EDUCATIONAL PSYCHOLOGY 711 Section 012
Current Topics—Ed Psych: Embodied Cognition
Fall 2011

Credits: 3 hours. Meeting time: Wed., 9:30am-12. Meeting place: Educational Sciences Building Room 1053

Instructor: Mitchell J. Nathan, Ph. D.
Office: Ed Sciences 685-A
Phone: 262-0831, or 263-0563
Fax: 262-0843
E-mail: mnathan@wisc.edu
Office hours: By appointment
Secretary: Brooke Seeliger Ed Sciences Room 863-D,
Phone: 262-9407, E-mail: seeliger@education.wisc.edu

COURSE OVERVIEW

This semester we will survey cutting edge research on embodied cognition that explores the basis of knowledge and thinking from experimental, philosophical, linguistic, anthropological, neuroscientific, and phenomenological perspectives. We examine how human cognition is mediated and implemented through body and body-based resources such as physically grounded metaphor, object use, perception and action. The course is organized as an advanced, graduate-level seminar emphasizing group discussions in class and online, shared leadership, and a collective approach to critical analysis of a broad set of ideas. The approximate pace of the class is presented in the Class Schedule, below.

EXPECTATIONS, ASSIGNMENTS AND GRADING CRITERIA

Students enrolled in this course for credit are expected to complete all of the required readings and assignments and to attend and participate in each class. Absences should be accompanied by a notification from the student, preferably by e-mail *prior* to class. **Late assignments (papers and postings) must be discussed with the instructor before they are due.**

Class Meeting Cancellation Notices

Much of my communication with you outside of class will be by email. **It is the responsibility of each class participant to make certain I have and am using an appropriate email address**, one that you can check regularly and reliably. Occasionally, severe weather, illness, or other unforeseen circumstances may require cancellation of a class meeting. If this is so, I will send an email to the class list. It will be the responsibility of each class member to check their email messages for such an announcement.

Class Participation

I have high expectations for class preparation and class participation for this doctoral-level seminar. All students should have carefully read each week's readings and discussion questions, posted succinct responses to discussion questions to the appropriate online forum, and come prepared to actively participate in class discussions, including posing and answering questions and providing critical analyses of the week's readings and topics.

Required Reading Materials for the Course

All readings required for the course are listed in the Readings section at the end of this document. For your convenience, these readings may be obtained through the class **Learn@UW** site accessible at this link: **https://learnuw.wisc.edu/**. Dates for completing reading assignments are listed in the Class Schedule and are subject to change.

Weekly Discussion Questions

You must use the Learn@UW online discussion board for this course, accessible at this link: https://learnuw.wisc.edu/. Select the Discussion tab. Discussion questions and hypotheses developed by the discussion leader for each week must be **posted by 11:59 pm Central Time on the Thursday prior to the class day for which they are due**. Initial responses to the weekly discussion questions are to be **posted by 11:59 pm Central Time on the Monday prior to the class day for which they are due**. Subsequent responses

and discussion threads can, of course, be posted later. By receiving these a few days before class, it is possible for the instructors and class discussion leaders (students, like yourself) to survey the thinking of the class and to prepare to address points that are raised.

Major Paper

The intention of the Major Paper is for students to produce original research that addresses broad themes or questions on embodied cognition in a substantive manner. The Major Paper should be around 2500 words. Figures, tables, appendices (e.g., transcripts, intervention materials) and references can take additional space. Papers must follow the current *Publication Manual of the American Psychological Association*, Sixth Edition (2010).

The Major Paper is due Monday Dec. 19 at 11:59 pm Central Time Zone.

Papers may be of the following types (I am open to other formats but we need to discuss them):

- **Empirical paper:** A study that explores a clearly stated question or claim about embodied cognition. The research investigation must be motivated by addressing a substantive scientific or societal issue. The relevant theoretical basis for the research questions at hand must be reviewed in order to situate the empirical work in the broader literature. The research method for exploring the issue must be clearly described and show a direct connection to the investigation at hand. While empirical claims drawn from a small study may be highly speculative, the relation of the specific empirical findings to the original question must be discussed prior to a broader discussion of the general issues.
- **Design paper:** A design of an activity, device, curricular approach or learning environment may be presented that addresses a question or claim about embodied cognition. The design may be intended to facilitate learning or instruction, or enhance performance, communication or reasoning. It may also be a form of instrumentation that helps to collect or analyze data that would serve a broad set of research questions. The design should be clearly described and, if possible, shown. The value of the design must be specifically motivated by societal or scientific needs. Compared to an empirical paper, the theoretical and empirical justification for the particular design must be even more strongly developed.
- **Theoretical paper:** This should provide a critical analysis of stated theories or methods. A straightforward review of the literature would not be adequate. The theoretical paper must generate new knowledge or theory, or organize prior work in a new and productive manner. Compared to an empirical paper, the theoretical justification for the particular argument must be even more strongly developed.

Late assignments. Written assignments are due at the beginning of class time the day they are due. Each late assignments that has not been excused by me prior to the due date will be lowered by one half of one letter grade (approximately 5 points) for each day it is late. However, no assignment will receive an F if it is turned in to me before the final day of classes.

