



Course Syllabus

Course Information

When:	Spring Semester, 2019 Monday & Wednesdays, 12:45-2:15pm
Where:	Sharpless 416
Format:	1-credit course; two 90-minute sessions each week
Instructor:	Benjamin Le, Ph.D. Professor of Psychology Office: Sharpless 424 Meeting times for students: See Ben's website email: ble@haverford.edu twitter: @benjaminle
Student Consultant:	Maya Gorstein '20 BMC (SaLT student consultant)
Prerequisites:	PSYC 100 (or BMC PSYC 105) is required; PSYC 200 (or BMC PSYC 205, or a similar course in statistics and research methods) is suggested
General Ed. / Domains of Knowledge:	For students in class of '19 - '21: Social Science For students in class of '22 and beyond: Domains B and C
Readings:	There is one required (relatively inexpensive) text: <p style="text-align: center;">Chambers, C. (2017). <i>The 7 deadly sins of psychology: A manifesto for reforming the culture of scientific practice.</i> Princeton, NJ: Princeton University Press. [available from the HC bookstore and elsewhere]</p> <p>Additional readings will be provided as PDFs and/or links below.</p>
Schedule & Topics:	See below
Course Website:	https://osf.io/bpycq/

Course Description

*What do we know in psychology? How do we know it?
Who produced that knowledge? Who has access to it?*

This course is an introduction to the Open Science approach to psychology. We will investigate if/how the field has experienced a “replicability crisis” and explore the potential structural and methodological factors that may be creating false positives within the psychological literature, using case studies of particular research topics in social/personality and cognitive psychology. Students will learn about advances in methods and novel approaches to conducting research that have been developed in response to critiques of past practices. The process of scientific publishing and alternative models of disseminating knowledge will be examined, along with issues of civil and productive scientific discourse and community-building in the social media era. We will discuss issues of inclusivity and accessibility in psychological science, as well as pathways to conducting research in academic and industry settings.

Assignments, Tasks, & Grading Info

1. Class participation and contributions to discussion **[10%]**
2. [Reflection questions](#) **[10%]**
3. [Paper 1: Reproducibility & Replicability Assessment and Comparison](#) (~5 pages); due Wednesday February 13 **[15%]**
4. 2 presentations + lead discussion
 - a. [Case Study](#) (February 18 - March 6) **[12.5%]**
 - b. [Methodological Advances & Best Practices for Open Science - “Lightning Presentations” and curate resources](#) (March 20 - 27) **[12.5%]**
5. R workshop activity (April 1 workshop) **[5%]**
6. [Open Science Handbook](#) (semester-long project); due on Friday May 3 **[20%]**
7. [Paper 2: Your reflections on the future of psychological science](#) (~5 pages); due at the end of finals: May 11 by 5pm for seniors, May 17 by noon for others **[15%]**

Grades will be assigned strictly adhering to the following scale:

94.00% and above	=	A / 4.0
90.00% - 93.99%	=	A- / 3.7
87.00% - 89.99%	=	B+ / 3.3
83.00% - 86.99%	=	B / 3.0
80.00% - 82.99%	=	B- / 2.7
77.00% - 79.99%	=	C+ / 2.3
73.00% - 76.99%	=	C / 2.0
70.00% - 72.99%	=	C- / 1.7
67.00% - 69.99%	=	D+ / 1.3
60.00% - 66.99%	=	D / 1.0
59.99% and below	=	F / 0.0

Please note: Extra credit will not be offered.

Other Policies

Attendance & Absences

Class attendance and participation is expected. Students are responsible for all announcements made in class, whether they are present or not. If you must miss a class, please let me know (via email). Course grades for students missing an unacceptable number of class meetings may be adjusted at my discretion.

You are expected to complete assignments according to the deadlines outlined in the course schedule or announced in class. If you cannot complete assignments on time because of an unforeseen occurrence (e.g., illness, family emergency etc.), or because of a school-related conflict (e.g., conflict with other course assignments or activities), please contact me immediately. Acceptance of late work will be at my discretion, and will be considered on a case-by-case basis. Typically, I am flexible in working with students who discuss absences/conflicts with me in advance, however I understand this isn't always possible.

Accessibility, Inclusion, & Accommodating Student Needs and Disabilities

Haverford College is committed to providing equal access to students with a disability. If you have (or think you have) a learning difference or disability – including mental health, medical, or physical impairment, please contact the [Office of Access and Disability Services \(ADS\)](mailto:hc-ads@haverford.edu) at hc-ads@haverford.edu. The Coordinator will confidentially discuss the process to establish reasonable accommodations.

Students who have already been approved to receive academic accommodations and want to use their accommodations in this course should share their verification letter with me and also make arrangements to meet with me as soon as possible to discuss their specific accommodations. Please note that accommodations are not retroactive and require advance notice to implement.

It is a state law in Pennsylvania that individuals must be given advance notice if they are to be recorded. Therefore, any student who has a disability-related need to audio record this class must first be approved for this accommodation from the Coordinator of Access and Disability Services and then must speak with me. Other class members will need to be aware that this class may be recorded.

Understanding Appropriate Sources for Citations

For all assignments and exams, the following are considered appropriate and valid sources for citations and references:

- Published journal articles, both in on-line and paper formats.
- Professional handbook chapters and reviews (i.e., edited volumes with chapters written by psychological researchers).
- Academic books (i.e., books written by psychological researchers).

The following are **not to be used** as citations in your work:

- ~~Information found on the internet~~, unless it is the online version of a scientific journal (e.g., accessing an electronic version of a journal online is fine). **This includes Wikipedia and/or any other webpages. [Let's discuss this!]**
- Any undergraduate-level textbook.

