Revised: August 28, 2023

MGMT 757: Conducting Experimental Research in the Behavioral Sciences -- PhD Seminar --

Gal Zauberman - Fall 2023

Instructor: Gal Zauberman gal.zauberman@yale.edu

Schedule: Thursday, 2:30-5:30 (Evans Hall, Room 4220)

Course Overview:

This course is designed to introduce students to the process of conducting and evaluating behavioral research in the social sciences. The main objective is to prepare students to effectively design, execute, interpret, report, and present empirical behavioral research, with an emphasis on experimentation. We will also read and discuss select philosophy of science and methodology readings, as relevant to the application of behavioral research.

Topics covered include (but not limited to), idea generation, translating ideas into experiments, behavioral theory development, statistical power, internal vs. external validity, between vs. within-subjects designs, field vs. lab studies, psychological measurement, survey research methods, the publication process, writing and presenting research findings.

To connect our discussions across sessions and topics, we will mostly focus on a particular construct and set of relevant measurements: **Subjective Well-Being**. The idea is to use this construct to apply the material we cover and connect the various topics.

This course is designed primarily for PhD students intent on pursuing an academic career conducting behavioral research in psychology, behavioral economics, consumer behavior, organizational behavior, and other related fields. Our mode of class discussion will rely on each of you relating the course material to issues and problems in your areas of interest.

For each topic we will cover, articles have been selected and we will discuss those in detail (although this list of articles <u>will very likely be revised</u>). Our goals with these readings will be to gain exposure to the key issues in research methods relevant for behavioral researchers. While some topics will require more reliance on lecturing, this class is design to be heavily discussion based, and students are expected to lead discussions of papers (see below).

The **readings** should be **read carefully** by everyone attending the class (if you are unprepared, do not show up). In addition, on most days, one or two students (depending on class size) will be responsible for leading the discussion on one of the papers. This responsibility entails two things: (1) guiding discussion on a specific paper, and (2) prepare a one-page summary of that paper to class. For the article summary, make sure to examine the stated objective and positioning of the research, the conceptual framework and hypotheses, and in particular, the methodology, the results, the stated and actual contribution.

Finally, each student will be expected to prepare the following:

- (1) **Each Week**: Prior to class (*no later than then 6:00 pm, the day before class*), you are required to answer a particular question(s) about the reading, or if no specific question is posted, submit a <u>short</u> "reflection" based on one article from the current set of reading. Being concise in an important skill and so this is intended to be <u>very brief</u> (a short paragraph per question, or a few bullet points, <u>no more than 150 words</u>). Specific questions are provided is the "Detailed Course Schedule and Reading List" below. Some of your reflections will be discussed in class.
- (2) One goal of this seminar is to help you develop the skills to design a good experiment in which you test a specific research question, and be able to communicate the key ideas, methods, findings, conclusions, and yes, weaknesses. To this end, students will help lead a discussion of a paper, and will circulate a **1-page summary of that paper** [via Canvas and by email to us the evening before (*no later than 6:00 pm, the day before class*)]. Each student will likely do two or three times during the semester, depending on class size.
- (3) **Research Proposal.*** This includes three components:
 - a. A 1-2 page double-space outline of your research question and the study(s) you designed to test it. This outline should include all aspects of the research proposal described below.
 - b. Presentation of your research idea and the study(s) you designed to test that question on the final meeting. This (short) presentation should include all of the aspects of the research proposal described below.
 - c. Research Proposal (6-8 pages double spaced) due on <u>December 22</u> on Canvas (and via email). The proposal must include the following: clear statement of your hypothesis, a plan to test your hypothesis (the experiment(s) you will conduct; no more than 2), and how you plan to analyze the data. You will need to be explicit about exactly what you intend to do.
 - * More details will be provided in class.

Grading Components:

- ➤ 30% Class contribution
- > 20% short homework assignments
- > 10% Review write-up
- ➤ 40% Research proposal
 - 10%: Paper idea outline
 - 10%: In-class presentation
 - 20%: Final paper

NOTE: While this is not a statistics / data-analysis course, and a grasp of basic statistics relevant to behavioral research is expected. If you are not confident in your skills, come and talk with me.

