

We conclude this section with Dr. Green's presidential address to the International Society of Subtle Energies and Energy Medicine, **Mind Over Matter: Volition and the Cosmic Connection in Yogic Theory**. In this article Dr. Green, following concepts from yoga, lays out a model of the domain of energy medicine including energies underlying events "inside-the-skin" and those between ("outside-the-skin") individuals and their surrounding multi-leveled environment. Implications of these ideas for development of the field of energy medicine, and for ISSSEEM are explored. [Eds.]

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MIND OVER MATTER: VOLITION AND THE COSMIC CONNECTION IN YOGIC THEORY

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ABSTRACT

Energy Medicine and Subtle Energies can be defined operationally in increasingly precise ways as new techniques, new tools, and new theories are developed and tested. *Personal ecology* is discussed in relation to the burgeoning consumption of non-organic drugs being produced and advertised by commercial drug companies under the umbrella of "the American health care system." In contrast, a yogic self-regulation theory is outlined which, if it is tested, could provide strong guidance for the development of a Science of Human Potential and lead to a better understanding of psychophysiologic self-regulation (mind-over-matter inside the skin, INS) and parapsychology, psychokinesis, and traditional "healing" (mind-over-matter outside the skin, OUTS). Basic *Patanjali yoga* and *volition*, and their relation to both INS and OUTS "coincidence control" are considered. On the other hand, it is argued that if we hope in ISSSEEM to build bridges, linking paradigms for clinicians and scientists, that, whenever possible, it is useful to use concepts and metaphors, instruments and techniques, that are understood in present-day science and clinical practice, and as much as possible avoid metaphysical explanations. It is useful to be open minded, but not "far out," to conquer our fears of the anomalous, but not be reckless when talking with colleagues.

Miracles do not happen in contradiction to nature, but only in contradiction to that which is known to us about nature.

—Saint Augustine

New ideas in science are induced by new discoveries and at the present time it seems to me that the most potent factor in promoting new discoveries has been the introduction of some new technique, some new tool, that could be used for exploring natural phenomena. —Lord Adrian

It is a pleasure to be in Boulder, and have this opportunity to talk about nature and anomalies, new discoveries, and the future of ISSSEEM.¹ But first let me say that since this is an overview, I will refer to, and hopefully bring together in meaningful order, a variety of subjects which would not be included in a single-focus scientific presentation. First, I would like to provide some (not engraved in stone) concepts.

1. *Energy Medicine includes all energetic and informational interactions resulting from psychophysiological self-regulation, or brought about through other energy-field couplings to mind and body.*

In addition to energies which we may use therapeutically, there are also energy pulses from the environment which influence humans and animals. For instance, low level changes in magnetic, electric, electromagnetic, acoustic, and gravitational fields often have profound effects on both biological and psychological processes.

2. *Subtle energy, detected at present only by the work associated with its use, that is, detected by its effects, is hypothesized to be the carrier of informational and interactive processes in both mind-over-matter inside-the-skin (INS) processes, as in psychophysiological self-regulation, and mind-over-matter outside-the-skin (OUTS) processes, as in parapsychology, psychokinesis, and traditional healing.*

Compared with Energy Medicine, the concept of “subtle energy” is difficult to discuss in a scientific paradigm. The “traditional” subtle energies referred to as chi (or ki), prana, etheric energy, fohat, orgone, odic force, mana, homeopathic resonance, etc., are said to move in the so-called etheric body (subtle body) of humans, but have not been detected as yet except by their effects. For instance, it has been documented that humans are capable of generating and controlling anomalous OUTS energies that influence both physiologic and physical mechanisms. Healing-at-a-distance and psychokinesis are examples. A number of therapeutic methods prevalent today in Alternative Medicine appear to be concerned with facilitating the flow of these subtle energies into, or through, the dense physical body.

To clinicians who teach psychophysiological self-regulation, it may seem odd to have biofeedback training included under the heading of Energy Medicine. But from the yogic point of view, all INS training is a special case of the more general

relationship between mind and the subtle-energy field of the planet. It is the relationship between mind and *that* which Alyce and I, in *Beyond Biofeedback*,² called “the planetary field of mind,” which field, according to Patanjali, the original yoga teacher of the Indian Vedas, includes all manifest energies, from the densest physical to the most rarified spiritual. More on this later.

Since we are an “interdisciplinary society for the study of informational and energetic interactions,” we have an intriguing and almost-unbounded horizon, with distant mountain ranges of science and experience waiting to be approached, understood, and used for the betterment of life on this planet—all of life, all of Gaia,³ not just her human component. Humans may be part of Gaia, but we, different from animals and plants, are theoretically capable of taking steps to save the planet from environmental pollution and ecological disaster.

