Professor Jamie Druckman POLI\_SCI 407

druckman@northwestern.edu Fall Quarter, 2021

Office: 211 Scott HallOffice Hours: By appointment

**Experimental Political Science**

Experiments are a central methodology in political science. Scholars from every subfield regularly turn to experiments. Practitioners rely on experimental evidence in evaluating social programs, policies, institutions, and information provision. The design, implementation, and analysis of experiments raise a variety of distinct epistemological and methodological challenges. This is particularly true in political science due to the breadth of the discipline, the varying contexts in which experiments are implemented (e.g., laboratory, survey, field), and the distinct methods employed (e.g., psychological or economic approaches to experimentation). This class will review the challenges to experimentation, discuss how to implement experiments, and survey prominent applications. The class also will touch on methodological advances in experiments and ongoing debates about the credibility of experimental studies. The class meets on Fridays from 2:00PM-4:50PM in the Burdick Room (107 Scott Hall).

The first two class sessions will provide background and address general issues in the design, implementation, and analysis of experiments. These sessions will involve a mix of lecture and discussion. From there, there are many ways to organize the field and we opt for one based on the approach and venue in which the experiment is implemented – in short, we will have sessions on laboratory experiments, field experiments, natural experiments, and survey experiments. As will be clear, these classes overlap, and thus, one should not view the distinctions as ironclad. The last three sessions turn to more advanced methods, questions about the analysis/reporting/publication of experimental results, and debates about experimental credibility.

**Assignments**

Each student will be assigned two weeks of the course (at the start of the quarter). For assigned weeks, the student will write a three-page (double-spaced) paper reviewing and critiquing one (or a few) readings, and – importantly – isolating areas in which more work is needed. Do *not* exceed the page limit. The paper should include discussion questions (that do not count toward the three-page limit). The paper is due at the start of the given class – a hard copy, *stapled.* Do *not* e-mail a copy. The student will use the paper as the basis to help lead class discussion. For many of these weeks, students can choose from a selection of topical/applied readings; this does not mean we will equally touch on all topical readings each week. The instructor will make clear which readings will receive more or less attention in a given week during the prior week’s session.

The other major task for the class is a final paper. This paper should review a literature where experiments have been employed, isolate an unanswered question, and design an experiment to address the question. Students are expected to identify their topic by week 2, complete a literature review by week 5, design the basics by week 7, and submit the paper by 12:00PM on December 10th. The week 2, 5, and 7 assignments must be handed in as hard copies (stapled) at the start of the given class. The final paper can be submitted via e-mail. Students are strongly encouraged to write on novel topics, rather than to re-use prior work from other classes.

Parts of many classes will involve selected students presenting and discussing their projects.

**Grading**

The course grade will be determined as follows: class participation (25%), topical papers (25%), and the final paper (50%). Note that participation weighs heavily on the final grade and thus active contributions are expected.

**Dates**

The October 22nd class will start at 2:45PM. Please hold December 3rd (reading week) as a class make-up day in case another class has to be cancelled or if the class falls behind in covering the material.

**Course Policies**

Attendance is absolutely mandatory. Students are expected to come to class prepared to discuss, in detail, *all of the assigned readings*. Students may be asked to present specific assigned readings *without* prior notice. When so doing, be prepared to discuss main themes, contributions, problems, and unanswered questions.

Late assignments will not be accepted, including the topical papers which are strictly due at the start of class as hard copies. Exceptions will only be made for religious holidays, illness (verified by a note from a health care provider), serious family emergencies, subpoenas, jury duty, military service, and participation in group activities sponsored by the university. *Note:* this means a late assignment, without a legitimate excuse, will not be read or accepted (a score of 0 will be assigned). Do not request turning in an assignment late without a legitimate excuse.

All assignments must be single-sided and stapled with the student’s name, date, and page numbers included. Do not e-mail assignments (other than the final paper). Failure to satisfy these requirements will lead the assignment to be not accepted (also do not wait to look for a stapler at the start of class – staple your assignments prior to class).

