

Presidential Address

FROM PSYCHOSOMATIC TO THEOSOMATIC: THE ROLE OF SPIRIT IN THE NEXT NEW PARADIGM

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ABSTRACT

The body-mind revolution of the past four decades has had considerable impact on biomedical science, health research, and the practice of medicine. This psychosomatic approach, however, is not so much the “new paradigm” that is often heralded, as rather a transitional perspective to a more comprehensive worldview that is beginning to emerge in biomedical discourse. The science and medicine of the 21st Century will be informed by a body-mind-spirit perspective that acknowledges the influence of God or Spirit on the functioning of the physical vehicle and its subtle emanations and fields. Such a theosomatic medicine will be a real new paradigm which promises to transform the practice of medicine, the content of biomedical research, and our understanding of disease prevention, health, and healing.

KEYWORDS: Epidemiology, psychosomatic medicine, herd immunity, religion, spirituality

As all of us who are involved in the energy medicine field are aware, ISSSEEM is an organization dedicated to serving a bridging function linking mystically-inclined scientists and scientifically-inclined mystics. Well, I have a confession. I suspect that I was initially appointed to the ISSSEEM Board of Directors on account of being known as a mystically-inclined scientist. But, with the passing of time—ever since I left academic medicine, especially—I am recognizing more and more that I am no longer really a mystically-inclined scientist, but more in the scientifically-inclined mystic camp, maybe even veering toward being a mystically-inclined mystic. To honor the bridging that has gone on in my own life, I want to take off my scientist's hat, or scientist's costume, as it were, and put on my mystic's hat, literally. So, there goes my tie and my jacket, and on goes my *yarmulke*. There—now I am officially “out” as a mystic.

A PERSONAL CASE HISTORY

I would like to start out by describing something that happened to me over a dozen years ago that reinforced in my own life, through my own experiences, the reality of a connection between the spiritual and the physical.

I was a graduate student at the time, in Galveston, Texas, at the University of Texas Medical Branch (UTMB), getting my Ph.D. As is typical of Galveston, the weather was very unusual—it always rained a lot—and like all the other graduate students I was wearing the official dress of graduate biomedical students at UTMB: shorts and flip-flops, and I may or may not have had a shirt on. We actually were allowed to go to school that way. It was the day that I was handed my comps—my comprehensive doctoral exam—that I needed to pass in order to become an “ABD” and begin my dissertation. This was a take-home exam. I was planning to pick up my comps, race out of the building, grab something to eat, take them home, and work on them all week.

On my way out of the building, in a huge torrential downpour, I came to this little cement staircase. As I began to race down the stairs, I slipped, because I had my clogs on. My spine, somewhere in the thoracic/lumbar region, landed on the first cement step. I bounced and hit the second cement step. I bounced and hit the third cement step. I bounced and landed on the ground, hitting my head and both elbows, and was knocked completely cold. About two or

three seconds later, I came to with no feeling below my waist at all, and a bit of a headache. Naturally, the few other students outside ran up to me and asked, “Hey, man, are you okay?” I said, “Yeah, yeah, I’m fine. Go away.” Typical guy. After a few moments, I regained feeling, gathered myself together, managed to stumble back into the Department of Preventive Medicine and Community Health, and collapsed down in a chair. The head of our program took a look at me, I told him what had happened, and he said we needed to go to the ER right away and get x-rays.

We discovered that I had broken two ribs and the bursae in both my arms, and my arms had locked up. So here I was with two broken ribs, I could barely breathe, and my arms could not move beyond a few degrees, and my professor said, “Well, are you ready to go home for a week and do your comps? Here, I’ll give you a ride.” So he drove me home. My roommate at the time was away in the Netherlands for two weeks, so I had no one there to look after me. My professor made some ice packs and set me up in bed, and again made sure to remind me, “By the way, remember your exams are due in a week.” Then he smiled and said, “Well, I’ll tell you what. We’ll give you a few more days if you need it.” Then he left.

When I was getting x-rayed, the doctors that looked at me had said, “Basically, there’s nothing we can do for you. You just need to rest and lie down. And in about six weeks, things will be healed up—the arms will work, the ribs will be better. But it’s going to take six weeks.”

Well, here I was in bed, could not move, could barely breathe, the whole story. I tried meditating for a little bit, but that did not work. So I did the only real sensible thing that a man in my position would do: I called my mother. She is a long-time ISSSEEM and Institute of Noetic Sciences (IONS) member and Council Grove person, and she knew exactly what to do. She mobilized friends and folks from the Spiritual Emergence Network and various other networks of people that pray and send energy and love and healing. There were Jews and Catholics and born-again Christians and nuns and psychics and people who channeled entities from Zontar on the 12th Plane, and everything else. Everybody was mobilized. In the meantime, I had tried meditating again for a bit, and finally just passed out. When I woke up the next morning, I reached over to turn on the light. All of a sudden, I thought, “Hey, wait a second. What’s going on here?” Both

arms worked and my ribs did not seem to hurt that much. Just to be sure, I pounded the hell out of them, and then they started to hurt a little. Again, a typical guy thing. I would say I was 90 percent better, and I was just shocked.

I got up and did some meditating, and I intuitively perceived some of the folks who had been praying or sending energy or loving me, especially my grandpa who lived to almost 100 and who started doing TM over a quarter of a century ago. He had sent energy, and I also perceived other loving beings around me. By the end of the day, after I had taken a brief nap, I was basically all better. Instead of six weeks, it had taken about a day and a half.

I then was faced with having to go back to UTMB and explain why I was showing up completely healthy and have them think that I had faked the whole thing in order to buy a couple of extra days for my comps. I was actually worried about being kicked out of graduate school. While nothing like that happened, thank goodness, my professors were mystified by my sudden recovery. They had no idea what happened, although they were convinced that something had happened. This provided an opening for me to be gently evangelistic about energy and healing and all that kind of stuff, and eventually everything turned out fine.

