INTRODUCTION
The last decade or so has seen a virtual explosion of interest and research into what is now commonly known as energy healing. By this time, it should be apparent that a reasonably dispassionate analysis of the evidence for this type of healing will result in at least some acceptance of its reality. The empirical evidence for the existence of the phenomenon is overwhelming to the point that denial of its possibility must stem from either an irrational a priori rejection or a refusal to examine the evidence.

There are currently peer-reviewed academic journals significantly devoted to the empirical and clinical applications of energy healing, as well as many compilations of past studies that assess the overall quality and types of research that have been done. Controlled laboratory studies include healing effects on everything from single cells to humans, and on psychological as well as physical maladies. And many of these healing effects have proven to be reproducible.

It is therefore undeniable that energy healing has taken place under controlled conditions. That is not to suggest, however, that all claims made by healers should be taken at face value, nor that all studies of healing published to date could withstand rigorous methodological scrutiny. We do suggest that in applying the maxim of orthodox science—that extraordinary claims require extraordinary evidence—there will be a core body of evidence for healing that is undeniable and unassailable.

Individuals with special and identifiable healing abilities are recognized today and probably have always been among us. Also with us today, and perhaps always a part of the human experience, are healing traditions passed on from master to novice. It is our experience that these methodologies share similar issues regarding the efficacy of teaching and the features of the many and disparate means to healing instruction.

Among the many issues not adequately addressed by empirical standards are the correlates to both successful and unsuccessful healing experiments, the number and percentage of people naturally able to produce healing under experimental and clinical conditions, and whether healing itself can be taught. And, if healing can be taught, is there any compelling reason to study the features of the many and disparate means to healing instruction?

We would like to focus on these last questions. It is our contention that whether healing can be taught remains empirically unresolved. And while it is certainly true that many believe it to be so, and both of us are sympathetic to that possibility, it is also our assessment that the methodological difficulties associated with demonstrating teachability have not been adequately addressed. (A wide variety of fields in both the sciences and humanities share similar issues regarding the efficacy of teaching techniques in their fields. It is our experience that these methodological issues are rarely discussed.) We will outline those difficulties.

Aside from the empirical issues that need to be addressed, even healers themselves have been split on the question of whether the ability is simply innate or can be learned. For example, two healers who produced extraordinary results in the pioneering studies of Bernard Grad at McGill University, and Oskar Estebany and Olga Worrell, felt that healing could not be developed by study. On the other hand, Bioenergy Healing (bioenergy being a generic term, we use here capitals to refer to the method taught by Margaret and Mietek Wirkus), Johrei, Reiki, and therapeutic touch are examples of the many healing arts that are considered teachable. Although there are healers in both camps, it would appear self-evident that most persons practicing healing would claim to have been taught.

TEACHING GROUPS AND TECHNIQUES
Of major interest is the widespread proliferation of workshops, seminars, courses, and institutes that purport to teach healing. That so many are now in operation attests to the apparent widespread belief among participants that healing is teachable. A quick perusal of the internet reveals an astonishing array of alleged opportunities for instruction in self-healing and the healing of others. They range from well-known to obscure, from on-site training to training simply through supplied materials. Some are overtly spiritual, others secular. Some require an attunement, others do not. Some claim that the practitioner is the
The training experiences of these students are likely to have some commonalities. There will be some instruction in the history and lore of the particular practice, including the sharing of many anecdotes, and an emphasis during their study on learning through doing, with guided training in the techniques. During the training, students will be guided to “feel” the healing energy in themselves and others, and will learn to associate these feelings as an illustration of the success of the techniques or program of instruction.

Students will be made to feel somehow special or unique and reinforced by the simple fact that they have made the decision to partake in the training. Oftentimes the students will be encouraged to bond together as like-minded individuals who are perhaps more “sensitive” than the majority of the population. They may be told that the workshop itself is not so much designed to teach them something new as to get them to “remember” that which they have always known and somehow forgotten. The workshop/training will then be designed to “awaken” them to their true nature. And although competing techniques and teaching modalities will sometimes be acknowledged, there will be an articulation of the uniqueness of the particular method being taught.

Of course there will be variation in style. Sometimes there will be an emphasis on the founder and lineage from the “master” (eg, Johrei and Reiki). Yet regardless of the methods used, there likely will be some percentage who self-select out after the initial training, presumably because they were not drawn to the techniques, or received insufficient reinforcement after the training, or simply did not perceive sufficient personal gain to continue.

