

DATA PAPER

Data from Investigating Variation in Replicability: A "Many Labs" Replication Project

Richard A. Klein¹, Kate A. Ratliff¹, Michelangelo Vianello², Reginald B. Adams Jr.³, Štěpán Bahník⁴, Michael J. Bernstein⁵, Konrad Bocian⁶, Mark J. Brandt⁷, Beach Brooks¹, Claudia Chloe Brumbaugh⁸, Zeynep Cemalcilar⁹, Jesse Chandler¹⁰, Winnee Cheong¹¹, William E. Davis¹², Thierry Devos¹³, Matthew Eisner¹⁴, Natalia Frankowska⁶, David Furrow¹⁵, Elisa Maria Galliani², Fred Hasselman¹⁶, Joshua A. Hicks¹², James F. Hovermale¹⁷, S. Jane Hunt¹⁸, Jeffrey R. Huntsinger¹⁹, Hans IJzerman⁷, Melissa-Sue John²⁰, Jennifer A. Joy-Gaba¹⁷, Heather Barry Kappes²¹, Lacy E. Krueger¹⁸, Jaime Kurtz²², Carmel A. Levitan²³, Robyn K. Mallett¹⁹, Wendy L. Morris²⁴, Anthony J. Nelson³, Jason A. Nier²⁵, Grant Packard²⁶, Ronaldo Pilati²⁷, Abraham M. Rutchick²⁸, Kathleen Schmidt²⁹, Jeanine L. Skorinko²⁰, Robert Smith³⁰, Troy G. Steiner³, Justin Storbeck⁸, Lyn M. Van Swol³¹, Donna Thompson¹⁵, A. E. van't Veer^{7, 32}, Leigh Ann Vaughn³³, Marek Vranka³⁴, Aaron L. Wichman³⁵, Julie A. Woodzicka³⁶ and Brian A. Nosek^{29, 37}

See end of article for list of author affiliations

This dataset is from the Many Labs Replication Project [1] in which 13 effects were replicated across 36 samples and over 6,000 participants. Data from the replications are included, along with demographic variables about the participants and contextual information about the environment in which the replication was conducted. Data were collected in-lab and online through a standardized procedure administered via an online link. The dataset is stored on the Open Science Framework website. These data could be used to further investigate the results of the included 13 effects or to study replication and generalizability more broadly.

Keywords: replication; generalizability; context

Funding Statement: Data collection was supported by Project Implicit.

(1) Overview

Context

Collection Date(s)

2013

Background

Although replication is a central tenet of science [2], replications are rarely performed in psychology [3]. Because of this, some researchers have started to question the validity of scientific research [4]. Additionally, effects observed in individuals from one culture may not generalize to individuals from other cultures [5]. The present project tested the replicability of 13 included effects in a large sample of participants across a variety of samples and contexts. The large aggregate N allows for a precise estimate of the effect size of the included effects, while testing the effects across numerous samples and settings allows for an examination of whether those factors influence the strength of the included effects.

(2) Methods

Sample

Our sample was comprised of 6,344 participants recruited from 36 different sources including university subject pools, Amazon Mechanical Turk, Project Implicit, and other sources. The aggregate sample had a mean age of 25.98. Participant ethnicity was: 65.1% White, 6.7% Black or African American, 6.5% East Asian, 4.5% South Asian, 17.2% Other or Unknown. Participant gender was 63.6% female, 29.9% male, 6.5% no response. Participants who did not complete the 15-25 minute study were excluded from the analysis.

