

Is searching for a soul inherently unscientific?

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As a psychologist with more than 25 years of practical experience in parapsychological research, I find Rao & Palmer's (R & P's) target article to be an accurate and informative summary of contemporary knowledge of psi, although it adopts a more conservative stance than I would have taken. Particularly important in their review is the emphasis that, at this stage of our knowledge, psi phenomena are psychologically delicate and only statistically replicable, rather than robust: Currently unknown changes in the psychological conditions of an experiment, or in an experimenter's attitude, can make psi appear and disappear. Alcock's target article, on the other hand, reads well if you have little first-hand knowledge of parapsychology, but it is actually misleading and inaccurate.

Space limitations in these commentaries would not allow me to attempt even a minimally adequate correction of Alcock's many misleading statements, although I assume other commentators will deal with some of them; the interested reader can go back to the original research literature. I want to concentrate instead on two aspects of the philosophical position, only partly explicit in his article, that Alcock apparently brings to his analysis.

Why all the fuss? If we are indeed so certain of our scientific knowledge that we can a priori declare that parapsychological phenomena are almost certainly unreal, why do Alcock and other critics make so much fuss over it? Looked at in terms of consumption of scientific resources, parapsychological research is a trivial activity: My 1978 survey showed only half a million dollars a year in support for *all* the parapsychological research in the United States (Tart 1979). Estimating today, I believe it operates on less than 4 million dollars per year and employs hardly more than two dozen people full time in the entire non-Communist world. So what's the fuss? Why should people devote great time and effort to criticizing the research, thus creating a climate in which future parapsychological research is inhibited?

Alcock might object that I am illegitimately raising an issue about the motives of the critics of parapsychology. As Rao & Palmer (R & P) point out, ad hominem attacks on people who disagree with you are not a legitimate part of science. My observations as a psychologist (Tart 1982; 1984; 1986b; Tart & LaBore 1986), however, have been that parapsychology is generally not an emotionally neutral topic and that the motives of *both* "believers" and "nonbelievers" must be examined and formalized into testable hypotheses if we are to fully understand attitudes toward and manifestations of psi. As I have specifically pointed out (Tart 1982), this is a tricky process and must not degenerate into ad hominem attacks.

As one example of what I regard as illegitimate use of ad hominem tactics that could mislead readers of this journal, Alcock first establishes me as a central figure in parapsychology ("a former president of the Parapsychological Association") and then reports that I "posit" (a rather abstract, philosophical term) that there is a "widespread" semiconscious or "unconscious fear of psi" that affects our attitudes toward it. He then dismisses this as "too weak and *ad hoc* to require rebuttal." This paints a picture of parapsychologists themselves, as making up unsubstantiated ad hominem excuses instead of dealing directly with issues of nonrobust replicability. What Alcock fails to indicate is that the publications he cites reported a variety of empirical observations about the effects of attitudes, from which I then constructed empirically testable theoretical formulations (e.g., Tart 1982). I believe that making empirical observations and formulating empirically testable hypotheses (not "positing") is the essence of the scientific process, and I have gone on to other

empirical studies of the issue (Tart 1986b; Tart & LaBore 1986) which Alcock does not mention. Nor does he mention that I strongly admonish parapsychologists to study their own attitudes as potential sources of bias in experiments, rather than just focusing on critics.

Are scientists disinterested observers? Now let us turn to what I consider the primary thrusts of Alcock's review. Alcock indicates that (1) parapsychologists are not really totally objective and disinterested scientists investigating trivial anomalies but human beings with theoretical preferences and a belief that their work is important, and (2) some parapsychologists may actually be searching for proof of the existence of a human soul! These two observations are used as a basis for discrediting parapsychology as a scientific enterprise.

I do not believe that Alcock's first observation can mean much to any working scientist. Having theoretical preferences and emotional attachments to them is the norm, not the exception. Good science is a matter of admitting them to yourself so you can exercise discipline and give empirical observations priority over your preferences. Related ideas of Alcock's, such as the one that only disinterested scientists should investigate parapsychological phenomena, are unrealistic. You do not devote yourself to what you are not interested in. As R & P's review shows, parapsychologists have devoted far more effort than have researchers in most other fields to make sure their preferences and biases do not introduce artifacts into their experiments.

