

Reproducibility Project: Psychology in the news

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Reproducibility Project: Psychology

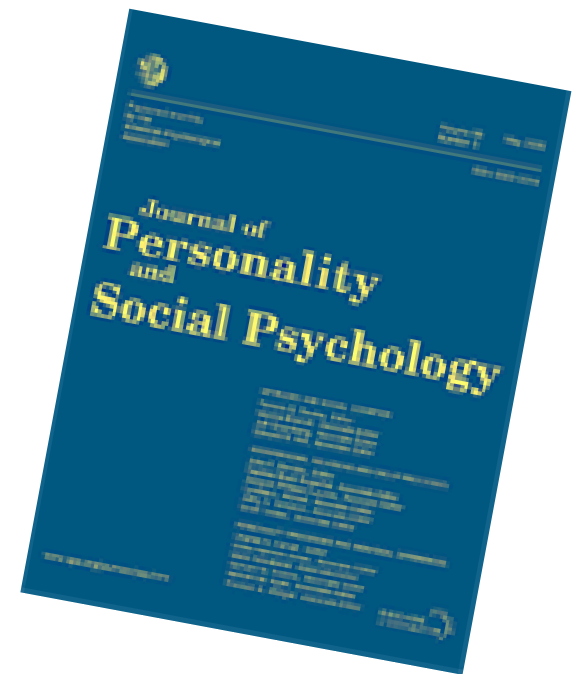
100 replications from 2008 issues of



PSCI



JEP:LMC



JPSP

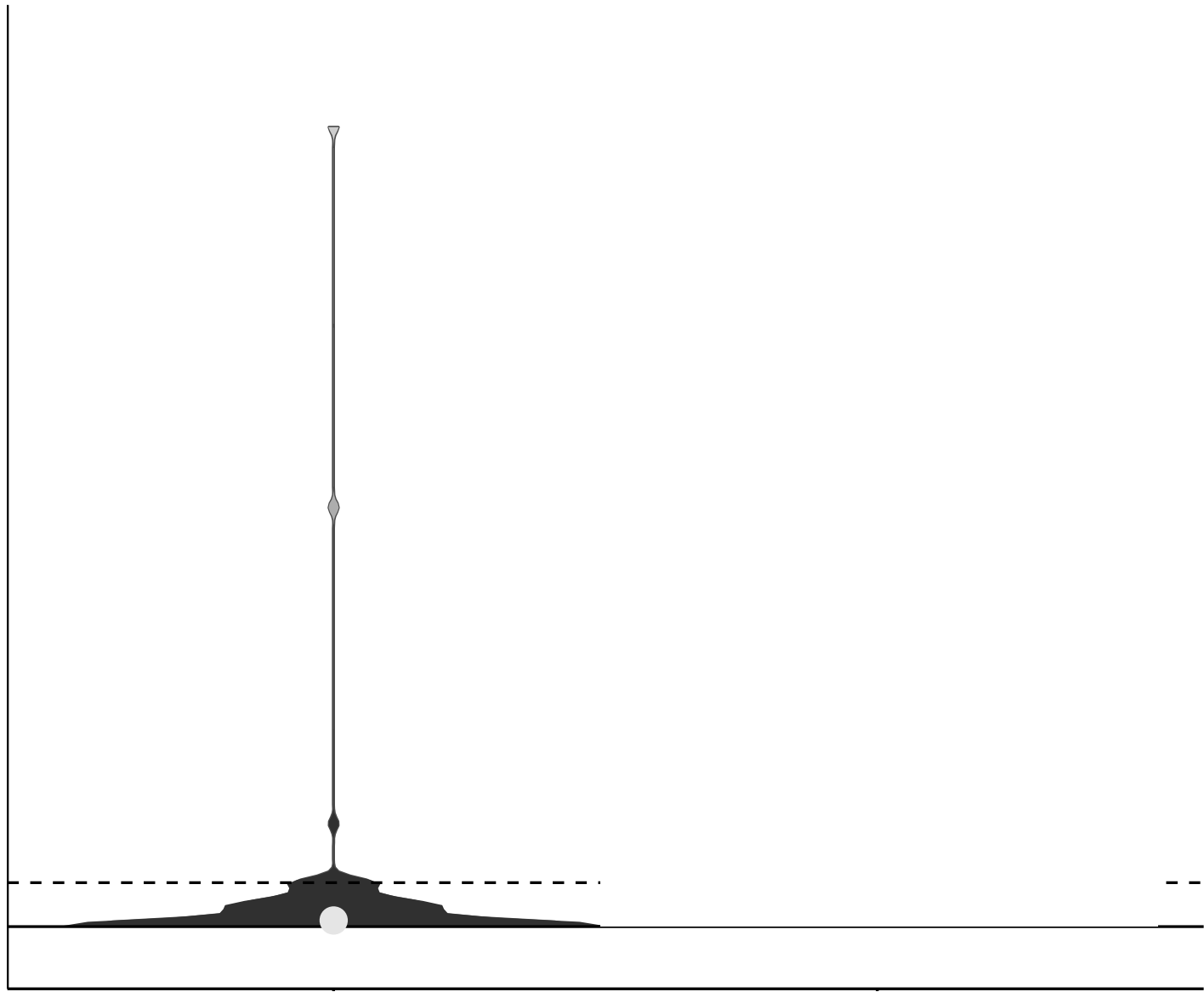