That is my own experience with spiritual healing. But I suspect that my story is not unique. How many folks here have similar stories, either that happened to you or in which you were the source or channel of healing for someone else? Wow, almost everybody here. Why am I not surprised? Well, believe it or not, there is more than just anecdotal evidence that things like this go on. There are hard data.

EMPIRICAL EVIDENCE OF A CONNECTION BETWEEN THE SPIRITUAL AND THE PHYSICAL

HEALING EFFECTS OF SPIRITUAL INTERVENTIONS

Many of you have heard of the famous study by Dr. Randolph Byrd, published in 1988 in the *Southern Medical Journal*.¹ It was a double-blinded, randomized, controlled clinical trial—basically a pharmaceutical trial—of

absent or distant prayer for cardiac patients in the hospital. A group of evangelical Christians were given the names of folks in the hospital to pray for. There was a control group. Pray-ers and pray-ees never met. The doctors and nurses did not know who was in which group. The patients did not know whether they were being prayed for. In short, this was a very clean drug trial. Dr. Byrd found that the people who were prayed for had significantly better outcomes: less congestive heart failure, cardiopulmonary arrest, and pneumonia, and less need for diuretics, antibiotics, and intubation/ventilation. They also had a better post-entry hospital course, according to several criteria.

Incidentally, in a subsequent issue of the *Southern Medical Journal*, the Letters to the Editor section looked like the Letters section of *Sports Illustrated* right after they run their annual swimsuit issue—when all the angry parents write in and say that they are going to cancel their subscriptions. The journal editor, however, rightly stated that Dr. Byrd had followed scientific methods and should be commended. This was exactly the sort of study that we should be doing more of—examining very unusual issues while applying rigorous methods.

Dr. William Nolen, who wrote *The Making of a Surgeon*, was a very well-known skeptic. Even he recognized the importance of this study.

It sounds like this study will stand up to scrutiny [M]aybe we doctors ought to be writing on our order sheets, “Pray three times a day.” If it works, it works.²

What a lot of folks may not realize is that there is actually an enormous scientific literature of many, many additional such studies, besides Dr. Byrd’s. These have been gathered together and reviewed by Dr. Daniel Benor in his four-volume *Healing Research*, a truly monumental piece of work.³ His first book consists of descriptions of reports of over 150 trials and studies in which scientists investigated prayer or healing or sending of energy. According to Dr. Benor, these studies have been done not just in humans, but in all sorts of other biological systems. This includes research in animals, plants, bacteria, yeasts, fungi, enzymes, cells, you name it. About half of these studies reported statistically significant, positive results.

PSYCHOPHYSIOLOGICAL EFFECTS OF SPIRITUAL CONSCIOUSNESS

Besides this literature on experimental studies of prayer and its effects on healing, there are two entirely different scientific literatures that also point to a salutary role of the spiritual on the physical. A growing literature has examined the effects of the psychological characteristics of religious involvement or spiritual consciousness on cognitive and affective correlates or markers of psychophysiology. This goes back to Dr. Herbert Benson's work 25 years ago,⁴ and includes studies linking raja yoga and meditation practices to physiological responses,⁵ and also includes the work of the Greens.⁶

I recently conducted a study with Dr. Ian Wickramasekera, a past president of the Association for Applied Psychophysiology and Biofeedback (AAPB), and Caryle Hirshberg, who co-authored IONS' report on spontaneous remissions. The results were published in *Alternative Therapies in Health and Medicine*.⁷ This analysis drew on a sample of patients who had undergone spontaneous remission from cancer. We administered the Tellegen Absorption Scale, a proxy measure for ability to enter an altered state of consciousness and a correlate of hypnotizability, and the Allport-Ross Religious Orientation Scale, the principal measure of intrinsic and extrinsic religiousness, a construct familiar to psychologists of religion.

We found in this sample that folks who were purely intrinsically religious had absorption percentiles almost 20 percent higher than folks who were purely extrinsic or who were high or low on both religious measures. Pure intrinsics are those folks whose religious or spiritual activities are motivated by a sincere desire to connect with God and receive spiritual guidance. These folks also tend to be less dogmatic, less authoritarian, and less intolerant.⁸ According to Dr. Wickramasekera, these findings linking intrinsic religiousness to greater absorption represent a "Rosetta stone" for behavioral medicine. Aspects of our spiritual nature and religious life apparently have psychophysiological correlates.

EPIDEMIOLOGIC EFFECTS OF RELIGIOUS INVOLVEMENT

There is also a very large empirical literature documenting the epidemiologic effects of mostly behavioral measures of religious involvement on morbidity

and mortality rates.⁹ This is the area that I have been most identified with, and the “epidemiology of religion,” a phrase that I coined along with my colleague Dr. Harold Vanderpool, is by now a well developed field. There are well respected scientists all across the country conducting funded research in this area. The NIH has convened conferences, expert working groups, and panels, and has given research grants to me and others to investigate issues related to the epidemiology of religion.

Findings in this area are of two types. First, there are those studies that have identified differences in morbidity or mortality rates by categories of religious affiliation (e.g., differences among Catholics, Protestants, and Jews in rates of coronary artery disease incidence or cancer mortality). In these studies, there is a tendency to find somewhat more favorable rates of health in more behaviorally strict groups, such as Mormons and Seventh-day Adventists. Second, there are other studies that have reported statistically significant associations between measures of religious involvement (e.g., frequency of religious attendance or prayer; belief in God; self-ratings of religiousness) and specific health-related outcomes. Together, these two types of studies constitute the field known as the epidemiology of religion.

My work in this area began in 1982, when I was a 23-year-old graduate student in public health at the University of North Carolina. We had a term paper assignment in our class in social epidemiology. I knew on account of my undergraduate background in religious studies that there had been at least a study or two that had looked at the association between things like religious affiliation or participation and rates of disease. So I decided that my term paper project would be to review this literature.

