PSYD66: Current Topics in Human Brain and Behaviour
Winter 2023

Professor Ravi Thiruchselvam
Office: HW 506
Course Email: Thiruchselvam.PSYD66@gmail.com
Seminar Meetings: Mondays 3 – 5pm
Seminar Classroom: MW 262

This course will investigate specific questions on the neural bases of self-representation. Nearly every waking moment of our lives appears to be characterized by the peculiar feeling of *being someone,* a fundamental sense that there is a unitary self that occupies a body, engages in various decisions and actions, and is continuous across time. How does the human mind and brain construct and represent this sense of self? We will explore emerging theories and empirical findings on this topic.

Course Objectives

It is my hope that, by the end of this course, students would be able to:

1) Understand current scientific debates on the neural and psychological bases of self-representation and their connection to foundational theories and findings in the field.
2) Learn how to read and carefully decipher primary scientific articles in the field, discerning the meaning and significance of both the core elements and finer details of the articles.
3) Develop critical thinking skills by identifying important weaknesses and limitations in current research (e.g., in conceptual foundations, methodology, and data analysis or interpretation) and reflecting on potential ways to improve the state of the field.
4) Strengthen oral communication skills by actively engaging with peers and the instructor in thoughtful class dialogue and presentations.
5) Learn to write more effectively by completing reflection papers on assigned readings and a two-stage APA-style research proposal.
6) Identify the broader relevance of the content covered in the class to other academic disciplines (e.g., the arts, political science).

Course Email

All course-related emails must be sent to the following address:

Thiruchselvam.PSYD66@gmail.com

Messages sent to other addresses (e.g., to Quercus or the instructor's individual email account) may not be answered. Please ensure that the correct email address is used in all your course-related communications.

Course Prerequisites

To enrol in this course, please ensure that you have completed 1.0 credit from the following:

[PSYB55H3 or (PSYB65H3)] and [0.5 credit at the C-level in PSY or NRO courses] and [(PSYB01H3) or (PSYB04H3) or PSYB70H3] and [PSYB07H3 or STAB22H3 or STAB23H3]

Course Webpage/Quercus

The website associated with this course is accessible on Quercus via http://q.utoronto.ca. The syllabus, relevant course documents, and announcements will be posted there. I strongly recommend that you check Quercus regularly.

Office Hours

I will be available for virtual meetings on Fridays 2-3:30pm or by appointment. If you have questions about course content, performance in the class, or neuroscience and psychology more broadly, feel free to schedule a meeting. To do so, please email me at:
Thiruchselvam.PSYD66@gmail.com

Course Evaluation/Marking Scheme

Seminar participation: 15%
Discussion questions: 8%
Article reflections: 25% (two reflections worth 12.5% each)
Class Debate: 15%
Research proposal: 37% (12% outline and 25% final paper)

Below, I offer a high-level summary of each of the evaluation components in the course. A more detailed rubric, including the grading scheme, for each of these assessments will be shared separately as the course progresses and remains subject to change based on how the Covid-19 pandemic unfolds and impacts course delivery.

Seminar Participation (15%)

Seminar classes offer an invaluable space to interact directly with your peers and instructor – to openly ask questions, share thoughts, and to ultimately learn from each other. For seminars to be most meaningful, it is important that students actively participate by contributing to class discussions. I invite you to view seminar discussions as an ongoing opportunity to develop and refine your oral communication skills – to learn how to ask better questions, express ideas more clearly, challenge arguments and offer alternative views. In addition to bringing us towards the ideas of *other people*, seminars can also be a helpful vehicle with which to investigate

our own thinking carefully by inviting real-time feedback from peers and the instructor. To this end, we will aim to cultivate an atmosphere where respectful, non-judgmental dialogue is promoted and self-inquiry is valued. I understand that students may sometimes find it difficult to actively participate for different reasons (e.g., technical issues, shyness). If that is the case, please feel free to schedule office hours meetings with me to discuss potential solutions. Seminar participation will be graded based on regularity of attendance (you are expected to attend all classes on time) and the thoughtfulness of questions and comments raised during the class discussion.