Background Books:

- ➤ Shadish, W. R., T. D. Cook, and D. T. Campbell (2002). *Experimental and quasi-experimental designs for generalized causal inference*. Boston: Houghton-Mifflin (hereafter, SCC).
- Rosenthal, R., & Rosnow, R. (1991). Essentials of Behavioral Research: Methods and Data Analysis (New York: McGraw Hill.)
- ➤ Kuhn, Thomas S. (2012). The Structure of Scientific Revolutions. 50th anniversary. Ian Hacking (intro.) (4th ed.). University of Chicago Press.

In addition, articles with '*' are distributed for your record / extra perspective. No need to read in depth for class. This is the case for all readings in the syllabus identified with *.

Course Schedule -- Subject to Change --

Revised: August 25, 2023

Date	Topic	Exercises / Deadlines / Notes
1. August 31	Introduction to Behavioral Research and Philosophy of Science	
2. September 7	Causal Inferences (and Statistical Inferences)	
3. September 14	Validity	
4. September 21	Issues in Measurement and Defining and operationalizing constructs	
5. September 28	Issues in Experimental Design I	
6. October 5	Issues in Experimental Design II	
7. October 12	Mediation and Moderation Meta-Analysis [Guest: Evan Weingarten, ASU]	
	Fall break - No meetings on October 19	
8. October 26 [Reschedule – ACR Conference]	Research Conduct and the value of replication	
9. November 2	Research on Socially Sensitive and Politically Charged Topics, and related topics	
10. November 9	Scientific Contribution & The Review Process	- Review Due

11. November 16	Student presentations	Student presentations due
	Thanksgiving week - No meetings - November 23	
12. November 30 [Reschedule]	Student presentations (Continued, if needed) Course wrap-up Being a scholar: Doing research in the short and long run	
13. December 7	No Class Meeting - Individual student meetings to be scheduled for one-on-one feedback.	

Detailed Course Schedule and Reading List

-- Subject to Change --

Session 1: Introduction to Behavioral Research and the Scientific Method

The Scientific Method

* Magee, B. (1985). *Philosophy and real world: An introduction to Karl Popper* (Ch. 2 & 3, pp. 13-54). La Salle, IL: Open Court.

Rosenthal, Robert and Ralph Rosnow (1991) Essentials of Behavioral Research: Methods and Data Analysis (New York: McGraw Hill.) *Read Ch. 1, pp. 3-25, "The Nature of Behavioral Research"*

Platt. John R. (1964). Strong Inference. Science, 146(3642), 347-353.

Problems, Hypotheses, and Theories

Kerlinger, Fred and Howard Lee (2000). Foundations of Behavioral Research, 4th Edition. Orlando, FL: Harcourt Brace & Company. *Read Ch 2, pp 23-35. "Problems and Hypotheses"*

Rosenthal, Robert and Ralph Rosnow. (1991). Essentials of Behavioral Research: Methods and Data Analysis (New York: McGraw Hill.) *Read Ch. 2, only pp. 26-28, 31-top of 33; bottom of p. 35 and 36*

Discussion paper on building theories

Jonathan Levav (2007). Chapter 14: The Mind and the Body: Subjective Well-Being in an Objective World. In, Vohs, K., and Baumeister, R (Eds.). *Do Emotions Help or Hurt Decision Making?* New York: Russell Sage.

- * Distributed for your record / extra perspective. No need to read in depth for class. This is the case for all readings in the syllabus identified with *.
- ** **Assignment**: Generate one hypothesis about human behavior relating to <u>subjective well-being</u>. State the hypothesis clearly and precisely. Then, briefly describe the data you would need to test it.

Session 2: Causal Inferences (and an intro into Statistical Inferences)

Causal Research

Shadish, Cook, and Campbell, (2002), <u>Experimental and Quasi-Experimental Designs for Generalized Causal Inference</u>. Boston: Houghton Mifflin. *Read Ch. 1*.

Cohen, Jacob (1994) The earth is round (p < .05), *American Psychologist*, 49, 997-1003. [This reading is about statistical validity and causal inferences. We will discuss statistical validity throughput the course]

<u>Testing Alternative Causal Accounts</u>

Simonsohn (2011) "Spurious? Name Similarity Effects (Implicit Egotism) in Marriage, Job, and Moving Decisions", *Journal of Personality and Social Psychology*, 101(1) 1-24

Diener, Ed (2000). Subjective Well-Being: The Science of Happiness and a Proposal for a National Index. *American Psychologist*, Vol 55(1), 34-43.