I headed to the medical library and, to my surprise, found over a dozen studies of this type. I presented my results to the class, and our professor, Dr. Berton Kaplan, encouraged me to write a scholarly paper and submit it to a scientific journal. Before doing so, I thought that I ought to go back and run some MEDLINE searches and make sure that I had found everything in the literature. If I were to report that there were a dozen studies and it later turned out that there were, say, 15 or 20, that would have been embarrassing. By running computer searches, I would be more certain of compiling a comprehensive review. Unbeknownst to me when I began, this task sent me off on

a wild goose chase that wound up consuming my nights and weekends for most of the next five years.

By the time I was done, as a doctoral student in Texas, I had discovered over 200 published studies in medical, epidemiologic, biomedical, and health science journals dating back to the last century in which researchers had empirically studied the relationship between measures of religion or spirituality and morbidity or mortality. So people who say that there is no scientific literature on this topic simply do not know what they are talking about. These studies are out there; some scientists and physicians are just not aware of them.

We eventually wrote up our review, entitled, “Is There a Religious Factor in Health?,” and got it published in 1987 in the *Journal of Religion and Health*,¹⁰ a noted pastoral care journal. We then prepared a follow-up review article on the subset of this literature that linked measures of the frequency of church attendance to morbidity and mortality. We sent our manuscript to a major epidemiology journal, where it was turned down. Now, usually when you get a paper turned down from a peer-reviewed journal, you get a little form letter full of boilerplate thanking you for your submission and wishing you good luck with your paper elsewhere. Not us. We got a page and a half, single-spaced critique from the editor of the journal telling us that not only was our paper unacceptable, but the whole notion of an epidemiology of religion was, in his words, “execrable.” I had to look up the term. I was under the assumption that the word referred to excrement—that he was telling us, basically, that our work was full of shit. I had never seen anything like this in a peer review.

Several years ago, during a talk to a group of Catholic chaplains, I related this story. One of the priests was a Latin scholar, and he told me that, no, execrable does not come from excrement; it comes from execration. I asked what that meant. He said “worthy of being detested or abominated.” I laughed and said, “Oh, that’s a whole a lot better.”

The paper that elicited such a response was simply a review of published studies in which measures of how often folks attend religious services were analyzed in relation to a variety of health outcomes.¹¹ We identified 27 studies, 22 of

which reported positive and statistically significant associations. The outcome measures throughout this literature were wide-ranging: hypertension, arteriosclerotic and degenerative heart disease, overall mortality rates, self-ratings of health status, cancer incidence, symptomatology, and many others. Regardless of the outcome under study, the trend in these findings was unmistakable: the greater the level of religious participation, on average, the lower the rate of health problems.

Moreover, in the epidemiology of religion literature as a whole, positive findings are ubiquitous. Significant associations between religiousness and health, or, alternatively, significant differences among religious denominations in rates of morbidity or mortality, have been identified regardless of characteristics of person, place, or time, or of the studies themselves. We have observed such findings regardless of age groups, gender, race or ethnicity, nationality, study design, year of study, religious affiliation, measure of religiousness, and health or disease outcome.¹² Like it or not, there *is* a religious or spiritual factor in health.

BEYOND BODY-MIND

To summarize all of this, there are these three entirely separate scientific literatures that share in common the conclusion that something related to the human spirit in some way seems to be associated with health or healing. This work includes experimental studies of prayer and healing; basic research on spiritual consciousness and psychophysiology; and research on the epidemiology of religion. Together, these three bodies of research findings seem to be saying that there are physical health implications of the functioning or action of something more than or beyond our “mind,” as normally conceived—that is, as some separate thing residing in our skulls or solely as an epiphenomenon of our neurochemistry.

Different folks prefer different terms for this something that seems to be out there and seems to be “more than” the mind. This includes terminology such as “spirit,” “consciousness,” “higher self,” “ego monad,” “causal body,” “soul,” and “nonlocal mind.” Certainly, these words and phrases are not necessarily interchangeable, and they all mean somewhat different things to different folks.

But I believe that what they share in common is that they all suggest and describe something “beyond” the normal conception of our thoughts and emotions.

By the way, I am usually one of those folks who is a real stickler for definitions and conceptual boundaries, especially when it comes to research on the determinants of health, but for once I am going to be “psychometrically incorrect.” Here is an insight that I love from Ram Dass, someone that I think means a lot to a lot of people in this field:

Consciousness = Energy = Love = Awareness = Light = Wisdom = Beauty =
Truth = Purity. It’s all the same trip.¹³

So, all of this is really about this “trip” that Ram Dass is describing—this “higher” sort of experience that is beyond our more mundane cognitive, affective, and psychomotor—thinking, feeling, and doing—life. And, according to tons of empirical research, this “trip” has something—actually, a lot—to do with our health.

Something that we social scientists are big on is identifying what we call “mediating” factors between an initial antecedent or “cause” and an ultimate health or disease outcome. Something else that we are big on is mapping these relationships out in the form of “multifactorial theoretical models.” The question before us here is how or why does being religious or spiritual or connecting with the Divine lead to changes in physical or emotional functioning or health. What are the direct and indirect pathways leading from the spiritual domain to health? Several scientists have attempted to answer this question.

For example, one well known physician-researcher, Dr. Harold Koenig of Duke University, has mapped out how the spiritual might interact with known behavioral and physiological factors to influence health.¹⁴ This is a good, representative example of what social scientists call a multifactorial model. It posits interrelationships among a wide array of constructs that, individually and in tandem, affect our physical and mental health. And religious or spiritual factors are part of the picture. In his remarkably comprehensive model, Dr. Koenig specifies an abundant set of linkages among religious or spiritual constructs and factors such as health-related behaviors, alcohol and drug

consumption, personality, chronic pain, disability, social support, cognitive appraisal, altruistic activities, and coping behavior. Characteristics and functions of our spiritual life affect, are affected by, and interact with all of these factors, and more, to elicit and/or prevent a variety of physical and emotional disorders.