Discussion Questions (8%)

Prior to every seminar meeting, students will submit two discussion questions for each of the two assigned articles each week, for a total of 4 discussion questions per week. In each case, you are asked to clearly describe the question and add a brief (i.e., 3-5 sentence) explanation about why you believe this specific question is interesting or important. Student discussion questions for each week's assigned readings should be submitted sometime before the seminar meeting, by Monday at 10am at the latest. The discussion questions for each week can be uploaded onto Quercus under the *Assignments* module. Where possible, I will try to integrate students' questions into the seminar discussion for that meeting.

In addition, I will be posting my own set of discussion questions for the assigned readings each week on Quercus prior to every seminar meeting. You are encouraged to reflect on these questions as you read the assigned articles, as they will help orient your attention to aspects of the readings that will become the focus of our seminar discussions.

Article Reflections (25%)

Throughout the term, students will write two reflection pieces (each worth 12.5%) on a chosen article from our set of assigned readings. Each reflection piece should be between 800-1000 words. The articles you select must come from two different weeks of the course. The first and second article reflections are due on February 3rd at 11:59pm and March 17th at 11:59pm, respectively.

In the first half of the seminar reflection, you are asked to summarize the article clearly and succinctly by highlighting the core elements of the article (e.g., the central rationale, methods, and findings for empirical papers, or the key arguments advanced for theoretical papers). In the next half of the reflection piece, you are encouraged to view the article through an independent lens by *going beyond* what the article already describes (and if a seminar has been held, what we have covered in the class discussion). In other words, this latter half of the reflection piece serves as an opportunity to offer novel ideas and perspectives on the article. For instance, you can consider questions such as: *Have the authors (or we the class) failed to consider something important in their article or the discussion thereof? How do you think future research on the topic can be informed by this article? How do ideas and/or findings from this article relate to academic fields outside of neuroscience?* Article reflections will be graded for clarity, depth of understanding, insightfulness, and originality.

Class Debate (15%)

There will be three class debates throughout the course, with each debate consisting of two groups (3-4 students) taking opposing positions on an assigned topic. Groups will be established at the beginning of the course based on students' topic preferences.

The debate will consist of three phases: (1) opening arguments – 8 minutes for each group; (2) free exchange, involving rebuttals to the initial points made during the opening arguments as well as additional claims each group wishes to make – 25 minutes; and (3) closing arguments – 3 minutes for each group. Following the debate, the class at large will have an opportunity to discuss the assigned topic. The material in the opening and closing arguments should be divided up fairly among the group members. I will be moderating each debate.

Although each debate will be partly based on assigned readings, debate groups are responsible for performing a literature review to generate arguments to build as robust a case for their position as possible. This involves probing the literature for additional empirical studies and theoretical arguments. I encourage each group to meet with me to obtain guidance on this. Additional details on the class debates will be provided on Quercus.

Research Proposal (37% total: 12% proposal outline and 25% final paper)

One goal of the course is to generate new hypotheses for research on the neural and psychological bases of self-representation. Since the field is relatively young, the possibilities for novel research questions are vast, and you are asked to think creatively to identify new questions and predictions. You will choose a specific topic that we cover in the course, review the relevant literature on it, construct novel predictions, design a study to test these predictions, and outline expected findings. This will culminate in an APA-style research proposal.

The research proposal will have two components: a proposal outline (due February 10th at 11:59pm) and a final paper (due April 10th at 11:59pm). The purpose of the initial proposal outline is to help you receive feedback that can then be integrated into the final paper. For the proposal outline, you are asked to submit a brief (i.e., 2-3 page, double-spaced) summary of your planned proposal. This will include a justification of your research question based on a review of the literature and an overview of the research methods, including the study design and key measures. The final research proposal (expected to be 10-12 pages in length, double-spaced) should strive to elaborate on the core elements in your outline and integrate my feedback where possible. Additional details will be provided in class.

