

Course Syllabus

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NOTE: Syllabus in progress and subject to updates!

PSY473H1 – Social Cognitive Neuroscience

ROOM: SS####

TIME: Tuesday 10am to 1pm

Contact Information

Professor:

William Cunningham

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[\(mailto:cunningham@psych.utoronto.ca\)](mailto:cunningham@psych.utoronto.ca)

Teaching Assistant:

Merron Woodbury

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Office Hour:

TBD

Internet call

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TBD

Internet call

Class format

The first hour of each class period is reserved for discussion on the previous weeks lecture, and then there will be a two hour discussion of new material. We will have an active slack board where discussion can continue between class times, and students can ask each other conceptual and clarification questions.

Class attendance

I will not be taking attendance this year, but highly recommend coming to as many classes as possible. The in-person discussion is an important part of the class. That said, if you are unwell or have covid symptoms, the videos from a previous semester will be made available to you. Similarly, if I need to miss class for sickness, I will post the videos for that class.

Course Description, Goals, and Prerequisites

Social cognitive neuroscience is an emerging interdisciplinary field that seeks to integrate theories of social psychology and cognitive neuroscience to understand behaviour at three fundamentally interrelated levels of analysis (social, cognitive, and neural). Topics such as self-regulation, cooperation, decision-making, emotion, morality, and prejudice will be examined.

Prerequisite: PSY201H1/ ECO220Y1/ EEB225H1/ GGR270H1/ POL222H1/ SOC202H1/ STA220H1/ STA238H1/ STA248H1/ STA288H1/ PSY201H5/ STA215H5/ STA220H5/ PSYB07H3/ STAB22H3/ STAB23H3/ STAB57H3, and PSY270H1/ PSY270H5/ PSYB57H3/ COG250Y1 or PSY290H1/ PSY290H5/ PSYB64H3/ HMB200H1/ PSL300H1

Recommended Preparation: PSY220H1/ PSY220H5/ PSYB10H3/ SOC213H1, PSY326H1

Exclusion: PSY353H5/ PSYD17H3 / PSY373H1

Distribution Requirement Status: This is a Science course

Breadth Requirement: Thought, Belief and Behaviour (2)

Note about prerequisites: It is your responsibility to ensure that you have met **all** prerequisites listed in the Psychology section of the A&S Calendar for this course. If you lack any prerequisites you WILL BE REMOVED. No waivers will be granted.

Reading Material/Textbook(s)

Readings for the class come from primary journal or chapter sources. Readings for each week are provided at the end of the syllabus for each week. The University of Toronto has on-line access to the journals through the library. [Scholar.google.com](https://scholar.google.com) (Links to an external site.) (<http://scholar.google.com/>) is another fast way of finding articles (I will demonstrate on the first class). Because there is a lot of reading, the starred articles are necessary reading, although the others will be useful for getting the most out of the class and the potential for the highest marks.

Course Evaluation/Marking Scheme

First Term Test (35%) – October 24th. This term test will cover all material up to that date. The format of the term test will be a combination of true/false, short answer questions and short essays. This term test will be two hours.

Paper Topic Summary (3%) - October 31st. Students will need to provide their topic proposal to students in the class for peer comments. The proposal should be uploaded to Quercus, and also emailed to the student who will be providing feedback. This is due at 5pm.

Peer Feedback (3%) - November 7th. Students will need to upload their peer feedback to Quercus by 5pm and also email the student who they are providing feedback for.

Second Term Test (25%) – December 5th. The second term test will cover all material from the previous exam up to that date. The format of the term test will be a combination of true/false, short answer questions and short essays. This exam will be two hours.

Study Proposal Paper (30%) - Due December 8th. Students are expected to write a 5 to 6-page single spaced paper proposing a new research project testing an outstanding question in the field of social cognitive neuroscience. This project is to be written in the standard 4 section format:

Introduction: a good introduction will identify the gap in the literature that your study addresses, describes its significance, and sets the context for the proposed study.

Methods: A good methods section will describe in detail the design and procedures of the study.

Results: A good results section will thoroughly explain the results you would expect if you ran the study and should include a figure that describes the data you would expect to collect.

Discussion: A good discussion section summarizes how specifically your design and results would address the research question, and what this would imply for the topic and future research more broadly.

Please note that the most critical part of the project is the experimental design and expected results.

To ensure success, it is important to start writing your paper much earlier in the class and be doing final edits towards the end of the semester. Plan your work accordingly throughout the semester – penalty free extensions will not be granted because of conflicts with other courses. 5% will be deducted for each day late.