Discussion papers

Messerli FH (2012). Chocolate consumption, cognitive function, and Nobel laureates. *New England Journal of Medicine*. 18;367(16):1562-4.

** Assignment:

- [1] 100-word evaluation of the causal argument presented by Messerli (2012). Provide an alternative causal account and a brief indication about how to test it (e.g., what data or analysis do you need to test your causal argument).
- [2] Research has demonstrated a log-linear relationship between income and wellbeing. What might be the causal effect underlying this effect? How would you test it?

Session 3: Validity

Shadish, Cook, and Campbell, (2002), <u>Experimental and Quasi-Experimental Designs for Generalized Causal Inference</u>. Boston: Houghton Mifflin.

- ➤ Read Ch. 2, "Statistical Conclusion Validity and Internal Validity" pp. 33-42 "Validity", p. 52 "The problem of Accepting the Null Hypothesis", and pp. 53-63, "Internal Validity, The Relationship between Internal Validity and Statistical Conclusion Validity."
- > Ch. 3, "Construct Validity and External Validity

Albright, L., & Malloy, T.E. (2000). Experimental validity: Brunswik, Campbell, Cronbach, and enduring issues. *Review of General Psychology*, *4*, 337-353.

Sears, D. O. (1986). College sophomores in the laboratory: Influences of a narrow data base on social psychology's view of human nature. *Journal of Personality and Social Psychology*, 51, 515-530.

A note on Demand Effects

Aronson, Elliot, Phoebe Ellsworth, J. Merrill Carlsmith, Marti Hope Gonzales (1990). *Methods of Research In Social Psychology*, 2nd Edition Ch. 9

Discussion papers

Bem, DJ (2011). "Feeling the future: experimental evidence for anomalous retroactive influences on cognition and affect.". *Journal of personality and social psychology* 100 (3): 407–25.

- ** Assignment: Generate one conceptual critique / one Empirical critique of Bem (2011). Relate your critique to types of threats to validity. In particular, in this context, evaluate the claim that "extraordinary claims require extraordinary evidence".
- ^ Diener, Ed (2000). Subjective Well-Being: The Science of Happiness and a Proposal for a National Index. *American Psychologist*, Vol 55(1), 34-43.
 - ➤ We read this paper the previous session. We will discuss validity issues relevant to the measurement of well-being.

Session 4: Issue in Measurement

Background Readings:

- ^ Shadish, Cook, and Campbell, (2002), <u>Experimental and Quasi-Experimental Designs for Generalized Causal Inference</u>. Boston: Houghton Mifflin. *Revisit Ch. 3, "Construct Validity and External Validity*
- * Campbell, D. T., & Fiske, D. W. (1959). Convergent and discriminant validation by the multitrait-multimethod matrix. Psychological Bulletin, 56, 81-105.

Schwarz, Norbert (1999), "Self-Reports: How the Questions Shape the Answers," *American Psychologist*, 54, 93-105.

Aronson, Ellsworth, Carlsmith, & Gonzolez (1990). Methods of Research in Social Psychology (2nd Edition). New York: McGraw-Hill. *Read Ch. 8, "The Dependent Variable," pp. 240-248, (Intro) pp. 251-253 (Likert Scales), pp. 255-257 (Semantic Differential Scales) pp. 263-267 (Verbal Measures, Behavioral Measures) pp. 280-291 (Reliability and Validity)*

- * Visser, Penny S., Jon A. Krosnick, and Paul Lavrakas (2000), "Survey Research," in *Handbook of Research Methods in Social and Personality Psychology*, Harry T. Reis and Charles M. Judd, eds. Cambridge University Press: Cambridge, UK, 223-252.
- * Blascovich (2000). Psychophysiological Methods. In H.T. Reis and C.M Judd (Eds.), Handbook of research methods in social and personality psychology. New York: Cambridge University Press. Ch. 5

Discussion papers

Kahneman, Daniel and Angus Deaton (2010). High income improves evaluation of life but not emotional well-being. *PNAS*, 107(38), 16489–16493.

Killingsworth, Matthew A. "Experienced well-being rises with income, even above \$75,000 per year." *Proceedings of the National Academy of Sciences* 118.4 (2021).

