

Teaching for Inclusion & Equity Project Artifact

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Course Title: PSYC 4002, Proseminar in Memory and Cognition.

Course Description: A graduate proseminar with 16 PhD students from across different topic areas within psychology (*i.e.*, Clinical, Developmental, Affect/Social/Cognitive). The course used primary sources, both historical and modern, to learn about the science of cognition broadly, with an emphasis on memory.

Project Goal: To create a new final assessment in the proseminar that enabled and encouraged constructive engagement with shortcomings in cognitive psychology research, specifically with respect to diversity and inclusion, and facilitated the active generation of possible scientific paths forward that addressed such inequities. This could function as a critical and forward-looking foundation for the course, making the course more fundamentally inclusive. Additionally, students in previous classes had reported that the prior final assessment (a grant-style paper) was not particularly interesting or useful, and that they felt frustrated that research in cognitive psychology often ignored and thus implicitly dismissed aspects of identity and experience that they felt important and relevant to cognition. The hope with the new assessment was that it would provide an opportunity to directly discuss and work on diversity-related topics that were missing in the literature.

Approach: Replaced the prior final paper assignment with a new assignment that explicitly emphasized engaging with the historical origins of a cognitive psychological concept, its development over time, a critical analysis of its current shortcomings, and a constructive imagining of the future of research with respect to that concept.

The stated goals for the assignment were:

- 1) *Appreciate how all research ideas change and improve over time.*
- 2) *Adopt a constructive, forward-looking approach when critiquing research that may be lacking.*
- 3) *Gain greater awareness of the impact of bias, prejudice, and ignorance on research.*

The assignment was described as being “a lot like a literature review – but focused a little more than normal on the *history* of that idea, how it’s changed and evolved, and ways in which you hope and think it might yet still improve in coming years.”

Conceptually, one important goal of this formulation of the assignment was to allow students significant flexibility in two respects: 1) selecting a (cognitive) topic that was

of interest to them, and 2) selecting a current shortcoming of the research on that topic that was important to and engaging for them. The hoped-for consequence of this approach was to increase student satisfaction with and interest in the assignment and help students play to their own strengths.

The goal of ending the paper with a forward-looking proposal was to help the next generation of psychological scientists practice how to channel observations and/or frustrations about the state of research into pragmatic, considered, actionable, and ultimately positive future steps that could act to move the science of psychology forward in more inclusive and equitable ways.

While students were encouraged to focus on DEI-related topics in their paper, they were not required to. The assignment prompt read:

While it is not necessary, you are encouraged to approach this assignment with an emphasis on the ways in which factors related to e.g. culture, gender, orientation, socioeconomic, race, religion, or (dis)ability, have or have not been integrated into the research topic/concept and the impact of that inclusion/exclusion on our scientific understanding of cognition.

See Appendix for the full text of the assignment prompt, including the framing of the idea, detailed information about content, formatting requirements, scoring, and other information.

Outcomes:

There are two main sources of information about the project's success: 1) the papers that were submitted, and 2) evaluations of the course.

The submitted papers by and large did not discuss shortcomings and propose future directions for research based on issues of diversity, inclusion, and equity. Most submitted papers identified more classic research gaps and proposed experimental studies to close those gaps. Of the 15 papers submitted, 3 discussed research gaps and proposed studies that were clearly DEI-related. Of these 3, one had no specific DEI-relevant predictions (*i.e.*, it included covariates with no specific hypothesis), and one reflected that student's pre-existing focus on DEI-relevant topics in their research outside of the class. Overall, these findings indicate that **the vast majority (80%) of students did not choose to examine DEI-related topics** in their final paper.

