week 11 - March 16th: Personality and Motivation
Week 12 - March 23rd: Enhancement and the Fulfillment of Potential
Week 13 - March 30th: What Creativity Is and What It Is Not

Readings

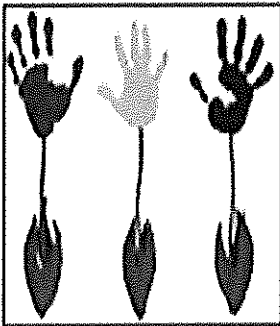


Week 1 - January 5th Course Overview, handouts etc

Week 2 - January 12th

Textbook Chapter 1: Cognition and Creativity

Dunbar, K. (1998). *Problem solving*. In W. Bechtel, & G. Graham (Eds.). *A companion to Cognitive Science*. London, England: Blackwell

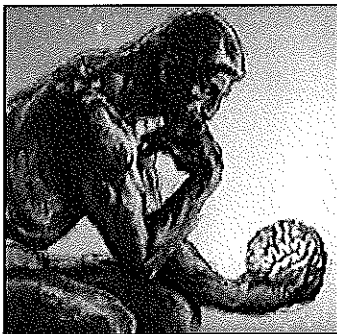


Week 3 - January 19th

Textbook: Chapter 2: Developmental Trends and Influences on Creativity

Siegler & Alibali: *Children's Thinking*, (2005). Chapter 3 **part 1** pp 65-82. Information processing theories of development.

Siegler & Alibali: *Children's Thinking*, (2005). Chapter 3 **part 2** pp 82-106. Information processing theories of development.

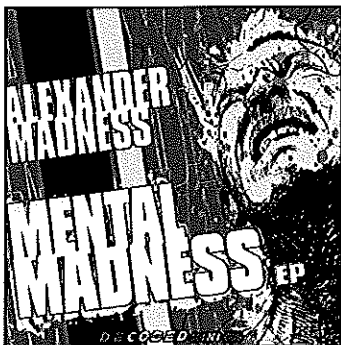


Week 4 - January 26th

Chapter 3: Biological Perspectives on Creativity

Knoblich, G. (2009) "Neural Correlates of Insight Phenomena" In E. Kraft, B. Gulyas, & E. Poppel (Eds.) *Neural Correlates of Thinking*.

Abraham, A., & Windmann, S. (2007). Creative cognition, and the prospect of applying a cognitive neuroscience perspective. *Methods*, 42, 38-48.

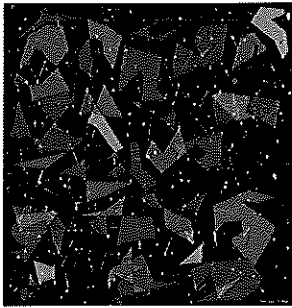


Week 5 - February 2nd

Chapter 4: Health and Clinical Perspectives

Akiskal, HS;& Akiskal, K. K. (2007) In search of Aristotle: Temperament, human nature, melancholia, creativity and eminence. *Journal of Affective Disorders*, 100, 1-6.

Aklnola, M., & Mendes, W.B. (2008). The dark side of creativity: Biological vulnerability and negative emotions lead to greater artistic creativity. *Personality and Social Psychology Bulletin*, 34, 1677-1686.



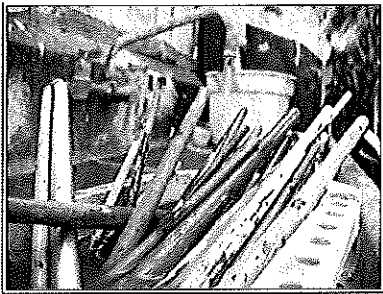
Week 6 - February 9th

Chapter 5: Social, Attributional, and Organizational Perspectives

Amabile, T.M., Hadley, C., & Kramer, S.J. (2002). Creativity Under the Gun. *Harvard Business Review*, 80, pp. 52-61, 14,

Kirsch, D. (2006). Distributed cognition: A methodological note. *Pragmatics and Cognition*, 14, 249-262.

