

## INTRODUCTION III

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Drs. Dubrov and Pushkin are much to be commended for their efforts and courage in getting out this book, worthy of thoughtful reading. While calling them to task for appearing too materialistically — or "four-space" — oriented in their discussions of parapsychological phenomena, I would attribute this criticism to those political constraints under which Soviet investigators must operate, especially when publicly addressing topics as philosophically sensitive as those treated in their book. Some of their statements seem to me to infer that what are known as *psi*-phenomena are both lawful and reproducible at some dimensionality of the universe — five-space or six-space, perhaps — and that their material science appellations refer to the "stuff" of these yet undiscovered dimensions, as well as to the "stuff" of the physical, four-space dimension (Tiller 1976).

While stressing vitriolic attacks mounted against the parapsychological community by the "establishment", the authors provide only a partial rationalization for them. Such attacks, however much they may primordially stem from the critic's own conscious fears, can easily be justified in at least two ways. The first, relating, as it does, to parapsychology's pretensions as an "objective science" at the *four-space level*, seems fully justifiable.

Like other branches of psychology, parapsychology is obviously a "subjective" science at the *four-space level* because only certain individuals are possessed of talents that can produce the striking *psi*-effects which appear to require certain kinds of structural and energetic organization currently accessible to a limited number of human beings. It is quite possible, however, that parapsychology may meet the requirements of "objective" science only at a

*five-space or six-space level* of description. In my view, we are not yet sufficiently evolved to perceive the co-ordinates relevant to these additional dimensions with clarity.

At a *four-space level* of description, the reproduction of parapsychological phenomena requires a specification of these special biological fields as a part of any essential experimental protocol. (Tiller, 1974). The *ultimate* explanation for *psi*-phenomena demands a major expansion of our present "World Picture" or "Paradigm of Nature" (Kuhn, 1962), an expansion that, in this type of exploration, represents the greatest challenge of all. What the authors of the present work contend is that *psi*-phenomena, as a new territory, can be explored in orderly, scientific fashion and they have presented data to support this contention.

The second justification for the attacks is based on the caveat that the data is fragmentary, *i.e.* it is incompletely collected, inadequately described and flimsily linked to our present base of knowledge. An important reason for this is that any satisfactory conduct of parapsychological experiments involves the control of many more factors than those involved in more conventional experiments. Unfortunately, in the West, adequate equipment and funds to support this type of research are negligible and, consequently, most researchers have been, and are still, reduced to performing it, hobby-wise, on weekends and holidays and to siphoning off meager funds for its support from their household budgets.\* In the Soviet Union, the situation, in this respect, may not be so bleak in that the need for teams of experts and adequate funding to professionalize the research appears to be increasingly recognized. In the absence of such recognition, the above-mentioned attacks will surely continue.

The portion of this book that most appeals to me, part I, presents experiments performed on points of the acupuncture network of the skin (APs), the importance of which, as the authors stress, is the energetic link it provides between the inside of a living body and the outside environment. The skin is considered by them as a complex dynamic system controlling an influx of external energy via non-electrical charged particles, one type which causes excitation, another inhibition, in organs of the body related to certain APs. By adjusting the condition of relevant APs the differential flux of excitatory versus inhibitory particles is altered so that balance is restored for a given organ.

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\* The communication (Hsu Hung-chang, 1981) adds: "Yet I am sorry to say that we at the very beginning of our research into such phenomena and we do not get enough financial support to move our new experiments to a higher level. Some of my research colleagues and associates would like to know if you know of any research programs in the *psi* field that are adequately supported and how we might apply for admission to join them for a year or more."

The authors postulate a special relationship between APs and the nervous system on the basis of their successful treatment of neurotic and psychotic disorders by means of acupuncture. They indicate a marked correlation between the electrical properties of APs and the psychophysiological properties of humans as determined by brain function. Experiments using a spectrum of monitors: GSR, HDR (Kirlian), REG and EEG, support their contention that the skin is a channel through which energy, that supports psychological activity, enters the body. They also submit data implying that brain function can itself be influenced by adjusting the electrical properties of APs and that flexibility of thought, and creative initiative, are well correlated with the recovery time of the differential conductance between left and right-side symmetrical APs (SPS). They further point out that psychokinetic ability is related to voluntary control of the electrical conductivity of APs.

My main criticism of Part I is that the data provided there are insufficient to allow qualified readers to reproduce their experiments exactly. To cite an example, although the target current level through the APs is given as 20  $\mu$ A, the voltage applied is not indicated, nor whether it is AC or DC, nor its frequency.

In Part II the experiments designed to reproduce the Backster Effect, and to allay criticism by skeptics, perfectly exemplify the quality of work needed to further this kind of research. The authors' findings underscore the difficulties encountered in studying bioinformational interactions. For instance, they discovered that, if man-plant inter-communication were to be unequivocally objectified, it was necessary to resort to hypnosis in order to remove a subject's own control of his frontal brain lobes and place them under the control of experimenters. They also found it necessary hypnotically to induce sufficiently strong emotional states in the subject, at specific points in time, and on demand. By using a "clean" and elegant experimental procedure, they have proven that certain mental processes in the highly developed human brain can evoke a GSR in a living plant which would seem to have neither a brain nor even elements of a nervous system. The amount of work done was prodigious in that over 300 experiments were performed in two separate laboratories, using five different groups of people in each laboratory.

In Part III, the authors change pace and attempt to deal with the need for a theoretical rationale for various psi-phenomena. In so doing, they refer to a myriad of fragmentary experiments, a plethora of speculative theories and a galaxy of interrelated pieces of physics. The task set is impossible to fulfill and, though, in places, the text sparkles, on the whole it seems choppy, rushed and lacking in harmony.\*