- * Ariely, Dan and Gal Zauberman (2000). On the Making of an Experience: The Effects of Breaking and Combining Experiences on their Overall Evaluation. *Journal of Behavioral Decision Making*. **13** (2). 219-232.
- ** Assignment: [1] Formulate a specific construct relating to well-being you are interested in. Then generate one item (or more) to measure this construct. Provide the reason for the item(s) you selected.
- [2] Search for commonly used scales of well-being, and select two different measures. Describe what you think they measure, and whether / how you would modify them.

Content Analysis (for your reference; not discussed in class)

Smith, C. P. (2000), Content Analysis and Narrative Analysis. In Harry T. Reis and Charles M Judd (Eds.) Handbook of Research Methods in Personality and Social Psychology. Cambridge: Cambridge University Press. *Read pp 313-327 on Content Analysis only*

Session 5: Issues in Experimental Design I

Overview of Experiments

- ^ Shadish, Cook, and Campbell, (2002), Experimental and Quasi-Experimental Designs for Generalized Causal Inference. Boston: Houghton Mifflin. Reread: Ch. 1, "Experiments and Generalized Causal Inference (pp. 1-32)
- * Wilson, T.D. (2005). The message is the method: Celebrating and exporting the experimental approach. Psychological Inquiry, 16, 185-193.
- Wilson, Timothy D., Elliot Aronson, and Kevin Carlsmith (2010), "The Art of Laboratory Experimentation," in *The Handbook of Social Psychology*, 5th ed., Susan T. Fiske, Daniel T. Gilbert, and Gardner Lindzey, eds. Hoboken, NJ: John Wiley & Sons, Inc., 51-81.

Power in Experiments:

Cohen, Jacob (1992), "A Power Primer," Psychological Bulletin, 112, 155-159.

Prentice, Deborah and Dale T. Miller (1992), "When Small Effects Are Impressive," *Psychological Bulletin*, 112, 160-164.

Westfall, J., Kenny, D.A., & Judd, C.M. (2014). Statistical power and optimal design in experiments in which samples of participants respond to samples of stimuli. *Journal of Experimental Psychology: General*, 143, 2020-2045.

Discussion papers

Hsee, Christopher K., Yang Yang, Naihe Li, and Luxi Shen (2009), "Wealth, Warmth, and Well-Being: Whether Happiness Is Relative or Absolute Depends on Whether It Is About Money, Acquisition, or Consumption," *Journal of Marketing Research*, 46, 396-409.

** **Assignment**: [1] Assess the internal and external validity of the Hsee et al (2009) discussion paper. Make two points about each. [2] Separately, comment on whether you think that the various manifestation / operationalization of 'poor vs. rich' tap the same underlying construct.

^ Previously assigned

Session 6: Issues in Experimental Design II

Issues in Experiments

Wells, Gary L. and Paul D. Windschitl (1999), "Stimulus Sampling and Social Psychological Experimentation," *Personality and Social Psychology Bulletin*, 25, 1115-1125.

Kenny, David A. and Eliot R. Smith (1980), "A Note on the Analysis of Designs in Which Subjects Receive Each Stimulus Only Once," *Journal of Experimental Social Psychology*, 16, 497-507.

- * Birnbaum, Michael H. (1999), "How To Show That 9 > 221: Collect Judgments in a Between-Subjects Design," *Psychological Methods*, 4, 243-249.
- * Reis, Harry T. and Samuel D. Gosling (2010), "Social Psychological Methods Outside the Laboratory," in *The Handbook of Social Psychology*, 5th ed., Susan T. Fiske, Daniel T. Gilbert, and Gardner Lindzey, eds. Hoboken, NJ: John Wiley & Sons, Inc., 82-114.

Levitt, Steven D. and John A. List (2007), "What Do Laboratory Experiments Measuring Social Preferences Reveal About the Real World?" *Journal of Economic Perspectives*, 21, 153-174.

