Perspective

BUT IS IT ENERGY? REFLECTIONS ON CONSCIOUSNESS, HEALING, AND THE NEW PARADIGM

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ABSTRACT

When consciousness is involved in healing, it manifests either locally or nonlocally. Although local manifestations of consciousness can be described by the known tenets of physiology and contemporary physics, nonlocal effects of consciousness cannot be so described. Any comprehensive model of mind-based healing must account for "limit cases" such as nonlocal, distant healing effects which are apparently immediate, unmediated, and unmitigated; and effects which display time-displacement. It is questionable whether energy-based models of consciousness and healing are capable of such explanations. It is proposed that nonlocal models of consciousness must transcend a reliance on an energy metaphor. Such emerging models contain profound practical and spiritual implications.

KEYWORDS: Healing, nonlocality, spirituality, consciousness

INTRODUCTION

The problems of language here are really serious.
—Werner Heisenberg

One of the great scientific insights of our century is that mind and body can interact in a variety of ways to influence health or illness. If we take the widest possible view of these interactions, certain patterns emerge, shown in Table 1.

MIND-BODY INTERACTIONS: A MAP

s indicated, all known mind-body events can be considered either *local* or *nonlocal* in nature. Local events are mediated energetically and by the senses —speech, hearing, touch, smell, sight, and so on—and are describable by the known laws of physics and human physiology. They occur in the here-and-now. They may be *intrapersonal*, occurring within an individual, or *interpersonal*, occurring between two or more people. It is well known, moreover, that interpersonal effects may be either positive or negative: Our thoughts, attitudes, emotions, and beliefs are a two-edged sword that can heal or harm us. The words and behaviors of others may also either help or harm; thus interpersonal effects may be either positive or negative as well.

Perhaps the best-known "local, interpersonal, negative" mind-body event is voodoo. But less dramatic examples are commonplace in medical practice, such as the deplorable habit of physicians called "hanging crepe." The name of this custom is derived from the practice of hanging black crepe at morbid events such as funerals. When a doctor "hangs crepe," he paints the very worst picture to the patient. If things turn out the way he predicts, he is wise and is a prophet; if better, he is a hero and the patient is grateful. In either case, the doctor wins. The ethics of this pernicious custom are questionable. Like voodoo victims, patients can "live out" dire predictions, sometimes to the extent of dying.

The other major division of mind-body effects in *nonlocal* in nature. Nonlocal mind-body events are initiated between individuals who are too far apart to communicate by the senses. For this reason these events are *transpersonal* in

Table I Mind-Body Interactions

Local Effects (sensory mediated)

Nonlocal Effects (nonsensory mediated)

Intrapersonal Interpersonal Positive/Negative		Transpersonal Positive Negative	
Conscious and evidence:	Conscious and	Anecdotal evidence:	Anthropological
unconscious	unconscious		
thoughts,	suggestions,	Distant/psychic/	Observations of
attitudes, emotions,	statements, behaviors	spiritual healing	"distant hexing" such as the
beliefs, perceived	both verbal and non-	Intercessory prayer	Polynesian/Hawaiian "death prayer"
meanings, self-suggestions,	verbal, taking place <i>between</i>	Telesomatic events	[)
images, and visualizations	individuals	Laboratory evidence:	Laboratory evidence:
taking place		Transpersonal	Many nonhuman
within an individual		imagery	species harmed or retarded in controlled experiments
		Controlled exper- iments in humans as well as many nonhuman species involving actual prayer or a prayer-like state	
		("prayerfulness")	

nature. Although several candidate theories exist, at present it is unclear how any form of energy currently known to modern physics could account for these distant influences.