Summary of Key Due Dates

Weekly Discussion Questions: Mondays by 10am
Article Reflection 1: February 3rd by 11:59pm
Research Proposal Outline: February 10th by 11:59pm
Article Reflection 2: March 17th by 11:59pm
Final Research Proposal: April 10th by 11:59pm

Class Format

The class will meet in MW 262 on on Mondays from 3 – 5pm. In general, I will begin most sessions with a brief lecture, offering context for our discussion of the assigned readings for that week. We will then open the session for class discussion, focusing on the discussion questions that I had posted online for that week. I will also aim to weave together into our discussion the questions that students have submitted prior to the seminar meeting.

Course Outline

I have tried to make the schedule as comprehensive as possible. However, I reserve the right to make minor adjustments as necessary. I will inform you of these changes as soon as possible.

DATE	TOPIC	ASSIGNED READINGS
Week 1 January 9th	Introduction to the course	No Readings
Week 2 January 16th	Making the self: Agency	McAdams (2013); Soon et al. (2008)
Week 3 January 23rd	Making the self: Identity (part I) *Group assignments posted for class debates*	McAdams and Guo (2014); Schwabe et al. (2012)
Week 4 January 30th	Making the self: Identity (part II)	Adler et al. (2015); Crocker et al. (2003)
Week 5 February 6th	Making the self: Body ownership	Ehrsson et al. (2004); Salomon (2017)
Week 6 February 13th	Making the self: Seeing oneself through others	Jenkins et al. (2008); Krienen et al. (2010)
Week 7 February 20th	Reading week – No class February 18 - 24	No Readings
Week 8 February 27th	Protecting the self (part I): Positive illusions and self-enhancement	Hughes and Beer (2013); Sharot et al. (2012)

Week 9 March 6th	Protecting the self (part II): Authenticity and self-disclosure	Bailey et al. (2020); Tamir and Mitchell (2012)
Week 10 March 13th	Losing the self: Transcending the *I*	Carhart-Harris et al. (2012); Milliere (2017)
Week 11 March 20th	Class debate I: Agency	*To be announced*
Week 12 March 27th	Class debate II: Identity	*To be announced*
Week 13 April 3rd	Class debate III: Self-enhancement	*To be announced*

Reading Assigned Articles

A core aim in the course is to delve deeply into the theoretical and empirical literature on the psychological and neural bases of self-representation. I have done my best to select articles that are of reasonable length and complexity. However, some of these articles are dense (as they are written with current researchers in mind) and it may be helpful to read them more than once prior to class. To facilitate a deeper understanding of the assigned readings and to prepare for a thoughtful seminar discussion, please read the articles with at least the following four **general** questions in mind:

1) What claims are being made exactly? Are the claims supported by strong reasoning and evidence? Do you see any problems or concerns?

2) What assumptions are the author(s) making? Are these assumptions reasonable or can they be challenged? In this case, *assumptions* refer to ideas or beliefs that the authors seem to be relying on that are not explicitly stated.

3) For empirical papers: What are the specific methods (e.g., experimental design, independent & dependent variables) being used to investigate the research questions? Do these methods have weaknesses, and if so, how might you have conducted the study differently?

4) How do the articles' claims fit into broader themes on the topic of self-representation? How do they relate to other ideas and findings you have encountered in this course or elsewhere?

In addition to these general questions, as noted above I will also be posting **article-specific** questions for each of our readings every week on Quercus. These article-specific questions are meant to highlight important elements of the readings and orient your attention towards aspects of the papers that we will explore in seminar discussions. Please be sure to reflect on these

questions as well as you read the articles. In general, both assigned articles each week should be read prior to the seminar meeting. All readings are available through UofT Libraries or Google Scholar and students are responsible for accessing and downloading them.