Also, as part of Gaia, it is important to save *ourselves*. In that regard, though **planetary ecology** is an important subject, one that we could focus on for a long time, today I wish to discuss primarily a specific niche of the holistic matrix, namely **personal ecology**. This is an aspect of the planetary composite that has largely been ignored, and yet it is more crucial for many individuals than *any* global process, such as a hole in the ozone layer. Personal ecology includes *positive* factors such as self-regulation of neural, endocrine, and immune processes (hypothesized to result from volitional control of INS subtle energies), and *negative* factors, one of which is “personal pollution,” which is practiced nationwide under the banner of Health Care.

The personal pollution I am referring to is the consumption of non-organic chemicals. Daily we are bombarded by persuasive advertising that exhorts us to swallow non-recreational chemicals that our forebearers never adapted to, and swallow them for HEALTH reasons. As I learned in 1959 at the Darwin Centennial, at the University of Chicago, we are all present, right here, right now, in the genetically-determined bodies of our cave ancestors. No significant changes, say anthropologists, have taken place in the human gene pool in the last 50,000 years, and, as a rule, *anything we swallow that our ancestors were not adapted to is hazardous to our health*.

Consider this: At a 1978 meeting on hypertension sponsored by the Institute of Medicine, National Academy of Sciences, one physician listed the 22 bad

side effects of the 3 most highly advertised hypertension drugs. You would think that that kind of presentation would have the effect of waving a red warning flag, but what generated the most interest and got the most attention at the meeting was a “step plan” for screening high school students for incipient hypertension, and medicating with hypertension drugs all those who had indicative signs, and “stepping up” the medication level as necessary—for the rest of their lives!⁴ It is our good luck that that plan has not yet materialized.

Unfortunately, medical practitioners are educated, and pressured, in the intricacies and uses of chemical intervention more by drug companies than by medical schools. This was first brought to my attention in 1969 after I gave a biofeedback presentation to the Kansas Medical Association. A physician came up to me afterwards and said:

You made a serious mistake. When you spoke of the cortico-limbic-hypothalamic control axis you used the phrase, ‘. . . as you know. . .’ That was an error. Physicians have *no* idea what you are talking about. I got a one-hour lecture on the subject in medical school 20 years ago.

At that time I needed to know how to use 14 drugs. Now I’m expected to know how to use about 2000 drugs, and education on that subject is organized by drug companies. I get brochures and samples of new drugs every day, and because of the great expense involved, medical schools have no choice but to leave the development and testing of medications up to drug companies.

Psychophysiological self-regulation? Whoever heard of that? Can you buy stock in it? My advice to you is to spend at least half of each lecture on the rationale. Then it may begin to be clear what you are talking about.

In the 25 years that have passed since I got that advice, commercial persuasion for the use of drugs has noticeably increased, and the chemically-oriented brain-washing that floods from radio, TV, newspapers, and magazines is geared to exploit both fear and the subconscious desire for Utopia, or at least for happiness.

Not long ago one pharmaceutical house had an ad in a national magazine saying, **Has your arthritis started yet?** It showed a beautiful woman, about 35 years of age, who is strongly advised to begin using *****⁵, which chemical, it was said, would prevent the problem from developing.

Another advertisement, aimed at physicians, showed a disconsolate mother, sitting in an empty house because the children have grown up and left home, and the ad line was **Empty nest syndrome? Try #####!** Several paragraphs of persuasive text then extolled the virtues of ##### for combatting that disconsolate let-down feeling in female patients.

Another ad showed a harried housewife who is advised to take an **Aspirin Break** every afternoon, and then her life will be so much smoother, less stressful, and it will make the family happier. Amazing!

Granted that medications have positive values, especially organic antibiotics, it is interesting to note that drugs never saved anyone's life, but merely postponed their death, sometimes with enhanced quality of life, but often with severely reduced quality of life.

In addition to introducing dangerous chemical pollution into our personal ecology, a more serious problem in using medications is, in my view, the loss of personal freedom. That happens when we become *consumers* in our present Health Care system. It is easy to become dependent on insurance companies, physicians and hospitals, and lose the ability, and opportunity, to call the shots, to orchestrate our own lives. Once in, it is not easy to get out. That may not be typical of individuals in ISSSEEM, but think of the country as a whole.

As I see it, being converted into consumers of pharmaceutical products and medical processes by commercial interests is a greater personal threat to citizens of industrial nations than any kind of external pollution. Eisenhower long ago warned the nation of the military-industrial complex, but who today is warning individuals, like us, of the pharmaceutical-insurance complex?

On the other hand, when we complain of commercial exaggerations, and charge the Health Care system with giving patients "false hope," a sin that we in psychophysiology therapy are always accused of, the rejoinder is, "*So chemicals don't always work, and have bad side effects, but what alternatives are there? Don't you believe in modern Health Care?*"

The answers are, First: "*We believe in Health Care more than in Sickness Care.*"
Second: "*What is really modern, and will comprise most of health care in the*

next century, is a combination of self reliance and energy medicine. The patient will be a partner, not a passive consumer. The health care system will be client centered, not therapist or hospital centered. And, to the greatest extent possible, individuals will learn, through training, to maintain their own health."

