

Testing social scientists with replication studies shows them capable of changing their beliefs

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A team of researchers from the University of Alabama, the University of Melbourne and the University of California has found that social

scientists are able to change their beliefs regarding the outcome of an experiment when given the chance. In a paper published in the journal *Nature Human Behavior*, the group describes how they tested the ability of scientists to change their beliefs about a scientific idea when shown evidence of replicability. Michael Gordon and Thomas Pfeifer with Massey University have published a News & Views piece in the same journal issue explaining why scientists must be able to update their beliefs.

The researchers set out to study a conundrum in science. It is generally accepted that scientific progress can only be made if scientists update their beliefs when new ideas come along. The conundrum is that scientists are human beings and human beings are notoriously difficult to sway from their beliefs. To find out if this might be a problem in general science endeavors, the researchers created an environment that allowed for testing the possibility.

The work involved sending out questionnaires to 1,100 [social scientists](#) asking them how they felt about the outcome of several recent well-known studies. They then conducted replication efforts on those same studies to determine if they could reproduce the findings by the researchers in the original efforts. They then sent the results of their replication efforts to the social scientists who had been queried prior to their effort, and once again asked them how they felt about the results of the original team.

In looking at their data, and factoring out related biases, they found that most of those scientists that participated lost some confidence in the results of studies when the researchers could not replicate results and gained some confidence in them when they could. The researchers suggest that this indicates that scientists, at least those in social fields, are able to rise above their beliefs when faced with [scientific evidence](#), ensuring that science is indeed allowed to progress, despite it being

conducted by fallible human beings.

More information: Alex D. McDiarmid et al, Psychologists update their beliefs about effect sizes after replication studies, *Nature Human Behaviour* (2021). [DOI: 10.1038/s41562-021-01220-7](https://doi.org/10.1038/s41562-021-01220-7)

Michael Gordon et al, Can scientists change their minds?, *Nature Human Behaviour* (2021). [DOI: 10.1038/s41562-021-01201-w](https://doi.org/10.1038/s41562-021-01201-w)

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