**Readings**

Substantial amounts of reading come from the texts listed below. Each is also an excellent resource to own and thus you are recommended to invest in purchasing these books (although copies of the books will be available for scanning from the instructor). Other readings are available via JSTOR or from the instructor. *Some of the readings may be changed as the course progresses. The instructor will make changes clear at least one week in advance of a given class.*

Shadish, William, R, Thomas D. Cook, and Donald T. Campbell. 2002. *Experimental and Quasi-Experimental Designs for Generalized Causal Inferences*. Boston: Houghton Mifflin.

Johnson, George. 2008. *The Ten Most Beautiful Experiments*. New York: Alfred A. Knopf.

Druckman, James N., and Donald P. Green, eds. 2021. *Advances in Experimental Political Science*. New York: Cambridge University Press.

Mutz, Diana C. 2011. *Population-Based Survey Experiments*. Princeton University Press.

Dunning, Thad. 2012. *Natural Experiments in the Social Sciences: A Design-Based Approach*. Strategies for Social Inquiry. New York: Cambridge University Press.

Gerber, Alan S., and Donald P. Green. 2012. *Field Experiments: Design, Analysis, and Interpretation*. 1st ed. New York: W. W. Norton.

Glennerster, Rachel, and Kudzai Takavarasha. 2013. *Running Randomized Evaluations: A Practical Guide*. Princeton: Princeton University Press.

# Course Outline

**Class 1, September 24. Research Design, Surveys, and Experiments in Political Science**

Wright, James D., and Peter V. Marsden. 2010. “Survey Research and Social Science: History, Current Practice, and Future Prospects.” In Peter V. Marsden, and James D. Wright. *Handbook of Survey Research*. Bingley: Emerald.

Biemer, Paul P. 2010. “Overview of Design Issues: Total Survey Error.” In Peter V. Mardsden, and James D. Wright. *Handbook of Survey Research*. Bingley: Emerald.

Piazza, Thomas. 2010. “Fundamental of Applied Sampling.” In Peter V. Marsden, and James D. Wright. *Handbook of Survey Research*. Bingley: Emerald.

Krosnick, Jon A., and Stanley Presser. 2010. “Question and Questionnaire Design.” In Peter V. Marsden, and James D. Wright. *Handbook of Survey Research*. Bingley: Emerald.

Johnson, George. 2008. *The Ten Most Beautiful Experiments*. New York: Alfred A. Knopf. *\*\*Come to class prepared to discuss your favorite experiment in this book.*

Druckman, James N., Donald P. Green, James H. Kuklinski, and Arthur Lupia. 2011. “Experiments: An Introduction to Core Concepts,” In James N. Druckman, Donald P. Green, James H. Kuklinski, and Arthur Lupia, *Cambridge Handbook of Experimental Political* Science, New York: Cambridge University Press.

Druckman, James N., Adam J. Howat, and Kevin J. Mullinix. 2018. “Graduate Advising in Experimental Research Groups,” *PS: Political Science & Politics* 51: 620-624.

Druckman, James N., and Donald P. Green. 2021. “A New Era of Experimental Political Science.” In James N. Druckman, and Donald P. Green, eds. *Cambridge Handbook of Advances in Experimental Political Science*. New York: Cambridge University Press.

**Class 2, October 1. Causation, Validity, and Ethics**

Holland, Paul W. 1986. “Statistics and Causal Inference.” *Journal of the American Statistical Association* 81: 945-960. (Skim subsequent commentaries.)

Shadish, William, R, Thomas D. Cook, and Donald T. Campbell. 2002. *Experimental and Quasi-Experimental Designs for Generalized Causal Inferences*. Boston: Houghton Mifflin. Chapters 1-3.

Henrich, Joseph, Steven J. Heine, and Ara Norenzayan. 2010. “The Weirdest People in the World?” *Behavioral and Brain Sciences* 33 (April): 61-83. *Skim*.

Druckman, James N., and Cindy D. Kam. 2011. “Students as Experimental Participants: A Defense of the ‘Narrow Data Base’.” In James N. Druckman, Donald P. Green, James H. Kuklinski, and Arthur Lupia, *Cambridge Handbook of Experimental Political* Science, New York: Cambridge University Press.

Milgram, Stanley. 1963. “Behavioral Study of Obedience.” *Journal of Abnormal and Social Psychology* 67: 371-378.

Zimbardo, Phillip. “A Pirandellian Prison,” *New York Times Magazine* April 8, 1973.