And then, if the questioner doesn't run, but waits to hear the rationale, and is willing to ponder the meaning of recently published clinical and research reports, it will be clear that *alternatives far superior to drugs already exist for approximately 75% of our health problems.*⁵

These alternatives include, first, *self control* of the internal energy fields of which we are composed. Second, *training* in yoga, martial arts, dance and gym, and in special techniques of body control such as the Feldenkrais and Alexander methods, etc. Third, *proper diet* including food supplements and menus recommended by health-food dieticians. And fourth, *external application of energy medicine* by traditional "healers" and others such as Therapeutic Touch practitioners, by specialists using electric, magnetic, and subtle-energy instrumentation, massage therapists, and structural reintegrationists, to use one of Ida Rolf's encompassing phrases for a variety of physical techniques including manipulative osteopathy, chiropractic, and Rolfing (in whatever form).

The first, and most important of these alternative Health Care methods, self control of INS energy fields, presently known as psychophysilogic self-regulation, is elementary straightforward Patanjali yoga of India, 2500 years ago,⁶ highly accelerated through biofeedback and visualization training. Though the idea of self control of energy fields is ancient in origin, it is only in the last decades of this century that physicists, biologists, and psychologists, armed with field theory, quantum theory, and remarkably sensitive instruments for measuring electric and magnetic fields, have been able to verify some of Patanjali's concepts and assertions.⁷

Concerning yoga, which means "union of mind and body," it is interesting that in 1953, in *Esoteric Healing*,⁸ the Tibetan teacher of Alice Ann Bailey said that every physical ill of humanity was related to improper flow of soul energy through the human chakra system, which is the total subtle-energy-carrying network of the body, somewhat similar to the chi-carrying meridians of China. In addition, said Bailey's teacher, toward the end of this century scientists will be able to verify with instrumentation, and with direct perception on occasion,

the existence of this subtle energy system, of which every cell, nerve, and biochemical process is an *objective* reflection, and every thought, emotion and sensation, is a *subjective* reflection.

This idea of body and mind being a “reflection” of subtle energy states is also seen in the Tibetan idea that *personality* is the “lunar” energy Being of a human. And, the immortal causal Self, our *transpersonality*, so to speak, is the “solar” energy Being of a human. Interestingly, in the religious paintings of many traditions, saints are often shown accompanied by lions, or riding on lions, whose manes represent the radiation of the sun. This riding-on-a-lion image symbolizes the human Soul using a solar-energy Being as a vehicle, and indicates that the saint has transcended personality, has transcended the transitory cyclic lunar orb, and is now characterized by the always-radiant solar orb.

Tibetan ideas concerning a hidden network of subtle energies throughout the body, are paralleled in “traditional wisdom” around the planet. They bear a striking resemblance to concepts of Sufis, Hindus, Chinese and Japanese Chi-Gong masters, and shamans of all times and places. For those who lack an experiential base, scientists in particular, these subtle-energy-net ideas can be treated only as hypotheses, but if they *are* hypothesized, they provide a theory and rationale by means of which we can “explain” psychophysiologic self-regulation, healers’ abilities to project energies, ESP, psychokinesis, and Jungian synchronicities, both physical and psychological.

Before discussing a rationale, though, I wish to point out that *a theory is a set of blinders by means of which the left cortex focuses attention on what it wants to see*. The sum total of white noise, over all modalities and dimensions of experience, contains all the information that the universe has to offer, but we can not perceive it without a set of highly-limiting sensory devices (ears and eyes, etc.), and we can not make intellectual sense of it without a “noise filter,” a theory. And, as far as any particular theory is concerned, anything that does not get through is noise. This is true **by definition**.

But woe to us if we believe it. All noise, when properly understood, is information of some kind. It may not fit theory, but so what!? It is useful to remember that the only certainty, after death and taxes, is that all theories will either change, be abandoned, or be absorbed as special cases of more general theories.

Scientists who systematically ignore anomalous information by labeling it “noise,” (as in ignoring the fact that certain people regularly blow out mother boards of computers), are in the same rudderless boat as physicians who discard “spontaneous remission” as merely the placebo effect. Their blinders work perfectly. They are safe from expanding their world view, or having it crunched. Especially they are safe from having to *understand* anomalous events, and they do not have to honor flexibility as a scientific trait, or cultivate tolerance of ambiguity.