In short, you should always be working with the primary literature written by psychological researchers. If you have questions about a source, please ask.

A Few Other Things

- *Silence your phones and put them away during class.* Please do not text or otherwise fiddle with your electronic devices in class.
- *Audio/videotaping of lectures/discussion is not permitted* without consent. Please ask if you need to record the class. Unauthorized recording is a violation of Haverford's Honor Code (and is illegal in Pennsylvania).

Plagiarism, Academic Dishonesty, and the Honor Code

I tend to have a laid back teaching style, but do not mistake this for a lack of rigor. I take plagiarism and scholarly integrity very seriously, and academic dishonesty **will not** be tolerated. Do your own work, properly cite sources, and know and follow the [Haverford College Honor Code](#).

Title IX & Mandatory Reporting

Based on Haverford's policies with regard to [Title IX](#), faculty are designated as "mandatory reporters." Please understand that if should I learn of any instances of sexual harassment or assault, I am legally obligated to report them to the administration. Of course, I will do everything in my power to help support students in times of crisis, but I am unable to maintain total confidentiality with issues of sexual harassment/assault (although I can/will maintain confidentiality other than reporting to the designated administrator(s) at the college).

Schedule of Topics & Readings

A note on accessing readings:

- To access any readings that are offered as **PDFs**, you need to be a “contributor” on this “project” on OSF to. See instructions on how to join the project posted for the first day of class, just below.
- For links to journal articles **on the web**, you may need to be on the Haverford College campus network.

Wednesday January 23 - Course Introduction

- Syllabus
- [Introductions](#)
- “Why am I teaching this class?” / “Why are you taking this class?”
- **Follow-Up / To Do:**
 - Join the course project on OSF:
 - [Create an account on OSF](#) (if you don’t already have one)
 - [Go to the “project” for this course](#)
 - [“Request access”](#) to join the project
 - Wait for Ben to add you to the project so that you’ll have access to all the course materials
 - [Send Ben](#) your Gmail address, if other than your college-provided account (for access to shared Google docs for discussion questions; otherwise will default to your college email)
 - [The Replication Crisis](#) (27:28; audio from the BBC)
 - [Scientific Studies: Last Week Tonight with John Oliver](#) (19:27; warning NSFW content)

Monday January 28 - *Is There a Replication and Reproducibility Crisis, and If So, What do Students Have To Do With It?*

- **Preparation - Read / Listen:**

Baker, M. (2016). Is there a reproducibility crisis? *Nature*, 533, 452-454. [[pdf](#)] [[web w/ video](#)]

Yong, E. (2012). Bad copy: In the wake of high-profile controversies, psychologists are facing up to problems with replication. *Nature*, 495, 298-300. [[pdf](#)] [[web](#)]

[Inzlicht, M. \(2016\). *Reckoning with the past*](#). (blog post)

Inbar, Y., & Inzlicht, M. (2018). The replication crisis gets personal. (Podcast: 1 hour 8 minutes; [click here to start at 4:03 and skip the intro chatter if desired](#); warning, there is some NSFW language; this is Episode 4, originally posted on July 4, 2018, if you want to find it and listen on your preferred podcast platform, e.g., [iTunes](#))

Button, K. (2018). Reboot undergraduate courses for reproducibility. *Nature*, 561, 287. [[pdf](#)] [[web](#)]

Spence, J. R., Stanley, D., & Newby-Clark, I. (2018). Why students are the answer to psychology's replication crisis. From *The Conversation*.

Chopik, W. J., Bremner, R. H., Defever, A. M., & Keller, V. N. (2018). How (and whether) to teach undergraduates about the replication crisis in psychological science. *Teaching of Psychology*, 45, 158-163. [[pdf](#)] [[web](#)]

Smith, K. N., & Makel, M. (2019). Open science: A candid conversation. *Journal of Advanced Academics*. Advance online publication. [[pdf](#)] [[web](#)]

- **Class Materials:**

[Paper 1 Assignment](#) (due Wednesday February 13)

[Notes from today's class](#)

[Reflection questions](#)

Wednesday January 30 - *Large-Scale Replication Attempts*

- **Preparation - Read / Listen:**

[The Experiment Experiment](#) (from NPR / Planet Money; 20:46 audio)

Open Science Collaboration. (2015). Estimating the reproducibility of psychological science. *Science*, 349(6251), 1-8. [[pdf](#)] [[web](#)]

- [Yong, E. \(2015\). How reliable are psychology studies? \(from *The Atlantic*\)](#)
- Bartlett, T. (2015). The results of the reproducibility project are in. They're not good. (from the *Chronicle of Higher Education*) [[pdf](#)] [[web](#)]
- **[Optional resource to explore]** [OSF project](#) for this paper

Gilbert, D. T., King, G., Pettigrew, S., & Wilson, T. D. (2016). Comment on "Estimating the reproducibility of psychological science". *Science*, 351, 1037b. [[pdf](#)] [[web](#)]

Anderson, C. J., Bahník, Š., Barnett-Cowan, M., Bosco, F. A., Chandler, J., Chartier, C. R., ... & Della Penna, N. (2016). Response to comment on “estimating the reproducibility of psychological science”. *Science*, 351, 1037c. [[pdf](#)] [[web](#)]

Camerer, C. F., Dreber, A., Holzmeister, F., Ho, T., Huber, J., Johannesson, M., ...Wu, H. (2018). Evaluating the replicability of social science experiments in *Nature* and *Science* between 2010 and 2015. *Nature Human Behaviour*, 2, 637–644. [[pdf](#)] [[web](#)]

- [Resnick, B. \(2018\). More social science studies just failed to replicate. Here's why this is good. \(from Vox\)](#)
- [Yong, E. \(2018\). Online bettors can sniff out weak psychology studies \(from *The Atlantic*\)](#)
- **[Optional resources to explore]** [Website](#) and [OSF project](#) for the *Social Science Replications Project*

