

## SPECTRUM

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*There are riches, treasures of many colors,  
Sweet music to hear, the best of wine to drink.  
Golden chariots contend on the Plain of Sports  
Many-colored steeds run in days of lasting weather.  
Neither death nor the ebbing of the tide  
Will come to those of the Many-Colored land.*

—from *The Many Colored Land* by Julian May

As with so many words of multiple meanings, in physics, “spectrum” refers to the distribution of a characteristic of a physical system or phenomenon: for example, the wavelength distribution of energy emitted by a radiant source. But “spectrum” is also used in a less specific sense to indicate a broad range of related qualities, ideas, or activities; for example, the whole spectrum of 20<sup>th</sup>-century thought. It is, in this sense of the term, that we now consider the “spectrum” of subtle energies.

Subtle energies phenomena come in many colors and wavelengths depending in part upon the ability of the perceiver-investigator to detect and to focus upon differences. For understanding and explanation, a given phenomena may require selection of strategies from quite different ends of the methodological spectrum, ranging from conceptual consideration to investigative study. Even within the category of investigative studies, another spectrum arises. Two basic types of questions are of concern with subtle energies research: (1) those of *efficacy*, that is, are there reliable and efficacious applications of subtle energies, and (2) those of *mechanisms*, that is, are there demonstrable means by which subtle energies have their effects? These two types of investigation, so different in intent and method, have always proceeded simultaneously in our field of study, on parallel tracks, sometimes intertwining and interacting with each other within the confines of a single paper.

As an example of common pursuit of both types of questions, the paper by Sidney Greenfield, *Popular Religion and the Paranormal*, basically exemplifies the naturalistic

investigatory strategy of anthropology. The perspective it provides on many startling observations by scientific observers of Brazilian “healers” focuses not simply upon the well-documented existence of healing phenomena beyond explanation in conventional science, but also upon the possible explanatory role of hypnosis. As is often the case, the existence of results is beyond dispute by those who are informed, yet the role of specific mechanisms in explaining phenomena remains a matter of debate.

The experimental investigation by H. Sugano, *A New Approach to the Studies of Subtle Energies*, details the impact of healers who have different types of training and experiences, upon physiologic parameters, on electrical discharge patterns, using Kirlian photography on leaves, and electrical potentials associated with outlined locations of meridians, as determined with the Motoyama AMI device. In the conduct of this investigation, the thrust of observation and report was simply to indicate the presence of *effects*, rather than to focus upon the mechanisms involved. Yet, as science proceeds, taking the opportunity to explore effects upon a *distribution* of potentially responsive processes (rather than simply upon a single outcome variable) represents a strategy that is likely to be productive in exposing causal mechanisms.

A new Dialogue section is instituted in this issue to allow what is hoped will be stimulating, wide-ranging and thoughtful discussion of particular issues in our field. Michael Tansey has graciously consented to allow his proactive previously published paper, *Cartography of Consciousness: A Functional Re-examination of Theta, Alpha, and Beta*, [Michael A. Tansey, Kenneth H. Tachiki & Jennifer A. Tansey, *Subtle Energies* 4, 2 (1993), pp. 135-150] to be the source that engages reaction from two experts in EEG biofeedback and self-regulation, Les Fehmi and Elmer Green, and to provide reply by the original author. Just as a prism disperses visible light into a spectrum, revealing an underlying order founded on basic principles, perhaps this new section will assume the function of a prism in arranging the “wavelengths” of concept and opinion in our field in an orderly way.

Many signs are emerging in world culture of recognition of existing subtle energy effects, a kind of interconnectedness in which all of us participate. Evidence for these effects needs to be firmed up, organized and communicated. Yet despite remarkable progress in the field of subtle energies and energy medicine during the past year, we remain at the beginning in developing scientific understanding of the *causal mechanisms* which explain observed phenomena. So, we can see the many colors, even though we can not explain the spectrum.

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