In regard to anomalous physiologic self-regulation behavior, in 1969 we demonstrated with surface electrodes covering several square inches of the forearm, and reported in *Psychophysiology*,⁹ that *single motor units could be turned on and off at will* when auditory feedback provided firing information to a research subject. That is, out of thousands of nerve fibers going down the arm, all could be quieted by mental command, down to *zero* firing, and then one nerve cell could be made to fire, or stop firing, at will. John Basmajian was the first to comment on the anomalous nature of single-motor-unit control, which he studied with needle electrodes.¹⁰

The important point, with either needle or surface electrodes, is that such single-cell behavior is unexplainable by neurologic theory. There is no known way for a *single* nerve cell to be made to fire, or stop firing. In fact, there is no known way that all the striate nerve cells in a large resting muscle (such as we studied with surface electrodes) can be made to *not* fire in their normal random way, spontaneously, continuously. Even sleeping can not accomplish that. But, it is an observed fact that with feedback a person can learn to do it. And it is not coincidence, or “noise,” it is (according to yogic subtle-energy theory) a demonstration of subtle energy control by *mind*. More on this later.

Another psychophysiological anomaly that is at least as striking as control of single-motor-unit firing is the control of warts. Physicians and grandmothers have known for decades that warts can be eliminated by buying their disappearance (in children), or by hypnotic suggestion of their disappearance (in adults), but how can it happen? And especially, how can *specific* warts be made to disappear, selectively, while others are allowed to remain? Physician Lewis Thomas, in a chapter on warts, says:

And they can be made to go away by something that can only be called thinking, or something like thinking. This is a special property of warts which is absolutely astonishing, more of a surprise than cloning or recombinant DNA or endorphin or acupuncture or anything else currently attracting attention in the press. It is one of the great mystifications of science: warts can be ordered off the skin by hypnotic suggestion.

. . . the problem [of mechanism is] complicated by the information concerning the viral etiology of warts, and even more so by the currently plausible notion that immunologic mechanisms are very likely implicated in the rejection of warts.

If my unconscious can figure out how to manipulate the mechanisms needed for getting around that virus, and for deploying all the various cells in the correct order for tissue rejection, then all I have to say is that my unconscious is a lot further along than I am Whatever, or whoever, is responsible for this has the accuracy and precision of a surgeon. There almost has to be a Person in charge, running matters of meticulous detail beyond anyone's comprehension. . . . I never thought before that I possessed such a tenant. Or perhaps more accurately, such a landlord, since I would be, if this is in fact the situation, nothing more than a lodger. . . .

Some intelligence or other knows how to get rid of warts, and this is a disquieting thought. . . [If we could unravel this puzzle] we would be finding out about a kind of superintelligence that exists in each of us, infinitely smarter and possessed of technical know-how far beyond our present understanding. It would be worth a War on Warts, a Conquest of Warts, A National Institute of Warts and All.¹¹ [p. 81]

Well, as Pantanjali explained 2500 years ago, *all the body is in the mind*, including warts. The problem is to learn about, and understand, the mechanisms of mind. This is the standard yogic position today.¹² Every cell of the body is a "cell" of the mind, and it is within our capacity, it is said, to bring all parts of the mind to consciousness, and thus exert control over every cell of the body. What may be most "disquieting" to Lewis Thomas, and to other scientists, is the idea that our esteemed conscious mind is only a small part of our total mind. The corollary may also be disquieting: *Whenever we change our Mind about anything, we also change our body.*

Having raised these issues with the idea that there is a rational explanation, it is noteworthy, I believe, that ISSSEEM has entered the picture. If there actually *is* an energy structure underlying the human body that can be manipulated by mind, indications of its existence can be expected to appear as anomalous physiological, chemical, electrical, magnetic, or electromagnetic phenomena. And ISSSEEM, with its Newsmagazine, and its peer-reviewed Journal and Annual Conferences, along with the work of similar Societies, can help bring paradigm-breaking information on energy medicine and subtle energies to scientific and public attention.

Turning now to general yogic theory in an effort to construct a rationale that can lead to research questions: It is said that there are 4 grades of prana (differentiations of plasmic-like subtle electrical substance) inside the skin, and the same 4 grades of prana lie outside the skin. This concept can be matched with the Chinese idea of “internal chi” (INS) and “external chi” (OUTS). Also, this idea is found in the ancient Greek concept of the gods *within* (INS) and the gods *without* (OUTS), the macrocosm and the microcosm. It is this idea that Carl Jung referred to in 1927 when he said, in his Commentary in W. Y. Evans-Wentz’s *The Tibetan Book of the Dead*:¹³

Not only the “wrathful” but also the “peaceful” deities are conceived as *sangsaric* [reality] projections of the human psyche, an idea that seems all too obvious to the enlightened European, because it reminds him of his own banal simplifications. But though the European can easily explain away these deities as projections, he would be quite incapable of positing them at the same time as real. . . . The background of this unusual book is not the niggardly European “either-or,” but a magnificently affirmative “both-and.”

Whatever their exact nature, these INS and OUTS plasmas, yogis say, respond directly to human visualization and volition. INS energy is concerned with the control of striate, autonomic, hormonal, and immunologic processes, and OUTS energy involves control in the fields of parapsychology and psychokinesis, non-contact therapeutic touch, healing at a distance, etc.

