

Growing Evidence Suggests Why More People Distrust Scientific Findings

Source: [Prevent Disease](#)

by Mae Chan

The most prestigious peer-reviewed journals in the world are [having less influence among scientists](#) due to the shift in the ways we deal with scientific query. In an era of fact-checking and “alternative facts,” many people simply choose not to believe research findings and other established facts, according to a new paper co-authored by a professor at Indiana University’s Kelley School of Business.



“A growing body of evidence suggests that even when individuals are aware of research findings supported by a vast majority of studies, they often choose not to believe them,” wrote Ernest O’Boyle, associate professor of management and entrepreneurship, and two co-authors in the Journal of Management.

“There are reasons for growing alarm about the disbelief of scientific findings across a wide range of professional domains because it seems to reflect a much broader drop in the credibility of academics and scientists.”

On average, one out of every three highly cited studies published in influential medical journals is either refuted or seriously weakened by subsequent research.

A common theme in most journals is their tendency to publish

“positive” findings (where a therapy was proven to be effective) over “negative” ones (where a therapy’s effectiveness was cast in doubt).

It is now well known after a plethora of evidence that many of the articles that appear in scientific journals under the bylines of prominent academics are actually written by ghostwriters in the pay of drug companies. These seemingly objective articles, which doctors around the world use to guide their care of patients, are often part of a marketing campaign by companies to promote a product or play up the condition it treats. Medical journals are facing unprecedented scrutiny of their role as gatekeeper for scientific information.

In an editorial commentary, O’Boyle and two professors at the University of Iowa – Sara Rynes and Amy Colbert – explain why people often don’t believe research findings.

Some public distrust comes from a rapid rise in studies suggesting that current research findings aren’t as robust as previously thought. Reasons range from innocent causes, such as undetected analytical errors, to occasional questionable research practices. But the authors also point to “well-funded, concerted efforts to discredit solid scientific research for self-interested political, ideological or economic ends.”

This trend affects American business and the workplace because managers are less likely to look to academic research for advice or apply empirically validated best practices. For example, they may fail to embrace the view that intelligence is the single best predictor of job performance, which has been widely proven through research.

“Research suggesting the benefits of diversifying the labor force or promoting women or minorities into leadership positions is likely to threaten the vested interests of members of currently overrepresented groups while raising the

hopes and aspirations of others,” they said. “Many people are also likely to use motivated reasoning when evaluating research-based claims about the causes and consequences of pay inequity.”

To address these challenges, O’Boyle and his colleagues said business researchers should broaden the range of research to focus on bigger, more important problems and consider more emphasis on needs of customers, employees, local communities, the environment and society as a whole. They need to find opportunities to co-create research with practitioners, beyond their simply providing data and other information.

They also need to improve how they report and communicate about their research.

[A survey of 2700 doctors](#) and scientists found one in seven (13%) had, “witnessed colleagues intentionally altering or fabricating data during their research or for the purposes of publication”. Those are only the doctors that admitted the findings. Critics suggest the actual percentage may be higher than 30%. That manipulation included, “inappropriately adjusting, excluding, altering, or fabricating data”.

More and more evidence is suggesting that medical journals are increasingly having to retract reports due to fabricated, erroneous or misleading data from Doctors and Scientists. Fraud has clearly been on the rise in Drug studies for decades and is now the norm in the pharmaceutical industry.

“To outsiders, the current publishing model of academic research is likely to appear strange, counterintuitive and wasteful,” they said. “Experts have long recommended publishing findings in outlets that are more accessible.

“Many practitioners, students and members of the general population now get much of their information from sources that were barely in use little more than a decade ago, such as blogs, online videos and various forms of social media. The

best opportunities to get research evidence to the public may lie in these alternative forums.”

These forums may include TED talks, online forums and massive open online courses, known as MOOCs. O’Boyle and his co-authors also suggest that scholars need to better anticipate and address resistance to specific findings in their research.

“A lot of what we’re doing to bridge the academic-practice gap, like publishing in more accessible outlets and doing more executive training, doesn’t work unless we are able to overcome some of these natural barriers to persuasion,” O’Boyle said.