Materials

The study materials consisted of 13 effects drawn from 12 papers, recreated as closely as possible to the original implementation (exact wording and implementation can be found in the online supplement: <https://osf.io/wx7ck/>);

- Sunk costs Sunk costs (Oppenheimer, Meyvis, & Davidenko, 2009) [6].
- Gain versus loss framing (Tversky & Kahneman, 1981) [7].
- Anchoring (Jacowitz & Kahneman, 1995) [8].
- Retrospective gambler's fallacy (Oppenheimer & Monin, 2009) [9].
- Low-vs.-high category scales (Schwarz, Hippler, Deutsch, & Strack, 1985) [10].
- Norm of reciprocity (Hyman & Sheatsley, 1950) [11].
- Allowed/Forbidden (Rugg, 1941) [12].
- Quote Attribution (Lorge & Curtis, 1936) [13].
- Flag Priming (Carter, Ferguson, & Hassin, 2011; Study 2) [14].
- Currency priming (Caruso, Vohs, Baxter, & Waytz, 2013) [15].
- Imagined contact (Husnu & Crisp, 2010; Study 1) [16].
- Sex differences in implicit math attitudes (Nosek, Banaji, & Greenwald, 2002) [17].

Procedures

The study was administered through an Internet link provided to all researchers. Researchers then brought participants into the lab to complete the study through that link, or facilitated an online collection where the link would be supplied directly to participants. The twelve studies were presented in random order, except that the study assessing sex differences in implicit and explicit math attitudes was always last. That study was last because we and the original authors were confident order would have no effect on that finding.

Quality control

The study was administered through a standardized online link to ensure consistency in presentation, and in addition each in-lab data collection site was required to film a "mock session" of the data collection. These mock session videos are available in the online supplement: <https://osf.io/wx7ck/>.

Ethical issues

IRB approval was obtained at each data collection site (in accordance with local rules). Informed consent was given to all participants. The shared dataset was stripped of any potentially identifying variables before being uploaded.

(3) Dataset description

Object name

Datasets.zip

Data type

Processed data. The .zip file includes a raw dataset with the data collected from each lab site after being stripped of identifying information. The .zip file also includes a "cleaned" dataset file with some variables added for ease of use (e.g. condition assignments are coded).

Format names and versions

Provided in both .sav (SPSS) and .dat (tab delimited) formats.

Language

English – with some data in other languages (e.g. open response answers from non-English speaking individuals).

License

CC0

Embargo

N/A

Repository location

<https://osf.io/wx7ck/>

Publication date

29 November 2013

(4) Reuse potential

This dataset could be used to more thoroughly investigate the specific replication studies (e.g., anchoring-and-adjustment). These data could also be used to investigate replication more broadly. For the 13 included effects, these data could be included in meta-analyses, or re-analyzed to identify moderating variables that were not investigated in the original analysis. Additionally, these data could be used to formulate new hypotheses about the conditions under which each effect will be stronger or weaker. Alternatively, these data could be used to investigate or teach replicability more broadly; for instance, by demonstrating how the result from any one experiment can be misleading when compared to a larger body of work (in this case, 35 other replications).

Author contributions

Designed the research: RAK, KAR, BAN. Translated the materials: RAK, MVi, ŠB, KB, MJBr, BB, ZC, NF, EMG, FH, HI, RP, AEvV, MVr. Performed the research: RAK, KAR, RBA Jr., ŠB, MJBe, KB, MJBr, CCB, ZC, JC, WC, WED, TD, ME, NF, DF, EMG, JAH, JFH, SJH, JRH, HI, M-SJ, JAJ-G, HBK, LEK, JK, CAL, RKM, WLM, AJN, JAN, GP, RP, AMR, KS, JLS, RS, TGS, JS, LMVS, DT, AEvV, LAV, MVr, ALW, JAW. Analyzed the data: RAK, Mvi, FH. Wrote-up the report: RAK. Wrote the data paper: KAR, MVi, JC, BAN.