In order to penetrate into this “unknown land,” where anomalies abound, and make it understandable, direct experience is invaluable. If scientists lack that, then, like the critics of Columbus, they tend to believe that nothing is out there. So, it is for them that “new discoveries,” new techniques and new tools are

essential. Erstwhile scientific gadflies will develop interest, curiosity, and willingness to plunge intellectually into uncharted waters (and support ISSSEEM) to the extent that instrumentation shows beyond all doubt that *something* is there. Unless, of course, a skeptic's self image is firmly wedded to his world view. If that is the case, *fear of the unknown* takes over, and people who are otherwise rational close their minds and drop into non-intelligent rejection and denial. Most likely we can do little to help them, for they firmly believe that *they* are rational and that we are crazy. Well, we can't save everybody!

Now to go from inside-the-skin to outside-the-skin. In 1969, when the Biofeedback Research Society was formed, the *mind-body* link began to get confirmation, and now, in ISSSEEM publications, the *mind-body-cosmos* link is beginning to get confirmation. This is especially evident in research on the effects of healers on enzymes, on water, on bacteria, and on people, and in body-potential phenomena which radiate into the environment, as in the Copper Wall project.¹⁴

In thinking about "mind-body-cosmos," it might be asked, why is "body" needed? Why not just have "mind-cosmos."

The answer, as I see it, is that until we can operate a laboratory in an out-of-body body, everything that we do in the cosmic connection (OUTS) is related to something in the body connection (INS). At the present time, generally speaking, unless our brains are active we lack consciousness and have no way of knowing that the body is not needed. So, at the moment, it is simpler to include the body in theoretical formulations.

I am not saying that the body **must** be included in the cosmic connection, and that it is necessarily a *sine qua non* for perception, for experience, and for action. That idea, if incorrect, will be demonstrated for each person on the other side of the grave when they find out that THEY are still there. On the other hand, if the body actually is a *sine qua non* for perception and experience, no one will ever be there to find out.

In an indirect way, what I am getting at is that it is difficult to focus scientific and public attention on the subject of mind-body-cosmos even when "body" *is* included in the equation, and in our culture it is doubly counterproductive to hypothesize that the body is not needed in a mind-cosmos connection.

Nevertheless, there is one aspect of “body” that yogis say can not be ignored. Namely, **the microcosm (which includes body, emotions, and intellect) is the training ground for learning to work in the macrocosm.** Regardless of what may happen to a person in an out-of-body state, in order to work with mind in the material cosmos (rather than working with muscle) it is necessary to have a body, and the more one experiences and understands the mind-body connection (experiences and understands the hidden energy structure of body and mind) the more successful one is in demonstrating the mind-body-cosmos connection.

The yogic theory behind this is fascinating, and elaborate enough to make generations of graduate students happy (if they can induce their committees to let them think about it).

Namely:

1. **Beyond and below all sensory perception, a human body (like everything else in Nature) is an energy structure.** In some cultures, this underlying structure of humans is called the chakra body. Aurobindo, perhaps the most lucid of the Indian metaphysicians, in *The Synthesis of Yoga* calls it the *vital body*.¹² Others, in Theosophy and in the writings of Alice Ann Bailey, call it the *etheric body*. Physicists tend to describe it as the *electromagnetic field* of matter, but that is inadequate from a yogic point of view.
2. **Our body’s physical structure is comprised of matter existing in 7 levels of density, solid, liquid, gas, and 4 pranas (subtle energies).**
3. **The 4 subtle energies are 4 kinds of electricity, the densest of which, subtle energy number 4, we call “electricity.” In increasing levels of attenuation, the other levels are the domains of subtle energies numbered 3, 2, and 1.**
4. **All 7 levels of physical substance are linked and interlocked by “resonant” characteristics such that energy disturbances in one are felt in the others, similar to the way in which Maxwell’s equations link electricity and magnetism.**
5. **Mind is the organizing principle at every level of substance, from the most dense to the most spiritual. Mind itself, being the**

Encompassing All, has no definition, and is described in terms of “aspects,” “attributes,” and properties. In regard to “spirit,” Aurobindo suggested that if a person is embarrassed by the word, it can be thought of as the subtlest form of *matter*. On the other hand, if the word causes no embarrassment, matter can be thought of as the densest form of *spirit*.

6. **Mind constructs “thoughtforms” from *trans-physical* mental matter, or energy.** That is, thoughtforms are constructed by mind from a kind of matter that is more subtle than the 7 levels of physical substance. Consequently, goes the theory, the existence of a thoughtform does not depend on whether or not we have a body. It is organized according to “mental” laws, without references to subtle-energy laws. And in near-death experiences, as well as in out-of-body experiences, mind continues to construct and use thoughtforms without the help of the brain.