Discussion Paper

Gneezy, Ayelet, Uri Gneezy, Leif D. Nelson, and Amber Brown (2010), "Shared Social Responsibility: A Field Experiment in Pay-What-You-Want Pricing and Charitable Giving," *Science*, 329, 327-327. (Including The Online Supporting Materials)

** Assignment:

- [1] What are the benefits of studying this question in the field this way. Do you think that you could have constructed a study of this question in purely in the lab?
- [2] Sketch a design of a field experiment to test the following prediction: "Teaching individuals behavioral nudges directed at well-being will improve their life"

Session 7: Mediation and Moderation / Meta-Analysis (Introduction)

Baron, R. M. & Kenny, D. (1986). The Moderator-Mediator Variable Distinction in Psychological Research: Conceptual, Strategic, and Statistical Considerations, <u>Journal of Personality and Social Psychology</u>, 51 (6), 1173-1182.

* Preacher, Rucker, & Hayes (2007). Addressing moderated mediation hypothesis; theory, methods, and prescriptions. <u>Multivariate Behavioral Research</u>, 92, 185-227.

Spencer, S. J., Zanna, M. & Fong, G. (2005), Establishing a Causal Chain: Why Experiments are Often More Effective Than Mediational Analyses in Examining Psychological Processes, <u>Journal of Personality and Social Psychology</u>, 89 (6) 845-851.

Zhao, Lynch, & Chen (2010). Reconsidering Baron and Kenny: Myths and truths about mediation analysis. <u>Journal of Consumer Research</u>, 37, 197-206.

Dichotomizing variables

McClelland, GH, JG Lynch, Jr., JR Irwin, SA Spiller, GJ Fitzsimons (2015). Median Splits, Type II Errors, and False-Positive Consumer Psychology: Don't Fight the Power *Journal of Consumer Psychology* 25 (4), 679-689

- * MacCallum, R.C., Zhang, S., Preacher, K., & Rucker, D.D. (2002). On the practice of dichotomization of quantitative variables. *Psychological Methods*, 7, 19-40.
- * Irwin, J. R. & McClelland, G. (2001). Misleading Heuristics and Moderated Multiple Regression Models, Journal of Marketing Research, 38 (Feb), 100-109.
- * Spiller, S. A., Fitzsimons, G., Lynch, J. & McClelland, G. (2013). Spotlights, Floodlights, and the Magic Number Zero: Simple Effects Tests in Moderated Regression, *Journal of Marketing Research*.

Discussion Paper

Diehl, Kristin, Gal Zauberman, and Barasch[,] Alixandra (2016). How Taking Photos Increases Enjoyment of Experiences. *Journal of Personality and Social Psychology*. **111** (2), 119-140.

** Assignment 1:

- [1] What is the main strength and weakness of mediation analysis as evidence for psychological process?
- [2] What would be another moderator of the basic effect in Diehl et al. you suggest testing? What would it add to what the paper is showing?

Meta-analysis: Integrating results across studies

Rosenthal R., and M. R. DiMatteo (2001). Meta-Analysis: Recent Developments in Quantitative Methods for Literature Reviews. *Annual Review of Psychology*', 52. P. 59–82

- * Rosenthal and Rubin, "Meta-Analysis: Comparing and Combining Results," Ch. 22 pp. 491-512.
- * Simonsohn, Nelson, Simmons, (2014). "*P*-curve: A Key to the File Drawer," Journal of Experimental Psychology: General, V143(2), p.534-547

Vosgerau, J., Simonsohn, U., Nelson, L. D., & Simmons, J. P. (2019). 99% impossible: A valid, or falsifiable, internal meta-analysis. *Journal of Experimental Psychology: General*, 148(9), 1628–1639.

Discussion paper: Field wide Meta-Analysis

* Batz-Barbarich, Cassondra, Louis Tay, Lauren Kuykendall, and Ho Kwan Cheung (2018). A Meta-Analysis of Gender Differences in Subjective Well-Being: Estimating Effect Sizes and Associations With Gender Inequality. *Psychological Science*, Vol. 29(9) 1491–1503.

Weingarten, Evan and Joseph Goodman (2021. Re-examining the Experiential Advantage in Consumption: A Meta-Analysis and Review. *Journal of Consumer Research*, Volume 47(6), https://doi.org/10.1093/jcr/ucaa047

Discussion paper: Meta-Analyzing your own studies

Kim, Jin and Gal Zauberman (2016). When Does Unequal Representation Reflect Bias? The Role of Political Ideology in Judgments of Distributional Outcomes. *Working Paper*.