Desposato, Scott. 2015. *Ethics and Experiments: Problems and Solutions for Social Scientists and Policy Professionals*. Routledge. Chapters 1, 19.

Teele, Dawn. 2021. “Virtual Consent: The Bronze Standard for Experimental Ethics.” In James N. Druckman, and Donald P. Green, eds. *Cambridge Handbook of Advances in Experimental Political Science*. New York: Cambridge University Press.

Costa, Mia, Charles Crabtree, John B. Holbein, and Michelangelo Landgrave. 2021. “What do Political Scientists Believe about Research Ethics?” Unpublished Paper, Dartmouth College. *Skim*.

Go through the IRB Office’s Social Behavioral Protocol Template, available here: <https://irb.northwestern.edu/templates-forms/templates-forms-sops>

Read the American Political Science Association’s human subjects guidelines:

<https://politicalsciencenow.com/submit-your-comments-to-the-ad-hoc-committee-on-the-protection-of-human-subjects-report/>

**Class 3, October 8. Laboratory Experiments**

Hovland, Carl I. 1959. “Reconciling Conflicting Results Derived from Experimental and

Survey Studies of Attitude Change.” *The American Psychologist* 14: 8-17.

Klar, Samara. 2014. “Partisanship in a Social Setting.” *American Journal of Political Science* 58: 687-704.

Choose one of the following:

Mutz, Diane C., and Byron Reeves. 2005. “The New Videomalaise: Effects of Televised Incivility on Political Trust.” *American Political Science Review* 99: 1-15.

Druckman, James N., Matthew S. Levendusky, and Audrey McLain. 2018. “No Need to Watch: How the Effects of Partisan Media Can Spread via Inter-Personal Discussions,” with, *American Journal of Political Science* 62: 99-112.

Smith, Vernon L. 1976. “Experimental Economics: Induced Value Theory.” *American Economic Review* 66: 274-279.

Choose one of the following:

Ostrom, Elinor, James Walker, and Roy Gardner. 1992. “Covenants with and Without a Sword.” *American Political Science* Review 86: 404-417.

Bassi, Anna, Rebecca B. Morton, and Kenneth C. Williams. 2011. “[The Effects of Identities, Incentives, and Information on Voting](http://www.journals.uchicago.edu/doi/abs/10.1017/S0022381611000284).” *The Journal of Politics* 73:2, 558-571.

Eckel, Catherine, and Natalia Londono. 2021. “How to Tame Lab-in-the-Field-Experiments” In James N. Druckman, and Donald P. Green, eds. *Cambridge Handbook of Advances in Experimental Political Science*. New York: Cambridge University Press.

Choose one of the following:

 Gilligan, Michael J., Benjamin J. Pasquale, and Cyrus Samii. 2014. “Civil War and Social Cohesion: Lab-in-the-Field Evidence from Nepal.” *American Journal of Political Science* 58: 604-619.

Kim, Eunji. N.d. “Entertaining Beliefs in Economic Mobility.” *American Journal of Political Science*, Forthcoming.

**Class 4, October 15. Field Experiments**

Choose one of the following:

Henrich, Joseph, Robert Boyd, Samuel Bowles, Colin Camerer, Ernst Fehr, Herbert Gintis, and Richard McElreath. 2001. “In Search of Homo Economicus: Behavioral Experiments in 15 Small-Scale Societies.” *American Economic Review* 91: 73-79.

Miguel, Edward, and Michael Kremer. 2004. “Worms: Identifying Impacts of Education and Health in the Presence of Treatment Externalities.” *Econometrica* 72: 159-217.

Alan S. Gerber and Donald P. Green. 2000. “The Effects of Personal Canvassing, Telephone Calls, and Direct Mail on Voter Turnout: A Field Experiment.” *American Political Science Review* 94: 653-664.

Glennerster, Rachel, and Kudzai Takavarasha. 2013. *Running Randomized Evaluations: A Practical Guide*. Princeton: Princeton University Press. Chapters 4, 5, 7.

Gerber, Alan S., and Donald P. Green. 2012. *Field Experiments: Design, Analysis, and Interpretation*. 1st ed. New York: W. W. Norton. Chapters 1, 12.