Anonymous student feedback in end-of-term formal evaluations of the class indicated a mixed set of responses to the final paper. To paraphrase what students said (in order to preserve anonymity):

- Students consistently appreciated that the final paper was not a grant-style paper.
- Some students felt the assignment allowed flexibility, while others felt the 'historical perspective' to be restrictive compared to a more classic review-style paper. Those that found it flexible liked that it enabled them to apply the course content (on memory and cognition) to topics they cared out.
- Students felt there was room for improvement. Suggestions included...
 - o Allowing students to bring an extant paper they were working on to use in the class.
 - o Allowing students to apply cognitive mechanisms to their area of research (suggesting that they felt the existing assignment was based too much in cognition itself).
- Students wanted the new assignment to be closer to a paper they might actually publish someday.

These responses indicate mixed responses to the assignment in terms of flexibility/restriction, and while they appreciated the ability to write it on things they cared about, some felt it did not go far enough in terms of flexibility.

Reflection:

Most disappointing was that while students were encouraged to engage with DEI-related topics in their final paper, the vast majority chose not to. While there are many possible reasons for this (and reasons likely varied across students), a few possible reasons include:

1. Doing so **would have been 'more work'**, as it would have likely been relatively **unrelated** to their extant research programs, and so required more reading, thinking, and writing that was not directly connected to their extra-class responsibilities.
2. They were **unsure how to approach the assignment** in this way (*possible reasons here include that no prior examples were provided; the assignment is a novel type of assignment that they had not done previously and may have been unused to thinking about; I may not have given enough guidance or support*).
3. They felt there was **more value in other paper topics**.
4. They were unsure about **how the papers would be graded or assessed** and were concerned that writing the paper on these topics could be 'risky' (*I think this is relatively unlikely, as the assignment document included a rubric, and I discussed in class how grading would be lenient/flexible as this was the first time this assignment was being tried out; that said, my perception here may be biased as I would have been the person they were concerned about*).

Future Recommendations

The low uptake of the desired assignment goal (to engage with DEI-relevant topics in the context of cognitive psychology research) suggests a few possible actions that

could be taken in future courses to increase the effectiveness of the project in raising engagement around issues related to DEI. These include:

1. **Require a DEI-specific** focus (e.g., a focus on variables related to e.g. identity, culture, etc.).
2. Provide **more in-class scaffolding** (e.g., example assignments from prior students, classroom discussions explicitly modeling how to evaluate cognitive psychology research with respect to DEI issues, and move from critique to constructive future directions).
3. Create a **more concrete/forgiving rubric** to attenuate possible perceived risk, and/or change how assignments are graded (peer grading?).

APPENDIX

Assignment document used in PSYC 4002 in Spring 2023.

Final Paper

In your final paper in this class, you will **identify and track the *history of change in a cognitive psychology concept and propose ways to improve it further***. You will identify this concept's initial formulation, how the idea has been improved, fixed, or developed by subsequent research, identify ways in which the current state-of-the-art is still incomplete/biased/incorrect, and propose a study to address one or more aspects of that shortfall. While it is not necessary, you are encouraged to approach this assignment with an emphasis on the ways in which factors related to e.g. culture, gender, orientation, socioeconomics, race, religion, or (dis)ability, have or have not been integrated into the research topic/concept and the impact of that inclusion/exclusion on our scientific understanding of cognition.

Remember, "cognitive" means thinking about what's going on inside the head - trying to understand the processes at work in the mind and how they take in information and then manipulate, transform, store, and/or use that information in the service of behavior. Concepts that could be used here include declarative memory, prediction errors, normalization, implicit attitudes, reconsolidation, metacognition, sampling, etc.

This paper is a lot like a literature review - but focused a little more than normal on the *history* of that idea, how it's changed and evolved, and ways in which you hope and think it might yet still improve in coming years.

This assignment is new to this class! I look forward to trying this out together.

Goals

The overarching goals for the assignment are:

- 1) Appreciate how *all* research ideas change and improve over time.
- 2) Adopt a constructive, forward-looking approach when critiquing research that may be lacking.
- 3) Gain greater awareness of the impact of bias, prejudice, and ignorance on research.