- * Berman, Jonathan Z., An Tran, John G. Lynch and Gal Zauberman (2016). Expense Neglect in Predicting Financial Resources. *Journal of Marketing Research.* **53** (4), 535-550.
- * Barasch Alixandra, Kristin Diehl, Jackie Silverman, and Gal Zauberman (2017). Photographic Memory: The Effects of Photo-Taking on Memory for Auditory and Visual Information. *Psychological Science*. **28** (8), 1056-1066.
- ** **Assignment 2**: What is the main risk in conclusions based on integrating results across studies / papers?

Session 8: Research Conduct and The Value of Replication

Research Conduct

Simmons, Nelson, and Simonsohn (2011) "False-Positive Psychology: Undisclosed Flexibility in Data Collection and Analysis Allow Presenting Anything as Significant", *Psychological Science*, V22(11), 1359-136

- * Simonsohn (2013) "Just Post it: The Lesson from Two Cases of Fabricated Data Detected by Statistics Alone," Psychological Science, V24(10), p.1875-1888
- * Chris H.J. Hartgerink (2013) Aligning the interesting with the proper: a comment on Gray and Wegner (2013). *Perspectives on Psychological Science*,.
- * Nosek et al. Transparency and Openness Promotion (TOP) Guidelines

The Value of Preregistration

Folk, Dunigan and Elizabeth Dunn (2023). A systematic review of the strength of evidence for the most commonly recommended happiness strategies in mainstream media. *Nature Human Behavior* (2023). https://doi.org/10.1038/s41562-023-01651-4

** Assignment 1: (a) Is it justified to categorize papers and strength of evidence by power and pre-registration?

The Value of Replication

* Ioannidis, J. P. A. (2005). Why most published research findings are false. *PLoS Medicine*, 2(8), e124.

John G. Lynch, Jr., Eric T. Bradlow, Joel C. Huber, Donald R. Lehmann (2015). Reflections on the Replication Corner: In Praise of Conceptual Replications. Intern. J. of Research in Marketing 32 (2015) 333–342

- * Simonsohn (2015) "Small Telescopes: Detectability and the Evaluation of Replication Results" Psychological Science V26(5) p.559-569
- -- The Replication Project:

First results from psychology's largest reproducibility test. *Nature News*.

Estimating the reproducibility of psychological science (2015). Science.

Gilbert Daniel, Gary King, Stephen Pettigrew, Timothy D. Wilson (2016). Comment on "Estimating the reproducibility of psychological science"

* Replication project in Economics:

http://experimentaleconreplications.com/

Discussion papers: Replication and Scientific Progress

Dana R. Carney, Amy J.C. Cuddy, and Andy J. Yap (2010) Power Posing: Brief Nonverbal Displays Affect Neuroendocrine Levels and Risk Tolerance. *Psychological Science* 21(10) 1363–1368

Ranehill, Eva, Anna Dreber, Magnus Johannesson, Susanne Leiberg, Sunhae Sul, and Roberto A. Weber (2015) Assessing the Robustness of Power Posing: No Effect on Hormones and Risk Tolerance in a Large Sample of Men and Women. Psychological Science 1–4

http://datacolada.org/2015/05/08/37-power-posing-reassessing-the-evidence-behind-the-most-popular-ted-talk/

http://www.slate.com/articles/health_and_science/science/2016/01/amy_cuddy_s_power_pose_r_esearch_is_the_latest_example_of_scientific_overreach.html

-- Be careful with 'failure to replicate'

- * Simonsohn, Simmons, Nelson "Anchoring is Not a False-Positive: Maniadis, Tufano and List (2014) 'Failure-to-Replicate' is Actually Entirely Consistent with the Original" (SSRN)
- ** Assignment 2: (a) What does it mean to 'fail to replicate'? (b) What can you conclude from a failed direct replication?

Session 9: Research on Socially Sensitive and Politically Charged Topics, and related topics

Discussion Topic I:

- ➤ How to study socially sensitive issues?
- ➤ What is the obligation of the researcher?
- ➤ Should the social implications of the research enter the publication process?

To aid in this discussion, several Editorials were published in face of recent prominent retractions:

Massey, Douglas S. and Mary C. Waters (2020) Editorial: Scientific versus public debates: A PNAS case study. *PNAS* | August 4, 2020 | vol. 117 | no. 31 | 18135–18136.