Nevertheless, *while we have a body*, thoughtforms set up a resonance in physical matter. This resonance is what triggers neural processes and makes our hands move when we tell them to. This resonance is what accounts for visualization-directed changes of every kind in humoral and immune processes, whether by self-regulation, placebo, or hypnosis.

7. **The 4 physical subtle energies comprise the primary interface between mind and matter inside the skin.** Resonance between mind and body is a resonance between a thoughtform and one or more of the 4 subtle energies associated with physiologic substance. In other words, mind is linked with body by a set of Maxwell-like equations that manipulate the 4 subtle energies, and these, in turn, manipulate the body.
8. **As with the dense physical body, *all* of the dense physical cosmos, solid, liquid, and gas, consists of matter having associated with it the 4 subtle energies.**
9. **Even as mind learns to modulate the subtle energies that control INS matter by learning to think, to visualize, and to use volition, mind also, conscious or subconscious, eventually generalizes that control to modulate the subtle energies that control OUTS matter.**

Though people are often unaware of their own part in setting up proper conditions, this is the technical basis of Jungian synchronicity. This is the basis of “answer to a prayer.” And also, this is the basis of volitional psychokinesis, of healing at a distance, and of shamanistic magic, which might be termed “coincidence control.”

Almost invariably, a shaman starts with control of the physiology, and generalizes to the cosmos. Neophytes who try to short circuit this procedure by skipping control of the body, almost always suffer “repercussions” from the cosmic connection that are destructive to physical and mental well being. This is the reason why, in classic mythology, it is considered best in doing magic to align oneself with Planetary (Divine) Mind first, providing protection to body and mind in case of non-intentional error, and then follow specific requests to the Planetary Being with the general statement, “May that which is best for ALL, come about.”

Much is written on this subject in yogic literature, dealing with karmic (cause and effect) reverberations of direct manipulation of the cosmos without first seeking “spiritual alignment.” In general, direct cosmos-manipulating procedures are described as black magic, or in certain Tantric Yogas, as choosing “the left hand path.”

Though mind-over-matter inside the skin is a special case of general mind-over-matter, yogic theory says that at first the cosmos is beyond our grasp, because of our state of “original ignorance,” and we must learn, as babes, first the simple procedure of living in a physical body and gaining control of our lives, before we can graduate to the cosmic connection. That is why yoga training, at least with young people, starts with Hatha Yoga, the control of the striate and autonomic body, before it moves to mental and spiritual disciplines.

Last, but definitely not least, yogic theory states:

10. **Space-time is a projection from the subtle-energy brain to the mind.** In our culture, this projection is called “reality.” In yogic theory it is called the Maya, the sensory-system-limited perception of the energy structure that the cosmos is. In regard to Maya, it is fascinating that the concepts of quantum physics are beginning to disintegrate our faith in “perceptual reality” and we are

approaching the Patanjali concept of the cosmos, through the back door. That is, metaphorically speaking, we are coming to Patanjali theory through the left cortex, not through the right cortex, not through the front door, by direct perception.

The fact that yogic theory includes 4 grades of subtle energy, having 4 plasmic “densities,” may account for the fact observed in Copper Wall research with healers,¹⁴⁻¹⁶ that the magnitude and number of body-potential surges associated with healing trials, and seen as electrical pulses in the copper walls, did not seem to correlate in any simple one-to-one way with effects reported by patients.

For instance, one of the healers often said to the patient, after the session was over, that it would take a day (and sometimes 36 to 48 hours) before effects were noticeable. Though we were studying electrical phenomena correlated with healing trials, rather than medical effects (and presumably we were not concerned with outcomes), I later asked a few of these “delay” patients if anything happened, and generally received an affirmative answer. One patient, though, waited for 48 hours and no relief was noticed, and then, after 54 hours, while walking along thinking of something else, suddenly became aware of the fact that the pain associated with walking was gone.

When I asked the healer about this variable delay, the explanation I received was that depending on the *source* of the patient’s problem, it was necessary for the patient’s energy system (which had levels other than mere physical-type subtle energy) to be entered in various places, and some “levels of source” were “farther away” from dense physical, and it took longer for effects to work their way down through the system.

On other occasions, therapeutic effects associated with this same healer’s sessions were noted immediately. But, and this is the main point, we did not observe with this healer an obvious relation between body-potential surges and reported physical effects, noted either by the patient or by the healer.

Another healer ran for one-half of a healing session with the patient at a distance (5 rooms away, 50 feet) without producing a single body-potential surge. When I asked about it, because that healer had produced a number of body-potential surges in closeup healing, I learned that the healing visualization was of a type

that called on, and focussed, “divine energy” from the “spiritual” environment onto the patient. Having said that, this healer then said that another kind of visualization could be used, called “radiatory,” in which healing energy was focussed first through the healer’s own body. When I asked that that visualization be given a try, the copper walls and the healer’s body showed electrical surges and pulses.