Here is a resource to help with ideas:

McGuire, W. J. (1997). Creative hypothesis generating in psychology. Annual Review of Psychology, 48, 1-30.

I highly recommend that you have an idea for your paper by the midterm. **In fact, I will ask you about your current paper idea on the midterm!**

Discussion board answers (2% at midterm and 2% at final). Helping to re-articulate material aids in the understanding and comprehension of the material. This class will have an active discussion board component where students can ask questions and get answers from students in the class. This can range from clarification question ("what did Dr. Cunningham mean when he said?") to *understanding* questions ("wait, if Dr. Cunningham said this last lecture, how can this also be true?") to *extension* questions ("Given this study presented in class, wouldn't that mean self-control may be...?"). Oftentimes, students have the best ability to clarify material because they can sometimes explain it using different words or different examples (the classic TA effect).

Marking will be as follows. If you never respond to a question, your mark for this TA will simply be 20% lower than your course mark (so, if you have a 75% in the course, you will get 6/10 points) as to not completely penalize someone who does not want to contribute. Two reasonable responses will get 100% of your course mark (7.5/10 points for this example), and marks will increase as a function of number and quality of responses. This is an easy way to convert those 69s to 70s and 79s to 80s for your final grade and help your fellow students. Further, this allows for our "virtual office hour" to be more focused on larger conceptual questions and can allow you all to explore ideas before we do that collectively. **To ensure that you receive marks for your contributions, you must keep a record of the questions that you answered (e.g., word, google doc). A separate document should be created for each half of the course. These documents can be submitted during the midterm and the final exam. Separate marks will be given for the first half and second half of the course.**

Course Policies

Online communication:

Although I will often check my email, I will only guarantee email responses for this class during my office hours each week. I will not respond to emails about the class material within three days before an exam.

Generative AI:

Students are encouraged to make use of technology, including generative artificial intelligence tools, to contribute to their understanding of course materials. Students may choose to use generative artificial intelligence tools as they work through the assignments in this course; this use must be documented in an appendix for each assignment. The documentation should include what tool(s) were used, how they were used, and how the results from the AI were incorporated into the submitted work. For the paper, track changes must be provided to demonstrate where the AI work was edited by the student.

Lecture capture:

If an internet group is formed to share materials, it must be password protected. Material from the class should not be widely shared to allow free and open discussion.

Missed Tests:

Absence Declaration on ACORN must be submitted within one week of missing the test. Medical documentation must show that the physician was consulted within one the day of the missed term test. An email from the College registrar's office may also suffice as appropriate documentation. Students who miss final examinations should file a petition for a deferred exam with their College Registrar's Office.

COVID update: During the pandemic, rules sometimes change. Current University of Toronto rules supersede the missed tests policies of this syllabus.

Lateness policy:

5% will be deducted from the total marks possible for each day late.

Remarking policy:

If you would like to make a case for receiving a different mark on a graded assignment, please note that you have two weeks from the date an assignment is returned to you to submit the assignment for remarking. Please contact the TA for more information. Absolutely no assignments will be re-graded beyond this time limit. Material submitted for remarking must be accompanied by a brief written explanation detailing your reasons for receiving a different grade. Be as specific as possible (e.g. correction of addition errors in calculating a grade, a specific point or step that the grader missed, etc.). The item will first be returned to the TA who originally graded it. If you are still dissatisfied, it may be passed on to the Course Instructor, at the Course Instructor's discretion. Note that in agreeing to resubmit your work for remarking, **you are agreeing to a re-evaluation of all your work** that may see your grade go up, go down or stay the same.

Assignment Submission Method:

All assignments must be submitted online to both the Professor and the TA. Uploading to the course website is also required (the more places that you submit, the less likely it is to get lost).

Quercus Info:

This course uses the University's learning management system, Quercus, to post information about the course, including materials required to complete class activities and course assignments, share important announcements and updates, and foster academic discussion between learners. The site is dynamic and new information and resources will be posted regularly as we move through the term. The principal source of information about all course-related work will be the course site in Quercus, so please make it a habit to log in to the site on a regular if not daily basis. To access the course website, go to the U of T Quercus log-in page at

<https://q.utoronto.ca> and log in using your UTORid and password.

Please note that any grades posted on Quercus are posted for your information only, so you can view and track your progress through the course. **No grades are considered official, including any posted in Quercus at any point in the term, until they have been formally approved by the Course Instructor at the end of the course.** In other words, your final mark in the class may be curved up or down to satisfy reasonable grade distributions.