Broockman, David E., Joshua L. Kalla, and Jasjeet S. Sekhon. 2017. “The Design of Field Experiments with Survey Outcomes: A Framework for Selecting More Efficient, Robust, and Ethical Designs.” *Political Analysis* 25: 435-464.

Choose one of the following:

Pager, Devah. 2003. “The Mark of a Criminal Record.” *American Journal of Sociology* 108: 937-975.

Butler, Daniel M., and David E. Broockman. 2011. “Do Politicians Racially Discriminate Against Constituents?: A Field Experiment on State Legislators.” *American Journal of Political Science* 55: 463–477.

Choose one of the following:

Rooij, Eline A. de, Donald P. Green, and Alan S. Gerber. 2009. “Field Experiments on Political Behavior and Collective Action.” *Annual Review of Political Science* 12 (1):389–95.

Humphreys, Macartan, and Jeremy M. Weinstein. 2009. “Field Experiments and the Political Economy of Development.” *Annual Review of Political Science* 12 (1):367–78.

Grose, Christian R. 2014. “Field Experimental Work on Political Institutions.” *Annual Review of Political Science* 17 (1):355–70.

Baldassarri, Delia, and Maria Abascal. 2017. “Field Experiments Across the Social Sciences.” *Annual Review of Sociology* 43 (1):41–73.

Levine, Adam Seth. 2021. “How to Form Organizational Partnerships to Run Experiments.” In James N. Druckman, and Donald P. Green, eds. *Cambridge Handbook of Advances in Experimental Political Science*. New York: Cambridge University Press.

**Class 5, October 22. Natural Experiments (*Note this class will start at 2:45PM).***

Dunning, Thad. 2012. *Natural Experiments in the Social Sciences: A Design-Based Approach*. Strategies for Social Inquiry. New York: Cambridge University Press. Chapters 1-3, 8, 11.

Choose two of the following:

Doherty, David, Alan S. Gerber, and Donald P. Green. 2006. “Personal Income and Attitudes toward Redistribution: A Study of Lottery Winners.” *Political Psychology* 27: 441–458.

Erikson, Robert S., and Laura Stoker. 2011. “Caught in the Draft: The Effects of Vietnam Draft Lottery Status on Political Attitudes.” *American Political Science Review* 105: 221-237.

Hyde, Susan D. 2007. “The Observer Effect in International Politics: Evidence from a Natural Experiment.” *World Politics* 60: 37-63.

Sekhon, Jasjeet S., and Roćio Titiunik. 2012. “When Natural Experiments Are Neither Natural Nor Experiments.” *American Political Science Review* 106: 35-57.

Titiunik, Rocio. 2021. “Natural Experiments.” In James N. Druckman, and Donald P. Green, eds. *Cambridge Handbook of Advances in Experimental Political Science*. New York: Cambridge University Press.

**Class 6. October 29, Survey Experiments**

Mutz, Diana C. 2011. *Population-Based Survey Experiments*. Princeton University Press.

Choose one of the following:

Gaines, Brian J., James H. Kuklinski, and Paul J. Quirk. 2007. “The Logic of the Survey Experiment Reexamined.” *Political Analysis* 15: 1-20.

Barabas, Jason, and Jennifer Jerit. 2010. “Are Survey Experiments Externally Valid?” *American Political Science Review* 104: 226-242.

Druckman, James N., and Thomas J. Leeper. 2012. “Learning More from Political Communication Experiments: Pretreatment and Its Effects.” *American Journal of Political Science* 56: 875-896.

Hainmueller, Jens, Dominik Hangartner, and Teppei Yamamoto. 2015. “Validating Vignette and Conjoint Survey Experiments against Real-World Behavior." *Proceedings of the National Academy of Sciences of the United States of America* 112: 2395-2400.

Mutz, Diana. 2021. “Improving Experimental Treatments in Political Science.” In James N. Druckman, and Donald P. Green, eds. *Cambridge Handbook of Advances in Experimental Political Science*. New York: Cambridge University Press.

See: <http://tessexperiments.org/> (Time-sharing Experiments for the Social Sciences)

**Class 7, November 5. Samples, Statistical Power, and Design Considerations**

Mullinix, Kevin J., Thomas J. Leeper, James N. Druckman, and Jeremy Freese. 2015. “The Generalizability of Survey Experiments.” *Journal of Experimental Political Science* 2: 109-138.