Other scientists, including me, have tried to systematically map out hypothetical answers to this “why” question. In other words, what are the characteristics, functions, expressions, and manifestations of the religious or spiritual realm that account for their association with aspects of the physical? What are the psychosocial mediating factors between things spiritual and our health? I have written theoretical papers on this topic dating back over a decade in an effort to outline the connections between different types of religious and spiritual expression and our physical and mental health.^{9,15}

For example, active religious commitment promotes healthy behaviors such as refraining from smoking and drinking that we certainly know are promotive of health. Being involved with other people in fellowship—in spiritual groups—provides social support, which an immense literature documents to be an important protective factor against morbidity and mortality. Religious or spiritual worship or meditation can activate positive emotions and feelings, and we know through psychoneuroimmunology, psychophysiology, and neuroendocrine research that our emotions have something to do with our health and physical functioning. Just being faithful—just having a belief that God is watching over me or that I am one with the universe—by promoting optimism and hope may operate through something akin to the placebo effect to benefit health.

Summarizing all of this, we can confidently state that practicing religion or being spiritual or connecting with the Divine or Eternal may lead to changes in beliefs, emotions, behaviors, or interpersonal relations that in turn are known or believed to be causally related to subsequent changes in physical functioning or health status. This summary statement describes clearly how findings linking religion and spirituality to health fit squarely into current knowledge in the field of psychosocial epidemiology. These are all well accepted ways that religiousness and spirituality can indirectly benefit health. These are the ways through which scientists working in this area generally make sense of published

findings on the epidemiology of religion. But, something else seems to be going on here.

A recent study published in the *American Journal of Public Health* investigated the mediating role of many of these psychosocial factors and uncovered some very provocative findings.¹⁶ The study was directed by Dr. William Strawbridge from Berkeley, at the California Department of Health Services and the University of California School of Public Health. Using data from the well known Alameda County study, he and his colleagues tracked a cohort of people who, at baseline, had been asked questions about their involvement in religious pursuits. Using sophisticated Cox proportional hazards modeling methods, Dr. Strawbridge found that religious participation was associated with lower mortality rates *28 years later*. These results are quite consistent with other longitudinal studies that have found the same thing—that religious and spiritual involvement represent a protective factor against mortality. What was especially fascinating in this particular study was that Dr. Strawbridge and his colleagues controlled for measures of health-related behavior and social support and so on, and yet their religious indicator still significantly predicted survival and longevity.

So, again, something else seems to be going on here. That could be the motto of this address: “Something else seems to be going on here.” Religious and spiritual involvement impact our health—even as “hard” an outcome as mortality or longevity—and apparently this is not due solely to concomitant psychosocial benefits. Something else seems to be going on here.

A question that I am asked often is, “Okay, great, but do you *really* believe all this?” Well, I have a confession for everyone here: when it comes to anomalous phenomena, some folks are debunkers (e.g., CSICOP, NCAHF), some are skeptics (e.g., a lot of my former colleagues in academic medicine), but, as for me, what the heck, I can believe just about anything. That does not mean that I do—just that I can. It is easier, and you end up expending a whole lot less energy than by trying to resist reality. Frankly, I do not see a reason to discount *any* hypothesis before testing it.

A few years ago, in a paper that I presented at a conference in California on anomalous phenomena, I made the following statement:

One of the signposts of truly paradigm-shifting paths of scientific investigation is a pressing forward clear into the unknown—not merely to the outer limits of the known; it is the asking of questions that most people do not realize can be asked, much less answered.¹⁷

Lots of things sound outrageous, but if they are questions that can be tested empirically, then that is how to evaluate them. And some wild questions—such as the possibility of a statistically significant association between spirituality and health—for the most part seem to have already been answered. The idea of a spiritual dimension to reality that might influence our lives is certainly not something that *I* just thought up. Here are what a couple of folks from the scientific and religious worlds have said, and neither of these guys was an intellectual lightweight:

According to Dr. Albert Einstein:

Everyone seriously involved in the pursuit of science becomes convinced that a spirit is manifest in the laws of the Universe—a spirit vastly superior to that of man. . . .¹⁸

The late Lubavitcher Rebbe, Rabbi Menachem M. Schneerson, expressed a view consonant with Einstein’s belief in a spiritual presence or component in the cosmos, but at the level of the individual:

The soul . . . is the one part of our being that directly reflects our connection to G-d, our creator. . . . The soul is transcendent by nature, for “the flame of G-d is the soul of man.”¹⁹

WHAT ALL THIS MEANS (AND DOES NOT MEAN)

ON PARANOIA, DISTORTION, MISINTERPRETATION, OVERSIMPLIFICATION, AND TRIVIALIZATION

To summarize once again, we are practically drowning in empirical evidence of a real connection linking the spiritual part of life to health and healing. *JAMA* even invited me to write a brief essay on this topic in the summer of

1997, which was published that fall.²⁰ To show how paranoid they were about putting the safest spin on things, they sliced and diced my manuscript pretty much at will, without asking my permission or ever showing me galley proofs of their handiwork. For example, I had cited very insightful stuff on spiritual healing that they themselves, *JAMA*, had published over 70 years ago,²¹ and I commended them for it, yet they deleted the respective sentence and reference from my article. Pretty wild.

As I think many folks are aware, this work has been in the news and popular media a whole lot in the last few years: all of the major TV networks, NPR, PBS, even a cover story in *Time* that featured my work.²² But I feel very strongly that the implications of this research have been dramatically misrepresented. In two ways.

First, these results have been distorted by religious fundamentalists who see in them a way to promote a specific theological or even political agenda. I have seen my own work cited as scientific proof that evangelical Christian values are the key to the moral survival of the nation and that, ergo, Congress needs to insist that all federal judicial appointments uphold an activist arch-conservative political agenda. Now, that might be well and good. I am actually a pretty conservative guy myself. But, I have no idea how you get there from here—from studies showing, say, that rates of functional disability in older African Americans are somewhat lower in church attenders or that the mortality rate due to respiratory illness in California is somewhat lower among Seventh-day Adventists. How in the world does this get translated into “we need to amend the Constitution to force the government to fund religious institutions” or “we need to make divorce more difficult” or “we need to regulate school prayer” or whatever?