Reproducibility Project: Psychology

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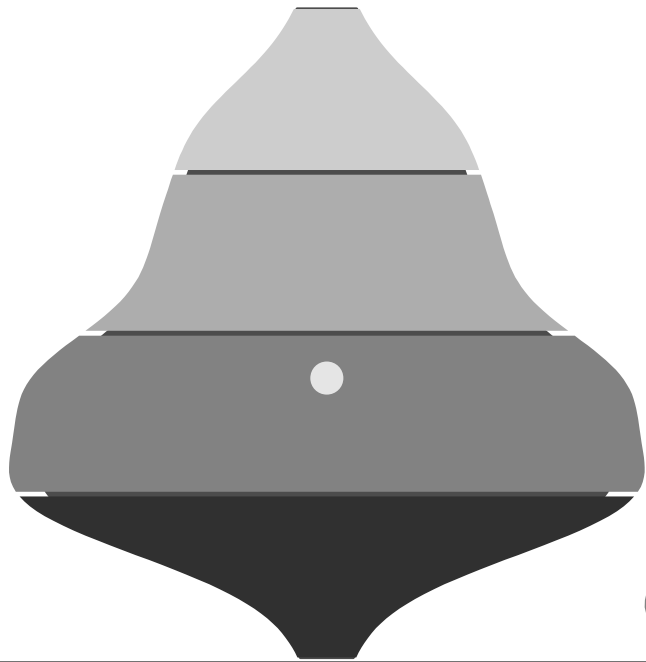
Reproducibility Project: Psychology

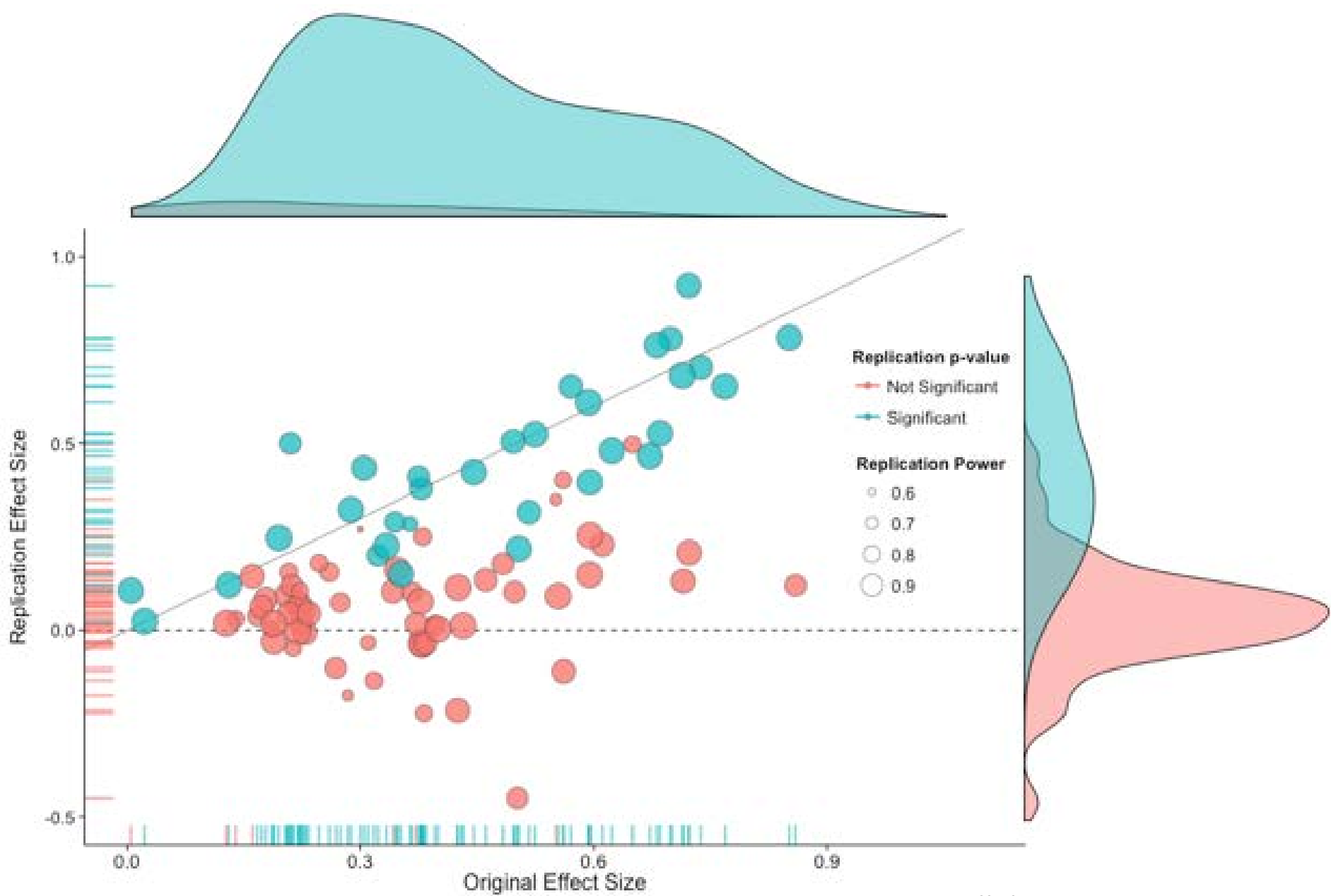
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97%