Assigned Readings

Week 1 -- Introduction to the course

No assigned readings

Week 2 -- Making the self: Agency

McAdams, D. P. (2013). The psychological self as actor, agent, and author. *Perspectives on psychological science*, *8*(3), 272-295

Soon, C. S., Brass, M., Heinze, H. J., & Haynes, J. D. (2008). Unconscious determinants of free decisions in the human brain. *Nature neuroscience, 11*(5), 543.

Week 3 -- Making the self: Identity (part I)

McAdams, D. P., & Guo, J. (2014). How shall I live? Constructing a life story in the college years. *New directions for higher education*, *2014*(166), 15-23

Schwabe, L., Nader, K., Wolf, O. T., Beaudry, T., & Pruessner, J. C. (2012). Neural signature of reconsolidation impairments by propranolol in humans. *Biological psychiatry, 71*(4), 380-386.

Week 4 -- Making the self: Identity (part II)

Adler, J. M., Turner, A. F., Brookshier, K. M., Monahan, C., Walder-Biesanz, I., Harmeling, L. H., ... & Oltmanns, T. F. (2015). Variation in narrative identity is associated with trajectories of mental health over several years. *Journal of personality and social psychology*, *108*(3), 476

Crocker, J., Karpinski, A., Quinn, D. M., & Chase, S. K. (2003). When grades determine self-worth: consequences of contingent self-worth for male and female engineering and psychology majors. *Journal of personality and social psychology*, *85*(3), 507

Week 5 -- Making the self: Body ownership

Ehrsson, H. H., Spence, C., & Passingham, R. E. (2004). That's my hand! Activity in premotor cortex reflects feeling of ownership of a limb. *Science*, *305*(5685), 875-877.

Salomon, R. (2017). The assembly of the self from sensory and motor foundations. *Social cognition*, *35*(2), 87-106.

Week 6 -- Making the self: Seeing oneself through others

Jenkins, Adrianna C., C. Neil Macrae, and Jason P. Mitchell. Repetition Suppression of Ventromedial Prefrontal Activity During Judgments of Self and Others. *Proceedings of the National Academy of Sciences 105*, *11* (2008): 4507–4512.

Krienen, F. M., Tu, P. C., & Buckner, R. L. (2010). Clan mentality: evidence that the medial prefrontal cortex responds to close others. *Journal of Neuroscience*, *30*(41), 13906-13915.

Week 7 -- Reading week: No class

Week 8 -- Protecting the self (part I): Positive illusions and self-enhancement

Hughes, B. L., & Beer, J. S. (2013). Protecting the self: The effect of social-evaluative threat on neural representations of self. *Journal of Cognitive Neuroscience, 25*(4), 613-622.

Sharot, T., Guitart-Masip, M., Korn, C. W., Chowdhury, R., & Dolan, R. J. (2012). How dopamine enhances an optimism bias in humans. *Current Biology*, *22*(16), 1477-1481.

Week 9 -- Protecting the self (part II): Authenticity and self-disclosure

Bailey, E. R., Matz, S. C., Youyou, W., & Iyengar, S. S. (2020). Authentic self-expression on social media is associated with greater subjective well-being. *Nature communications*, *11*(1), 1-9.

Tamir, D. I., & Mitchell, J. P. (2012). Disclosing information about the self is intrinsically rewarding. *Proceedings of the National Academy of Sciences*, *109*(21), 8038-8043.

Week 10 -- Losing the self: Transcending the *I*

Carhart-Harris, R. L., Erritzoe, D., Williams, T., Stone, J. M., Reed, L. J., Colasanti, A., ... & Nutt, D. J. (2012). Neural correlates of the psychedelic state as determined by fMRI studies with psilocybin. *Proceedings of the National Academy of Sciences, 109*(6), 2138-2143.

