

Foreword

The Road to Hell Is Paved with Pseudoscientific Techniques

Scott O. Lilienfeld

When it comes to helping others with psychological problems, good intentions are essential. Still, as this immensely valuable volume edited by Stephen Hupp amply illustrates, good intentions are not sufficient. The history of medicine, including psychiatry, is a sobering reminder that even the best-meaning practitioners can do terrible harm. Most historians of medicine maintain that until about 1890, the substantial majority of physical procedures were useless or iatrogenic (Grove & Meehl, 1996). In the early twenty-first century, it is all too easy to forget that for decades or even centuries, such since-debunked interventions as bleeding, blistering, purging, leeching, bloodletting, spinning, and the like were widely accepted by many practitioners as effective for the treatment of mental disorders (Gambrill, 2012). Today, these “treatments” understandably strike most of us as barbaric and inhumane. Yet almost certainly, the health care providers who provided them were convinced that their nostrums were helpful. They meant well.

Yes, outright charlatans exist in mental health, and the sprawling discipline of child and adolescent psychological and psychiatric treatment is no exception. Nevertheless, deliberate snake oil salespersons are few and far between. Most of the practitioners of the dubious techniques surveyed in this remarkably comprehensive volume mean well, much as did past purveyors of bleeding, blistering, and the like. And most of these practitioners are almost surely convinced that their preferred ministrations work. Why?

The reason is that they rely largely on their clinical intuitions and informal clinical observations, both of which can often be helpful for generating fruitful hypotheses but which tend to be woefully ill suited to ascertaining whether treatments work. For this crucial task, we must turn to scientific methods, which are partial bulwarks against confirmation bias, the deeply entrenched tendency – to which we are all prone – to seek out, interpret, and recall evidence consistent with our hypotheses and to deny, dismiss, or distort evidence that is not (Nickerson, 1998;

Tavris & Aronson, 2008). In the domains of mental health treatment research, such methods encompass randomized controlled trials; systematic within-subject designs; and when these are not feasible, well-controlled case control designs (Lilienfeld, Ritschel, Lynn, Cautin, & Latzman, 2014). None of these designs is a panacea, but each affords a much-needed check against regression to the mean, placebo effects, multiple treatment interference, and a plethora of other sources of spurious therapeutic effectiveness (Lilienfeld, McKay, & Hollon, 2018). In this respect, these designs are also critical safeguards against our own propensity to dupe ourselves into believing that our favored interventions work when they do not. As the late Robert Pirsig (1974) wrote in his classic book, *Zen and the Art of Motorcycle Maintenance*, “the real purpose of the scientific method is to make sure nature hasn’t misled you into thinking you know something you actually don’t know” (p. 108).

Early in the course of their training, many clinicians may somehow find a scientific approach to clinical practice to be impersonal or heartless. “I don’t want to learn about research; I just want to help people,” they may think. Even some experienced practitioners may at times lapse into this fallacious reasoning. Nevertheless, one must be careful not to confuse *hard-headedness* with *hard-heartedness* (Meehl, 1973). Being a rigorous thinker is not incompatible with being a caring professional. To the contrary, a genuinely humane approach to practice *demand*s the use of scientific methods, because these methods are ultimately our best hope for minimizing errors in our clinical inferences, including treatment decisions (McKay, 2017).

As soon as we believe ourselves to be immune to error in clinical settings, we are operating with intellectual hubris. In contrast, the adoption of a scientific approach embodies the attitude of intellectual humility, which mandates a willingness to acknowledge the possibility that we might be mistaken (see also Leary et al., 2017). As astrophysicist and science writer Carl Sagan (1995) noted, good scientists always hear a little voice in their heads that incessantly intones “you might be wrong.” The same principle holds for clinical scientists, whether they are functioning in the therapy room, laboratory, or classroom.

In an influential but controversial recent book, Paul Bloom (2017) argued that empathy, which he defines as experiencing the same emotions as the person with whom one is identifying, is unhelpful and often harmful, as it tends to lead to a loss of perspective. Instead, Bloom maintained, we should strive to cultivate what he terms *rational compassion*, in which we combine caring with a dispassionate view of reality. All good surgeons understand this principle. They need to retain their

concern for their patients, of course, but they also need to distance themselves appropriately from their emotions in the long-term service of helping. The merits or lack thereof of Bloom's specific arguments notwithstanding, the overarching point remains. Science is not the enemy of caring; it is its best friend.

As you read the chapters of this important volume, remember that virtually all advocates of the bewildering panoply of unsupported clinical techniques discussed within its pages sincerely want to help. Furthermore, almost all of them believe that they are helping. Yet in many or most cases, they are being fooled or more precisely, fooling themselves.

These practitioners are owed some of the blame, to be sure, but even more of the blame goes to the allied disciplines of mental health, such as psychology, psychiatry, psychiatric nursing, social work, and counseling, for not doing a better job of inculcating scientific thinking in their students. In this respect, this book is a crucial corrective: it is a wonderful resource for how to think clearly about childhood and adolescent mental health problems and their treatment. In addition, this book is a powerful antidote against the seductive temptations of pseudoscience. It reminds us that the impetus to help is by itself futile. It must be fused with an impetus to understand the human mind using the best available scientific methods.

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