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PSYC 620.23 - Advanced Topics in Brain and Cognitive Sciences (Embodied Cognition) - W16

<b>Instructor:</b>	Penny Pexman	<b>Lecture Location:</b>	EDC286
<b>Phone:</b>	403-220-6352	<b>Lecture Days/Time:</b>	M 12:00-14:45
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<b>Office Hours:</b>	By appointment		

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### Course Description and Goals

This course will provide an overview of Embodied Cognition. Embodied cognition is the term given to research and theory that explores how our cognition is a function of our bodily or sensorimotor states. We will discuss where this new framework has come from, its implications for theories of human cognitive processes, and a range of empirical studies examining and testing this framework.

### Required Text

The course materials will be comprised of a series of pre-selected articles that will be linked from the course website

### Evaluation

**A. Article Leading (25% total).** In the first half of the course, you will lead the discussion of an article assigned as reading for the class. Your goal is to not simply summarize the article, but to create interest and discussion. You can also integrate people's thought questions with your own ideas and questions. Guide us through key issues and some examples of relevant research, without rushing or cutting off useful discussion (10%). In the second half of the course, you will lead discussion of an article of your choosing. You need to provide the article to the class at least one week in advance. Again, you are to integrate thought questions, and create interest and discussion (15%).

**B. Research Proposal Presentation (15%).** You will present the research idea that you have derived for a future study. This could be based on the research you summarized in one of your article leading presentations. Provide a brief overview of the theoretical basis for your proposed study, and outline the details of the study. The goal is for your proposal to foster discussion that is helpful to you as you finalize the proposed study for your Research Proposal Paper.

**B. Research Proposal Paper (30%).** You will write a 15 page APA-formatted research proposal (references are extra to the 15-page limit) based on a topic related to one of the articles in the course. Your goal is to come up with a series of experiments that you would like to carry out and that would make an important and original contribution to the literature on that topic. The proposal should include

the following labeled sections: literature review, proposal, method, analyses, predictions, implications, and references. Papers should be submitted as hard copy to Dr. Pexman by 4 pm on the due date.

**C. Thought Questions (20%).** You will post a thought question prior to each class on D2L. Your goal is to post an issue, criticism, or stimulating thought related to that week’s readings. Try to keep these to a paragraph. You must post it no later than 6 pm the night (Sunday) before class. Be sure to read everyone’s thought questions before coming to class.

**E. Seminar Participation (10%).** You are expected to contribute to discussions during each class. This means coming to class having done the readings and having given yourself a chance to think about and synthesize the readings, so that your contributions can be as insightful as possible.

	Weight	Due Date
Article Leading 1	10%	various
Article Leading 2	15%	various
Research Proposal Presentation	15%	April 4 or April 11
Research Proposal Paper	30%	Monday April 18
Thought Questions	20%	Weekly to March 28
Seminar Participation	10%	weekly

**Grading Scale**

A+	96-100%	B+	80-84%	C+	67-71%	D+	54-58%
A	90-95%	B	76-79%	C	63-66%	D	50-53%
A-	85-89%	B-	72-75%	C-	59-62%	F	0-49%

As stated in the University Calendar, it is at the instructor’s discretion to round off either upward or downward to determine a final grade when the average of term work and final examinations is between two letter grades.

To determine final letter grades, final percentage grades will be rounded up or down to the nearest whole percentage (e.g., 89.5% will be rounded up to 90% = A but 89.4% will be rounded down to 89% = A-).

Date	Topic	Readings
<b>M Jan 11</b>	Course overview <i>Winter term lectures begin.</i>	
<b>M Jan 18</b>	Theories of Embodied Cognition	Barsalou, L. W. (2008) Grounded Cognition. <i>Annual Review of Psychology, 59</i> , 617-645. Special Section: The Embodied Cognition Debate in <i>Canadian Journal of Experimental Psychology</i> (2015)
<i>F Jan 22</i>	<i>Last day to drop Winter Term half-courses.</i>	
<b>M Jan 25</b>	On the role of context and task	Zwaan, R. A. (2014). Embodiment and Language Comprehension: Reframing the Discussion. <i>Topics in Cognitive Sciences, 18</i> ,