$$M_r = .396$$





Open Science Collaboration, 2015, *Science*

Our message

- 100 good faith attempts, modest success rate
- Why? Not clear. All reasons are important, some are interesting
- This first study should inspire deeper self-examination
- This is science being science
- Psychology is leading the way

Context

- Journalist must make the research accessible
 - With fewer words
 - With simpler words
 - On a short deadline
 - Without depth expertise
 - Without discussing technical detail
 - Without collaborators to correct and edit nuance
- What could go wrong?

Researchers' role

- Provide main message in usable form
- Say what it is AND what it isn't
- Qualifiers? Prioritize.
- Be responsive

Researchers' role

Help journalists do their job

Preparation

- Team
 - Volunteers, regional list, Hangout review
- Documentation
 - Press release, notes, FAQs, list of non-authors
- Virtual press conference
 - Monday before Thursday release
- Proactive outreach
 - ~10 early interviews
- Cleared schedule

What happened

- Week lead up = the science journalists
- Day of and after = the media
 - Reliant on press release, low effort, little time
- Triage
 - Reach of outlet
 - Region

What happened

- Responsive to queries
- Provide usable responses – speak in quotes
- Post release: Follow-up with corrections, suggesting links

130 stories tracked

Selection of news, blog, and radio stories about the Reproducibility Project: Psychology from the end of August and early September, 2015

Original Article: <http://www.sciencemag.org/content/349/6251/aac4716>

OSF Project page with materials, data, preregistrations, and reports: <https://osf.io/ezcuj/wiki/home/>