Grading Criteria

Course grades will be based on student performance in the following areas:

Discussion Leader	30%
Major Paper	40%
Class Participation	30%
Total	100%

POLICIES AND RESOURCES

Disability Reasonable Accommodation

If you qualify for accommodations because of a disability, please submit a letter to me that outlines your request in a manner that is timely and consistent with established university policies for making such request so that your needs may be addressed. Policies for accommodating disabilities are available through the McBurney Disability Resource Center, 903 University Ave., 608-263-2741 (phone), 263-6393 (TTY), 265-2998 (Fax), mcburney@uwmadmail.services.wisc.edu. For additional information, please see http://www.mcburney.wisc.edu/

Religious Reasonable Accommodation

Every effort shall be made to reasonably and fairly deal with all students who, because of religious obligations, have conflicts with scheduled exams, assignments, or required attendance, provided advance notification of the conflict is given. Whenever possible, students should give at least two weeks advance notice to request special accommodation.

Student Honesty and Rules of Conduct

Academic honesty requires that the course work (drafts, reports, examinations, papers, online postings, etc.) a student presents to an instructor honestly and accurately indicates the student's own intellectual efforts. These policies are available at http://www.studentaffairs.wisc.edu/

UWS 14 is the chapter of the University of Wisconsin System Administrative code that regulates academic misconduct. UW-Madison implements the rules defined in UWS 14 through our own "Student Academic Misconduct Campus Procedures." UWS 14.03 defines academic misconduct as follows:

> "Academic misconduct is an act in which a student:
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> (a) seeks to claim credit for the work or efforts of another without authorization or citation;
> (b) uses unauthorized materials or fabricated data in any academic exercise;
> (c) forges or falsifies academic documents or records;
> (d) intentionally impedes or damages the academic work of others;
> (e) engages in conduct aimed at making false representation of a student's academic performance;
> (f) assists other students in any of these acts."

If you are accused of misconduct, you may have questions and concerns about the process. If so, you should feel free to call Student Advocacy & Judicial Affairs (SAJA) in the Offices of the Dean of Students at 263-5700 or send an e-mail to dos@bascom.wisc.edu.

CLASS SCHEDULE (subject to change)

Class	Dates	Readings for Today's Discussion	Comments
1	9/7	**The Symbol Grounding Problem** Searle 1990 Harnad 1990 Barsalou 1999 *pp. 577-609* *Optional* Barsalou 1999 *Open commentary pp. 609ff*	
2	9/14	**Perception** Schwartz & Black 1999 Witt & Proffitt 2005 Witt, Proffitt, & Epstein 2005 Proffitt 2006 Landy & Goldstone 2007 **Focal Framework for EC:** Wilson 2002	
3	9/21	**Affordances & Situated Cognition** Lave & Wenger 1991 *chapts. 3 & 4* Greeno 1994 Robbins & Aydede 2008 **Focal Framework for EC:** Varela, Thompson & Rosch 1991 *chapts. 7 & 8* *Optional* Norman 1999	Extra resources on neuroanatomy & cognitive neuroscience (with hyperlinks): • *Neuroanatomy—*A *Primer* - Dana Foundation. Also of interest may be the recent book *Neuroeducation: Learning, Arts, and the Brain*. • *GWC Neuroanatomy* Tutorial – Interactive tutorial of mammalian brain using javascript. Features clickable map of brain and ~200 neuorphysiology multiple-choice questions • *Brain Facts: A Primer on the Brain and Nervous System by Society for Neuroscience*
4	9/28	**Language** Glenberg & Robertson 1999 Zwaan *et al.* 2004 Pulvermüller 2005 Havas *et al.* 2007 **Focal Framework for EC:** Barsalou 2008	Mitch is away
5	10/5	**Metaphor & Spatial Schemas** Lakoff & Johnson 1999 *chapt 22* Feldman & Narayanan 2004 Hubbard *et al.* 2005 Shaki *et al.* 2009 Casasanto 2009	(Mitch hosting an advisory board meeting)
6	10/12	**Action and Cognition** Glenberg 1997, *pp. 1-19* Wolpert *et al.* 2003 Smith 2005 *Optional*	

Class	Dates	Readings for Today's Discussion	Comments
		Glenberg 1997, *Open commentary pp. 19ff*	
7	10/19	**Problem Solving & Game Playing** Kirsh & Maglio 1994 Thomas & Lleras 2007 Thomas & Lleras 2009	
8	10/26	**Socially Mediated Cognition** Garrod & Pickering 2004 Gallese Keysers & Rizzolatti 2004 Meltzoff 2007 Nathan 2008	Adam, Garrett, Rebecca, Ya Chin, Tony
9	11/2	**Gesture** Hostetter & Alibali 2008 Nathan & Johnson *in prep. (placeholder)* Goldin-Meadow & Beilock 2010 **Focal Framework for EC:** Glenberg & Gallese 2011	Present topics, Matt, et al.
10	11/9	**The Extended Mind** Clark & Chalmers 1998 Rupert 2004 Hutchins 2010	
11	11/16	**Reasoning without Representation** Brooks 1991 Dreyfus 2002a (*Merleau-Ponty*) Dreyfus 2002b (*Response*) Smith & Thelen 2003	
12	11/23	**Focal Framework for EC** Shapiro 2011 *Chapts. 1-4*	(Thanksgiving week)
13	11/30	**Focal Framework for EC** Shapiro 2011 *Chapts. 5-7*	Visit from Prof. Lawrence Shapiro
14	12/7	**Affect & Cognition** Damasio 1994 *Chapt 11* Niedenthal 2007 Schnall, Benton, & Harvey 2008 Schnall, Haidt, Clore & Jordan 2008 Havas *et al.* 2010	
15	12/14	**Embodied Cognition and Education** Glenberg *et al.*, 2004 Nemirovsky & Ferrara 2009 Goldstone, Landy & Son 2010 Nathan *under review EP*	*The Major Paper is due Monday Dec. 19 at 11:59 pm Central Time Zone.* ** Course Eval @ 9:30*

READINGS

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