Most who remain in practice or training will have perceived some personal gain, whether warranted or not. Some percentage of students will start to report anecdotal experiences of healing in themselves and others. The teachers of the techniques will embrace these apparently gifted students, and a halo effect is established that will engulf the other students. Within this halo effect, students with perhaps marginal healing ability may lose realistic assessment of their own abilities and identify with the purported abilities of those who appear to be gifted.

Although the apparently gifted students may be used to illustrate the efficacy of the training, it is certainly possible that the training process does no more than act as a means to select out preexisting natural healers who will serve a circular function of reinforcing the belief in the training techniques. We do not know if the distribution of healing talent in the general population approximates a normal curve distribution or whether students who are drawn to complete the training are those already at the higher end of that distribution. The selection of teachers, who are often certified to teach by a governing organization (eg, therapeutic touch) or well-established tradition (eg, Reiki), introduces issues that parallel the self-selection problem for students. We do not have empirical evidence justifying assumed capacities to provide instruction.

The problem is further compounded by the simple fact that there is no agreed upon measurement of the output of energy healing. That is, there is nothing comparable to measurements in physical systems (eg, voltage, amperage, mass) or even to commonly agreed upon indexes and scales in the social and behavioral sciences that operationally measure more abstract concepts (eg, socioeconomic status, self-esteem, depression). Indeed, it may even be possible that the commonly used terms energy healing or subtle energy are misnomers, in that “energy” may not even be involved.

And so, although we maintain that the evidence for the existence of energy healing is overwhelming, the evidence for its
teachability is seriously deficient. We are not trying to indict researchers; we are simply suggesting that despite the widespread anecdotal claims, there has not been adequate testing to date. We are not claiming that healing cannot be taught, indeed we suspect that it can; we are claiming that there is not sufficient empirical evidence to decide (both authors have taught healing techniques to various groups for a number of years).

CRITERIA FOR THE EMPIRICAL DEMONSTRATION THAT HEALING CAN BE TAUGHT
To empirically resolve the question, at least five conditions or concerns must be addressed:

1. The evidence must be collected under controlled, experimental conditions. Simply put, anecdotes are interesting and perhaps suggestive, but they are not sufficient. Following established experimental protocol, it is preferred that data analysis be performed by disinterested specialists.

2. There must be an empirically measurable effect of healing, regardless of the subjects used. If the subjects are humans, it is preferable that there be objective indicators (e.g., blood counts, tumor size), though the indicators could include subjective reports of improved health and well-being, as long as they are done under controlled experimental conditions. Until someone finds a direct, measurable “output” for healing, it is probably even better that the demonstrated healing effect be measured in animals, plants, or simple organisms. Researchers would be well-served with a simple, unambiguous reproducible model that would demonstrate healing.

3. These experiments must include a predesign and postdesign to illustrate the effect of the training. Simply noting that those who have completed the training have demonstrated healing is insufficient to conclude that the healing was actually due to that training. As previously speculated, it may be that there is a normal distribution of healing ability in the general population, and people who self-select to attend the workshop or training are those already at the higher end. If the teaching techniques have validity, there should be demonstrated improvement in healing ability. Perhaps it will be found that certain teaching techniques are differentially successful with varying levels of ability.

4. The experimental design must control for such factors as practice effects and ordinary regression effects. If, for example, healing ability simply improves with practice in a predesign and postdesign, it may be that the specific “special” knowledge imparted during the training masks more mundane processes. Similarly, if individuals who are naturally less effective healers are selected to measure the efficacy of the teaching techniques have validity, there should be demonstrated improvement upon training or replication.

5. Of course all of this implies some sort of control group comparison. And here there is at least one more methodological problem that may seriously complicate healing research. In a recently published paper involving tumor regression of mammary adenocarcinoma in mice through energy healing, there was a high percentage of remissions in the control mice, explained as due to a resonant bonding of experimental and control groups. If resonance can operate in healing research so that there is an apparent entanglement effect from the healing, the problem of isolating the unique healing ability of each individual in a multiperson experiment becomes problematic. It may be necessary to test each individual sequentially rather than in a simultaneous collective.