Abundant anecdotal evidence supports the existence of "nonlocal, transpersonal, positive" phenomena—distant, psychic, or spiritual healing; intercessory prayer; and telesomatic events, in which symptoms and occasional physical changes seem to be shared simultaneously by distant individuals, and which appear to serve a benevolent purpose. Laboratory evidence for these happenings also

abounds, such as careful studies in transpersonal imagery and controlled experiments in distant healing involving a variety of species, including humans. Space does not permit discussion and defense of these robust claims, which can be found elsewhere.^{1,2}

But nonlocal events are not always positive for health. A corresponding "dark" side of these events exists — "nonlocal, transpersonal, negative" effects—evidenced by anthropological accounts of phenomena such as the Polynesian and Hawaiian "death prayer;" and controlled laboratory studies in which living organisms have been harmed at a distance, or whose metabolic functions have been retarded or interfered with.^{3a-h}

n close examination we can see that these divisions are not pure states. Consider, for example, the death prayer of the native Polynesian and Hawaiian cultures. It was commonly practiced in pre-missionary days and was typically initiated by a shaman at a great distance from the victim, sometimes from a far-off island. This appeared to be a decidedly nonlocal, transpersonal event which, unlike voodoo, could not in principle be explained by sensory or energetic meditation. It was characterized by symptoms of ascending paralysis and numbness, beginning in the feet. When these symptoms reached the level of the diaphragm, the victim would become unable to breathe and would die from suffocation. When the symptoms began, the victim would experience fears and other negative thoughts, both consciously and unconsciously—local, intrapersonal, negative phenomena. These experiences would trigger a variety of physiological responses which would add to the nonlocal, transpersonal, negative effects. This illustrates the fact that mindbody events that are initiated nonlocally almost always have local repercussions. This is probably true for all nonlocal events that are clinically relevant, including transpersonal imagery, intercessory prayer, and distant healing.

MIND/MACHINE INTERACTIONS: ANALOGUES OF MIND-BODY INFLUENCES?

In recent years, a very large data base has been produced at the Princeton Engineering Anomalies Research (PEAR) Lab in a variety of experiments designed to test the nature of human consciousness. One of the most produc-

tive PEAR Lab experiments involves the interaction of humans with a Random Event Generator (REG). These machines typically are based on a source of electronic "white noise" generated by some random microscopic physical process, such as a thermal electron current in a solid-state diode or a radioactive decay. Electronic logic circuitry transforms this noise into a string of randomly alternating binary pulses, which eventually are displayed to an individual operator, who attempts to influence the output according to some prestated intention—to shift the output from a Gaussian distribution in either a positive or a negative direction. After several million trials, it has become clear that a variety of talents exist among individual operators. Some are capable of shifting the random output of the REG in both directions of intention, some in only a positive direction, some in only a negative direction, and some in neither direction. Some individuals bias the output in the direction opposite their intention. The results of these intentions are relatively consistent, such that characteristic patterns or "signatures" appear to be present in the results of the intentions of individual operators.⁴

The fact that humans can bias the results from subatomic processes in negative as well as positive directions in controlled laboratory settings may be crucially important in understanding the interactions of mind and body. Some people believe that the ability of humans to interact with random, microscopic, subatomic events is completely irrelevant to human health and the large-scale world of organ systems and bodies. By the time subatomic, physiological events are "biologically amplified" to the macroscopic level, the influence of any single event on bodily function or health is swamped and therefore meaningless. But in recent years the physics lab and medical science have drawn closer together. We now realize that many diseases begin with disturbances at the subatomic level. For example, melanoma, a skin cancer, can develop when excessive ultraviolet irradiation triggers a mutation in the skin. Abnormal "channels" in various tissues may cause impaired flow of calcium and other ionized particles and lead to heart disease, high blood pressure, and other problems. While illnesses, thus, may appear to be macroscopic processes originating in whole organs such as the lungs, heart, or kidneys, their most fundamental site of origin is in the subatomic dimension.

A great many bodily processes are inherently random in nature, as are the events that are influenced in REG devices. For example, the excitation of nerves by

electrical stimuli around the threshold level has long been known to take place probabilistically,⁵ because the electrical potential across the membrane fluctuates in a random manner.⁶ The changes in post-synaptic membrane potentials caused by chemical transmitters also show random fluctuations,⁷ which apparently are due to the probabilistic opening and closing of ionic "channels" across the membrane.^{8,9}

Because these probabilistic phenomena are so widespread, it is possible to regard the human body in many respects as a Random Event Generator—what we might call a "bio-REG"—because many critical physiological events are inherently probabilistic and random. This would imply that mind-body interactions may be analogues of the PEAR Lab-type REG experiments. This would also suggest that the various "bio-PK" experiments that have surfaced in recent years might be analogous to the PEAR Lab-type human/machine studies.