- **Class Materials:**

[Select case study topics](#)

[Reflection questions](#)

[Notes from today's class](#)

Monday February 4 - Academic Publishing (Part 1): Incentives, Replications, & File Drawers

- **Preparation - Read / Listen:**

[Carroll, A. E. \(2018\). Congratulations. Your study went nowhere. \(from the *New York Times*\)](#) [[pdf](#)]

Romero, F. (2017). Novelty vs. replicability: Virtues and vices in the reward system of science. *Philosophy of Science*, 84, 1031-1043. [[pdf](#)] [[web](#)]

Smaldino, P. E. & McElreath, R. (2016). The natural selection of bad science. *Royal Society Open Science*, 3, 160383. [[pdf](#)] [[web](#)]

Franco, A., Malhotra, N., & Simonovits, G. (2014). Publication bias in the social sciences: Unlocking the file drawer. *Science*, 345, 1502-1505. [[pdf](#)] [[web](#)]

Ferguson, C. J., & Heene, M. (2012) A vast graveyard of undead theories: Publication bias and psychological science's aversion to the null. *Perspectives on Psychological Science*, 7, 555-561. [[pdf](#)] [[web](#)]

Giner-Sorolla, R. (2012). Science or art? How aesthetic standards grease the way through the publication bottleneck but undermine scientific standards. *Perspectives on Psychological Science*, 7, 562-571. [[pdf](#)] [[web](#)]

- **Class Materials:**

[Reflection questions](#)

[Notes from today's class](#)

[Activity](#)

Wednesday February 6 - No class; Ben is attending the [Improving Psychological Science: Community Action Meeting](#) (sponsored by the [Society for Improving Psychological Science](#)) at the *annual meeting* of the [Society for Personality and Social Psychology](#)

BUT, in lieu of class...

- **Listen:**

[Srivastava, S., Tullett, A., & Vazire, S. \(2017\). *It's so complicated*](#). (Podcast: start at 30:00 and listen to the end; total listening time is around ~37 minutes); warning, there is some NSFW language; this episode was originally posted on June 28, 2017, if you want to find it and listen on your preferred podcast platform, e.g., [iTunes](#))

- Read more [about *The Black Goat* podcast](#) here

Monday February 11 - Researcher Degrees of Freedom / QRPs: HARKing & p-Hacking

- **Preparation - Read / Listen:**

Chambers (2017). Ch. 1-2 [This is the text for the class that is [available from the HC bookstore](#) and [elsewhere](#)]

[Kahan, D. \(2011\). *What is motivated reasoning and how does it work?*](#) (from *Science + Religion Today*)

[Bem, D. \(2004\). Writing the empirical journal article.](#) In J. M. Darley, M. P. Zanna, & H. L. Roediger III (Eds.). *The Compleat Academic: A Career Guide* (pp. 185-219) Washington, DC: American Psychological Association. NOTE: **Just read pages 186-188** (*Which Article Should You Write?* section)

[Vasire, S. \(2014\). *Life after Bem*](#). (from sometimes i'm wrong)

[Optional] [Vazire, S. \(2015\). This is what p-hacking looks like.](#) (from sometimes i'm wrong)

Simmons, J. P., Nelson, L. D., & Simonsohn, U. (2011). False-positive psychology: Undisclosed flexibility in data collection and analysis allows presenting anything as significant. *Psychological Science*, 22, 1359-1366. [[pdf](#)] [[web](#)]

[Optional] [Summary of some of the results from the Simmons et al. paper](#) (6:52; YouTube video)

[Optional] Orben, A., Parsons, S., & Crüwell, S. [Examining analytic flexibility.](#) (a discussion of the Simmons et al. paper from the [ReproducibiliTea](#) podcast; warning, there is some NSFW language)

[Questionable Research Practices Surprisingly Common](#) (from the Association for Psychological Science (APS) website)

[Optional; the summary above is based on this article]: John, L. K., Loewenstein, G., & Prelec, D. (2012). Measuring the prevalence of questionable research practices with incentives for truth telling. *Psychological Science*, 23, 524-532. [[pdf](#)] [[web](#)] [[supplemental materials](#)]

Janke, S., Daumiller, M. Rudert, S. C. (in press). Dark pathways to achievement in science: Researchers' achievement goals predict engagement in questionable research practices. *Social Psychological and Personality Science*. [[pdf](#)] [[web](#)]

- **Class Materials:**

[Announcements/Reminders](#)

[Reflection questions](#)

[Notes from today's class](#)

[p-hacking demo 1](#)

[p-hacking demo 2 | instructions](#)

Wednesday February 13 - No class; Ben is off-campus for a meeting

- **Reminder:** [Paper 1 due by the end of the day](#)
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Monday February 18 - Day 1: Case Studies / Student-Led Discussions & Presentations

Reflection questions

Topic 1: ESP (TN)

Engber, D. (2017). *Daryl Bem Proved ESP Is Real, Which Means Science is Broken*. (from Slate.com) [\[pdf\]](#)

[**Optional**; the original research paper] Bem, D. J. (2011). Feeling the future: Experimental evidence for anomalous retroactive influences on cognition and affect. *Journal of Personality and Social Psychology*, 100, 407-425. [\[pdf\]](#)

[**Optional**; a replication attempt] Ritchie, S. J., Wiseman, R., & French, C. C. (2012). Failing the future: Three unsuccessful attempts to replicate Bem's 'Retroactive Facilitation of Recall' effect. *PLOS ONE* 7(3), e33423. [\[pdf\]](#) [\[web\]](#)