Are some parapsychologists searching for a soul? The main thrust of Alcock's criticism, however, is that parapsychology is not a science but a search for the soul. This opposition apparently makes parapsychology scientifically illegitimate a priori. Alcock is partly right. Some parapsychologists are interested in the idea of a soul. I find the idea interesting, even important if it represents some sort of reality. But so what? Why is an interest in the idea of a soul inherently unscientific?

I have always taken a common view that science (Tart 1972) is a matter of formulating, extending, and testing explanations about the universe under the guidance of a primary rule that *observations have first priority*. If an observation does not fit your theory, too bad for the theory. Its limitations and perhaps fundamental incorrectness must be recognized. As a psychologist, I have repeatedly observed how scientists, as humans, become emotionally attached to clever theories and how they can become blind to contradictory facts. Alcock emphasizes the enormous improbability of psi and souls, given our knowledge of the physical universe. Can we be sure enough of our current knowledge of the way the universe is constructed to confidently discredit or discourage research that seems to contradict our theories about how the universe runs?

Alcock is inconsistent here. He admonishes parapsychologists to abandon any theoretical ideas about psi and reduce parapsychology to the disinterested, empirical study of anomalies, yet it seems to be his certainty about, and attachment to, current physical theories that stimulates his attack on parapsychology in the first place. Nor did I see Alcock urging more research support for parapsychology so we can really clarify the issues, which would follow if we were purely empirical in our approach.

Why we should study psi. At the beginning of this commentary, I asked why Alcock and other critics make so much fuss about the quite small-scale activity of parapsychology. I agree with Alcock's stated rationale: Insofar as psi represents real phenomena (and I think empirical evidence shows it does), the implications of psi are important and perhaps revolutionary.

To illustrate briefly: Contemporary scientific knowledge of the physical universe is immensely useful and needs to be extended as much as possible. As a result of years of psychological observation, however, I have found that the confused amalgamation of empirical knowledge with a philosophical position of materialism has resulted in a dogmatic "religion" of *scientism* that is destructive of sources of value and vitality to humans (Tart 1986a). The opposite belief, that we may have some sort of soul

and that there are spiritual realities (ignoring the frequent pathological uses of these ideas), *can* be revitalizing to people. The effects of such beliefs are legitimate subject matter for psychology. Even more fundamentally, such beliefs can be formulated as testable theories: Do we have empirical data that make more sense in terms of a "soul theory" or psi theory than in terms of other points of view (see Tart 1981)? Are psychological beliefs about souls based on important facts? As a scientist, if I can contribute any empirical data bearing on the question of the reality of the soul, I believe I am doing something useful, not something suspect and a priori unscientific. One of the few things I can fault in Rao & Palmer's review is too little attention to the humanly vital implications of parapsychological studies.

I have too much confidence in the basic long-term usefulness of scientific methodology and too much commitment to the principle of genuinely free inquiry to want to see the current corpus of scientific knowledge treated as if it were some kind of religious orthodoxy that needed defense against heresy. Yes, the implications of psi may be startling, but if you view science as an adventure and as a quest for truth, as I do, that is the reason to work with it, not to reject it out of hand without examination!

The psi controversy as a crystallization of the conflict between the mechanistic and the transcendental worldviews

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A continuing controversy centers on empirical evidence for the existence of certain purported "paranormal" phenomena, especially such psi processes as clairvoyance, precognition, telepathy, and psychokinesis (PK). Paranormal phenomena are those which, if valid, would violate a "basic limiting principle" of science (Broad 1953). Although parapsychology is generally defined as the scientific study of psi, some parapsychologists study spiritualistic, occult, and other ostensibly paranormal phenomena as well.

