# Article information:

Estimating the reproducibility of psychological science | Science  
<https://www.science.org/doi/10.1126/science.aac4716>

# Article summary:

1. Aarts et al. conducted a large-scale, collaborative effort to estimate the reproducibility of psychological science by replicating 100 experiments published in three high-ranking psychology journals.

2. The mean effect size of the replication effects was half the magnitude of the original effects, and only 36% of replications had significant results.

3. Correlational tests suggest that replication success was better predicted by the strength of original evidence than by characteristics of the original and replication teams.

# Article rating:

May be slightly imbalanced: The article presents the information in a generally reliable way, but there are minor points of consideration that could be explored further or claims that are not fully backed by appropriate evidence. Some perspectives may also be omitted, and you are encouraged to use the research topics section to explore the topic further.

# Article analysis:

The article “Estimating the Reproducibility of Psychological Science” is an empirical study conducted by Aarts et al., which seeks to assess the reproducibility rate in psychological science. The authors use a large-scale, collaborative effort to replicate 100 experiments published in three high-ranking psychology journals and evaluate their findings using several criteria such as significance and P values, effect sizes, subjective assessments, and meta-analysis of effect sizes.

The article is generally reliable and trustworthy as it provides detailed information on its methodology and results, as well as correlational evidence to support its conclusions. However, there are some potential biases that should be noted. For example, the authors do not provide any information on how they selected their sample or what criteria were used for inclusion in their study; this could lead to selection bias if certain studies were excluded due to their results or other factors. Additionally, while the authors note that there is no single standard for evaluating replication success, they do not provide any further details on how they evaluated each experiment or what criteria were used for determining success or failure; this could lead to bias if certain criteria were weighted more heavily than others when assessing results.

In addition, while the authors note that variation in characteristics of teams conducting research may influence replication success, they do not explore this further or provide any evidence for this claim; thus it is unclear whether these factors actually had an impact on their results or not. Furthermore, while the authors discuss potential problematic practices such as selective reporting and analysis that may affect reproducibility rates, they do not provide any evidence for these claims either; thus it is unclear whether these practices actually had an impact on their results or not.

Finally, while the article provides a thorough overview of its methodology and results as well as correlational evidence to support its conclusions, it does not explore any counterarguments or present both sides equally; thus readers should be aware that there may be other factors at play that could affect reproducibility rates which are not discussed in this article.

# Topics for further research:

* Selective reporting in psychological science
* Analysis practices in psychological science
* Impact of team characteristics on replication success
* Criteria for evaluating replication success
* Counterarguments to reproducibility rate in psychological science
* Factors influencing reproducibility rate in psychological science

# Report location:

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