Topic 2: Physical and Personal Warmth (CW)

Williams, L. E., & Bargh, J. A. (2008). Experiencing physical warmth promotes interpersonal warmth. *Science*, 322, 606-607. [\[pdf\]](#)

[**Optional**; more research on this topic] Citron, F., & Goldberg, A. (2014). Social context modulates the effect of physical warmth on perceived interpersonal kindness: A study of embodied metaphors. *Language and Cognition*, 6, 1-11. [\[pdf\]](#)

Chabris, C. F., Heck, P. R., Mandart, J., Benjamin, D. J., & Simons, D. J. (2018, December 10). No evidence that experiencing physical warmth promotes interpersonal warmth: Two failures to replicate Williams and Bargh (2008). *Social Psychology*. Advance online publication. [\[pdf\]](#) [\[osf\]](#)

[**Optional**; another replication attempt] Lynott, D., Corker, K. S., Wortman, J., Connell, L., Donnellan, M. B., Lucas, R. E., & O'Brien, K. (2014). Replication of "Experiencing physical warmth promotes interpersonal warmth" by Williams and Bargh (2008). *Social Psychology*, 45, 216-222. [\[pdf\]](#)

Topic 3: Priming (DP)

Doyen, S., Klein, O., Pichon, C. L., & Cleeremans, A. (2012). Behavioral priming: It's all in the mind, but whose mind? *PLoS ONE* 7(1), e29081. [\[pdf\]](#) [\[web\]](#)

Yong, E. (2012). *A Failed Replication Draws a Scathing Personal Attack from a Psychology Professor*. (from discovermagazine.com)

[Optional; the original article] Bargh, J. A., Chen, M., & Burrows, L. (1996). Automaticity of social behavior: Direct effects of trait construct and stereotype activation on action. *Journal of Personality and Social Psychology*, 71(2), 230-244. [pdf]

Wednesday February 20 - Haverford College closed due to weather

- Listen:

[Srivastava, S., Tullett, A., & Vazire, S. \(2017\). All your idols have clay feet.](#) (Podcast: start at 35:30 and listen to the end; total listening time is around ~28 minutes); warning, there may be some NSFW language; this episode was originally posted on September 20, 2017, if you want to find it and listen on your preferred podcast platform, e.g., [iTunes](#))

- Read more [about The Black Goat podcast](#) here

Monday February 25 - Day 2: Case Studies / Student-Led Discussions & Presentations

[Open Science Handbook assignment instructions](#)

[Reflection questions](#)

Topic 1: Power Posing (CA, JR)

Dominus, S. (2017). *When the Revolution Came for Amy Cuddy.* (from the New York Times) [web] [pdf]

Hobson, N. (2017). *A Tale of Power Posing: When Millennials Buy Into Bad Science.* (from Forbes) [web] [pdf]

[Optional; the original article] Carney, D. R., Cuddy, A. J. C., & Yap, A. J. (2010). Power posing: Brief nonverbal displays affect neuroendocrine levels and risk tolerance. *Psychological Science*, 21, 1363–1368. [pdf] [web]

[Optional] *'Power Poses' Co-Author: 'I Do Not Believe The Effects Are Real.'* (from NPR)

[Optional] [Carney, D. R. \(2016\). My position on "Power Poses."](#) (from D. Carney's webpage) [pdf]

[**Optional**; we'll watch a clip in class, but here's the whole thing if you're interested] [Cuddy, A. \(2012\). *Your Body Language May Shape Who You Are*. \(~21 minute Ted Talk\)](#)

Class Presentation

Topic 2: Fixed/Growth Mindsets (SJ)

Students: If your first initial is A through G read these two (one longer article and a short piece):

Dweck, C. S., Chiu, C., & Hong, Y. (1995). Implicit theories and their role in judgments and reactions: A world from two perspectives. *Psychological Inquiry*, 6, 267-285. [[pdf](#)] [[web](#)]

[Dweck, C. S. \(2018\). *Growth Mindset Interventions Yield Impressive Results*. \(from *The Conversation*\)](#)

Students: If your first initial is H through Z read these three (all short):

[Young, T. \(2017\). *Schools are Desperate to Teach 'Growth Mindset'. But It's Based on a Lie*. \(from *The Spectator*\)](#)

[Chivers, T. \(2017\). *A Mindset "Revolution" Sweeping Britain's Classrooms May be Based on Shaky Science*. \(from *Buzzfeed News*\)](#)

[De Bruyckere, P. \(2018.\) *Double Meta-Analysis on Growth Mindset: How Big are the Effects Really?* \(from *The Economy of Meaning*\)](#)

Optional for all:

[**Optional**] [Sisk, V. F., Burgoyne, A. P., Sun, J., Butler, J. L., & Macnamara, B. N. \(2018\). To what extent and under which circumstances are growth mind-sets important to academic achievement? Two meta-analyses. *Psychological Science*, 29, 549–571. \[\[pdf\]\(#\)\] \[\[web\]\(#\)\]](#)

[**Optional**] The reading(s) above that were not assigned to you by first initial...