Bio-PK experiments are quite numerous. According to psychologist and researcher William G. Braud, who has been centrally involved in many of them, "In the English-language scientific literature alone, there are approximately 100 published reports of experiments in which persons have been able to influence, mentally and at a distance, a variety of biological target systems including bacteria, yeast colonies, fungus colonies, motile algae, plants, protozoa, larvae, woodlice, ants, chicks, mice, rats, gerbils, cats, and dogs, as well as cellular preparations (blood cells, neurons, cancer cells) and enzyme activity. In human 'target persons,' eye movements, gross motor movements, electrodermal activity, plethysmographic activity, respiration, and brain rhythms have been influenced." 10

Having posited a broad template for mind-body interactions, let us look further into how they are thought to occur.

LIMIT CASES AND THE NEW PHYSICS

Classical, Newtonian physics gave way to modern, quantum-relativistic views because Max Planck, Albert Einstein and a few other courageous physicists began to investigate what have been called "limit cases," which were situations

involving great speeds and immense distances. Although traditional physics worked extraordinarily well in ordinary conditions, it became inaccurate and failed to predict outcomes in these extreme situations. The limit cases were incalculably important. They led eventually to a new physics and a new way of seeing the universe.

Classical physics still works wonderfully well under most conditions and remains indispensable. It enables physicists to put humans on the moon, place satellites in orbit, and accomplish all manner of exotic things. Just so, most healing phenomena can probably be understood in terms of classical, energy-based images and concepts. But that doesn't mean that classical concepts are sufficient—either in physics *or* medicine—to explain all phenomena, just *most* of them.

LIMIT CASES AND HEALING

Limit cases exist in healing, as in physics. If taken seriously these events might revolutionize our ways of thinking about the nature of the mind and how healing happens, just as limit cases led to a revolution in physics.

There are at least two limit phenomena with which any comprehensive model of consciousness and its role in healing must be able to deal:

- 1. The genuinely nonlocal manifestations of consciousness. These are events which, in general, involve influences or correlations of some sort between distant human beings. These events apparently are "immediate, unmediated, and unmitigated." 11
- 2. Consciousness-related phenomena which display time-displacement, such as retro- and precognition. 12a-d

These two types of phenomena could influence our ideas of the role of "energy" in healing in major ways. How? Even allowing for non-inverse-square-law phenomena such as laser energy, for extreme low frequency (ELF) transmission, or for exotic and subtle forms of energy that may be discovered in the future, it is not clear how these phenomena could account for nonlocal events

in which "transmission" apparently does not occur. Because distant, nonlocal correlations or influences occur immediately, "transmission" appears to be an inappropriate term to describe them. Nonlocal phenomena are therefore fundamentally unlike conventional forms of energy which, even if subtle as a neutrino, appear to propagate through space and time. Moreover, nonlocal events are negligibly if at all attenuated by spatial separation (they are "unmitigated"), nor are they mediated by any known medium. How could this be? Although not an explanation, the image most commonly invoked is that the apparently separate, distant entities are eerily united and in some sense one, no matter how far apart they may be.¹³

hat about the second limit phenomenon, time-displaced manifestations of the mind? In spite of the fuss over tachyons, which some people claim can exceed lightspeed and "go backward" in time, most physicists don't know how an energy-based event could be displaced in time in ways that would allow an effect to precede its cause. Yet these events are common manifestations of consciousness. In the remote perception experiments at the Princeton Engineering Anomalies Research (PEAR) Lab, the "receiver" often becomes aware of the message up to three days before it is even sent, even when sender and receiver are separated by global distances. (These precognitive phenomena have been independently replicated by other observers.) Time-displaced events have also been demonstrated in experiments at the PEAR Lab involving the interaction of human subjects with random and pseudo-random electronic generator devices. Time-displaced experimental findings have also been reported by physicist Helmut Schmidt and others. 16