This is a serious misuse of epidemiology to support causes that it offers *no evidence for* one way or the other. This research does not support these claims; it does not *not* support these claims. It simply does not address them at all, in any way, shape, or form. It makes me want to put my finger down my throat sometimes, especially when my own work gets cited in support of this kind of thing. Epidemiologic research cannot tell us whether spirituality is “good” or “right” or if a certain kind is “better” than another. And it certainly cannot direct us to what to do about it, in terms of public policy. It simply

tells us that, all things being equal, spirituality has something to do with our health and with healing and that, on average, it seems to be salutary and is not limited to a particular religious group. Unfortunately, this is a message that some more sectarian folks do not want to hear. Well, too bad.

Worse, this kind of spin also raises some very unrealistic and emotionally harmful expectations about God and disease prevention and healing: that if someone has fallen ill or is dying they should somehow look at their relationship with God for some sign of dysfunction or “sin” that caused them to become sick. I find this terrible and tragic, and yet because of how this research is often packaged, I have talked with many people who heard something on TV or read something in the paper along these lines and, in tears, tell me of a loved one who died after struggling with cancer and wonder if this means they were not spiritual enough. Again, this research does not imply *anything* of the sort, and I believe that the fault lies in part with religious partisans who play fast and loose with the data and want to read too much into it.

But something else altogether has contributed to this work being dramatically misrepresented, and that is its oversimplification and trivialization into prescriptive formulas, most often by new-age-oriented folks. These findings are often pitched as promoting spirituality as some neat new little “thing” that you can just “plug into” your “life style” and never get sick or heal all your maladies or live forever or be perfectly healthy and happy all the time. Well, it does not quite work that way.

This goes back to a fundamental misunderstanding of what the findings of population-based research studies can tell us. A few years ago in *Bridges*, I published a little article that, in technical language, outlined this issue.²³ Basically, in describing epidemiologic findings, three caveats need to be conveyed. We epidemiologists produce empirical findings that exist (a) on the average, (b) across a population or populations, and (c) on an all-things-being-equal basis (i.e., after controlling as best as we can for potentially confounding or effect-modifying variables). Epidemiologic research cannot tell us that if you have lung cancer or heart disease you got it from smoking. It cannot do that. Only your clinician—possibly—or maybe just God can answer such a question. That is not something that epidemiologists can do. What we can say, and with considerable confidence, is that if you take a group of people

that does not smoke and a group of people that smokes, and then follow them over time for a number of years, you are likely to find a lower rate of certain diseases in the group that did not smoke relative to the group that smoked. In the language of epidemiology, smoking is thus referred to as a risk factor, and not smoking is termed a protective factor.

So what can we conclude regarding research on religion, spirituality, and health? Simply this: empirical findings on the epidemiology of religion provide probabilistic associations that suggest that, all things being equal, spirit matters—that, along with environmental, social, behavioral, and biological factors, spiritual factors deserve to be put on the table as among the set of protective factors that beneficially influence our physical health status. No more, no less.

FROM BODY-MIND TO BODY-MIND-SPIRIT

Maybe then spirituality is not the holy grail—the singular “factor” that is going to cure everything and wipe out all disease. Still, the identification of a new and consistent protective factor does point to something profound. I happen to believe that it really does signal a potential paradigm shift that goes considerably beyond the body-mind revolution of a few decades ago. The psychosomatic (literally, mind-body) revolution was, for sure, a dramatic and important shift for medicine and science. It represented a distinct improvement over the body-only view of humans as a collection of bones swishing around in a bag of chemical soup. But it is a little long in the tooth by now to keep being heralded as the “new paradigm.” Plus, the body-mind perspective still leaves out a component of human reality, or a portion of the human field, if you will: namely, the spirit.

Of course, I recognize that the idea of body, mind, and spirit as separate levels or components of a human being is itself a bizarre dualistic metaphor. This creates an especially strange absurdity when it comes to medicine. Leave it to the western intellect to tell us that we are divisible into entirely separate body and mind, or body and mind and spirit, and *then* that one or two of these things do not have anything at all to do with our health or general well-being or may not even exist after all. Kind of schizy, if you ask me. No sooner do

we name and label and define body, mind, and spirit as separate things, then we go and disown two thirds of them. From my perspective as a social scientist, this is the current biomedical model.

According to an entirely different, much more integrated perspective, everything is simply vibration. From this perspective, it is easy to see that by excluding “spirit” from the health equation we are leaving out an entire segment of the human bioenergy spectrum. The mainstream biomedical model says that what influences health, and, indeed, all of reality, is purely physical—it extends from here to here, in a narrow channel. That is the body-only perspective. Then the mind-body revolution came along a few decades ago and said, no, the reality of what influences health is much more vast—it includes many other things (thoughts, beliefs, attitudes, emotions) and extends from here to here, in a much wider channel. What I am suggesting is while that is a considerable improvement, it is incomplete, too. We are still leaving a lot out. Let us not try to put *any* artificial boundaries around reality and thus unnecessarily rule out possible influences on our health. I would imagine that all sorts of supra-mental factors that at least someone somewhere might group under the domain of “spirit” could hypothetically affect our health: *karma*, past-life occurrences, astral harassment, *chakra* imbalances, thought forms, *prana*- or *qi*-flow disturbances, our perceived relationship with God, “demonic” influences, how attuned or disconnected we are from the “flow,” our prayer and devotional life, how deeply we meditate, mystical or numinous experiences, and so on—all the sorts of things that different people conceive of as part of the “spiritual” domain.

TOWARD A THEOSOMATIC MEDICINE

I propose that the psychosomatic, or body-mind, paradigm has been a transitional gateway to an even more profound perspective that is just beginning to emerge. The next new medical and scientific revolution will acknowledge a view of humans as a unity of body, mind, and spirit. It will acknowledge the influence of extra-mental phenomena—of spirit or higher self or God—on the physical vehicle and what we call health. I have started using the phrase theosomatic (literally, God-body) medicine.²⁴

SPIRITUAL HERD IMMUNITY

A particularly far-reaching implication of these data is never talked about, but I believe that it captures what is *really* going on here. That is the possibility of a collective dimension to a theosomatic effect. As mentioned, some folks have tried to take this evidence and put a solely clinical spin or straitjacket on it, such that spirituality is something that individuals can “do” to “cure” themselves. This not only misrepresents this work, as I have noted, but also ignores the potentially more profound *public health* implications that are incredibly exciting to ponder. My hypothesis involves a controversial concept that we epidemiologists call herd immunity.²⁵ I propose that by something akin to herd immunity, the invoking or activating of our innate spirituality can influence the health and well-being of the collective.

