

Perspective

What Is Your Evidence for That Claim?

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In the 2008 issue of this journal, Kelly McGonigal's editorial raised the question, "What is your evidence for that claim?"¹ McGonigal's question raises deep issues in the philosophy of science—issues that are of everyday concern to those of us who are teaching Yoga to people with diseases, disorders, or disabilities.

Whether we are physicians or patients, Yoga teachers or students, we all approach Yoga therapy with an existing competence in evaluating claims. What we need to support the cooperation of our different communities is a way to bring together these varying perspectives, along with a more comprehensive way of testing them.

Everybody Is an Empiricist

Humans operate on the fundamental assumption that we are competent to observe the world around us and make judgments about it. In both the physical and the social world, we assume that things are as they seem, unless we have a particular reason to think otherwise. The color of the sky, the temperature of the air, the mood of a friend—each of these comes to us as a confident observation. We do not question these observations unless we have reason to; we just use them and get on with our lives.

Direct experience is adequate evidence for many of the decisions we make and ideas we believe. If we questioned every observation, we would be paralyzed, requiring additional evidence at every step. But there are exceptions, those occasions when we must dig deeper and ask for more evidence.

When More Evidence Is Needed

In some situations, we may not want to trust casual observation and personal experience. When the stakes are high—for example, when an invasive surgery is being proposed or a powerful drug prescribed—we should have a

higher standard for evidence. In this case, we may need to vet the claim against the accepted standards for reliable evidence in the proposing community and probably our own as well. In the medical community, for example, the Food and Drug Administration (FDA) has specified standards for evidence for new medicines.

Similarly, when a proposed action differs widely from what has gone before, elaborate testing is called for to make up for the lack of relevant experience. For example, consider the amount of testing that would be required to assure passengers of the safety of a new type of air transportation.

We may also need to more carefully consider the evidence when we are presented with a claim that comes from a community different from ours and where the standards of evidence are different from those familiar to us. Consider a claim of efficacy for a traditional Asian medical treatment. How would someone working in the Western medical community evaluate this claim? The two main possibilities are as follows:

1. Devise and execute a verification of the claim according to standards and methods with which we are already familiar;
2. Study the standards of evidence in Asian medicine until we either accept or reject them.

It is important to note that these are significantly different ways to evaluate a claim, and we can deliberately choose to pursue either.

As described in McGonigal's editorial,¹ reviewing a paper for publication in this journal raises both of these issues: the possibility of publication ups the stakes, and the author and reviewer often do not have identical cultural backgrounds. This is why evidence often becomes such a sticking point.

Acknowledgements: I am grateful to Carolyn A. Zeiger, PhD, and F. Richard Singer, Professor Emeritus, for intellectual, expository, and editorial assistance.

What Is Needed: A Cross-Cultural Rhetoric for Evidence

The above considerations highlight the need to develop what might be called a cross-cultural rhetoric—a way for different communities to talk about what calls for evidence and what is acceptable as evidence. This is not just a problem in philosophy; it is a down-to-earth issue in effective treatment. When members of different therapeutic communities cooperate on a case, they need to find a way to bring together their differing terminologies, principles, and methods.

In the process of merging the Yoga community and the medical community, why not just go with the norms of Western science? After all, it was created by an extremely skeptical community determined to counteract all possible human error. When used for its intended purpose, the controlled study with a large number of cases gives us the most rigorous hypothesis testing currently available. However, the very strength of a randomized controlled clinical trial limits its application to Yoga. For example, it is very difficult to design a placebo Yoga class. Other forms of control groups (such as exercise, psychotherapy, or medical care) introduce large complexities into any comparison. Yoga is also meant to be adapted to the individual, not standardized, making the traditional standardized clinical trial challenging.

Even if an experimental design is possible, a rigorous study might require an exorbitant output of time and money. At present, this is an issue for FDA approval of a new drug; only drugs with major potential for profit can justify the cost of testing. Yoga may save money by preventing disease or reducing the cost of healthcare, but it is unclear who (if anyone) is willing to pay large sums of money to test its efficacy. Information does not come for free. Often we make an educated guess and proceed on that basis, rather than pay the cost of more certain information.

What is the alternative to using the randomized controlled trial as the standard for evidence in the Yoga community? One interesting parallel comes from the field of software testing, where complete assurance that a product works is usually not feasible. Most software is subjected to a beta test—that is, a release to normal users who are forewarned that bugs may show up and who are encouraged (sometimes by payments) to report them. Here again, there is a tradeoff. Releasing a beta version too early, with too many bugs, makes for a bad reputation, while waiting too long may yield the market to a competitor.

Many traditional therapeutic practices, Yoga included, can be said to have survived a long beta test. These practices have been used by many and adapted over time to be

safer and more effective. Practices that are less safe or less effective typically fall by the wayside as participants critique their experiences and choose for the better. Indeed, since we all frequently choose for the better, all current practices are under a kind of beta test—and this testing comes (almost) for free. This process can be augmented by data gathered from everyday practice. See, for example, the survey on Yoga injuries by Fishman et al. in this very issue. For relatively low cost, the Yoga community has collaborated to share their experiences with various Yoga practices that may create risk for participant harm.

History, experience, and continual refinement thus provide a kind of “trust baseline” for Yoga. This baseline can replace the high cost of “proving” broad claims through multi-million dollar clinical trials with the lower cost of demonstrating incremental innovations in how we offer Yoga as a therapy.

The Future of Evidence

The placebo-controlled, double blind, large sample study will continue to be the gold standard for medical/therapeutic claims, at least here in the West. Many issues, however, will not be tested that way. Instead, they will be vetted by some form of beta test or related procedure. Agreements constituting a cross-cultural rhetoric will gradually emerge from the editorial discussions of publications like the *International Journal of Yoga Therapy*. These agreements will include ways of embracing (or at least understanding and benefiting from) alternative approaches to framing the “real” world, with their own forms of explanation and their own criteria for evidence.

I see the efforts of the International Association of Yoga Therapists as progress toward this more comprehensive method, by means of accreting methods from other cultures. These efforts, if successful, will lead not merely to a validation of certain traditional therapies by Western tests. They will lead to an evolution of the scientific method itself.

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