Author affiliations

¹Department of Psychology, University of Florida, Gainesville, FL 32611, United States. ²Department FISPPA, Applied Psychology, University of Padua, 35131 Padua, Italy. ³Department of Psychology, The Pennsylvania State University, University Park, PA 16802, United States. ⁴Department of Psychology II, Social Psychology, University of Würzburg, Würzburg, Germany. ⁵Department of Psychology, Pennsylvania State University Abington, Abington, PA 19001, United States ⁶Department of Psychology, University of Social Sciences and Humanities Campus Sopot, Sopot, Poland. ⁷Department of Social Psychology, Tilburg University, P.O. Box 90153, Tilburg, 5000 LE, Netherlands. ⁸Department of Psychology, Queens College, City University of New York, Queens, NY 11367, United States. ⁹Department

of Psychology, Koç University, 34450 Istanbul, Turkey. ¹⁰Institute for Social Research, University of Michigan, Ann Arbor, MI 48109, United States and PRIME Research, Ann Arbor, MI, United States. ¹¹Department of Psychology, HELP University, 50490 Kuala Lumpur, Malaysia. ¹²Department of Psychology, Texas A&M University, College Station, TX 77843, United States. ¹³Department of Psychology, San Diego State University, San Diego, CA 92182, United States. ¹⁴Ross School of Business, University of Michigan, Ann Arbor, MI 48109, United States. ¹⁵Department of Psychology, Mount Saint Vincent University, Nova Scotia, Canada. ¹⁶Behavioral Science Institute, Radboud University Nijmegen, Nijmegen, Netherlands and School of Pedagogical and Educational Science, Radboud University Nijmegen, Nijmegen, Netherlands. ¹⁷Department of Psychology, Virginia Commonwealth University, Richmond, VA 23284, United States. ¹⁸Department of Psychology, Counseling, and Special Education, Texas A&M University-Commerce, Commerce, TX 75429, United States. ¹⁹Department of Psychology, Loyola University Chicago, Chicago, IL 60626, United States. ²⁰Social Science and Policy Studies Department, Worcester Polytechnic Institute, Worcester, MA 01609, United States. ²¹Department of Management, London School of Economics and Political Science, London WC2A 2AE, United Kingdom. ²²Department of Psychology, James Madison University, Harrisonburg, VA 22807, United States. ²³Department of Cognitive Science, Occidental College, Los Angeles, CA 90041, United States. ²⁴Department of Psychology, McDaniel College, Westminster, MD 21157, United States. ²⁵Psychology Department, Connecticut College, New London, CT 06320, United States. ²⁶School of Business & Economics, Wilfrid Laurier University, Waterloo, ON, Canada. ²⁷Social and Work Psychology Department, University of Brasilia, DF, Brazil. ²⁸Department of Psychology, California State University, Northridge, Northridge, CA 91330, United States. ²⁹Department of Psychology, University of Virginia, Charlottesville, VA 22904, United States. ³⁰Fisher College of Business, Ohio State University, Columbus, OH 43210, United States. ³¹Department of Communication Arts, University of Wisconsin-Madison, Madison, WI 53706, United States. ³²TIBER (Tilburg Institute for Behavioral Economics Research), Tilburg University, P.O. Box 90153, Tilburg, 5000 LE, Netherlands. ³³Department of Psychology, Ithaca College, Ithaca, NY 14850, United States. ³⁴Department of Psychology, Charles University, Prague, Czech Republic. ³⁵Psychological Sciences Department, Western Kentucky University, Bowling Green, KY 42101, United States. ³⁶Department of Psychology, Washington and Lee University, Lexington, VA 24450, United States. ³⁷Center for Open Science, Charlottesville, VA 22903, United States