Krupnikov, Yanna, H. Hannah Nam, and Hillary Style. 2021. “Convenience Samples in Political Science Experiments.” In James N. Druckman, and Donald P. Green, eds. *Cambridge Handbook of Advances in Experimental Political Science*. New York: Cambridge University Press.

Dafoe, Allan, Baobao Zhang, and Devin Caughey. 2018. “Information Equivalence in Survey Experiments.” *Political Analysis* 26 (4): 399-416.

Mummolo, Jonathan, and Erik Peterson. 2019. “Demand Effects in Survey Experiments: An Empirical Assessment.” *American Political Science Review* 113: 517-529.

Clifford, Scott, Geoffrey Sheagley, and Spencer Piston. 2021. “Increasing Precision without Altering Treatment Effects: Repeated Measures Designs in Survey Experiments.” *American Political Science Review* 115: 1048-1065.

Choose one of the following:

Kane, John V., and Jason Barabas. 2019. “No Harm in Checking: Using Factual Manipulation Checks to Assess Attentiveness in Experiments.” *American Journal of Political Science* 53: 234-249.

Porter, Ethan, and Yamil R. Velez. 2021. “Placebo Selection in Survey Experiments: An Agnostic Approach.” *Political Analysis*, 1–14. doi:10.1017/pan.2021.16.

Brutger, Ryan, Joshua D. Kertzer, Jonathan Renshon, and Chagai M. Weiss. 2021. “Abstraction and Detail in Experimental Design.” Unpublished Paper. University of Wisconsin.

Glennerster, Rachel, and Kudzai Takavarasha. 2013. *Running Randomized Evaluations: A Practical Guide*. Princeton: Princeton University Press. Chapter 6.

**Class 8, November 12. Mediation, Moderation, and Spillover Effects**

Baron, Reuben M., and David A. Kenny. 1986. “The Moderator–Mediator Variable Distinction in Social Psychological Research: Conceptual, Strategic, and Statistical Considerations.” *Journal of Personality and Social Psychology* 51: 1173-1182.

Gerber, Alan S., and Donald P. Green. 2012. *Field Experiments: Design, Analysis, and Interpretation*. 1st ed. New York: W. W. Norton. Chapters 9-10. *Skim*

[Pirlott, Angela G., and David P.](https://www.sciencedirect.com/science/article/abs/pii/S0022103115001225#!) [MacKinnon](https://www.sciencedirect.com/science/article/abs/pii/S0022103115001225%22%20%5Cl%20%22%21). 2016. “Design Approaches to Experimental Mediation.” *Journal of Experimental Social Psychology* 66: 29-38.

Choose one of the following:

Jamieson, Jeremy P., and Stephen G. Harkins. 2011. “The Intervening Task Method: Implications for Measuring Mediation.” *Personality and Social Psychology Bulletin* 37: 652-661.

Imai, Kosuke, Luke Keele, and Dustin Tingley. 2010. “A General Approach to Causal Mediation Analysis.” *Psychological Methods* 15: 309-344.

Acharya, Avidit, Matthew Blackwell, and Maya Sen. 2018. “Analyzing Causal Mechanisms in Survey Experiments.” *Political Analysis* 26: 357-378.

Glynn, Adam. 2021. “Advances in Mediation.” In James N. Druckman, and Donald P. Green, eds. *Cambridge Handbook of Advances in Experimental Political Science*. New York: Cambridge University Press.

Coppock, Alexander, Thomas J. Leeper, and Kevin J. Mullinix. 2018. “The Generalizability of Heterogeneous Treatment Effect Estimates Across Samples” *Proceedings of the National Academy of Science* 115: 12441-12446

Kam, Cindy D., and Marc J. Trussler. 2017. “At the Nexus of Observational and Experimental Research: Theory, Specification, and Analysis of Experiments with Heterogeneous Treatment Effects.” *Political Behavior* 39:789–815.

Choose one of the following:

Green, Donald P., and Holger L. Kern. 2012. “Modeling Heterogeneous Treatment Effects in Survey Experiments with Bayesian Additive Regression Trees.” *Public Opinion Quarterly* 76: 491-511.

