

COGNITIVE ANOMALIES, CONSCIOUSNESS, AND YOGA by K. Ramakrishna Rao. New Delhi, India: Matrix Publishers, 2011. Pp. xxii + 882. \$85.00 (hardback). ISBN: 978-81-910142-2-8.

From the work of J. B. Rhine to the present, the history of modern parapsychology has been one of frustration. Strong statistical evidence of psi has failed to convince hardened skeptics. Careful research has yielded hoards of data that support the existence of psi, yet parapsychology lacks a generally accepted theory to make sense of that data. Multiple theories compete without any clear way to decide between them. K. Ramakrishna Rao's book *Cognitive Anomalies, Consciousness, and Yoga* explores how parapsychology reached this impasse and suggests solutions.

The first 240 pages summarize the history and struggles of parapsychology in order to point out the problems that seem irresolvable under parapsychology's current research program. The bulk of the book is how the Indian intellectual tradition, especially the theory and practice of Yoga, can be a tool to avoid such problems. However, this review will focus on the first part of the book that specifically deals with psi.

One means of understanding a science is to examine the questions it asks and explore its presuppositions; Rao does both well. He recognizes that the issues with which parapsychology deals intersect with fundamental philosophical issues concerning the nature of mind, matter, and the relationship between the two. Rao reveals his understanding of the issues in current philosophy of mind, including the important work of David Chalmers (1996) and the difficulties with reducing first-person conscious experience to third-person brain processes. Rao suggests that psi "may be ... an interface between the two fundamental [material and mental] processes" (p. 13). Although not accepting Cartesian substance dualism (which he labels "entity dualism"), he is open to "process dualism" (roughly equivalent to property dualism). Later, he argues that the Yoga tradition offers a way to understand psi phenomena in terms of consciousness (which he takes to be broader than mind). In this way, Rao believes that science and spirituality can meet.

Rao's book includes a succinct summary of the history of psi phenomena and parapsychology from ancient times to the present. Although lacking the breadth of the monumental *Irreducible Mind* (Kelly et al., 2008), Rao's summary of parapsychological research is among the best available and would serve as a valuable tool for anyone teaching an introductory course in parapsychology. The one element downplayed is survival research, although there are some references to it. His major focus is on the period from the work of J. B. Rhine onward. Rao states that despite the advances Rhine made, he accepted a strange mixture of Cartesian dualism combined with a positivist view of the scientific method. This is one (though not the only) reason that parapsychological research has been hampered by "a lack of coherent conceptual framework [*sic*],

and repeated attempts to reinvent the wheel ..." (p. 43). Another major problem is the tension between psi and the assumptions of modern and contemporary science that forbid telepathy, clairvoyance, precognition, psychokinesis, and survival after death. Rao believes that such tension is unavoidable because questioning the assumptions of contemporary science is inherent in parapsychology's task of "naturalizing the supernatural" (p. 45). Since psi inevitably challenges such assumptions, it is unlikely that any statistical evidence in favor of psi, including sound meta-analyses, will convince most mainstream scientists. They can always appeal to flaws that are present in any experiment. They follow David Hume, who in his discussion of miracles argued that it is always more rational to deny miracles rather than to accept them because "A miracle is a violation of the laws of nature" (Hume, 1777/1975, p. 114). The skeptic of psi applies Hume's principle to psi and thus denies the existence of psi and believes that parapsychology is a pseudoscience. Skeptics recognize, as does Rao, that if psi exists, it would mark a challenge to the currently fashionable physicalist worldview.

