

PSYD50: Current Topics in Memory and Cognition Semantic Memory

Winter 2005

Class Times: Tuesday: 9-11

Instructor: George Cree, Assistant Professor, Psychology
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Phone: (416) 287-7439 (email is my preferred means of contact)
Office hours: Tue. 11:00-12:00, Fri. 1:00-2:00, or by appointment.

Course Website: [UTSC Intranet](#)

Textbook: No textbook is required for this course. All readings will be posted on the intranet.

Course Objectives:

1. To provide a solid understanding of current theories, models, and experimental approaches to studying semantic memory.
2. To help students improve their analytical, writing, and presentation skills through participation in a course that follows a "graduate school" model.

I can appreciate that students will vary in their competency levels on these abilities. You can expect to acquire these abilities only if you honour all course policies, attend class regularly, complete all assigned work in good faith and on time, and meet all other course expectations of you as a student.

Course Overview

This course is about semantic cognition - the representation and use of common, everyday knowledge (e.g., your knowledge that dogs have 4 legs). Why do children seem to acquire such knowledge effortlessly? How and where is it stored in the brain? How is it computed (accessed) when needed? Do the representations and processes change when one becomes an expert in a specific domain? Why do we sometimes see knowledge degrade in specific and predictable patterns due to brain damage and disease, and what can this tell us about knowledge representation? These are just some of the topics that we will discuss.

The goal of this course is to provide students with a taste for graduate level course work. Rather than sample from several "hot" areas of work in cognitive psychology, we will focus in depth on a single topic, and discuss competing views and theories. Classes will consist of student presentations and discussions. Critical analysis of readings is required. Novel and unique ideas and interpretations of the material are expected!

Lecture Topics:

Jan 4:	Introduction
Jan 11:	Categories, Hierarchies, and Theories
Jan 18:	A PDP Theory of Semantic Cognition
Jan 25:	Latent Hierarchies in Distributed Representations
Feb 1:	Emergence of Category Structure in Infancy
Feb 8:	Naming Things
Feb 15:	--- Reading Week ---
Feb 22:	Category Coherence
Mar 1:	Inductive Projection and Conceptual Reorganization
Mar 8:	The Role of Causal Knowledge in Semantic Task Performance
Mar 15:	Core Principles, General Issues, and Future Directions
Mar 29:	Poster Session

Course Evaluation

1. *Class participation* 10%
2. *Presentation/Poster* 30%
3. *Short Papers* 20%
4. *Long paper* 40%

Participation

1. **Discussion:** roughly speaking, per class, just showing-up and talking = 0.5, contributing insightful points = 1.
 - a. Questions.
 - b. Critical evaluations.
 - c. Extensions.
 - d. Anything you have learned in your research.
2. **Presentations/Posters:** please be sure to discuss you discussion topic with me before proceeding. You will either lead a class discussion OR present a poster. You will be graded according to the UTSC suggested criteria for grading presentations, available on the course website on the intranet.
 - a. Lead discussion for ½ an hour one week, focusing on 1 empirical article.
 - i. Simulate a lab meeting.
 - b. Present a poster in the last class, focusing on 1 empirical article.
 - i. Simulate a conference presentation.

Writing**1. Short Papers**

- a. Five 2-page (max.) descriptions of a theory of semantic organization, in the style of a Wikipedia entry. One due every two weeks. The first is due Jan. 18th. You are expected to do your own research, as necessary, to provide a detailed account of each theory. Remember, I encourage you to take a team approach to doing the research, but everyone must hand in their own, individually written paper.
 - i. Semantic Network Theory
 - ii. Conceptual Structure Account (and OUCH)
 - iii. Domain Specific Hypothesis
 - iv. Theory-theory (Knowledge-based Theories)

v. High-Dimensional Models of Semantic Space (e.g., HAL, LSA)

2. Long Paper

- a. Critically evaluate Rogers and McClelland's (2004) connectionist proposal of Semantic Cognition, integrating what you have learned about the other relevant theories into your arguments. At least 10-12 pages (not more than 20, please!). Due the last day of classes.

Policies on academic integrity

Please don't plagiarize. Please don't cheat. Both are unacceptable, and will be dealt with according to UTSC policy.

AccessAbility

Students with diverse learning styles and needs are welcome in this course. In particular, if you have a disability/health consideration that may require accommodations, please feel free to approach me and/or the AccessAbility Services Office as soon as possible. The UTSC AccessAbility Services staff (located in S302) are available by appointment to assess specific needs, provide referrals and arrange appropriate accommodations (416) 287-7560 or ability@utsc.utoronto.ca. The sooner you let us know your needs the quicker we can assist you in achieving your learning goals in this course.

The above schedule, policies, procedures, and assignments in this course are subject to change in the event of extenuating circumstances.