The reason I digress to mention these findings, is that it seems incorrect to assume that the magnitude, or number, or total absence, of body potential surges in healers is a **measure of their healing ability**. Electrical pulses radiating into the environment may be found in the presence of healers as a function of what they are “doing,” but it would not be correct to assume that a yardstick has been discovered with which to measure healing ability. More could be said about this.

Returning to the 10 items listed above, this yogic theory is indeed fascinating. A chapter could be written on each idea. However, most of our colleagues back home do not see a beckoning horizon here. As I mentioned previously, some say *nothing is out there*. What they mean, of course, is that *they* see nothing, and that their experiential nothingness is the measure of “reality.” They sometimes say, and I am sure you have heard it, “But this is pure speculation. What you are referring to is totally *unknown*.”

Wrong! It is *unknown* only to those who have not studied the data, have not read the reports, have not experienced the phenomena, or *who are afraid of the anomalous because it undermines their world view*, to which they are securely attached, like to a life boat, in the belief it will provide safety. However, in a world in which paradigms are dissolving, attaching ones ego to mainstream thought is risky.

Eventually, when there is no other choice, even the most rigid scientific Doubting Thomases will pay attention to the emerging domain of energy science and healing. And when that happens, a hundred paths will open for exploration and the world will follow, unless the world gets there ahead of science. But regardless of who gets there first, humans will discover their hidden potential, and find that they have unexpected power to recreate not only themselves, but each other, and Gaia.

Understanding and facilitating the use of subtle energies, both for therapeutic purposes and for the study of human potential, will perhaps open up to present-day consciousness “traditional” depths of the human mind. If this should indeed be the case, one task of ISSSEEM will be to help bring together those who are capable of synthesizing the two major interests of humanity, Natural Science and Spirit (transpersonal experience).

In modern metaphorical jargon, this might include, though not be limited to, *personal* integration of left cortex and right cortex with deeper brain centers, and then integration and understanding of how we, as individual energy foci, or nodes, are connected *transpersonally* with a planetary network of body, mind, and spirit.

In closing, it is worth noting that if we wish to build bridges between classic physical and newly-appearing subtle-energy sciences, it is important to work with materials and concepts that scientists recognize. In this regard, consider the parallels of early *biofeedback* research-and-applications with present-day *energy-medicine* research and applications.

In 1969, when we reported at the First Annual Meeting of the Biofeedback Research Society on the capacity of humans to self-regulate blood flow in their own bodies, our research discussion was intentionally limited to photoplethysmographic and thermal effects. That narrow focus tended to attract the interest of hard-nosed researchers, including many coming from an animal-research background, who thought, mistakenly, that biofeedback-learned skills were not volitional, but were the consequences of a new kind of conditioning.

We made no reference at that time to the subtle-energy-based yogic theory that, nowadays, a number of researchers, physicists, physicians, and psychologists, are beginning to think underlies self-induced psychophysiological change. In the same way, regardless of what *we* may perceive or think, let us not get too far ahead of what can be accepted (or tolerated) by our colleagues.

This slow careful development of research and clinical practice will pay off, I believe, by making it possible for many to join us who would otherwise be driven away. Though researchers and clinicians may deny it, they are, nowadays, **the priests of the acceptable**, and we, as members of a Subtle

Energies Society, have a unique challenge. Namely, how can anomalous findings in the subtle-energies domain be made credible and acceptable to all researchers and clinicians so that the public is given a correct picture of energy medicine, of subtle energies, and of alternative medicine? And in particular, how can we energize our colleagues to think seriously about subtle-energy-based anomalies that have important implications for the development of a Science of Human Potential?

In other words, in building bridges and gaining a hearing for anomalous energy-medicine findings, it is useful to use concepts and instruments that scientists can tolerate in their already-developed world view. Also, it is useful in general to publish data without offering incomprehensible metaphysical explanations. These facts were especially evident in the early history of biofeedback training, and contributed to its relatively rapid assimilation by the scientific and clinical community in contradistinction to Autogenic Training, which in Europe grew out of hypnosis studies and was shunned by most researchers as “merely the placebo effect,” with no understanding, or desire to know, what that phrase of dismissal entailed, or how much ignorance its use revealed.

In the Nineties, we, in ISSSEEM, are in an analogous situation with biofeedback researchers and clinicians of the Sixties. Hopefully our new field will open up as well as theirs, with an increased understanding of the importance of human potential, and especially with encouragement of self reliance for health, instead of dependence on a faulty Health Care system.