In questioning Rhine's positivist view that science "has answers to all questions" (p. 55), Rao looks to contemporary philosophy of science, noting that the vast majority of philosophers of science deny the existence of "a single, objective, scientific method by the pursuit of which we will be led indubitably closer to 'truth'" (p. 69); here he refers to the work of Paul Feyerabend (1975) and Imre Lakatos (1978). Rao does assume, however, that science always uses some method to seek truth, and he does not question either scientism nor the scientism of parapsychology, claiming that "A return to hermetic contemplation may give one a more satisfying picture of psi, but such will not constitute a scientific endeavour" (p. 70). This problematic claim is in tension with the rest of Rao's fine discussion of the philosophy of science, for Rao assumes that justified knowledge claims using careful methodology are only found in science. There are alternatives to "hermetic contemplation." Philosophy, for example, uses careful methods that appeal to both empirical evidence and rational coherence in seeking truth. Theologians of various faiths use careful methodology to make and to defend truth claims. This is evident in recent Western philosophy of religion in such journals as *Faith and Philosophy*. Rao is not making a scientific argument when he claims science to be the apex of justifiable knowledge; it is a philosophical argument that requires philosophical justification. Later, Rao calls for an expanded view of science that allows room for spirituality, but then there is so much overlap between philosophy and science (as is also true of high-level theoretical physics) that it is practically impossible to separate one from the other.

Rao then considers Karl Popper's falsificationism and Imre Lakatos's notion of research programmes, and he outlines problems with each position. He admits his own metaphysical assumptions, including a realist position that the world exists in some respect outside individual minds. Thus it is clear that although Rao accepts scientism in parapsychology, he

is not a naïve inductivist or someone who blindly accepts the outmoded hypothetico-deductive “received view” of science.

The heart of Rao’s case against the approach of contemporary experimental parapsychology is found in chapter D, “The Matter of Evidence.” He elaborates on two claims: that parapsychology remains (1) overly concerned with proof of psi rather than with process-oriented studies, and (2) a collection of data without a viable theory. Although Rao accepts the view that there is “probablistically conclusive” evidence for psi, he does not believe that skeptics will be convinced due to their Humean evidential framework. He concludes: “That the debate about evidence continues inconclusively has more to do with the assumptions we make and the a priori probability accorded to psi than with the perceived flaws in research” (p. 95). His point is well taken. In philosophical debates over controversial topics such as the existence of a creator God, the intractability of the disagreements has as much or more to do with philosophers’ estimates of the a priori probability of God’s existence than with the evidence pro and con. There is no reason that the situation should be any different regarding the controversial claims of parapsychology.

Even the issue of replication in psi involves estimations of the prior probability of the phenomena claimed to have been replicated. Rao recognizes that not every scientific claim is replicable (if the Big Bang Theory is true, the Big Bang is an unreplicable, unique phenomenon). Rao realizes that scientists demand a higher level of replication when they think there is a low prior probability of a phenomenon occurring. In addition, there is no standard set of criteria for replication, and the standards for distinguishing exact from conceptual replication may be “tacit” rather than explicit (p. 98). Rao points out that psi has its share of “repeatedly observed” phenomena; he presents examples of the results of ganzfeld experiments and of extraversion-ESP studies. Even these well-established phenomena will not convince a hard core skeptic, who invariably points out problems with such studies. Even if predictive replication occurred, this would not convince the skeptic. No experiment in any field is perfect, but skeptics of psi believe that claims that challenge basic assumptions of modern science should be supported by evidence that seems impossible to obtain.

Rao’s solution to this dilemma involves questioning the assumptions of contemporary experimental psychology:

- (a) that psi is an ability like perception, (b) that it functions independently of our sensory-motor systems, (c) that it manifests even when the subject is shielded from all other modalities of subject-target interaction, and (d) that it can be detected and measured as distinct from and independent of all other modalities. (p. 122)

Rao argues, correctly I think, that psi in real life cooperates with normal perceptual processes rather than being an isolated phenomenon. If that is the case, then attempting to isolate psi from normal perception in experimental situations may mask psi. In real life situations, psi may manifest more strongly than in the weak effects found in laboratory experiments. Rao (like Braude, 1996) questions the skepticism of parapsychologists toward macro-scale psi phenomena. Following Murphy (1970), Rao suggests that psi works together with normal sensory and (in the case of PK) motor processes. Paranormal processes “may be more like creativity in problem solving than perception of hidden phenomena” (p. 124). Testing procedures should provide the subject with “sensory as well as extrasensory information with the objective of discovering whether the sensory awareness somehow helps to expand the extrasensory and where the normal tends to enhance the paranormal” (p. 125). Rao thinks that such methods may reveal a “tangible,” macro effect that might have “practical value” (p. 125). He mentions such possibilities as locating water or oil, weather forecasting, and criminal investigation. Rao may be correct: just as technological innovation helped the rise of modern science in the seventeenth century, and eased the acceptance of quantum theory, so replicable practical applications of psi might be the key to convince the most reluctant skeptics of its existence.