Week 7 - February 16th ----- No Class READING WEEK-----

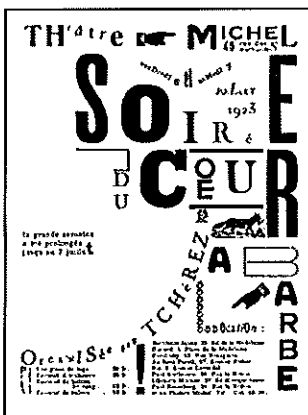


Week 8 - February 23rd

Chapter 6: Educational Perspectives

Hennessey, B.A. (2003). The social psychology of creativity. *Scandinavian Journal of Educational Research*, 47, 253-271.

Keinanen, M., Hetlabd, L., & Winner, E. (2000) Teaching cognitive skill through dance: Evidence for Near but not Far Transfer. *Journal of Aesthetic Education*, 34, 295-306.

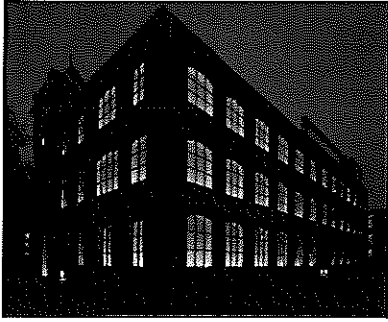


Week 9 - March 2nd

Chapter 7: History and Historiometry

Galenson, D.W. (2006). Age and Creativity. *The Milken Institute Review*, 6, 28-37.

Simonton, D.K. (2008). Childhood Giftedness and Adulthood Genius: A Historiometric Analysis of 291 Eminent African Americans. *Child Quarterly*, 52, 243-255.

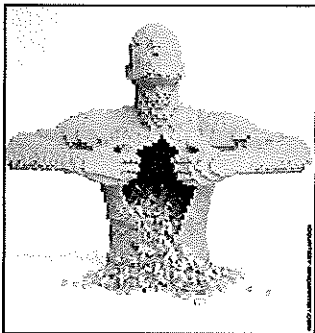


Week 10 Mar 9th

Chapter 8: Culture and Creativity

Leung, A.K., Maddux, W.W., Galinsky, A.D., & Chiu, C (2008). Multicultural experience enhances creativity: The when and how. *American Psychologist*, 63, 69-181

Niu, W. & Sternberg, R. (2007). Contemporary studies on the concept of creativity: the east and the west. *The Journal of Creative Behavior*, 36, 227-288.

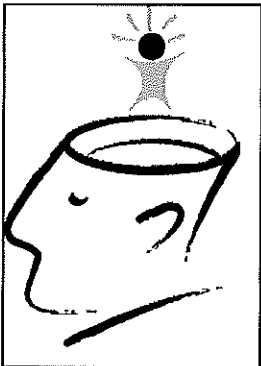


Week 11 Mar 16th

Chapter 9: Personality and Motivation.

Batey, M. & Furnham, A. (2008) The relationship between measures of creativity and Schizotypy. *Personality and Individual Differences*, 45, 816-821.

Sternberg, R.J. (2006) Creating a vision of Creativity: The First 25 Years. *Psychology of Aesthetics and the Arts*, 2-12

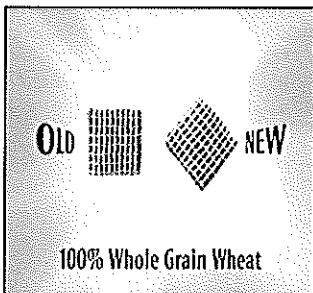


Week 12 Mar 23rd

Chapter 10: Enhancement and the Fulfillment of Potential

Dugosh, K.L. & Paulus, P.B., (2005). Cognitive and social comparison processes in brainstorming. *Journal of Experimental Social Psychology*, 41, 313-320.

Florida, R. (2004). America's Looming Creativity Crisis. *The Harvard Business Review*, 122-136.



Week 13 March 30th

Chapter 11: What Creativity Is and What It Is Not

Coulson, S., & Oakley, T. (2000). Blending basics. *Cognitive Linguistics*, 11, 175-196.

Annamma J., Sherry, J.F., & Deschenes, J. (2009). Conceptual blending in advertising. *Journal of Business Research* 62, 39-49.