In analyzing this controversy, one must distinguish two separate issues: (1) Is there scientifically acceptable evidence (i.e., replicable evidence based on observation or experimentation) for psi? and (2) What are the implications of the reality status of psi for our worldview (i.e., for our models of the person, reality, and knowledge)? Clearly, the controversy concerning the existence of psi is more than an empirical matter. The conflicting conclusions of different scientists examining the same evidence do not attest merely to the complexity and ambiguity of the evidence or the temperamental differences among scientists (e.g., James's [1907/1978] "toughminded vs. tenderminded" characterology). This controversy concerning evidence for the existence of psi reflects a conflict between the meaning of different worldviews. Indeed, the controversy about the reality status of psi may be the current crystallization of some of the historically most significant philosophical issues about the nature of the person, reality, and knowledge.

I will review implications of the reality status of psi for some of these philosophical issues. In so doing, I assume that the validation of psi as paranormal would violate basic limiting principles of science, resulting in a Kuhnian (1962) revolution in science and in the society as a whole. If psi phenomena were validated, but their mechanisms were not paranormal (i.e., they did not violate basic limiting principles of science), then no revolutionary consequences need result. Some of these philosophical issues are:

1. *The mind-body problem.* The tradition of dualism, particularly dualistic interactionism, in which man is thought to

possess *both* a body and a mind/spirit/soul, would be supported by the validation of psi. Such dualistic notions are a foundation for our religious belief systems. However, materialistic monism is the "working" model of most theory and research in current science, as well as of certain philosophies of life such as Marxism and secular humanism. The validity of materialistic monism is supported by the enormous progress of humanity through history in scientific and technological development.

2. *Vitalism versus mechanism.* Vitalism – the notion that life possesses qualities that cannot be explained in purely physical and chemical terms – would be supported by the validation of psi. However, the mechanistic notion that life can be fully explained in terms of physical and chemical processes has been an overwhelmingly successful working model in the history of science and technology.

3. *Supernaturalism versus naturalism.* The existence of psi is consistent with supernaturalism: the notion that an adequate explanation of nature requires transcendent principles. Naturalism is a critical assumption for the scientific paradigm, which assumes that nature, including the person, can be adequately explained by principles within it.

4. *The person is separate (i.e., qualitatively different) from nature versus the person is an unexceptional part of nature.* The validation of psi as a feature of human consciousness would imply that the person transcends nature. However, scientific findings, especially those from molecular biology and chemistry, strongly support the notion that the person is a characteristic phenomenon of nature.

5. *Determinism versus indeterminism.* Certain psi phenomena imply that a future event, before it occurs, can directly affect a present event. Such a model is inconsistent with the deterministic model of causality that underlies scientific and mundane knowledge (i.e., an event is completely explicable in terms of its antecedents).

6. *Survival of physical death by human consciousness versus non-survival.* The validation of certain psi phenomena (e.g., remote viewing, spiritualistic phenomena) would indirectly support the possibility of survival after physical death. This notion is fundamental to the magical/religious belief systems of all known cultures and may be psychologically the most potent wish of humanity, both individually and collectively (Becker 1973; Rank 1950).

One integrative theme penetrating these six issues may be the following: Human consciousness possesses transcendental qualities (transcendental worldview) versus human consciousness reflects only mechanistic qualities (mechanistic worldview). Thus, the validation of psi as paranormal would conflict with the most fundamental philosophical foundation of science, the mechanistic worldview. This mechanistic worldview provides the matrix for the organization and interpretation of the mundane and scientific knowledge accumulated throughout history. Strong evidence and compelling urgency (indicated by a crisis in the current scientific paradigm) would appear necessary to warrant a profound reorganization in this worldview.

The validation of psi as paranormal would be consistent with the transcendental worldview and would thus support some of the most potent human wishes/beliefs/values. History shows that we must be especially vigilant in evaluating evidence relevant to belief systems that confer "special status" on humans, especially when that special status is congruent with potent, perhaps universal, wishes/beliefs/values. As recounted by Brandon (1983), the history of physical research (scientific investigation of spiritualism) appears especially replete with fraud, erroneous observations, and conclusions confounded by the wishes/expectations/beliefs of the participants. There are still ongoing controversies about scientific systems that "de-throned" humanity from special status by conflicting with cherished beliefs (e.g., Darwin's Evolutionary Theory, Freud's Psychoanalysis). [See *BBS* multiple book reviews of Kitcher's