What is herd immunity? Computationally, it is represented by the mathematical formula:

$$H = 1 - 1/R_0 = (R_0 - 1)/R_0 = (rT - 1)/rT$$

This technical equation has to do with awful stuff like the “herd immunity threshold,” “cumulative incidence,” the “basic reproductive rate,” and the “transmission parameter”—all pretty arcane things that could only arouse the interest of a fellow epidemiologist. Since I imagine that the only two of those at this conference are up here on stage—namely, my wife, Lea, and myself—I will spare everyone the cruel and unusual punishment of a primer in infectious disease control. In a nutshell, the concept of herd immunity has to do with the overall resistance of a group of people to the spread of an infectious agent as a result of having attained immunity in a high enough proportion of folks, typically from immunization or prior exposure. Herd immunity is only invoked in discussions of infectious disease,²⁶ never in the context of chronic degenerative disease, and, as you can imagine, never in terms of hypothetical psychosocial or spiritual immunogens. So this is admittedly “out there.”

What I am proposing, specifically, is that by folks being spiritual or doing spiritual things, however they conceive it (and whether Jews, Catholics, evangelicals, new-agers, neopagans, meditators, Buddhists, mystery-school initiates, people whose spirituality is attained outside of institutional religion—and if I

left anyone out, you, too)—by folks doing their thing individually and in groups—something gets triggered—à la a morphogenetic field,²⁷ perhaps—that can lead to lower rates of morbidity or mortality or to better prognoses or greater longevity, on average and across populations.

GROUP SPIRITUAL COHERENCE

I believe that the real meaning of all of these data is that spiritual attunement creates some type of higher-level coherence, at a causal level, that benefits the collective. If so, then all of us here, by consciously and actively being on whatever path we are on—by doing our pathwork or being fully aligned with our higher self—however you choose to term it—by doing this, we can contribute to the herd immunity of humankind and of all life. By being spiritual together—by creating and reinforcing a coherent spiritual vibration—by plugging in together to the Divine or Eternal—at the causal level or higher—we may indeed initiate a salutogenic or health-generating process that manifests physically and at a population-wide level.

Further, there may well be a multiplicative or exponential effect of group spiritual coherence on physical reality, if the sacred scriptures are to be believed. Recall the famous passage in Matthew in which Jesus instructs folks to pray collectively:

[If] two of you shall agree on earth as touching anything that they shall ask, it shall be done for them of my Father which is in heaven. For where two or three are gathered together in my name, there am I in the midst of them. (Matt. 18:19-20 [KJV])

And now in the spirit of equal time, here is something from the *Torah* or Hebrew Bible. Moses is reporting to the Israelites what God has told him about the exponential effect of prayers of protection:

And ye shall chase your enemies And five of you shall chase a hundred, and a hundred of you shall chase ten thousand (Lev. 26:7-8 [AJV])

So, if Jesus and Moses are correct—and they are probably as reputable a couple of sources as, say, Flexner or Osler or Billings—then there may even be a scriptural basis for a collective and possibly exponential, herd-immunity-like effect of spiritual involvement.

Naturally, they do not teach this stuff in schools of public health or medical schools. As a public health person, I can tell you that this is quite a concept to ponder. But, before we get too excited, we need to consider that the reverse may be true, as well: negative spiritual intentions may cause harm. Dr. Larry Dossey has published a book on this topic, the aptly titled, *Be Careful What You Pray For . . . You Just Might Get It*.²⁸ From the perspective that I am proposing, negative spiritual intent may wreak collective havoc by poisoning the meta-field that encompasses everyone. All of us therefore have a responsibility to proceed along whatever spiritual path that we have been called to follow in this incarnation, and to do so with sincerity and intentionality—*kavannah* is the word for this in my tradition. We all need to remain aware that our collective, intentional spiritual pathwork may affect more than just ourselves and in very physical-plane sorts of ways. In other words, this theosomatic effect that I have described is, in principle, transpersonal and, to use Dr. Dossey's terminology, possibly nonlocal.

THE POLYP THEORY OF CONSCIOUSNESS

How can this be? In the social sciences, once you have uncovered new empirical evidence, as I have presented, and you have a hypothesized explanation in mind—in this case something akin to a higher-order herd immunity—it helps to have a theoretical basis for one's hypothesis. By that I mean some coherent model or set of expectations. In sociology, these are called theoretical perspectives or “mid-range” theories.

So this is my mid-range theoretical perspective on how this all works. I call it the “polyp theory of consciousness.” Now what in the world is this?

We humans have this unusual and incorrect perspective that we are all separate consciousnesses—that we are all separate in space and time and that each of us is an individual consciousness. I believe that this is *maya* (illusion). I am certainly not the first person to suggest that there may be just one consciousness; many other people have talked about this at length. Dr. Larry Dossey's book *Recovering the Soul* speaks of this in great depth, and discusses many famous philosophers and scientists who have shared this view.²⁹

To me, the idea that we as individuals are separate people and have separate consciousnesses is as absurd as the idea that the polyps on an intestine are separate intestines. They are simply extrusions of the same underlying thing.

Imagine for a moment the Big Intestine in the Sky, the Big Colon, as a metaphor for the big singular consciousness emanating from God. Because God so loved the world and created sparks off of Itself, these sparks of Itself are extruded just like polyps are extruded from a colon. These polyps, in turn, through energy stepping down in vibrational rate, precipitate down a set of *chakras* and eventually gather around themselves a series of interpenetrating subtle-energy bodies. Finally, precipitated down from the causal to the mental to the astral to the etheric to the physical-plane level, these energy bodies coalesce within themselves individual physical bodies visible to those of us stuck in third-density-only awareness.