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REFERENCES AND NOTES

1. The present paper contains the essences of several formal presentations, and a few off-the-record discussions, at ISSSEEM Annual Conference. ISSSEEM, the International Society for the Study of Subtle Energies and Energy Medicine, was founded in 1989 primarily as a launching pad for two publications, (1) a newsmagazine, *Bridges*, which focuses on perspectives for *clinicians* and scientists interested in Energy Medicine, and (2) a peer-reviewed scientific journal, *Subtle Energies*, which attempts to bridge the mind-matter gap of modern science. *Subtle Energies* is a forum for *scientists* and clinicians who wish to explore the once-metaphysical idea that both Mind and Matter, inside-the-skin and outside-the-skin, can be studied with newly-developed instruments and methodologies. One of ISSSEEM's contributions to the next century's scientific paradigm is expected to be active participation in the establishment of a Science of Human Potential (whatever it is called) involving the control of subtle energies, in which *consciousness* and

volition share equal billing. Up to the present, *volition*, as a primary characteristic of transpersonal mind, has been given short shrift in clinical and scientific thought. But consider, *consciousness without volition is useless*. In one form, as in addition to psychedelic chemicals, it leads to a state not far from hell. Humanistically considered, anyone who habitually “goes with the flow,” without trying to “make the flow go,” is headed in a dismal direction.

2. Elmer E. Green & Alyce M. Green, *Beyond Biofeedback* (“A Merloyd Lawrence Book,” Delacorte Press, Boston, MA, 1977. Reprinted with new Preface by Knoll Publishing Co., Inc., Ft. Wayne, IN, 1989).
3. Lovelock’s “Gaia” is the living biosphere of Earth, and is hypothesized to be a *self regulating* organism. In “tradition,” however, including Greek (where the name came from), Tibetan, Hindu, American Indian, etc., Gaia is that and more. She is an archetypal Being in Whom we live and move and have our physical, emotional, and mental being, a component of the Divine Mother, Who is all substance, from the most dense to the most spiritual.
4. Our Menninger internist, Joe Sargent, M.D., when he heard of this, said at a Voluntary Controls staff meeting, “We have to face the fact that all these drugs are poisons, having *some* beneficial side effects.”
5. Physicians generally agree that 60% to 90% of patients come to their offices for treatment of *psychosomatic* “diseases,” problems which drugs may muffle but not remedy.
6. I. K. Taimni, *The Science of Yoga* (Theosophical Publishing House, Wheaton, IL, 1967).
7. A number of the scientific articles appearing in ISSSEEM’s journal, *Subtle Energies*, relate directly to Patanjali’s primary concept, “Everything consists of mind and its modifications.”
8. Alice Ann Bailey, *Esoteric Healing* (Lucis Trust, New York, NY, 1953).
9. Elmer E. Green, E. Dale Walters, Alyce M. Green, Gardner Murphy, Feedback Technique for Deep Relaxation, *Psychophysiology* 6 (1969), pp. 371-377.
10. John V. Basmajian, *Muscles Alive: Their Functions Revealed by Electromyography* (Williams & Wilkins, Baltimore, MD, 1962).
11. Lewis Thomas, *The Medusa and the Snail* (The Viking Press, New York, NY, 1979).
12. Sri Aurobindo, *The Synthesis of Yoga* (Sri Aurobindo Ashram Press, Pondicherry, India, 1955. Sold by Associated Booksellers, 2106 Post Road, Westport, Connecticut.) This book, possibly the most important work of spiritual integration coming from India since the time of Patanjali, was first published serially in *Arya* (an Indian Publication) between 1914 and 1921.
13. W. Y. Evans-Wentz, *The Tibetan Book of the Dead* (Oxford University Press, New York, 1954). [First published in 1927].
14. Elmer E. Green, Peter A. Parks, Paul M. Guyer, Steven L. Fahrion & Lolafaye Coyne, Anomalous Electrostatic Phenomena in Exceptional Subjects, *Subtle Energies* 2,3 (1991), pp. 69-94.
15. Steven L. Fahrion, Mietek Wirkus & Patricia Pooley, EEG Amplitude, Brain Mapping, and Synchrony in and Between a Bioenergy Practitioner & Client During Healing, *Subtle Energies* 3,1 (1992), pp. 19-52.
16. Elmer Green, Peter Parks, Alyce Green, Paul Guyer, Steven L. Fahrion & Lolafaye Coyne, Gender Differences in a Magnetic Field, *Subtle Energies* 3,1 (1992), pp. 65-103.

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*We have provided a detailed presentation of Dr. Green's thought developed over five decades, and expressed in his own words. What may be apparent to the reader is that his work comprises a cogent body of ideas, unfolding over this major portion of a lifetime, that tells a story of integrity and effective expression. His life evidences synchrony between major life events, methods of discovery, and outcomes of inquiry that result in a coherent whole, a meaningful perspective that emphasizes the potential of human beings to transform, and in so doing to become **who they are**, to escape the bonds of those factors in society and science that would leave us confused, and fragmented, and rob us of our energy. The picture that emerges from his lifetime of work is a liberating vision of human possibilities for health, happiness and meaningful life. [Eds.]*

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