Milliere, R. (2017). Looking for the self: phenomenology, neurophysiology and philosophical significance of drug-induced ego dissolution. *Frontiers in human neuroscience*, *11*, 245

Week 11 -- Class debate: Agency

Readings to be announced

Week 12 -- Class debate: Identity

Readings to be announced

Week 13 -- Class debate: Self-enhancement

Readings to be announced

Missed Term Work

Department of Psychology Missed Term Work Policy

For missed term work (assignments and term tests) due to illness, emergency, or other mitigating circumstances, please follow the procedures outlined below.

Note:
- The following reasons are not considered sufficient for missed term work: travel for leisure, weddings, personal commitments, work commitments, human error.
- Missed *Final* Exams are handled by the Registrar's Office and should be declared on eService.
- Instructors cannot accept term work any later than five business days after the last day of class. Beyond this date, accommodations are only possible via the Registrar's Office petition process.

> The email address to submit missed term work accommodation requests in **PSYD66** is:
> **Thiruchselvam.PSYD66@gmail.com**

ILLNESS OR EMERGENCY accommodations:
 For missed work due to ILLNESS OR EMERGENCY, complete the following process:
1. Complete the Request for Missed Term Work Accommodations Form.
2. Declare your absence on ACORN (Profile & Settings > Absence Declaration)
3. Email **both** of the following items to the course email **WITHIN 2 BUSINESS DAYS** of the missed work:
   a. the Request for Missed Term Work Accommodations Form
      AND
   b. a screenshot of your Self-Declared Absence on ACORN

Note:
- *If you are unable to submit your request within 2 business days, you must still email your instructor within the 2 business day window to explain the nature of the delay. Exceptions to the 2 business day deadline will only be made under exceptional circumstances.*
- *If your absence is declared on ACORN, we do not require any additional supporting documentation (e.g. medical notes) to support your missed term work accommodation request.*

ACADEMIC CONFLICT accommodations:
 For missed term work due to an ACADEMIC CONFLICT (e.g. two midterms at the same time):
1. Complete the Request for Missed Term Work Accommodations Form.
2. Take screenshots of your course Quercus pages that demonstrate the conflict.
3. Email the form and screenshots to the course email **at least two weeks (10 business days) before the date of the activity,** or as soon as possible if it was not possible to

identify the conflict earlier. Requests sent after the activity deadline may not be accommodated.

Note:
- *Multiple assignments due on the same day are <u>not</u> considered conflicts. Students are expected to manage their time effectively to meet assignment deadlines.*
- *Back-to-back tests/quizzes are <u>not</u> considered conflicts. Only overlapping activities are conflicts.*
- *Students are responsible for keeping their course timetables conflict-free. Students who register in two courses with overlapping lecture/tutorial/lab schedules will not be accommodated.*

RELIGIOUS CONFLICT accommodations:

For missed term work due to a RELIGIOUS CONFLICT:
1. Complete the [Request for Missed Term Work Accommodations Form](#).
2. Email the form to the course **email at least two weeks (10 business days) before the date of the activity**, or as soon as possible if it was not possible to identify the conflict earlier. Requests sent after the activity deadline may not be accommodated.

ACCESSABILITY SERVICES accommodations:

For missed *TERM TESTS* due to ACCESSABILITY REASONS:
- **Contact your AccessAbility consultant** and have them email the course email detailing accommodations required.

For missed *ASSIGNMENTS* due to ACCESSABILITY REASONS:
- If your desired accommodation is **within the scope** of your Accommodation Letter (e.g. your letter includes "extensions of up to 7 days" and you need 3 days):
  1. Complete the [Request for Missed Term Work Accommodations Form](#).
  2. Email the form ***AND*** your **Accommodation Letter** to the course email specifying how many days extension you are requesting.
- If your desired accommodation is **outside the scope** of your Accommodation Letter (e.g. your letter includes "extensions of up to 7 days" but you need more time than that):
  1. **Contact your AccessAbility consultant** and have them email the course email detailing the accommodations required.