Now the problem is that when we are in these bodies here, and are operating using only our gross senses of seeing, hearing, tasting, smelling, and touching, we cannot see that we are actually no more separate than stalactites in a cave are separate caves. Fortunately, we have religions and spiritual traditions and meditation practices whose role and purpose it is to get us to shed awareness of our body and notice that we are really these energy beings with this infusion of consciousness from the Oneness filling us. In non-Western contexts, through attaining *nirvikalpa samadhi* or through undergoing the transition, *mahasamadhi*, we can dissolve away the illusion of our own separate identity and begin to see ourselves as pure polyp—a pure polyp of the Oneness.

Some people, through their spiritual practices, in moments of great spiritual lucidness, sometimes can even see beyond their polyp-ness and just sort of get lost or dissolved in the Oneness. How many people here have had the experience of sensing that we are not separate beings and that we are just all one? Wow, I guarantee that at the annual meeting of the American Public Health Association you would not have as many people as this raise their hand about having an experience of Oneness with the great colon in the sky.

Now, just why an otherwise well respected, NIH-funded, *JAMA*-published scientist, after contemplating the mysteries of God and spirit and consciousness and all that good cosmic stuff, would conjure up a metaphor based on intestinal polyps—I have no answer. This is either a profound insight, or it is the result of too many colonics over the years. Or maybe I just fixated on that “execrable” review from many years ago. Who knows? But, levity aside, I believe that the implications of this metaphor for medicine and science and healing in the 21st Century are very real and quite far-reaching.

The body-only model has bred several generations already of “specialists without spirit,” to use the words of an article that recently appeared in the journal *Theoretical Medicine*.³⁰ It is time to change that. Dr. Dossey weighs in on this issue, and he does not mince his words:

Modern medicine has become one of the most spiritually malnourished professions in our society. Because medicine has so thoroughly disowned the spiritual component to healing, most healers throughout history would view the profession today as inherently perverse.³¹

Clearly, for the healing professions, this is a challenging and frightening but also an exciting time to be around. Those of us who are clinicians or scientists—or patients—which I guess means all of us—should all feel privileged to have come in at this time, because there is lots of work for us to do if we are to be the ones to effect change. We can all take part in the bridging function that ISSSEEM represents. All of us who are recovering left-brain scientoids—and I certainly include myself—need to put on our mystic’s hat, at least once in awhile.

PUTTING ON OUR MYSTIC’S HAT

In that spirit, I’d like to close with something a little different for a presidential address. A little visualization exercise.

Let us all put our papers down. And gently close our eyes. Take a few deep breaths. And relax. We are all going to put on our *own* mystic’s hat. Or if

you feel that you are not in the scientist category but in the mystic category, then you can put on your scientist's hat. Or if you are one of those rare folks who is already perfectly balanced, or if you do not like hats, then just remain still and do some breathing. So let us just relax for a moment. And breathe. Eyes closed. Now, in your inner voice, ask for your hat to appear before you. And imagine it appearing. Look at it, all around. Now place it on your head. Keep breathing. Notice how it feels to wear it. Feel it there on your head. Keep breathing. Feel how it amplifies and focuses the energy around your crown *chakra*. Notice how it makes your whole body feel to wear it. And keep breathing. Notice your emotions as you wear your hat. And breathe. Notice the thought forms that you perceive. And keep breathing. Do you notice yourself changing in any particular ways, externally or internally? Breathe some more. Now just be still and experience yourself wearing your hat. Keep breathing. Now open your eyes. I would like you to wear your new hat for the rest of the day and try to notice things from this alternative perspective. See if any new insights come to you or any new appreciation of the "other" side.

We need both scientific thinking *and* mystical knowing—both left and right brain—both the logical and the intuitive—both biomedicine and spiritual attunement. Those of us who emphasize one or the other of these polarities are guilty of disparaging the other. Every single one of us. We are *all* guilty of this. And we *all* know it. But, if I might add my own admittedly biased sense of this problem, while we scientists often downplay the mystical or spiritual or intuitive, many of us are coming around to recognize the importance of this part of life, although we are struggling with how best to bring it into our work or integrate it into our linearly-organized lives. All of the doctors out there know what I am talking about. On the other hand, when I meet folks at "alternative" sorts of conferences who would be in the more mystical camp, I regularly see a real disparagement of the value of the scientific approach that even exceeds some of my skeptical scientist colleagues' feelings about the mystical. So we need a healing and a coming-together on both sides so that eventually there will be *one* side. That is why ISSSEEM came into being.

This is more than just a theoretical matter. We as nurses and physicians and scientists and therapists and healers and servers and light-workers of all types

need each part of our nature working in unison in order to make our own spiritual connection with God or the Sacred or Timeless. And if my interpretation of the research findings that I have presented is correct—and I believe it is—then as all of us heal our own splits and connect spiritually and do the work of our chosen spiritual path, whatever that is, then we can attain a level of group coherence which literally may impact the health and well-being of every sentient creature on this planet.

I hope that mystic's hats, or scientist's hats, in place, you will all take part in helping to create a coherent vibration that will enable the precipitation down into form of a truly theosomatic, or God- or Spirit-centered, way of healing for the 21st Century. By all of us "practicing the presence of God,"³² as Brother Lawrence said, or by "Seeking a reality deeper than the changing forms,"³³ in the words of Meher Baba, we can connect with a place of God-consciousness and spirituality that, I repeat, literally may impact the well-being of every living, sentient being on this planet. I hope that we can all join in seeking that deeper reality, because as *each* of us does that—as each one of us seeks the reality deeper than the changing forms—together, and I guarantee it, the resulting spiritual attunement absolutely will benefit *all* of us.

