

Psychology's Image Problem

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Eyewitness testimony, vehicle safety, economics, and aptitude testing are just a few of the domains that have been revolutionized by psychological research — but few lay people even know it.

“I think we take those applications for granted because we know about them, but they’ve often receded into the woodwork because they’re so much a part of everyday life that a lot of people aren’t sufficiently cognizant of them,” said Scott O. Lilienfeld in his APS James McKeen Cattell Fellow Award Address at the 25th APS Annual Convention, held in May in Washington, DC.

Data show that large percentages of the public don’t perceive psychology as scientific and harbor doubts about the field’s usefulness in society. Lilienfeld, a professor of psychology at Emory University, has spoken and written extensively about public skepticism of psychology and ways to address it.

Uncommon Sense

A bedeviling misconception about psychology is that it’s hardly science — it’s common sense. But this belies the truth that a lot of the field’s findings contradict intuitions, myths, and popular wisdom. Over the years, studies of undergraduates in introductory psychology courses have given insight into the number of people who believe myths that have been debunked by psychological science. Sixty-six percent of students in a 1983 study by APS Charter Member Larry T. Brown believed expressing pent-up anger reduces that emotion. More than three-quarters of students in a 1977 study by Eva Vaughan believed schizophrenics have multiple personalities. Forty-five percent of students in a 2004 study by Annette Kujawski Taylor and Patricia Kowalski believed that the polygraph test is a highly accurate detector of lies. In a 2011 study by APS Fellow Daniel J. Simons and Christopher F. Chabris, 63 percent of students believed human memory works like a video camera, accurately recording the events we see. Pop culture is rife with psychological misconceptions that make it difficult to tell facts from fiction, Lilienfeld said.

Why the Skepticism?

Several factors contribute to the layman’s skepticism about psychology, among them hindsight bias: the tendency to perceive outcomes as foreseeable once we know them. In 1983, researcher Daphna Baratz asked undergraduates to read 16 pairs of statements describing psychological findings and their opposites; they were told to evaluate how likely they would have been to predict each finding. So, for example, they read: “People who go to church regularly tend to have more children than people who go to church infrequently.” They also read, “People who go to church infrequently tend to have more children than people who go to church regularly.” Whether rating the truth or its opposite, most students said the supposed finding was what they would have predicted.

Research also shows that when psychological findings conflict with deeply held intuitions, individuals may resolve that cognitive dissonance by dismissing the scientific approach to the questions at hand via the *scientific impotence excuse*. In 2010, researcher Geoffrey D. Munro presented undergraduates with brief descriptions of studies that either confirmed or disconfirmed beliefs that homosexuality is a mental illness. Munro found that when participants' beliefs were disconfirmed, they became more likely to question whether homosexuality is amenable to scientific investigation.

Other factors that influence public perception of the field: An illusion of understanding of psychological experiences, in that psychology seems easier than physics, chemistry, and other hard sciences; and greedy (eliminative) reductionism, in which there is a belief that analysis of the brain will supplant psychological analysis in explaining human behavior, rendering neuroscience inherently more scientific than psychology.

The Field's Self-Inflicted Wounds

Psychological science's lack of self-policing has also negatively affected public perception. Lilienfeld said that clinical psychologists have not always embraced scientific standards when conducting interventions (e.g., Baker et al., 2009):

- Two-thirds of children with autism spectrum disorders receive scientifically unsupported interventions (Hess et. al., 2008)
- Most people with depression or panic attacks do not receive scientifically supported treatments (Kessler et al., 2001)
- Half or more of clinicians do not use exposure-based therapies to treat obsessive compulsive disorder (Freiheit et al., 2004)
- As recently as seven years ago, 90 percent of psychologists within the Department of Veterans Affairs were not using any evidence-based treatments for PTSD (Russell & Silver, 2007)

In addition to deficiencies in clinical treatments, the public face of psychology is poorly represented by psychological science. Though there is no shortage of psychologists in the media participating in courtroom trials and television shows, rarely are they researchers. One of the most notable faces of psychology today is TV's Dr. Phil, Lilienfeld says. While Dr. Phil has a PhD in clinical psychology, his program incorporates unsupported interventions such as lie-detector tests, psychics, and neurofeedback to treat ADHD.