Wednesday February 27 - Day 3: Case Studies / Student-Led Discussions & Presentations

Reflection questions

Topic 1: Ego Depletion (TH, FM)

Engber, D. (2016). *Everything is Crumbling*. (from Slate)

Lino, C. (2016, updated 2019). *The Psychology of Willpower: Training the Brain for Better Decisions*. (from the *Positive Psychology Program*)

Friese, M., Loschelder, D. D., Gieseler, K., Frankenbach, J., Inzlicht, M. (2018). Is ego depletion real? An analysis of arguments. *Personality and Social Psychology Review*. Advance online publication. [pdf] [web] (NOTE: read to page 13 to get an idea of the arguments for and against the ego depletion effect in the literature; the rest is optional)

[Optional; lifestyle article that takes ego depletion as fact in motivating its advice]
Fausto, R. F. (2017). *Ego Depletion*. (from *Philstor*)

[Optional, but would recommend if you need a quick overview on Ego Depletion]
“*Why the Entire Psychology Field is in Trouble*” (8:47 minute YouTube video by *The SciShow*)

[Optional; original research article] Baumeister, R.F., Bratslavsky, E., Muraven, M., & Tice, D. M. (1998). Ego depletion: Is the active self a limited resource? *Journal of Personality and Social Psychology*, 74, 1252-1265. [pdf] [web]

Topic 2: The Marshmallow Study (HK)

Pick 2 of the first 3 listed to read:

Resnick, B. (2018). *The “Marshmallow Test” Said Patience was a Key to Success. A New Replication Tells Us S’more*. (from Vox)

Calarco, J. M. (2018). *Why Rich Kids Are So Good at the Marshmallow Test*. (from *The Atlantic*)

Payne, K., & Sheeran, P. (2018). *Try to Resist Misinterpreting the Marshmallow Test*. (from *Behavioral Scientist*)

[Optional] VerBruggen, R. (2018). *Did the Marshmallow Test Fail to Replicate?* (from the *Institute for Family Studies*)

[Optional; the original study] Shoda, Y., Mischel, W., & Peake, P. K. (1990). Predicting adolescent cognitive and self-regulatory competencies from preschool delay of gratification: Identifying diagnostic conditions. *Developmental Psychology*, 26, 978-986. [pdf] [web]

[Optional; the replication study] Watts, T. W., Duncan, G. J., & Quan, H. (2018). Revisiting the marshmallow test: A conceptual replication investigating links

between early delay of gratification and later outcomes. *Psychological Science*, 29, 1159–1177. [[pdf](#)] [[web](#)]

Monday March 4 - Day 4: Case Studies / Student-Led Discussions & Presentations

Methodological Advances & Best Practices - Lightning Presentation Topics and Instructions

Reflection questions

Topic 1: Red and Attractiveness (NET)

[Psychological Study Reveals That Red Enhances Men's Attraction to Women](#) (from University of Rochester)

[Optional; another summary of this research] [Seeing Red: Does Wearing Red Make You Sexy?](#) (from Psychology Today)

[Optional; the original article] Elliot, A., & Niesta, D. (2008). Romantic red: Red enhances men's attraction to women. *Journal of Personality and Social Psychology*, 95, 1150-1164. [[pdf](#)]

Peperkoorn, L. S., Craig Roberts, S., & Pollet, T. V. (2016). Revisiting the red effect on attractiveness and sexual receptivity: No effect of the color red on human mate preferences. *Evolutionary Psychology*, 14(4), 1-13. [[pdf](#)] [[web](#)]

Class Presentation

Topic 2: Ovulation, Attraction, and Desire (MP)

[Gurevich, R. \(2018\). Increased Sex Drive During Ovulation: How Changes in Hormones Influence Libido](#) (from Verywell Family)

[Thorpe, J. R. \(2015\). 6 Strange Ways Ovulation Affects Women, From Blushing To Our Sense Of Smell](#) (from Bustle)

[Engber, D. \(2018\). The Wax and Wane of Ovulating-Woman Science](#) (from Slate)

[Arslan, R. C., Schilling, K. M., Gerlach, T. M., & Penke, L. \(2017, September 4\). Using 26 thousand diary entries to show ovulatory changes in sexual desire and behaviour. Forthcoming in the Journal of Personality and Social Psychology.](#)
NOTE: only pp. 2-6 required (however, feel free to keep reading) [[web](#)] [[pdf](#)]

[Optional; more on this topic] [Abbasi, J. \(2012\). Fertile Gals Look & Sound More Attractive: Study](#) (from LiveScience)

[Optional] Cobey, K. D., Buunk, A. P., Pollet, T. V., Klipping, C., & Roberts, S. C. (2013). Men perceive their female partners, and themselves, as more attractive around ovulation, *Biological Psychology*, 94, 513-516. [pdf]

Class Presentation

Topic 3: The Stanford Prison Experiment (GCN)

Blum, B. (2018). *The Lifespan of a Lie: The most famous psychology study of all time was a sham. Why can't we escape the Stanford Prison Experiment?* (from Medium...Note: there is text and/or audio) [pdf]

Philip Zimbardo's Response to Recent Criticisms of the Stanford Prison Experiment

Van Bavel, J. J. (2018, June 27). *Rethinking the nature of cruelty: The role of identity leadership in the Stanford Prison Experiment.* **Note:** focus on pp. 38-43, which is a transcript of a meeting between "Warden" Jaffe and Guard Mark, and after that read pages 23-27

[Optional; an early description of this research] Zimbardo, P. (1973). *The Mind is a Formidable Jailer.* (from the New York Times)

[Optional] The 2002 BBC Prison Study that failed to replicate Zimbardo's work

[Optional] Resnick, B. (2018). *Philip Zimbardo Defends the Stanford Prison Experiment, His Most Famous Work.* (from Vox)

Wednesday March 6 - Day 5: Case Studies / Student-Led Discussions & Presentations

Reviewing/elaborating on [Methodological Advances & Best Practices - Lightning Presentation Topics and Instructions](#)

[Reflection questions](#)

Topic 1: Kitty Genovese / Bystander Effects (GT)

[A New Look at the Killing of Kitty Genovese: The Science of False Confessions \(2017\).](#) (From the *APS Observer*)

Manning, R., Levine, M., & Collins, A. (2007). The Kitty Genovese murder and the social psychology of helping: The parable of the 38 witnesses. *American Psychologist*, 62, 555-562. [pdf] [web]