	<p><i>Last day to add or swap Winter Term half courses.</i></p> <p><i>Last day for change of registration from audit to credit or credit to audit.</i></p>	<p>229-234.</p> <p>Schuil et al. (2013). Sentential context modulates the involvement of the motor cortex in action language processing: an fMRI study. <i>Frontiers in Human Neuroscience</i>.</p> <p>Wilson, A. D., &amp; Golonka, S. (2013). Embodied cognition is not what you think it is. <i>Frontiers in Psychology</i>.</p>
<i>F Jan 29</i>	<i>Fee payment deadline for Winter Term fees.</i>	
<b>M Feb 1</b>	Embodiment and Affect	<p>Davis, J. D. et al. (2015). Facial action and emotional language: ERP evidence that blocking facial feedback selectively impairs sentence comprehension. <i>Journal of Cognitive Neuroscience</i>, 27, 2269-2280.</p> <p>Topolinski, S., et al. (2014). Oral approach-avoidance: Affective consequences of muscular articulation dynamics. <i>Journal of Personality and Social Psychology</i>, 106, 885-896.</p> <p>Kiverstein, J., &amp; Miller, M. (2015). The embodied brain: towards a radical embodied cognitive neuroscience. <i>Frontiers in Human Neuroscience</i>.</p>
<b>M Feb 8</b>	Embodiment and Memory	<p>Shebani, Z., &amp; Pulvermuller, F. (2013). Moving the hands and feet specifically impairs working memory for arm- and leg-related action words. <i>Cortex</i>, 49, 222-231.</p> <p>Madan, C. (2014). Manipulability impairs association-memory: Revisiting effects of incidental motor processing on verbal paired-associates. <i>Acta Psychologica</i>, 149, 45-51.</p> <p>Quak, M., et al. (2014). Effects of motor congruence on visual working memory. <i>Attention, Perception, and Psychophysics</i>, 76, 2063-2070.</p>
<i>M Feb 15</i>	<p><i>Alberta Family Day, University closed (except Taylor Family Digital Library, Law, Medical, Gallagher and Business Libraries).</i></p> <p><i>No lectures.</i></p>	
<b>M Feb 22</b>	Abstract Concepts	<p>Perniss, P., &amp; Vigliocco, G. (2014). The bridge of iconicity: From a world of experience to the experience of language. <i>Phil Trans of the Royal Society B</i>, 369,</p> <p>Dove, G. (2015). Three symbol ungrounding problems: Abstract concepts and the future of embodied cognition. <i>Psychonomic Bulletin &amp; Review</i>.</p> <p>Diykstra, K., et al. (2014). Embodied cognition,</p>

		abstract concepts, and the benefits of new technology for implicit body manipulation. <i>Frontiers in Psychology</i> .
<b>M Feb 29</b>	Social Embodiment	Ackerman, J. M., et al. (2010). Incidental haptic sensations influence social judgments and decisions. <i>Science</i> , 328, 1712-1715. Lakens, D. (2014). Grounding social embodiment. <i>Social Cognition</i> , 32, 168-183.
<b>M Mar 7</b>	Embodiment, Action, Perception	Pulvermuller, F., et al. (2014). Motor cognition-motor semantics: Action perception theory of cognition and communication. <i>Neuropsychologia</i> , 55, 71-84. Philbeck, J. W., & Witt, J. K. (2015). Action-specific influences on perception and postperceptual processes: Present controversies and future directions. <i>Psychological Bulletin</i> , 141, 1120-1144.
<b>M Mar 14</b>	Students' Choice	Students' Choice
<i>M Mar 21</i>	<i>No lecture</i>	
<b>M Mar 28</b>	Students' Choice	Students' Choice
<b>M Apr 4</b>	Research Proposal Presentations	
<b>M Apr 11</b>	Research Proposal Presentations	
<i>W Apr 13</i>	<i>Winter Term Lectures End. Last day to withdraw from full courses and Winter Term half courses.</i>	

### Reappraisal of Grades

A student who feels that a piece of graded term work (e.g., term paper, essay, test) has been unfairly graded, may have the work re-graded as follows. The student shall discuss the work with the instructor within 15 days of being notified about the mark or of the item's return to the class; no reappraisal of term work is permitted after the 15 days. If not satisfied, the student shall immediately take the matter to the Head of the department offering the course, who will arrange for a reassessment of the work within the next 15 days. The reappraisal of term work may cause the grade to be raised, lowered, or to remain the same. If the student is not satisfied with the decision and wishes to appeal, the student shall address a letter of appeal to the Dean of the faculty offering the course within 15 days of the unfavourable decision. In the letter, the student must clearly and fully state the decision being appealed, the grounds for appeal, and the remedies being sought, along with any special circumstances that warrant an appeal of the reappraisal. The student should include as much written documentation as possible.