Academic Resources

Religious accommodation:

As a student at the University of Toronto, you are part of a diverse community that welcomes and includes students and faculty from a wide range of backgrounds, cultural traditions, and spiritual beliefs. For my part, I will make every reasonable effort to avoid scheduling tests, examinations, or other compulsory activities on religious holy days not captured by statutory holidays. Further to university policy, if you anticipate being absent from class or missing a major course activity (like a test, or in-class assignment) due to a religious observance, please let me know as early in the course as possible, and with sufficient notice (at least two to three weeks), so that we can work together to make alternate arrangements.

Specific Medical Circumstances

If you become ill and it affects your ability to do your academic work, consult me right away. Normally, I will ask you for documentation in support of your specific medical circumstances. This documentation can be an Absence Declaration (via ACORN) or the University's Verification of Student Illness or Injury (VOI) form. The VOI indicates the impact and severity of the illness, while protecting your privacy about the details of the nature of the illness. You can submit a different form (like a letter from a doctor), as long as it is an original document, and it contains the same information as the VOI. For more information on the VOI, please see <http://www.illnessverification.utoronto.ca>. For information on Absence Declaration Tool for A&S students, please see <https://www.artsci.utoronto.ca/absence>. If you get a concussion, break your hand, or suffer some other acute injury, you should register with Accessibility Services as soon as possible.

Accommodation for Personal Reasons:

There may be times when you are unable to complete course work on time due to non-medical reasons. If you have concerns, speak to me. It is also a very good idea to speak with an advisor in your College Registrar's office; they can support you in requesting extensions or accommodations, and importantly, connect you with other resources on campus for help with your situation.

Accessibility Needs:

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 Accessibility Services at (416) 978 8060; accessibility.services@utoronto.ca (<mailto:accessibility.services@utoronto.ca>)

Writing:

As a student here at the University of Toronto, you are expected to write well. The university provides its students with a number of resources to help them achieve this. For more information on campus writing centers and writing courses, please visit [http://www.writing.utoronto.ca/Links to an external site.](http://www.writing.utoronto.ca/Links%20to%20an%20external%20site) (<http://www.writing.utoronto.ca/>).

Academic Integrity and Plagiarism:

Academic integrity is essential to the pursuit of learning and scholarship in a university, and to ensuring that a degree from the University of Toronto is a strong signal of each student's individual academic achievement. As a result, the University treats cases of cheating and plagiarism very seriously. The University of Toronto's Code of Behaviour on Academic Matters (www.governingcouncil.utoronto.ca/policies/behaveac.htm[Links to an external site.](#)[Links to an external site.](#) (<http://www.governingcouncil.utoronto.ca/policies/behaveac.htm>)) outlines the behaviours that constitute academic dishonesty and the processes for addressing academic offences.

All suspected cases of academic dishonesty will be investigated following procedures outlined in the Code of Behaviour on Academic Matters. If you have questions or concerns about what constitutes appropriate academic behaviour or appropriate research and citation methods, you are expected to seek out additional information on academic integrity from your instructor or from other institutional resources (see www.utoronto.ca/academicintegrity/resourcesforstudents.html[Links to an external site.](#)[Links to an external site.](#) (<http://www.utoronto.ca/academicintegrity/resourcesforstudents.html>)).

Other Resources

Student Life Programs and Services ([http://www.studentlife.utoronto.ca/Links to an external site.](http://www.studentlife.utoronto.ca/Links%20to%20an%20external%20site) (<http://www.studentlife.utoronto.ca/>))

Academic Success Services ([http://www.asc.utoronto.ca/Links to an external site.](http://www.asc.utoronto.ca/Links%20to%20an%20external%20site) (<http://www.asc.utoronto.ca/>))

Counselling and Psychological Services (<http://www.caps.utoronto.ca/main.htm>[Links to an external site.](#) (<http://www.caps.utoronto.ca/main.htm>))

Course Outline/Schedule

Date	Topic
September 12	Introduction

September 19	The social brain
September 26	The need for others
October 3	Constructing emotions
October 10	Constructing a self-concept
October 17	catch up and review
October 24	Term Test 1
October 31	Considering the future you and self-control
November 7	Fall Reading Week
November 14	Constructing value
November 21	Living in groups
November 28	Ingroups and outgroups
December 5	Term Test 2

Details on Assignments/Readings

Introduction

Ochsner, K. N., & Lieberman, M. D. (2001). The emergence of social cognitive neuroscience. *American Psychologist*, 56, 717-734.

*Cacioppo, J. T., Berntson, G. G., Sheridan, J. F., & McClintock, M. K. (2000). Multilevel integrative analyses of human behavior: social neuroscience and the complementing nature of social and biological approaches. *Psychological bulletin*, 126(6), 829.