Accommodation Procedure:

After submitting your documentation, you will receive a response from your instructor or TA. This form does not guarantee that you will be accommodated. The course instructor reserves the right to decide what accommodations (if any) will be made. Failure to adhere to any aspect of this policy may result in a denial of your request. **You are responsible for checking your official U of T email and Quercus course announcements daily**, as accommodations may be time-critical.

For missed assignments, **do not wait for the instructor's response to resume work on your assignment.** Extensions may be as short as one business day, depending on the nature of the illness/emergency. Complete your assignment as soon as you're able, and email it to your instructor.

For an **anticipated absence** (e.g. a scheduled surgery or an illness with a prolonged recovery period), if you would like to request accommodations in advance, submit a [Verification of Illness Form](#) completed by your doctor AND the [Request for Missed Term Work Accommodations Form](#) to the course email. Absences can be declared up to 14 days into the future on ACORN.

Missed Accommodations

If an accommodation is granted but a continued illness/emergency prevents you from meeting its requirements, you must <u>repeat</u> the missed term work procedure to request additional accommodations. **Please make it clear in your subject line that you are requesting a second accommodation.** E.g. If you are given an extension but are still sick and need more time, or if you miss a <u>make-up</u> term test, you must submit *another* [Request for Missed Term Work Accommodations Form](#) and declare your extended absence on ACORN. ***Note: In the case of a missed make-up test, an opportunity to write a second make-up test may not necessarily be provided.

Masks in the classroom

While the mask mandate has been paused as of 1 July 2022, the use of medical masks continues to be strongly encouraged at U of T Scarborough in indoor settings where physical distancing is not possible. We ask everyone to respect each other's decisions, comfort levels, and health needs. Masks are available at all building entrances at U of T Scarborough and in all classrooms.

Religious Accommodations

The University has a commitment concerning accommodation for religious observances. I will make every reasonable effort to avoid scheduling tests, examinations, or other compulsory activities on religious holy days not captured by statutory holidays. According 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.

Academic Integrity

The University treats cases of cheating and plagiarism very seriously. The University of Toronto's Code of Behaviour on Academic Matters (http://www.governingcouncil.utoronto.ca/policies/behaveac.htm) outlines the behaviours that constitute academic dishonesty and the processes for addressing academic offences. Potential offences in papers and assignments include using someone else's ideas or words without appropriate acknowledgement, submitting your own work in more than one course without the permission of the instructor, making up sources or facts, obtaining or providing unauthorized assistance on any assignment. On tests and exams cheating includes using or possessing unauthorized aids, looking at someone

else's answers during an exam or test, misrepresenting your identity, or falsifying or altering any documentation required by the University, including (but not limited to) doctor's notes.

Plagiarism Detection

Normally, students will be required to submit their course essays to the University's plagiarism detection tool for a review of textual similarity and detection of possible plagiarism. In doing so, students will allow their essays to be included as source documents in the tool's reference database, where they will be used solely for the purpose of detecting plagiarism. The terms that apply to the University's use of this tool are described on the Centre for Teaching Support & Innovation web site (https://uoft.me/pdt-faq). Please ensure that all written assignments in this course are completed independently with proper APA-style citations and attributions.

Late Assignments

To maintain fairness and consistency across the class, late assignments that are not supported with legitimate documentation are subject to a penalty of 10% per day. If there are valid reasons warranting an accommodation (e.g., a medical illness), please follow the Missed Term Work policy outlined above.

AccessABILITY Services

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 as soon as possible. AccessAbility Services staff (currently located in Rm SW302, Science Wing) are available by appointment to assess specific needs, provide referrals and arrange appropriate accommodations 416-287-7560 or email ability@utsc.utoronto.ca.

You are not required to disclose specific details about your accommodations to me when notifying me that you are registered with AccessAbility. I ask you to let me know as soon as possible, as the sooner I know about your needs, the more effective I can be in helping you achieve your learning goals in this course.