### **Plagiarism and Other Academic Misconduct**

Intellectual honesty is the cornerstone of the development and acquisition of knowledge and requires that the contribution of others be acknowledged. Consequently, plagiarism or cheating on any assignment is regarded as an extremely serious academic offense. Plagiarism involves submitting or presenting work in a course as if it were the student's own work done expressly for that particular course when, in fact, it is not. Students should examine sections of the University Calendar that present a Statement of Intellectual honesty and definitions and penalties associated with Plagiarism/Cheating/Other Academic Misconduct.

### **Academic Accommodation**

Students seeking an accommodation based on disability or medical concerns should contact Student Accessibility Services ; SAS will process the request and issue letters of accommodation to instructors. For additional information on support services and accommodations for students with disabilities, visit [www.ucalgary.ca/access/](http://www.ucalgary.ca/access/).

Students who require an accommodation in relation to their coursework based on a protected ground other than disability should communicate this need in writing to their Instructor.

The full policy on Student Accommodations is available at [http://www.ucalgary.ca/policies/files/policies/student-accommodation-policy\\_0.pdf](http://www.ucalgary.ca/policies/files/policies/student-accommodation-policy_0.pdf).

Students who have not registered with the Disability Resource Centre are not eligible for formal academic accommodation. You are also required to discuss your needs with your instructor no later than 14 days after the start of this course.

### **Absence From A Test/Exam**

Makeup tests/exams are **NOT** an option without an official University medical excuse (see the University Calendar). A completed Physician/Counselor Statement will be required to confirm absence from a test/exam for health reasons; the student will be required to pay any cost associated with this Statement. Students who miss a test/exam have up to 48 hours to contact the instructor and to schedule a makeup test/exam. Students who do not schedule a makeup test/exam with the instructor within this 48-hour period forfeit the right to a makeup test/exam. At the instructor's discretion, a makeup test/exam may differ significantly (in form and/or content) from a regularly scheduled test/exam. Except in extenuating circumstances (documented by an official University medical excuse), a makeup test/exam must be written within 2 weeks of the missed test/exam during exam make-up hours provided by the department <http://psychology.ucalgary.ca/undergraduate/exam-and-course-information#mues>.

### **Travel During Exams**

Consistent with University regulations, students are expected to be available to write scheduled exams at any time during the official December and April examination periods. Requests to write a make-up exam because of conflicting travel plans (e.g., flight bookings) will NOT be considered by the department. Students are advised to wait until the final examination schedule is posted before making any travel arrangements. If a student cannot write their final exam on the date assigned by the Registrar's Office, they need to apply for a deferred exam. Under no circumstances will this be accommodated by the department.

### **Freedom of Information and Protection of Privacy (FOIP) Act**

The FOIP legislation disallows the practice of having student's retrieve tests and assignments from a public place. Therefore, tests and assignments may be returned to students during class/lab, or during office hours, or via the Department Office (Admin 275), or will be made available only for viewing during exam review sessions scheduled by the Department. Tests and assignments will be shredded after one year. Instructors should take care to not link students' names with their grades, UCIDs, or other FOIP-sensitive information.

### **Evacuation Assembly Point**

In case of an emergency evacuation during class, students must gather at the designated assembly point nearest to the classroom. The list of assembly points is found at

<http://www.ucalgary.ca/emergencyplan/assemblypoints>

Please check this website and note the nearest assembly point for this course.

### **Student Ombudsman's Office**

The Office of the Student Ombudsmen provides independent, impartial and confidential support for students who require assistance and advice in addressing issues and concerns related to their academic careers. The office can be reached at 403-220-6420 or [ombuds@ucalgary.ca](mailto:ombuds@ucalgary.ca)

(<http://www.ucalgary.ca/provost/students/ombuds>)

### **Safewalk**

The safewalk program provides volunteers to walk students safely to their destination anywhere on campus. This service is free and available 24 hrs/day, 365 days a year.

Call 403-220-5333.

### **Important Dates**

The last day to drop this course with no "W" notation and **still receive a tuition fee refund** is **January 22, 2016**. Last day for registration/change of registration is **January 25, 2016**. The last day to withdraw from this course is **April 13, 2016**.