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REFERENCES & NOTES

1. Randolph C. Byrd, Positive Therapeutic Effects of Intercessory Prayer in a Coronary Care Unit Population, *Southern Medical Journal* **81** (1988), pp. 826-829.
2. William Nolen, quoted in *Chicago Sun-Times* (January 26, 1989), p. 30.
3. Daniel J. Benor, *Healing Research: Holistic Energy Medicine and Spirituality. Volume One: Research in Healing* (Helix, Munich, Germany, 1992).
4. Herbert Benson, *The Relaxation Response* (Avon Books, New York, NY, 1975).
5. James Funderburk, *Science Studies Yoga: A Review of Physiological Data* (Himalayan International Institute of Yoga Science and Philosophy, Honesdale, PA, 1977).
6. Elmer Green & Alyce Green, *Beyond Biofeedback* (Knoll Publishing Company, Ft. Wayne, IN, 1977).

7. Jeffrey S. Levin, Ian E. Wickramasekera & Caryle Hirshberg, Is Religiousness a Correlate of Absorption?: Implications for Psychophysiology, Coping, and Morbidity, *Alternative Therapies in Health and Medicine* **4,6** (1998), pp. 72-76.
8. Gordon Allport & J. Michael Ross, Personal Religious Orientation and Prejudice, *Journal of Personality and Social Psychology* **5** (1967), pp. 432-443.
9. Jeffrey S. Levin, How Religion Influences Morbidity and Health: Reflections on Natural History, Salutogenesis and Host Resistance, *Social Science and Medicine* **43** (1996), pp. 849-864.
10. Jeffrey S. Levin & Preston L. Schiller, Is There a Religious Factor in Health?, *Journal of Religion and Health* **26** (1987), pp. 9-36.
11. Jeffrey S. Levin & Harold Y. Vanderpool, Is Frequent Religious Attendance Really Conducive to Better Health?: Toward an Epidemiology of Religion, *Social Science and Medicine* **24** (1987), pp. 589-600.
12. Jeffrey S. Levin, Religion and Health: Is There an Association, Is it Valid, and Is it Causal?, *Social Science and Medicine* **38** (1994), pp. 1475-1482.
13. Ram Dass, From Bindu to Ojas: The Core Book, In *Be Here Now* (Hanuman Foundation, Kingsport, TN, 1978 [1971]), pp. 2.
14. Harold G. Koenig, *Research on Religion and Aging: An Annotated Bibliography* (Greenwood Press, Westport, CT, 1995), p. 156.
15. Jeffrey S. Levin & Harold Y. Vanderpool, Is Religion Therapeutically Significant for Hypertension?, *Social Science and Medicine* **29** (1989), pp. 69-78.
16. William J. Strawbridge, Richard D. Cohen, Sarah J. Shema, & George A. Kaplan, Frequent Attendance at Religious Services and Mortality over 28 Years, *American Journal of Public Health* **87** (1997), pp. 957-961.
17. Jeff Levin, New-Paradigm Research in Medicine, Presented at Consciousness At the Edge: Shifting Scientific and Personal Paradigms, TREAT VII: Seventh Conference on Treatment and Research of Experienced Anomalous Trauma, San Rafael, CA (April 27-30, 1995).
18. Albert Einstein, quoted in *The Quotable Einstein* (Alice Calaprice, Ed., Princeton University Press, Princeton, NJ, 1996), p. 152.
19. Menachem Mendel Schneerson, *Toward a Meaningful Life: The Wisdom of the Rebbe* (William Morrow and Company, New York, NY, 1995), p. 4.
20. Jeffrey S. Levin, David B. Larson & Christina M. Puchalski, Religion and Spirituality in Medicine: Research and Education, *JAMA* **278** (1997), pp. 792-793.
21. Alice E. Paulsen, Religious Healing: A Preliminary Report, *JAMA* **86** (1926), pp. 1519-1522, 1617-1623, 1692-1697.
22. Claudia Wallis, Faith & Healing, *Time* (June 24, 1996), pp. 34-40.
23. Jeffrey S. Levin, Does Religious Involvement Protect Against Morbidity and Mortality?, *Bridges: ISSSEEM Newsmagazine* **5**, 2 (1994), pp. 12-14.
24. Jeff Levin, *God, Faith, and Health: Science Discovers the Health Benefits of Spirituality and Religion* (John Wiley & Sons, New York, NY, In press).
25. Paul E. M. Fine, Herd Immunity: History, Theory, Practice, *Epidemiologic Reviews* **15**, 2 (1993), pp. 265-302.
26. John P. Fox, Lila Elveback, William Scott, Lael Gatewood & Eugene Ackerman, Herd Immunity: Basic Concept and Relevance to Public Health Immunization Practices, *American Journal of Epidemiology* **94** (1971), pp. 179-189.
27. Rupert Sheldrake, *A New Science of Life: The Hypothesis of Formative Causation* (Jeremy P. Tarcher, Los Angeles, CA, 1981).

28. Larry Dossey, *Be Careful What You Pray For . . . You Just Might Get It: What We Can Do About the Unintentional Effects of Our Thoughts, Prayers, and Wishes* (HarperSanFrancisco, San Francisco, CA, 1997).
29. Larry Dossey, *Recovering the Soul: A Scientific and Spiritual Search* (Bantam, New York, NY, 1989).
30. Soma Hewa & Robert W. Hetherington, Specialists Without Spirit: Limitations of the Mechanistic Biomedical Model, *Theoretical Medicine* **16** (1995), pp. 129-139.
31. Larry Dossey, Prayer, Medicine, and Science: The New Dialogue, In Larry VandeCreek, ed., *Scientific and Pastoral Perspectives on Intercessory Prayer: An Exchange Between Larry Dossey, M.D. and Health Care Chaplains* (Haworth Pastoral Press, New York, NY, 1998), pp. 7-37; quote from p. 33.
32. Brother Lawrence, *The Practice of the Presence of God*, Revised Edition (Paraclete Press, Orleans, MA, 1985 [1692]).
33. Meher Baba, quoted in D. T. Munda, Ed., *Zen Munchkins: Little Wisdoms* (Charles E. Tuttle Company, Rutland, VT, 1991), p. 47.

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