Further compounding matters is the fact that most Americans cannot tell the difference between one mental health professional and the other, i.e., psychologists vs. psychotherapists, or psychologists vs. psychiatrists.

Moving Forward

Psychological science must resist the temptation to blame all of the misconceptions about the field on

the public, Lilienfeld said. At least some of the skepticism is deserved, and in order for that to be remedied, psychological scientists must disseminate good science to battle the bad science being popularized.

“It’s hard to find the time,” he said. “Still, we have to play a more active role in educating laypersons about our scientific side and combat and confront its nonscientific side.”

Also needed is a deep-seated change in culture in academe so that department chairs and administrators reward the popularization of science, rather than punish it. At the institutional level, instructors need to inject more academic rigor in psychology courses; professional organizations must step up efforts to get psychological scientists in regular media coverage; professional organizations should seek to educate laypersons about the difference between psychological scientists and other mental health professionals; and professional organizations should make clear their support for sound science, *and* their rejection of pseudoscience.

Fortunately, psychological scientists have begun to take a stand by being less modest in raising questions; research replication initiatives, including APS’s Registered Replication Report, are under way; and scientific psychology is taking a leadership role in addressing the field’s public-image challenges.

“Maybe we should be asking even more how are *we* doing as a profession and be willing to take the public’s answers to heart even if their answers are not to our liking,” Lilienfeld said. “I am a firm believer that if we can embrace this attitude of healthy self-criticism and healthy skepticism we can place the field of psychology on firmer scientific footing and do justice to the memory of James McKeen Cattell.”

References

- Baker, T. B., McFall, R. M. & Shoham, V. (2009). Current status and future prospects of clinical psychology: Toward a scientifically principled approach to mental and behavioral health care. *Psychological Science in the Public Interest*, 9, 67–103.
- Baratz, D. (1983). How justified is the “obvious” reaction? *Dissertation Abstracts International*, 44/02B, 6448. (UMI No. DA 8314435)
- Brown, L. T. (1983). Some more misconceptions about psychology among introductory psychology students. *Teaching of Psychology*, 10, 207–210.
- Freiheit, S. R., Vye, C., Swan, R., & Cady. (2004). Cognitive-behavioral therapy for anxiety. Is dissemination working? *The Behavior Therapist*, 27, 25–32.
- Hess, K. L., Morrier, M. J., Heflin, L. J., & Ivey, M. L. (2008). Autism treatment survey: Services received by children with autism spectrum disorders in public school classrooms. *Journal of Autism and Developmental Disorders*, 38, 961–971.
- Kessler, R. C., Soukup, J., Davis, R. B., Foster, D. F., Wilkey, S. A., Van Rompay, M. I., & Eisenberg,

D. M. (2001). The use of complementary and alternative therapies to treat anxiety and depression in the United States. *American Journal of Psychiatry*, 158, 289–294.

Munro, G. D. (2010). The Scientific impotence excuse: Discounting belief-threatening scientific abstracts. *Journal of Applied Social Psychology*, 40, 579–600.

Russell, M.C., & Silver, S.M. (2007). Training needs for the treatment of combat-related posttraumatic stress disorder. *Traumatology*, 13, 4–10

Simons, D. J., Chabris, C. F. (2011). What people believe about how memory works: A representative survey of the US population. *PLoS ONE* 6(8): e22757. doi:10.1371/journal.pone.0022757

Taylor, A. K., & Kowalski, P. (2004). Naïve psychological science: The prevalence, strength, and sources of misconceptions. *The Psychological Record*, 54, 15–25.

Vaughan, E. D. (1977). Misconceptions about psychology among introductory psychology students. *Teaching of Psychology*, 4, 138–141.