Grimmer, Justin, Solomon Messing, and Sean J. Westwood. 2017. “Estimating Heterogeneous Treatment Effects and the Effects of Heterogeneous Treatments with Ensemble Methods.” *Political Analysis* 25: 413-434.

Ratkovic, Marc. 2021. “Subgroup Analysis: Pitfalls, Promise, and Honesty.” In James N. Druckman, and Donald P. Green, eds. *Cambridge Handbook of Advances in Experimental Political Science*. New York: Cambridge University Press.

Choose one of the following:

Sinclair, Betsy, Margaret McConnell, and Donald P. Green. 2012. “Detecting Spillover Effects: Design and Analysis of Multilevel Experiments.” *American Journal of Political Science* 56: 1055-1069.

Coppock, Alexander. 2014. “Information Spillovers: Another Look at Experimental Estimates of Legislator Responsiveness.” *Journal of Experimental Political Science* 1: 159-169. AND Coppock, Alexander. 2016. “Information Spillovers: Another Look at Experimental Estimates of Legislator Responsiveness – Corrigendum.” *Journal of Experimental Political Science* 3: 206-208.

**Class 9, November 19. Experimental Credibility**

Open Science Collaboration. 2015. “Estimating the Reproducibility of Psychological Science.” *Science* 349: aac4716.

Choose one of the following:

Ioannidis, John P. A. 2005. “Why Most Published Research Findings Are False.” *PLoS* Medicine 2 (8):e124.

Simmons, Joseph P., Leif D. Nelson, and Uri Simonsohn. 2011. “False-Positive Psychology: Undisclosed Flexibility in Data Collection and Analysis Allows Presenting Anything as Significant.” *Psychological Science* 22 (11):1359–1366.

Choose one of the following:

Franco, A., N. Malhotra, and G. Simonovits. 2014. “Publication Bias in the Social Sciences: Unlocking the File Drawer.” *Science* 345 (6203):1502–5.

Brown, Andrew W., Tapan S. Mehta, and David B. Allison. 2017. “Publication Bias in Science.” In *The Oxford Handbook of the Science of Science Communication*, eds. Kathleen Hall Jamieson, Dan M. Kahan, and Dietram A. Scheufele. Oxford University Press.

Malhorta, Neil. 2021. “The Scientific Credibility of Experiments.” In James N. Druckman, and Donald P. Green, eds. *Cambridge Handbook of Advances in Experimental Political Science*. New York: Cambridge University Press.

Skim the following:

Gerber, Alan, Kevin Arceneaux, Cheryl Boudreau, Conor Dowling, Sunshine Hillygus, Thomas Palfrey, Daniel R. Biggers, and David J. Hendry. 2014. “Reporting Guidelines for Experimental Research: A Report from the Experimental Research Section Standards Committee.” *Journal of Experimental Political Science* 1 (1):81–98.

Mutz, Diana C., and Robin Pemantle. 2015. “Standards for Experimental Research: Encouraging a Better Understanding of Experimental Methods.” *Journal of Experimental Political* Science 2 (2):192–215.

Gerber, Alan S., Kevin Arceneaux, Cheryl Boudreau, Conor M. Dowling, and D. Sunshine Hillygus. 2015. “Reporting Balance Tables, Response Rates and Manipulation Checks in Experimental Research: A Reply from the Committee That Prepared the Reporting Guidelines.” *Journal of Experimental Political Science* 2 (2):216–229.

Berinsky, Adam J., James N. Druckman, Teppei Yamamoto. 2021. “Publication Biases in Replication Studies.” *Political Analysis* 29: 370-384.

Lupia, Arthur, and Colin Elman. 2014. “Openness in Political Science: Data Access and Research Transparency.” *PS: Political Science and Politics* 47(1): 19-42.

Nosek, Brian A., et al. 2015. “Promoting an Open Research Culture.” *Science* *348*: 1422-1425.

Baker, Monya. 2016. “Is There a Reproducibility Crisis?” *Nature* 533 (May):452–54.

See: <https://aspredicted.org/index.php> (Aspredicted.org pre-registration)

**November 26. *No Class.***

**December 3. *Make-up Class (if needed).***