References

- Klein, R. A., Ratliff, K. A., Vianello, M., Adams, R. B., Jr., Bahník, Š., Bernstein, M. J., ... Nosek, B. A.** (in press). Investigating variation in replicability: A “many labs” replication project. *Social Psychology*.
- Open Science Collaboration.** (2012). An open, large-scale, collaborative effort to estimate the reproducibility of psychological science. *Perspectives on Psychological Science*, 7, 657-660. DOI: <http://dx.doi.org/10.1177/1745691612462588>
- Makel, M. C., Plucker, J. A., & Hegarty, B.** (2012). Replications in Psychology Research How Often Do They Really Occur?. *Perspectives on Psychological Science*, 7(6), 537-542. DOI: <http://dx.doi.org/10.1177/1745691612460688>
- Ioannidis, J. P.** (2005). Why most published research findings are false. *PLoS medicine*, 2(8), e124. DOI: <http://dx.doi.org/10.1371/journal.pmed.0020124>
- Henrich, J., Heine, S. J., & Norenzayan, A.** (2010). Most people are not WEIRD. *Nature*, 466(7302), 29. DOI: <http://dx.doi.org/10.1038/466029a>
- Oppenheimer, D. M., Meyvis, T., & Davidenko, N.** (2009). Instructional manipulation checks: Detecting satisficing to increase statistical power. *Journal of Experimental Social Psychology*, 45(4), 867-872. DOI: <http://dx.doi.org/10.1016/j.jesp.2009.03.009>
- Tversky, A., & Kahneman, D.** (1981). The framing of decisions and the psychology of choice. *Science*, 211(4481), 453-458. DOI: <http://dx.doi.org/10.1126/science.7455683>
- Jacowitz, K. E., & Kahneman, D.** (1995). Measures of anchoring in estimation tasks. *Personality and Social Psychology Bulletin*, 21(11), 1161-1166. DOI: <http://dx.doi.org/10.1177/01461672952111004>
- Oppenheimer, D. M., & Monin, B.** (2009). The retrospective gambler's fallacy: Unlikely events, constructing the past, and multiple universes. *Judgment and Decision Making*, 4(5), 326-334.
- Schwarz, N., Hippler, H. J., Deutsch, B., & Strack, F.** (1985). Response scales: Effects of category range on reported behavior and comparative judgments. *Public Opinion Quarterly*, 49(3), 388-395. DOI: <http://dx.doi.org/10.1086/268936>
- Hyman, H. H., & Sheatsley, P. B.** (1950). The current status of American public opinion. In *The Teaching of Contemporary Affairs*, pp. 11-34. New York: National Council of Social Studies.
- Rugg, D.** (1941). Experiments in wording questions: II. *Public Opinion Quarterly*.
- Lorge, I., & Curtiss, C. C.** (1936). Prestige, suggestion, and attitudes. *The Journal of Social Psychology*, 7(4), 386-402. DOI: <http://dx.doi.org/10.1080/00224545.1936.9919891>
- Carter, T. J., Ferguson, M. J., & Hassin, R. R.** (2011). A single exposure to the American flag shifts support toward Republicanism up to 8 months later. *Psychological science*, 22(8), 1011-1018. DOI: <http://dx.doi.org/10.1177/0956797611414726>
- Caruso, E. M., Vohs, K. D., Baxter, B., & Waytz, A.** (2013). Mere exposure to money increases endorsement of free-market systems and social inequality. *Journal of Experimental Psychology: General*, 142, 301-306. DOI: <http://dx.doi.org/10.1037/a0029288>


16. **Husnu, S., & Crisp, R. J.** (2010). Elaboration enhances the imagined contact effect. *Journal of Experimental Social Psychology*, 46(6), 943-950. DOI: <http://dx.doi.org/10.1016/j.jesp.2010.05.014>
17. **Nosek, B. A., Banaji, M. R., & Greenwald, A. G.** (2002). Math = Male, Me = Female, therefore Math \neq Me. *Journal of Personality and Social Psychology*, 83(1), 44-59. DOI: <http://dx.doi.org/10.1037/0022-3514.83.1.44>

Peer review comments: <http://openpsychologydata.metajnl.com/downloads/peerreview/jopd-ad.pdf>

How to cite this article: Klein, R A et al 2014 Data from Investigating Variation in Replicability: A "Many Labs" Replication Project. *Journal of Open Psychology Data*, 2(1): e4, DOI: <http://dx.doi.org/10.5334/jopd.ad>

Published: 4 April 2014

Copyright: © 2014 The Author(s). This is an open-access article distributed under the terms of the Creative Commons Attribution 3.0 Unported License (CC-BY 3.0), which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited. See <http://creativecommons.org/licenses/by/3.0/>.

 The *Journal of Open Psychology Data* is a peer-reviewed open access journal published by Ubiqity Press

OPEN ACCESS 