Darley, J. M., & Latane, B. (1968). Bystander intervention in emergencies: Diffusion of responsibility. *Journal of Personality and Social Psychology*, 8, 377-383. [[pdf](#)] [[web](#)] (Note: just skim this one)

[Profs Latane and Darley discuss bystander effect \(from sometime in the 1970s\)](#). (~4 minute video from CriticalCommons)

[**Optional**] Kassin, S. M. (2017). The killing of Kitty Genovese: What else does this case tell us? *Perspectives on Psychological Science*, 12, 374-381. [[pdf](#)] [[web](#)]

[Class Presentation](#)

Topic 2: Facial Feedback (JJ)

[Singal, J. \(2018\). Updated: A Re-Replication of a Psychological Classic Provides a Cautionary Tale About Overhyped Science](#). (from the British Psychological Society *Research Digest*)

Noah, T., Schul, Y., & Mayo, R. (2018). When both the original study and its failed replication are correct: Feeling observed eliminates the facial-feedback effect. *Journal of Personality and Social Psychology*, 114, 657-664. [[pdf](#)] [[web](#)]

[**Optional**] Strack, F., Martin, L. L., & Stepper, S. (1988). Inhibiting and facilitating conditions of the human smile: A nonobtrusive test of the facial feedback hypothesis. *Journal of Personality and Social Psychology*, 54, 768-777. [[pdf](#)] [[web](#)]

[**Optional**] Wagenmakers, E.-J., Beek, T., Dijkhoff, L., Gronau, Q. F., Acosta, A., Adams, R. B., ... Zwaan, R. A. (2016). Registered Replication Report: Strack, Martin, & Stepper (1988). *Perspectives on Psychological Science*, 11, 917-928. [[pdf](#)] [[web](#)]

[Class Presentation](#)

Topic 3: Stereotype Threat (CBC)

[Stereotype Threat: A Conversation with Claude Steele](#). (~8 minute video on YouTube)

[Dolan, E. \(2018\). Study fails to find any evidence of 'stereotype threat' impairing women's cognitive control and math ability](#). (from PsyPost)

Spencer, S. J., Steele, C. M., & Quinn, D. M. (1999). Stereotype threat and women's math performance. *Journal of Experimental Social Psychology*, 35, 4-28.

Note: Read the first ~4 pages, from the beginning up to "Study 1" [[pdf](#)]

[**Optional**; the replication attempt] Pennington, C. R., Litchfield, D., McLatchie, N., & Heim, D. (2018). Stereotype threat may not impact women's inhibitory control or mathematical performance: Providing support for the null hypothesis. *European Journal of Social Psychology*. Advance online publication. [[pdf](#)] [[web](#)]

[**Optional**] [Adler, S., Aronczyk, A., & Engber, D. \(2017\). *Stereothreat*](#). (~40 minute podcast from *RadioLab*)

[**Optional**; if you want to dig really deep you could check out this book] [Steele, C. M. \(2011\). *Whistling Vivaldi: How Stereotypes Affect Us and What We Can Do*](#).

[Class Presentation](#)

SPRING BREAK - Monday March 11 & Wednesday March 13; no class

Monday March 18

Day 6: Case Studies / Student-Led Discussions & Presentations

Topic: Academic Fraud & Retraction (ZL & BL)

[Reflection questions](#) ← Students, click here and add your reflection question(s)

[Resnick, B., & Belluz, J. \(2018\). *A Top Cornell Food Researcher has had 15 Studies Retracted. That's a lot.*](#) (from *Vox*)

van der Zee, T., Anaya, J., & Brown, N. J. L. (2018). Statistical heartburn: An attempt to digest four pizza publications from the Cornell Food and Brand Lab. *BMC Nutrition*, 3, 54. [[pdf](#)] [[web](#)]

[**Optional**] [O'Connor, A. \(2018\). *More Evidence that Nutrition Studies Don't Always Add Up.*](#) (from *NY Times*)

[Bartlett, T. \(2015\). *The Unraveling of Michael LaCour.*](#) (from the *Chronicle of Higher Education*) [[pdf](#)] [[web](#)]

[Bhattacharjee, Y. \(2013\). *The Mind of a Con Man.*](#) (from the *NY Times Magazine*)

Bartlett, T. (2015). *Can a Longtime Fraud Help Fix Science?* (from the *Chronicle of Higher Education*) [[pdf](#)] [[web](#)]

[Class Presentation](#)

- **Class Activities / Materials:**

[Hackathon 1](#) (~1:15-2pm)

Mid-semester feedback (last 15 minutes of class)

Wednesday March 20 - Day 1: Methodological Advances & Best Practices for Open Science

- **Preparation - Read:**

Chambers (2017). Ch. 3, 4, 5

- No reflection questions!

Topic(s):

[Reminder about the content and format for the upcoming lightning presentations](#)

[Hackathon recap](#)

[1. Preregistration - BL](#)

[2. Badges - BL](#)

Monday March 25 - Day 2: Methodological Advances & Best Practices for Open Science

Wednesday March 27 - Day 3: Methodological Advances & Best Practices for Open Science

- **Preparation - Listen**

[Quintana, D., & Heathers, J. \(2019\). *Large-scale collaborative science*](#) (with Lisa DeBruine; 58 minutes; from the *Everything Hertz* podcast); warning, there may be some NSFW language

[Quintana, D., & Heathers, J. \(2018\). *Open science tools*](#) (with Brian Nosek; 49 minutes; from the *Everything Hertz* podcast); warning, there may be some NSFW language

Topics:

- 3+4. Open Code & Open Data - NET/HK
5. COS/OSF - TN

6. Power Analyses - ZL
7. Stat Check - JJ
8. SPRITE & GRIM - DP
9. P-Curve - TH
10. Bayesian Statistics - JR
11. Alternatives to SPSS - GCN

12. CREP - FM
13. Psych Science Accelerator - CBC
14. Study Swap - CA (bumped to Wednesday April 3)

15. Registered Reports - CW
16. Psyarxiv - SJ
17. TOP guidelines - MP
18. Curate Science - GT (bumped to Wednesday April 3)

Monday April 1 - Workshop: *An Introduction to R* (led by [Sharon Strauss from IITS](#))

- No readings or other preparation necessary for this workshop, although [here's a good resource for using R that you can refer to in the future](#)
- No reflection questions!
- **IMPORTANT: This class session will be held in the Stokes 205 computer lab**
 - You don't have to bring/use your own laptop; there are plenty of computers in Stokes 205. However, if you want to use your laptop for the activity and/or have R for future use, make sure that **R** and **R Studio** are loaded on your laptop prior to the lab. Instructions for loading R and other needed components are located in [R for Data Science](#), chapter 1.4.

- Here's a [link to an R script](#) that we will use in the workshop (you don't need to do anything with this beforehand; just have access to this during the workshop)
- Here's the [RMarkdown solutions](#) from the last activity in today's workshop

Wednesday April 3 - Catch-up & Reflections (so far)

No new readings for this class session

[Reflection questions](#)

Day 4: Methodological Advances & Best Practices for Open Science

[14. Study Swap - CA](#)

[18. Curate Science - GT](#)

Review [Open Science Handbook assignment](#)

Monday April 8 - Academic Publishing (Part 2): Commercialization, Access, & Alternative Models (Guest Speaker: Norm Medeiros, Associate Librarian, Haverford College)

[Reflection questions](#)

[Slides from Norm's presentation](#)

- **Preparation - Read:**

Chambers (2017). Ch. 6-7

Buranyi, S. (2017). [Is the Staggeringly Profitable Business of Scientific Publishing Bad for Science?](#) (from *The Guardian*)

Ellis, L. (2018). [U. of California System Cancels Elsevier Subscriptions, Calling Move a Win for Open Access](#) (from the *Chronicle of Higher Education*) [[pdf](#)] [[web](#)]

[European Countries Demand that Publicly Funded Research be Free](#) (2018; from *The Economist*) [[pdf](#) ← recommended] [[web](#) ← requires sign in to their site]

Wednesday April 10 - Tone & Civil Discourse in (Psychological) Science / The Role of Social Media in Scientific Communication

[Reflection questions](#) ← Students, click here and add your reflection question(s)

[Paper 2 details](#)

Wrap-up from previous day on *Academic Publishing (Part 2)*...

- **Preparation - Read / Listen:**

[Fiske, S. T. \(2016\). *A Call to Change Science's Culture of Shaming*](#). (from the *APS Observer*); note: [Here is the original version](#) of this piece

[Singal, J. \(2016\). *Inside Psychology's 'Methodological Terrorism' Debate*](#). (from *The Cut*)

Bohannon, J. (2014). Replication effort provokes praise—and 'bullying' charges. *Science*, 344, 788-789. [[pdf](#)] [[web](#)]

[Coan, J. \(2015\). *Negative Psychology: The Atmosphere of Wary and Suspicious Disbelief*](#).

[Roberts, B. W. \(2019\). *It's Deja Vu All Over Again*](#) (blog post)

[Inbar & Inzlicht \(2018\). *Everybody Hates Social Media*](#). (Podcast: ~12 minutes total, [start at 19:45 and listen to 31:15](#); warning, there is some NSFW language; this is Episode 12, originally posted on October 24, 2018, if you want to find it and listen on your preferred podcast platform, e.g., [iTunes](#))

[Orben, A., Parsons, S., & Crüwell, S. \(2018\). *SpecialiTEA 1 - Tim Van Der Zee*](#). (Podcast: ~32 minutes; warning, there is some NSFW language; originally posted on July 17, 2018). Note, this podcast is **produced by early career researchers ("ECRs") and this episode features an interview with a student!**

Wright, G. (2015). The weird and wonderful world of academic Twitter (from *Times Higher Education*) [[pdf](#)] [[web](#)]

Task: Spend at least 10 minutes browsing [#openscience](#) on Twitter (you don't need a Twitter account to do this); thoughts?

Monday April 15 - *Diversity, Inclusion, & Accessibility in Psychological Science* (Guest Speaker: [Dr. Debra Mashek](#), Executive Director, [Heterodox Academy](#))

- Preparation - Read / Do:

[The Problem](#) (from [Heterodox Academy](#))

Choose your own set of readings from [The Blog](#) and/or [The Library](#) - Select and do about 90 minutes worth of readings from these resources

[Free writing activity](#) (do this prior to class)

Wednesday April 17 - *Identity, Diversity, Inclusion, & Accessibility in Psychological Science*

No reflection questions!