Bauer, P. J. (2020). Editorial: A Call for Greater Sensitivity in the Wake of a Publication Controversy. *Psychological Science*, 31(7), 767–769. https://doi.org/10.1177/0956797620941482

Cunningham, William A., Jay J. Van Bavel, and Leah H. Somerville (2020). How to be an ethical scientist. Science.

https://www.sciencemag.org/careers/2020/08/how-be-ethical-scientist

** Assignment 1: Should the consideration of the societal implications of the findings (rather than methods) should be grounds for publication? Are there topics that we should not investigate empirically (or findings that should not be published) because of their implications?

Discussion Topic II: Nudging society to better behavior

Benartzi, Shlomo, John Beshears, Katherine L. Milkman, Cass R. Sunstein, Richard H. Thaler, Maya Shankar, Will Tucker-Ray, William J. Congdon, Steven Galing (2017). Should Governments Invest More in Nudging? *Psychological Science*. Volume: 28 issue: 8, page(s): 1041-1055

An alternative perspective to consider:

Loewenstein, George and Peter Ubel (2010). Economics Behaving Badly. *The New York Times*. Retrieved from https://www.nytimes.com/2010/07/15/opinion/15loewenstein.html

- * Chater Nick and Geirge Loewenstein (2022). The i-frame and the s-frame: How focusing on individual-level solutions has led behavioral public policy astray. Behav Brain Sci. 2022 Sep 5:1-60. doi: 10.1017/S0140525X22002023. Epub ahead of print. PMID: 36059098.
- ** Assignment 2: Should behavioral scientists be involved in determining policy that amounts to 'social engineering'? What are the risks?

An opinion article: University Professors and the Societal Change

 $\underline{https://heterodoxacademy.org/blog/university-professors-after-the-us-capitol-riot-when-becoming-part-of-the-solution-is-part-of-the-problem/}$

** Assignment 3: How do you see the role of a scholar as a scientist vs. their role as a public intellectual with a desire to influence society?

Session 10: Scientific Contribution & The Review Process

What is a contribution?

Gray, Kurt and Daniel M. Wegner (2013). Six Guidelines for Interesting Research *Perspectives on Psychological Science*, September 2013; vol. 8, 5: pp. 549-553.

* Fiske, S. T. (2014). Scratch an itch with a brick: Why we do research. In H. T. Reis & C. M. Judd (eds.), *Handbook of research methods in social and personality psychology*, 2nd Edition (pp. 1-7). New York, NY: Cambridge University Press.

Lynch, John G., Jr. (1999), "Theory and External Validity," <u>Journal of the Academy of</u> Marketing Science, 27 (Summer), 367-376.

Revisit:

Simmons, Nelson, Simonsohn (2011) "False-Positive Psychology: Undisclosed Flexibility in Data Collection and Analysis Allow Presenting Anything as Significant", *Psychological Science*, V22(11), 1359-136

How to (read and) review a paper? And how to respond to reviews?

Lynch, J. G., Jr. (1998). Presidential Address: Reviewing. In Joseph W. Alba and J. Wesley Hutchinson (Eds.) Advances in Consumer Research, Vol. 25. Provo, Utah: Association for Consumer Research, 1-6

* Zanna, Mark P. (1992) My Life as a Dog (I Mean Editor). *Personality and Social Psychological Bulletin*, August 1992 18: 485-488,

Discussion of student reviews.

** **Assignment**: Be ready to discuss the one issue you think that the authors of the paper you reviewed must address.

Session 11: Student Presentations

Student idea presentations to be scheduled.

All presentations are due

Session 12: Course Wrap-up & Student Presentations (continued, if needed)

Agenda for last class:

- 1. Student idea presentations (continued, as needed).
- 2. Wrap-Up and Review.

Discuss any topic from prior sessions we missed or you have question about Discussion of key concepts, how they all fit together, and where we go from here.

3. Doing research in the short and long run.

Managing research in the day-to-day and your career

Bem, Daryl J. (2004), "Writing the Empirical Journal Article," in *The Complete Academic: A Career Guide*, John M. Darley, Mark P. Zanna, and Henry L. Roediger III, eds. Washington DC: American Psychological Association, 185-219.

** Assignment: Submit one key lesson from the semester about conducting a quality experiment and one key open question.

Session 13: Individual Meetings with Students

The last meeting is design to provide student feedback on their projects and more generally about any questions they have.

Students will schedule individual meetings (email me to set up time).