



The Dutch Reproducibility Network (NLRN)



Michiel de Boer

Dept of General Practice and Elderly Care
Medicine, UMCG



Distrust in Scienc(e)(tists)

AAMCNEWS

Why do so many Americans distrust science?

Medical science faces a **credibility crisis** that threatens its ability to protect people's health. Scientists need to grasp the forces sowing suspicion about their work.

<https://www.aamc.org/news-insights/why-do-so-many-americans-distrust-science>

Belgium's Van Ranst: Covid scientist targeted by a far-right sniper

🕒 5 June 2021



<https://www.bbc.com/news/world-europe-57358492>



RESEARCH

RESEARCH ARTICLE

PSYCHOLOGY

Estimating the reproducibility of psychological science

Open Science Collaboration*†

Reproducibility is a defining feature of science, but the extent to which it characterizes current research is unknown. We conducted replications of 100 experimental and correlational studies published in three psychology journals using high-powered designs and original materials when available. Replication effects were half the magnitude of original effects, representing a substantial decline. Ninety-seven percent of original studies had statistically significant results. Thirty-six percent of replications had statistically significant results; 47% of original effect sizes were in the 95% confidence interval of the replication effect size; 39% of effects were subjectively rated to have replicated the original result; and if no bias in original results is assumed, combining original and replication results left 68% with statistically significant effects. Correlational tests suggest that replication success was better predicted by the strength of original evidence than by characteristics of the original and replication teams.

facilitated each step of the process and maintained the protocol and project resources. Replication materials and data were required to be archived publicly in order to maximize transparency, accountability, and reproducibility of the project (<https://osf.io/ezcuj>).

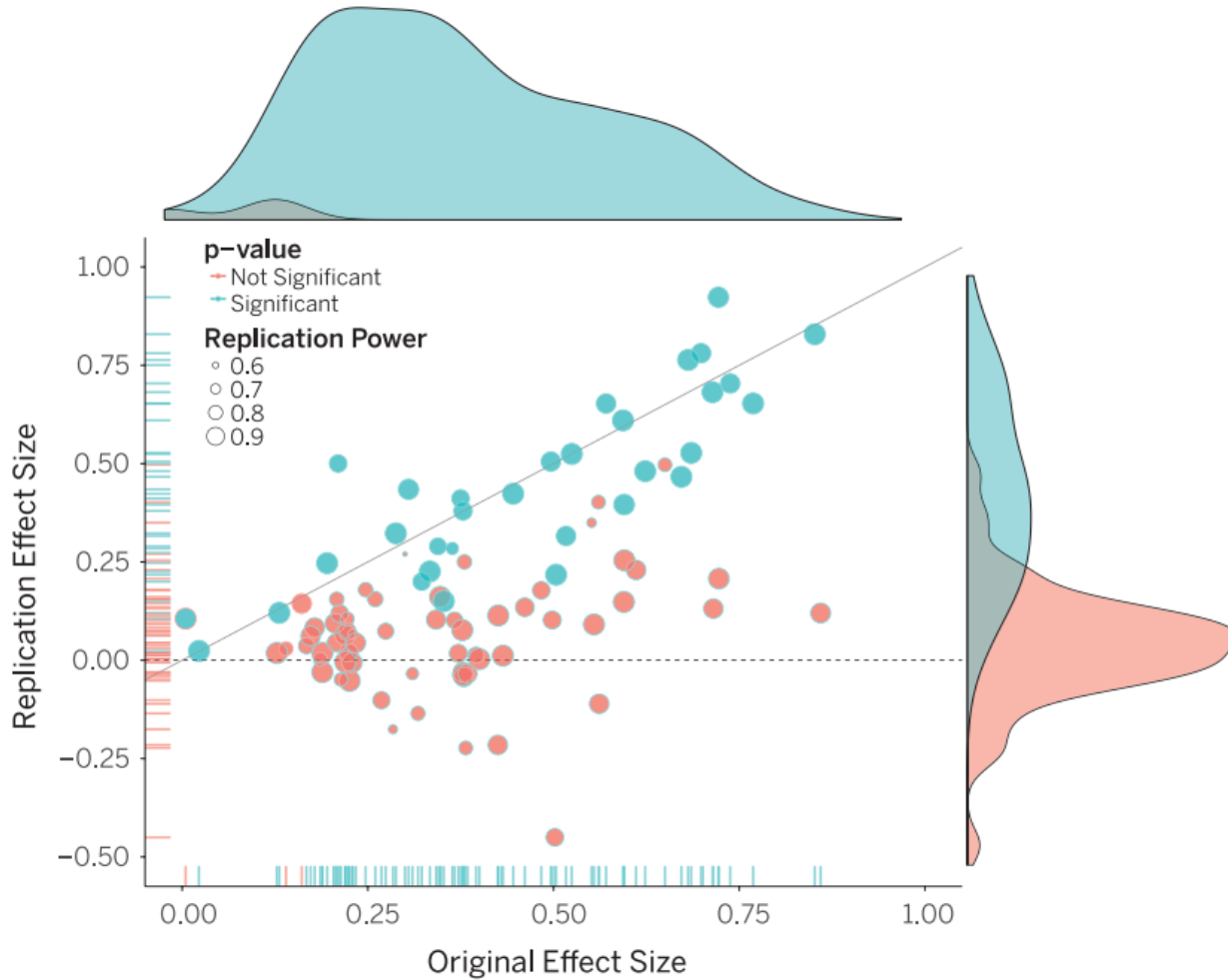
In total, 100 replications were completed by 270 contributing authors. There were many different research designs and analysis strategies in the original research. Through consultation with original authors, obtaining original materials, and internal review, replications maintained high fidelity to the original designs. Analyses converted results to a common effect size metric [correlation coefficient (*r*)] with confidence intervals (CIs). The units of analysis for inferences about reproducibility were the original and replication study effect sizes. The resulting open data set provides an initial estimate of the reproducibility of psychology and correlational data to support development of hypotheses about the causes of reproducibility.

Sampling frame and study selection

We constructed a sampling frame and selection process to minimize selection biases and maximize generalizability of the accumulated evidence. Simultaneously, to maintain high quality,

D reproducibility is a core principle of scientific progress (1–6). Scientific claims should

results are false and therefore irreproducible (9). Some empirical evidence supports this analysis.



Original study effect size versus replication effect size (correlation coefficients). Diagonal



Reasons for 'Replication crisis'

- Non transparent methods
- Methods are not or cannot be exactly replicated
- Statistical uncertainty / sampling error



WIKIPEDIA
The Free Encyclopedia

Article [Talk](#)

Replication crisis

From Wikipedia, the free encyclopedia





Aim NLRN

- To increase the quality and efficiency of research in the Netherlands by coordinating, supporting and strengthening initiatives on transparency and reproducibility in all scholarly disciplines.



goals

NLRN facilitates:

1. the large-scale implementation of transparent and reproducible workflows, particularly outside the bubble of already engaged researchers
2. the exchange and further development of innovations in research on reproducibility.



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Strategy and structure

- We promote training activities and disseminate best practices, support meta-scientific research and coordinate these efforts in collaboration with stakeholders from local initiatives, research institutes and other stakeholder organizations.



International Reproducibility network