Lieberman, M. D. (2012). A geographical history of social cognitive neuroscience. *Neuroimage*, 61, 432-436.

A social ecology and the social brain

Lieberman, M. D. (2007). Social cognitive neuroscience: a review of core processes. *Annu. Rev. Psychol.*, 58, 259-289.

Saxe, R. (2006). Uniquely human social cognition. *Current opinion in neurobiology*, 16(2), 235-239.

Todorov, A., Harris, L. T., & Fiske, S. T. (2006). Toward socially inspired social neuroscience. *Brain research*, 1079(1), 76-85.

Need for others

Hawkley, L. C., & Cacioppo, J. T. (2010). Loneliness matters: a theoretical and empirical review of consequences and mechanisms. *Annals of Behavioral Medicine*, 40(2), 218-227.

*Eisenberger, N. I. (2015). Social pain and the brain: Controversies, questions, and where to go from here. *Annual Review of Psychology*, 66, 601-629.

Constructing Emotions

Barrett, L. F. (2006). Are emotions natural kinds?. *Perspectives on psychological science*, 1(1), 28-58.

Phelps, E. A. (2006). Emotion and cognition: insights from studies of the human amygdala. *Annual Review Psychology*, 57, 27-53.

Panksepp, J., & Watt, D. (2011). What is basic about basic emotions? Lasting lessons from affective neuroscience. *Emotion Review*, 3(4), 387-396.

*Cunningham, W. A., Dunfield, K. A., & Stillman, P. E. (2013). Emotional states from affective dynamics. *Emotion Review*, 5(4), 344-355.

Constructing a self-concept

Klein, S. B., Rozendal, K., & Cosmides, L. (2002). A social-cognitive neuroscience analysis of the self. *Social Cognition*, 20(2), 105-135.

*Legrand, D., & Ruby, P. (2009). What is self-specific? Theoretical investigation and critical review of neuroimaging results. *Psychological review*, 116(1), 252.

Northoff, G., Heinzel, A., De Greck, M., Bermpohl, F., Dobrowolny, H., & Panksepp, J. (2006). Self-referential processing in our brain—a meta-analysis of imaging studies on the self. *Neuroimage*, 31(1), 440-457.

Considering the future you and self-control

Heatherton, T. F., & Wagner, D. D. (2011). Cognitive neuroscience of self-regulation failure. *Trends in cognitive sciences*, 15(3), 132-139.

*Mansouri, F. A., Koechlin, E., Rosa, M. G., & Buckley, M. J. (2017). Managing competing goals—a key role for the frontopolar cortex. *Nature Reviews Neuroscience*, 18(11), 645.

*O'Reilly, R. C., Hazy, T. E., Mollick, J., Mackie, P., & Herd, S. (2014). Goal-driven cognition in the brain: a computational framework. *arXiv preprint arXiv:1404.7591*.

Constructing Value

*Grabenhorst, F., & Rolls, E. T. (2011). Value, pleasure and choice in the ventral prefrontal cortex. *Trends in cognitive sciences*, 15(2), 56-67.

Fehr, E., & Camerer, C. F. (2007). Social neuroeconomics: the neural circuitry of social preferences. *Trends in cognitive sciences*, 11(10), 419-427.

Rilling, J. K., & Sanfey, A. G. (2011). The neuroscience of social decision-making. *Annual review of psychology*, 62, 23-48.

Living in groups

Zaki, J., & Mitchell, J. P. (2013). Intuitive prosociality. *Current Directions in Psychological Science*, 22(6), 466-470.

Greene, J., & Haidt, J. (2002). How (and where) does moral judgment work?. *Trends in cognitive sciences*, 6(12), 517-523.

*Riedl, R., & Javor, A. (2012). The biology of trust: Integrating evidence from genetics, endocrinology, and functional brain imaging. *Journal of Neuroscience, Psychology, and Economics*, 5(2), 63.

Chiao, J. Y. (2009). Cultural neuroscience: A once and future discipline. *Progress in brain research*, 178, 287-304.

Ingroups and Outgroups

*Cunningham, W. A., & Van Bavel, J. J. (2009). A neural analysis of intergroup perception and evaluation. *Handbook of neuroscience for the behavioral sciences*.

Cikara, M., & Van Bavel, J.J. (2014). The neuroscience of intergroup relations: An integrative review. *Perspectives on Psychological Science*, 9, 245-274.

Quadflieg, S., & Macrae, C. N. (2011). Stereotypes and stereotyping: What's the brain got to do with it?. *European Review of Social Psychology*, 22(1), 215-273.

Course Summary:

Date	Details	Due
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