[Paper 2 details](#)

[Materials for class](#)

- Preparation - Read / Watch / Listen:

Medin, D. L., & Lee, C. D. (2012). [Diversity Makes for Better Science](#) (from APS Observer)

Hewer, M. (2015). [Why We Should Care About Diversity](#) (from APS Observer)
[Note, you can read the text, but the video at the top of the article (~39 minutes + 6 minutes of Q&A) goes much deeper so you may want watch/listen instead. Also, pay attention to the question/answer about “excellence” (the second of the three questions at the end of the video) and think about how it is connected to the “Excellence Adventures” podcast episode below]

Engber, D. (2018). [The Dartmouth Sexual Harassment Allegations Are So Much Worse Than I Thought](#) (from Slate)

Bahlai, C., et al. (2018). [Open Science Isn't Always Open to All Scientists](#) (from American Scientist)

[Srivastava, Tullett, & Vazire \(2018\). Being Different.](#) (Podcast: start at 22:32 and listen to the end, ~75 minutes); warning, there is some NSFW language; this episode was originally posted on August 22, 2018, if you want to find it and listen on your preferred podcast platform, e.g., [iTunes](#))

[Srivastava, Tullett, & Vazire \(2017\). Excellence Adventures.](#) (Podcast: listen to the whole episode, ~50 minutes); warning, there is some NSFW language; this episode was originally posted on April 19, 2017, if you want to find it and listen on your preferred podcast platform, e.g., [iTunes](#)) [Note: This episode touches on a lot of topics we've previously discussed before moving to a discussion of "excellence" vs. "soundness". It might not become obvious how this is related to today's topic until the last few minutes of the podcast, but stick with it!]

Monday April 22 - *Doing Open Science at SLACs*

- Preparation - Read / Do:

No readings, reflection questions, or other preparation is necessary beforehand!

- Class Activities / Materials:

[Hackathon 2](#)

Wednesday April 24 - "I'm Going Where the Snacks Are"; *Research Careers in Non-Academic Settings (Guest Speaker: Dr. Tim Loving, Ph.D., Research Manager, AR/VR Experiences, Facebook, Inc.)*

- Preparation - Read / Do:

Think of one, or more, question(s) to ask Tim based on his experience as a researcher/professor (at University of Texas) who was active in the open science movement during his academic career and now works at a leading social media company. Be ready to engage him in a lively discussion!

[Srivastava, S., Tullett, A., & Vazire, S. \(2018\). Tech Tales \(with Paul Litvak\).](#) (Podcast: listen to the whole 62 minutes episode); warning, there is some NSFW language; this episode was originally posted on May 16, 2018, if you want to find it and listen on your preferred podcast platform, e.g., [iTunes](#))

[**Optional**; no need to read this for class, but this resource might be useful afterwards for some of you; it was mentioned in the above podcast] [FAQ for Academic Social Scientists Interested in Tech](#) (by Paul Litvak)

[Polk, J., & Wood, L. M. \(2019\). Overcoming the Ph.D. Stereotype.](#) (from *Inside Higher Ed*)

[Optional] Sinche, M., Layton, R. L., Brandt, P. D., O'Connell, A. B., Hall, J. D., et al. (2017). An evidence-based evaluation of transferrable skills and job satisfaction for science PhDs. *PLOS ONE* 12(9): e0185023.

Monday April 29 - No class; Ben is out of town

Wednesday May 1 - Wrap-Up: *Looking Towards the Future of Psychological Science*

[Reflection questions](#) ← Students, click here and add your reflection question(s)

Note: Your reflection question(s) for today can touch on any topic from the semester, including, but not limited to, today's readings/podcasts. It could be something you have raised before but we didn't get a chance to address adequately, a question about a past topic, speaker, or activity, or just something you want to say/discuss as we end the semester. Basically, it's totally open!

[Materials for class](#)

- Preparation - Read / Listen:

Chambers (2017). Ch. 8

Bartlett (2018). *'I Want to Burn Things to the Ground': Are the foot soldiers behind psychology's replication crisis saving science — or destroying it?* (from the *Chronicle of Higher Education*) [[pdf](#)] [[web](#)]

Gernsbacher, M. A. (2018). Writing empirical articles: Transparency, reproducibility, clarity, and memorability. *Advances in Methods and Practices in Psychological Science*, 1, 403–414. [[pdf](#)] [[web](#)]

[Orben, A., Parsons, S., & Crüwell, S. \(2019\). *Fighting The Impostor \(syndrome\)*. \(Podcast: start at 2:30 and listen to the end, ~42 minutes; warning, there may be some NSFW language; originally posted on January 22, 2019; find it on \[iTunes here\]\(#\)\). Note, this podcast is **produced by early career researchers \("ECRs"\)**](#)

[Srivastava, S., Tullett, A., & Vazire, S. \(2019\). *Back from the Future*. \(Podcast: start at 24:45 and listen to the end, ~35 minutes; warning, there may be some NSFW language; this episode was originally posted on January 23, 2019, if you want to find it and listen on your preferred podcast platform, e.g., \[iTunes\]\(#\)\)](#)

Friday May 3 - Your [Open Science Handbook](#) is due by the end of the day.

Finals Week(s) May 6-17

- [Paper 2](#) due at the end of finals: May 11 by 5pm for seniors, May 17 by noon for others
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Links & Resources

- [The Center for Open Science](#) (COS)
- [The Open Science Framework](#) (OSF)

- [The Society for the Improvement of Psychological Science](#) (SIPS; professional organization)
- [Advances in Methods and Practices in Psychological Science](#) (AMPPS; journal)

- [Statistical Methods in Theses: Guidelines and Explanations](#) (from University of Guelph)
- [Open Science Manual](#) (from Haverford College)

- [The Black Goat](#) (podcast)
- [Two Psychologists Four Beers](#) (podcast)
- [Everything Hertz](#) (podcast)
- [ReproducibiliTea](#) (podcast)

- [#OpenScience](#) (on Twitter)
- [Open Science Psychology](#) (Facebook group)
- [PsychMap](#) (Psychological Methods and Practices; Facebook group)
- [Psychological Methods Discussion Group](#) (Facebook group)

Credits & Thanks

The content for this course was curated from and informed by colleagues who have taught similar courses ([many have made their course syllabi publically available on OSF](#)), and via conversations on social media ([#OpenScience](#)) and at conferences/workshops (e.g., [SIPS](#); [Project TIER](#)).