There is much with which to sympathize in Rao’s position. If psi ability evolved, it is more reasonable to think that it evolved in cooperation with normal sensory and motor channels rather than in conflict with them. Experimentation based on the assumption of cooperation will focus on such a relationship and no longer attempt to isolate the normal and the paranormal. However, Rao should also consider the possibility that psi may function as a necessary condition for any experience, as “first sight” models of psi suggest (Carpenter, 2004, 2005, 2008). Rao believes that psi functions to focus “normal” perception in a particular direction. An interesting topic is the relationship between psi and conscious choice in focusing perception.

Rao also discusses psi missing, suggesting that the mental discipline of Yoga may help a person to avoid lapses in concentration. He also points out that oscillation between psi-hitting and -missing is a replicable element in psi experiments.

Rao then evaluates the experimenter effect in parapsychological experiments, noting the problem of psi-mediated experimenter effects (there is a useful taxonomy of experimenter effects on p. 188). He notes an interesting parallel between the source problem in survival research and the source problem of psi in general—if the source problem is used to discount survival research, it can also be used to discount research on *all* psi. Rao supports the idea that the results of an experiment may involve all individuals who participate in a psi experiment (p. 193). He believes that this suggests a larger whole is involved in psi, something like a psi field that transcends individuality. Psi, he believes, is “transpersonal,” and he argues

that Indian thought, with its lack of a clear subject/object distinction, is consistent with this interpretation of psi.

Rao does an excellent job summarizing theories of psi, carefully noting their strengths and weaknesses. Other than a scientific dismissal of theories with an “extraneous” explanation for psi, his discussion is thorough and reasonable. Rao finishes the first section of the book by providing a fascinating account of his life and his experiences in the parapsychological community. He mentions specific names, and some of the history he brings up is painful but necessary. Because parapsychology is constantly under critical attack and since the community of parapsychologists is small, it makes no sense for parapsychologists to divide into warring factions. Rao also states that parapsychology is more concerned with answering critics than with discovering the import of psi phenomena. Some of his major points are that parapsychology has been overly concerned with methodology when it should focus on “the meaning” of paranormal phenomena, that parapsychologists are “overly defensive,” and that “They fear the sacred and the spiritual” (p. 234). Yet psi does suggest, Rao thinks, at least an epistemological dualism between matter and mind, and he believes that consciousness is the common element that unites them both. Indian thought, he argues, with both its long tradition of developing paranormal abilities and its focus on consciousness, is a good vehicle for a more promising road in experimental parapsychology. Rao believes that experimentation to develop practical applications for psi will be more accepted in Indian culture than in Western Europe and the United States. On this point he is probably right.

Rao’s book is an indispensable addition to any academic library, and it should be in all libraries of parapsychological organizations. It is a valuable tool to any researcher in psi, no matter of what background, and a helpful resource for those teaching psi. Scholars in religious studies and in philosophy will also find Rao’s book an important resource for study and reflection. Rao’s extensive knowledge of both Western and Eastern philosophy, psychology, and parapsychology shines through, making this book unique in the literature of parapsychology. Parapsychologists should consider Rao’s advice to shift the burden of experimentation in psi to revealing macro-effects that have practical application and to permitting normal perception to be part of a psi experiment, rather than something methodologically excluded. I give this book my highest recommendation.

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MICHAEL POTTS

*Department of Philosophy and Religion*  
*Methodist University*  
*5400 Ramsey Street*  
*Fayetteville, NC 28311-1498, USA*  
*gratiaetnatura@yahoo.com*