AN ILLUSTRATION OF METHODOLOGICAL SHORTCOMINGS
One of us (W.F.B.) published a paper in 2000 claiming, among other things, that healing can be taught. In three of four experiments reported, inexperienced, nonbelieving volunteers were trained in a healing method partially developed by Bengston.

Once trained, these volunteers were given laboratory mice that had been injected with fatal doses of mammary adenocarcinoma. Though these mice normally have 100% fatality within one month subsequent to injection, all but four of 33 experimental mice went through novel stages of remission to full lifespan cure. Among the conclusions of the paper was a claim that the success of the experiments demonstrated that healing can be taught.

In hindsight, now, it would appear that two out of five of our standards outlined here had not been successfully met. The first and second criteria, that the experiment be conducted in a controlled setting and that there be some objective measurable output, were clearly met. These experiments were conducted in two independent conventional biology laboratories experienced in these cancer models. The fact that most of the mice were cured clearly indicates a real, measurable effect of treatment. It is also likely that the fourth criterion, controlling for practice and regression effects, was not a factor. That is, some of the volunteers were used in two experiments, and they were equally successful in both. Had regression effects been at play, replication might be an issue.

But the standards of criteria three and five were not met. There was no pretest/posttest of the healing ability of the volunteers before training. It is possible, though perhaps not likely, that the dozen volunteers selected for inclusion were inadvertently chosen with some unconscious recognition that they already possessed healing ability. Without a pretest, there is simply no way to tell whether the techniques enhanced their ability.

The fifth criterion, controlling for resonance effects, poses the most difficult problem. In these experiments, there was a curious pattern of control mice remission that occurred when volunteers came into proximity of those mice. In a later paper, this was explained as a macroscopic resonant bonding wherein a treatment given to one mouse resulted in a treatment to all mice. Simply put, if resonance is at work, then it is not known whether each volunteer actually remitted their mice or whether any particular mouse remission was the result of a resonant linkage to someone else with healing ability. To test whether each person had actually learned to heal, each volunteer would have to have been both pretested before training and then posttested in a way to control for this resonance effect. Neither was done, and so the claim of teachability by the authors was premature.
SOME IMPLICATIONS

Why is all this important? From a scientific perspective, the teachability of healing is an inherently interesting subject for study, which may yield answers to some of the more perplexing facets of energy healing. If healing can be taught, it will be worthwhile to study individuals both before and after their training. For example, functional magnetic resonance imaging brain scans, electroencephalograms, and various neurophysiologic indicators pretraining and posttraining might yield insight into the correlates of energy healing in a way different from the data that many researchers have already established.

Socially, there are innumerable implications of the teachability of healing. To date, the many and highly varied healing arts have not had a profound impact on orthodox healthcare. Extraordinary healing, by which we mean healing with unanticipated efficacy in the curing of illness or the acceleration of the natural process of healing— if commonplace rather than highly exceptional—might have a profound effect. For extraordinary healing to become commonplace, it must be teachable or transmissible.

Imagine if it were possible to develop in large numbers the abilities of those who have demonstrated extraordinary healing. Currently, there is a crisis in the orthodox healthcare system, with its prohibitively high costs, excessive dependence on pharmaceutical interventions, compromising sequelae to many surgical interventions, and the too frequent ambiguous outcomes of behavioral interventions. Whether energy healing can augment, or even substitute, for many orthodox medical interventions becomes far more important if large numbers of practitioners can be effectively trained to practice extraordinary healing.

The most obvious means to this currently nontested and elusive instruction is to rigorously pursue it with healers who show evidence of extraordinary abilities and are receptive to efforts to have their techniques taught. The less obvious means lies in a comparative study of healing practices where the healing is presumed taught, and to determine whether a synthesis of key features leads to substantial improvement in efficacy over any one of the contributing arts. Behind the myriad healing arts and the rationales claimed for their efficacy may be common processes that could be developed and applied. Systematic inquiry into healing and its instruction is a rational endeavor that might reduce the burden of healthcare costs and provide a serious alternative medicine.14

We assume that there are common processes underlying the myriad of healing arts and rationales given for their presumed efficacy, and that scientific inquiry can bring into focus the "laws of healing" much as we now have "laws" of nature. No matter the approach, there will need to be increased methodological rigor.

REFERENCES


SUGGESTED READING