Structure

The paper must:

- 1) describe the initial version of a cognitive concept (as best you can; if you can't get "initial", then at least use research pre-2000, if at all possible),
- 2) identify three subsequent experimental papers that improved on the idea, including:

- a. describing the gap addressed.
 - b. what they did and found.
 - c. unresolved questions.
- 3) identify a gap still unresolved,
 - 4) propose concrete hypotheses about that gap (ideally based on extant literature!), and
 - 5) propose an experiment that could address that gap (i.e., maybe previous studies may have missed something cognitively important because they didn't consider the importance of representation or diversity in their participants, stimuli, or analyses).

Formatting

Use 1" margins all around, Times New Roman font, 12 point size, and 1.5 spaced lines. At least 8 references, up to as many as you want. The paper should be 8 to 12 pages long (not including references). Figures, if any, should be embedded in the text, and count against your total page limit.

For in-text citations, please use an author/date format like this (Loftus et al, 1978). For your bibliography, format it roughly like this so that all authors are listed, the year of publication, article title, journal name, and page numbers are available:

Loftus, E. F., Miller, D. G. and Burns, H. J. (1978). Semantic Integration of Verbal Information into a Visual Memory. *Journal of Experimental Psychology: Human Learning and Memory* 4 (1), 19-31.

I do not care precisely which citation/reference format you use, so long as it contains the above information. Whatever you choose, be consistent. Let me know if you have questions or concerns.

Due Dates & Points

As outlined in the syllabus, we'll be using the following interim & final due dates:

1. **Week 4** (Monday, April 17 at 2pm): a **paper topic**, literally just an informal sentence or two describing what you're thinking of writing your paper on. I'll respond and comment.
2. **Week 6** (Monday, May 1 at 2pm): A **rough outline** of your paper (including the general topic; specific examples of at least 3 papers you will be citing/discussing and how you think they work together) and **your proposal idea** (consider bringing 2-3 rough proposal ideas - it's ok if they're half-

baked!). *We will break into small groups to get your peers' feedback on your topic and your proposal ideas.*

3. **Week 7 End** (Sunday, May 14 at 10pm): A **full draft** of your paper.
4. **Week 8** (Monday, May 15, by 4pm): Remotely & asynchronously, we will do anonymous, digital peer reviews to get you feedback on your draft. Feedback will be due by 4pm. *There will be no class on Monday May 15.*
5. **Finals week** (Monday, June 5 at 9am): The **final paper** is due.

This paper will account for 30% of your final grade in this course.

- 5% of your final grade will be associated with simply meeting the interim due dates. You will receive 1 point for passing in a final paper topic (#1); 2 points for being present & participating in the small-group feedback of outlines & proposal ideas (#2); and 2 points for being present & participating in the in-class peer reviews (#3 & 4). If you do not participate, you won't receive these points. Easy points! The best kind.
- 25% of your final grade will be for the final paper itself. The paper is due at 9am on Monday June 5. Your maximum possible grade will be reduced by 5 points (out of 25) per 12 hour-period that it is late (i.e. if it is late 0-12 hours, max possible 20 points; 12-24 hours, max possible is 15 points; 24-36 hours, max possible is 10 points; after 36 hours, 0 points). Don't be late.

Evaluation

As with any assignment as complex and variable as this, no detailed rubric is possible. That said, your paper will be evaluated on...

- 1) its **review of the history of the cognitive concept** (including how thorough that review is, and how well you connect the initial formulation and the subsequent papers improving on that concept),
- 2) the **establishment of a gap** that needs addressing,
- 3) the **clarity and concreteness of the hypotheses** for that gap,
- 4) the **ability of the proposed experiment** to effectively address that gap,
- 5) the **use of a cognitive approach** in that experiment,
- 6) the **level of overall writing clarity** in the paper, and
- 7) **meeting basic requirements** (see "Formatting" above).

Where did this paper assignment come from?

A faculty working group on inclusive teaching practices in winter & spring 2023 led by OTL's Director of Inclusive Teaching Practices, Dr. Becca Ciancanelli, including myself and Drs. Daniel McIntosh, Edward Garrido, Kimberly Chiew, Sarah Perzow, and Paige Lloyd. This assignment replaced a fairly classic "grant-style" final paper.