More social science studies just failed to replicate. Here's why this is good.

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One of the cornerstone principles of science is replication. This is the idea that experiments need to be repeated to find out if the results will be consistent. The fact that an experiment can be replicated is how we know its results contain a nugget of truth. Without replication, we can't be sure.

For the past several years, social scientists have been deeply worried about the replicability of their findings. Incredibly influential, textbook findings in psychology — like the "ego depletion" theory of willpower, or the "marshmallow test" — have been bending or breaking under rigorous retests. And the scientists have learned that what they used to consider commonplace methodological practices were really just recipes to generate false positives. This period has been called the "replication crisis" by some.

And the reckoning is still underway. Recently, a team of social scientists — spanning psychologists and economists — attempted to replicate 21 findings published in the most prestigious general science journals: *Nature* and *Science.* Some of the retested studies have been widely influential in science and in pop culture, like a 2011 paper on whether access to search engines hinders our memories, or whether reading books improves a child's theory of mind (meaning their ability to understand that other people have thoughts and intentions different from their own).

On Monday, they're publishing their results in the journal *Nature Human Behavior.* Here's their take-home lesson: Even studies that are published in the top journals should be taken with a grain of salt until they are replicated. They're initial findings, not ironclad truth. And they can be really hard to replicate, for a variety of reasons