ENERGY AND WORK

What about defining energy generically as "the capacity to do work" in an attempt to bypass the constraints of energetic characteristics such as dissipation, shieldability, and unidirectionality in time? Could energy-as-work account for the limit cases? Work technically means "the transference of force from one body or system to another, measured by the product of the force and the amount of displacement in the line of force." Even if energy is defined as "the capacity to do work," doing remains a process lodged in time and therefore presumes duration. Again, this seems to be incompatible with nonlocal happen-

ings, which do not propagate and which do not display duration. They are *immediate*—nothing "transmitted," nothing "sent," nothing "done" in time. Energy-as-work seems therefore to remain anchored in nineteenth-century physics with the associated characteristics of force, transference, duration, and linear space and time.

One is free, of course, to create new definitions of energy to circumvent these problems in the hope of linking nonlocal events to an energetic explanation. I presume that this is one of the purposes underlying the use of the term "subtle" energy. But surely there is a point in the process of redefining energy at which the term becomes so diluted that there is little value in retaining it. If such a point exists, one encounters the danger of misleading those who may not realize the rarefied way in which "energy" is being used. One understandably wants to hang on to the word; we feel at home with it, it accounts for a great many observable phenomena, it is an old friend who has served us well in many ways. Sometimes, however, it may be necessary for old terms and concepts to yield to novel ones, even though they may initially be uncomfortable or downright shocking.

In general, these same problems plague other terms that have arisen in recent years to describe healing, such as "vibrations" and "vibrational" medicine.

IS IT IMAGE-ABLE?

t appears likely that the new paradigm of healing and consciousness is so radically different from anything that has gone before that entirely new images, modes of thought, and vocabularies will be required to encompass it. It may turn out that these new models not only are inconsistent with the classical, space-and-time-bound images with which we are familiar, but that they cannot be imaged at all. If so, this would be nothing new; the same dilemma has arisen in quantum physics, as is well known. This brings to mind an old saying: "Physicists never really understand a new theory, they just get used to it."

Some scientists who have been centrally involved in research in the limit areas mentioned above seem to agree with the need for transcending current images

and models. For example, PEAR Lab's Robert G. Jahn and Brenda J. Dunne have recently stated,

While there have been many attempts to interpret consciousness-related anomalous phenomena in terms of some physical form of information transmission, virtually all of these have explicitly or implicitly presumed a space/time reference matrix. The demonstration of negligible attenuation of the empirical effects with distance, along with their precognitive and retrocognitive capacities, would seem to call this presumption into question, and specifically to preclude their attribution to any known form of field radiation, be it electromagnetic, geophysical, or even subtler physical vectors. Rather, some more radical proposition seems unavoidable (emphasis added). ¹⁸

In speaking about the nonlocal manifestations of consciousness, Jahn, Dunne, and Nelson go further, stating,

The literature. . . abounds with attempts to transpose various physical formalisms [to account for these effects]: electromagnetic models, thermodynamic models, mechanical models, statistical mechanical models, hyperspace models, quantum mechanical models, and others. . . . Although these comprise an interesting body of effort, none of them seems fully competent. . . . Indeed, it appears that no simple application of existing physical theory is likely to prevail. In order to encompass the observed effects, a substantially more fundamental level of theoretical model will need to be deployed, one which more explicitly acknowledges the role of consciousness in the definition of physical reality (emphasis added). 19

SPIRITUAL IMPLICATIONS

This discussion may seem hopelessly contentious to many, a tedious haggling over terms. But these issues really go far beyond our need to be accurate in a linguistic, experimental, or mathematical sense. This is ultimately a spiritual matter because it touches on our efforts to understand our true nature and how we fit into the universe.

Many of the great esoteric wisdom traditions have advocated, in one way or another, "going beyond dualism," "transcending the self," and realizing one's unity with "all there is," including the Absolute. One of the strategies of the legendary teachers in the Zen Buddhist tradition was to collapse the illusion

of the separate I or ego of the seeker with koans or puzzles: "Who is the I who wishes to become enlightened?" or, "Who is the I who is suffering?" or, "What was your face before you were born?" Because "energy" implies a source and "work" implies a worker, energy- and work-based models of consciousness and healing seem to foster the "fall into dualism" about which the great traditions have perennially warned. Thus a koan for an energy- or work-based model of consciousness and healing might be: "Who is it that is doing the work?" Or, "Who is it that is sending the energy, subtle or otherwise?"