Back to the press summary: <http://cos.io/pr/2015-09-29>

Outlet	Link to Article
New York Times	http://www.nytimes.com/2015/08/28/science/many-social-science-findings-not-as-strong-as-claimed-study-says.html?action=click&context=menu;from=search;path=science;region=header
Washington Post	http://www.washingtonpost.com/news/speaking-of-science/wp/2015/08/27/trouble-in-science-massive-effort-to-reproduce-100-experiments-fails-to-replicate-100-experiments/
NPR	http://www.npr.org/2015/08/28/435416046/research-results-often-fail-to-be-replicated-researchers-say
Vox	http://www.vox.com/2015/8/27/9216383/irreproducibility-research
Vox (Q&A)	http://www.vox.com/2015/8/27/9212161/psychology-replication
Wired	http://www.wired.com/2015/08/science-problems-web-fix/
Buzzfeed	http://www.buzzfeed.com/catferguson/red-wine-is-good-for-you
Associated Press	http://hosted.ap.org/dynamic/stories/U/US_SCI_VERIFYING_SCIENCE?SITE=AP&SECTION=HOME&TEMPLATE=DEFAULT
538	http://fivethirtyeight.com/datalab/psychology-is-starting-to-deal-with-its-replication-problem/?ex_cid=538twitter
The Conversation	https://theconversation.com/we-found-only-one-third-of-published-psychology-research-is-reliable-now-what-46596
The Atlantic	http://www.theatlantic.com/health/archive/2015/08/psychology-studies-reliability-reproducibility-nosek/402466/
Nature	http://www.nature.com/news/over-half-of-psychology-studies-fail-reproducibility-test-1.18248
Science	http://www.sciencemag.org/content/349/6251/910.full
Pacific Standard	http://www.psmag.com/health-and-behavior/project-replicates-fewer-than-half-of-psychology-experiments
The Guardian	http://www.theguardian.com/science/2015/aug/27/study-delivers-bleak-verdict-on-validity-of-psychology-experiment-results
The Economist	http://www.economist.com/news/science-and-technology/21662619-large-study-replicates-psychology-experiments-not-most-their-re
The Independent	http://www.independent.co.uk/news/science/study-reveals-that-a-lot-of-psychology-research-really-is-just-psychobabble-10474646.h
Ars Technica	http://arstechnica.co.uk/science/2015/08/100-psychology-experiments-repeated-less-than-half-successful/
Retraction Watch	http://retractionwatch.com/2015/08/27/yes-many-psychology-findings-may-be-too-good-to-be-true-now-what/
BPS Research Digest	http://digest.bps.org.uk/2015/08/this-is-what-happened-when.html?m=1
IBTimes	http://www.ibtimes.com/scrutinizing-scientific-method-researchers-massive-open-access-study-fail-replicate-2071483
Smithsonian	http://www.smithsonianmag.com/science-nature/scientists-replicated-100-psychology-studies-and-fewer-half-got-same-results-18095
EurekAlert	http://www.eurekalert.org/pub_releases/2015-08/aaft-sat082415.php
Motherboard	http://motherboard.vice.com/read/a-huge-team-of-psychologists-tried-to-reproduce-100-published-studies
vocativ	http://www.vocativ.com/news/226120/psychology-has-a-reproducibility-problem/
Around the O (U of Oregon)	http://around.uoregon.edu/content/uo-pair-among-270-scientists-who-tried-replicate-psychology-studies
Medical Daily	http://www.medicaldaily.com/published-psychology-findings-seriously-challenged-unprecedented-study-are-349994
HealthDay	http://consumer.healthday.com/clinical-trials-information-35/clinical-trials-news-136/how-reliable-are-study-findings-702739.html

Estimating the reproducibility of psychological science

Overview of attention for article published in Science, August 2015



? About this Attention Score

In the top 5% of all research outputs scored by Altmetric

MORE...

Mentioned by

- 109 news outlets
- 80 blogs
- 1888 tweeters
- 49 Facebook pages
- 7 Wikipedia pages

SUMMARY

News

Blogs

Twitter

Facebook

Wikipedia

Google+

Title Estimating the reproducibility of psychological science

Published in Science, August 2015

DOI 10.1126/science.aac4716 [↗](#)

Pubmed ID 26315443 [↗](#)

Authors Open Science Collaboration, ,

Abstract Reproducibility is a defining feature of science, but the extent to which it characterizes current... [\[show\]](#)

TWITTER DEMOGRAPHICS

MENDELEY READERS

ATTENTION SCORE



This research output has an **Altmetric Attention Score** of **2872**. This is our high-level measure of the attention that it has received. This Attention Score was calculated when the research output was last m

ALL RESEARCH OUTPUTS

#45

of 5,462,004 outputs

OUTPUTS FROM SCIENCE

#2

of 33,573 outputs

OUTPUTS OF SIMILAR AGE

#3

of 193,301 outputs

Aftermath

- Notes on quality and accuracy of coverage
- Prioritization of journalists for future stories
- Biggest complaint = Headlines

Biggest Challenge

Conveying Uncertainty

Uncertainty for journalists

- Ineffective = throwaway nods “may”, “just a first study”
- Effective = Make uncertainty concrete
 - what is not known
 - how it could be wrong, and why it is worth taking seriously nonetheless
- Key = Make uncertainty part of the story

Uncertainty for researchers

- Researchers human too
- Urge to simplify begets minimizing uncertainty
- Journo = “What am I supposed to do when researcher provides no uncertainty?”
- Diagnostic question = “How might you be wrong?”

These slides are shared: <https://osf.io/k8m7z/>

<http://cos.io/>

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