A nonlocal model of consciousness does not necessarily require these dualistic images. If something is nonlocal, it is *infinite* in space and time (a limited nonlocality is a contradiction in terms). If consciousness manifests nonlocally, which many avenues of evidence strongly suggest, it does not "go" anywhere because it is already present at *all* points in space and time. In nonlocal models of the mind, there is no doer and no done-to, no worker separate from the work. This implies that there is some aspect of consciousness that is in some sense unbounded and inseparable from all else, and thus *nondual*. It seems, therefore, that nonlocal models of consciousness are more likely to cohere with many of the great spiritual traditions than any energy- or work-based model.

he failure to transcend dualistic images in healing creates practical problems. Consider the New Age anthem, "I create my own reality—100%!" This postulates reality as something "out there," an entity that I can somehow "make" by applying some sort of energy or by doing some kind of work. This image is dualistic to the core. It is odd that this idea is today elevated to a high spiritual plane by so many people, when it brazenly contradicts so many great spiritual traditions which urge the transcendence of dualistic ways of thought. An alternative image, consistent with a nonlocal model of consciousness, might be: "I am my reality!"—nothing made, nothing created, nothing separate from me—an assertion anchored in being, not doing.

Why are these distinctions practical? When adherents of the dualistic, I-create-my-own-reality philosophy experience sickness, which happens eventually to almost everyone, the stage is set for self-blame and guilt: "If I had been wiser or 'more spiritual,' I would not have become sick in the first place." Or, "If I were spiritual enough, I could make the illness go away." These self-accusations can exert immense harm. They can add to whatever suffering is already

present and interfere with medical care. Moreover this belief is irrational, as even the scantiest examination of the historical record reveals. Even the Godrealized saints and mystics die of the commonest diseases—J. Krishnamurti (cancer of the pancreas), Ramana Maharshi (cancer of the stomach), Suzuki Roshi (cancer of the gall bladder or liver), Saint Bernadette of Lourdes (disseminated tuberculosis), the Buddha (food poisoning), and Jesus Christ (death from trauma). If illness is a natural part of the lives of such persons, as it seems to be, it hardly seems likely that we lesser mortals shall be able totally to banish it from our lives by heroic acts of self-effort.²⁰

onduality is not merely the stuff of spiritual philosophy. Based on a decade of experimentation with the nonlocal manifestations of consciousness, PEAR Lab's Robert G. Jahn and Brenda J. Dunne have posited a "reality recipe" that is genuinely nondual and which goes beyond energy- and work-based models:

Neither. . . environment nor. . . consciousness can productively be presented in isolation; only in interaction—in the exchange of information between the two—are palpable effects constituted. . . It is essential . . . that the common concepts of established physical theories, such as mass, momentum, and energy; electric charge and magnetic field; frequency and wavelength; the quantum and the wave function; and even distance and time, be regarded as no more than useful information-organizing categories that conscious has developed for ordering the chaos of stimuli bombarding it from its environment, or passing from it to its environment. More precisely, they reflect the characteristics of consciousness interacting with its environment. ²¹

If examined closely, this model of reality strongly resembles the Buddhist doctrine of "the mutual co-arising of opposites," sometimes called the principle of "dependent co-origination." Because opposites mutually define each other, in some sense they are inseparably united and one—in a word, nondual. According to this idea, nothing is isolated—including mind and matter, consciousness and environment, and health and illness.

During the Watergate investigation, the mysterious information source known as Deep Throat said cryptically, "Follow the money!" In understanding the role of consciousness in healing, we might "Follow the limit cases!" If we do, we might penetrate the mystery of consciousness more deeply. In this process, new concepts and the vocabulary to describe them will hopefully emerge or

will be rediscovered. What will the future picture look like? We cannot fully know, any more than we can predict the dream we shall have tonight. But we can hope that these future developments will not only account for what we observe, but that they also will be coherent with many of the great spiritual traditions as well.

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