

having flaws “but so did *Cognitive Psychology*, and it went up like a rocket” (p. 171). At the same time, the “father of cognitive psychology” admits great admiration for Gibson’s decidedly non-cognitive ecological approach, leading to his work on naturalistic memory. Finally, Sheppard provides a description of his famous mental rotation experiments and his scaling methods. Most importantly, however, he is not afraid to take large areas of psychology to task by writing an eloquent summary of his arguments for the necessity of abstract theory in psychology. According to Sheppard, we arrive at general psychological laws by “thinking deeply about the general nature of problems any cognitive agents face in the world” and these “are based on mathematical structures . . . which are very remote from our everyday ‘folk-psychological understandings’” (p. 230).

I must confess that it took some effort to arrive at the intended mind-set to read *Psychologists Defying the Crowd* because the authors discussed above are the very people who, in my mind (and I assume in the readers’ minds), largely defined the field of psychology over the past decades. Their names and accomplishments are described in detail in introductory textbooks, and now these authors are to be seen as rebels despite the fact that most are (and long have been) successfully associated with prestigious coastal US universities. For a while, I had to remind myself that the book’s subtitle is stated in the past tense (“those who battled”) and that the chapters are the accounts of those who “won”. So, this is not a book about current underdogs in psychology. Once I adopted the proper historical perspective, the book provided unique insights into the work and thinking of some of psychology’s *éminence grise*.

While the authors’ defiance is intellectually courageous, it should be clear that their rebellions remain well within the boundaries of psychology as traditionally defined. Thus, most of the topics that are routinely discussed in the *Journal of Scientific Exploration* are simply never mentioned. It would have been nice, for instance, to see a chapter by Daryl Bem—one the few mainstream psychologists of a stature comparable to the chapters’ authors—on the reactions of the field to his work with Honorton. Nevertheless, anyone with more than a passing interest in general psychology will find this book rewarding to read.

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**Thinking Beyond the Brain: A Wider Science of Consciousness** edited by David Lorimer. Edinburgh, Scotland: Floris Books, 2001. 287 pp. £14.99 (paper). ISBN 0863153577.

This is a book that convincingly argues the importance of subjective, phenomenological experience, values, theories, and explanations, and that these

can be measured effectively. The importance, I believe, of this book is that it offers more than merely an objective, third-person account of "what is." Interestingly, many academics and "dyed-in-the-wool" empirical scientists, who view the existent world as being the only real one, tend not to live in a way consistent with this view in their personal lives. When depressed, they do not think "my dopamine levels are low," rather than "I feel sad." They, too, tend to make decisions based on feelings and logic, not logic alone. Surprisingly, many also feel threatened—a subjective attribute—when challenged that the physical, objective world is not the only dimension of importance. Being a microbiologist/statistician myself, I can attest that some of the nastiest, pettiest, and most egotistical in-fighting occurs among empirical scientists who would deny the validity of subjective life.

Beginning with Plato, some philosophers viewed reality as being pluralistic. The Good, the True, and the Beautiful were three domains thought to exist for human reality—shared values, objective knowledge, and subjective experience. Jürgen Habermas, a German social philosopher, has argued that humans live in at least three domains, as has integral philosopher Ken Wilber. These domains encompass shared values, meaning, goals, language, and aspirations (intersubjective reality), objective, phenomenological rocks, trees, rivers, and behaviors (objective reality), and subjective values, cognition, goals, meaning, and feelings (subjective reality). No reality can be reduced to and explained by another domain. Each is necessary and forms a real part of reality. Any form of communication between scientists requires shared symbols—a language. Interpretation of data is an intersubjective and subjective aspect of science grounded in the objective observation. Just to have observation is not useful; to observe and interpret is. All three worldviews are needed.

This book is grounded squarely in the intersubjective and subjective domains of the reality spectrum. And, in this, it is a wonderfully worthwhile collection of subjective/intersubjective positions on how one interprets reality objectively. The book suggests something of a paradigm shift and, in this respect, is very refreshing. Also, the contributors are fully credentialed individuals, including the late Willis Harman, Kenneth Ring, Charles Tart, Stanislav Grof, Peter Fenwick, Brian Josephson, David Fontana, Erlendur Haraldsson, John Beloff, Michael Grosso, Andrew Powell, Marilyn Schlitz, Roger Woolger, Mark Woodhouse, Ravi Ravindra, and Anne Baring.

The book is divided into four parts: The Need for a New Science of Consciousness, Consciousness and Parapsychology, Frontiers of Consciousness and Healing, and A Wider Perspective on Consciousness. The author contributors present subjective arguments and positions. It is likely that empirical scientists will attempt rebuttals, but, in my opinion, they will be unsuccessful in refuting the arguments. Instead, they will merely reframe them in empirical clothing and, of course, interpretation.

This book is tremendously valuable, and necessary as a leavening to current focus on the empirical approach. Yet, even more valuable would have been

an integral approach that incorporates empirical and phenomenological viewpoints and ultimately values the partialness, but necessity of both.

David Lorimer has done a splendid job in introducing the subjective interpretation and in linking the various contributors to create a unified and meaningful whole. I highly recommend this book.

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**An Instinct for Dragons** by David E. Jones. New York: Routledge, 2000. 208 pp. \$24.95 (cloth). \$17.95 (paper). ISBN 0-4159-3729-9.

Dragons are a conundrum. As Jones observes in his introduction, virtually every human language has a word for the beast. "How can something so impossible exist in the art, mythology, religion, and legend of so many places?" This question is immediately followed by the admission that the dragon is not "impossible" in the context of our present understanding of marine dinosaurs, but "[t]hey cannot [be a] model for the dragon, because dinosaurs [are long] extinct . . . (p. 3)." Jones' thesis is summarized in his caption to Figure 2: "Three predators who most threatened our ancestors—the eagle, the leopard, and the snake—merge in mythology to become a single creature, the dragon." It occurred to him, he writes, while preparing notes for an undergraduate lecture on primate behavior in which the vervet monkey, which has three distinct alarm calls for the leopard, eagle, and python, served as an example.

The book consists of an introduction, seven chapters, two appendices (B rather more to the point than A), bibliography, and index. Chapters 1, 3, 4, and 5 begin with tautological restatements of the author's thesis. Despite these and other repetitions, and references to "Steven S." Gould (are editors extinct?), a variety of ideas are raised and discussed, primarily from an anthropological perspective. From a dragonological perspective, however, what stands out are the issues Jones fails to satisfactorily address: the implications of the aquatic nature of dragons in the context of a two-thirds-wet world; whether Mesopotamian representations of all manner of chimera are dragons or metaphors; whether pre-Colombian North American representations of the plumed serpent (mentioned in passing in Appendix B; not in the index) are relevant to dragonology; and what we are to make of eyewitness reports and multicultural representations that suggest biological reality rather than imperial metaphor.

Early on Jones confuses the issue of exactly what he thinks a dragon is by asserting that "the griffin . . . is an ancient type of dragon . . . or griffin-dragon (p.7)." A hundred and thirty pages later, "the chimera" is mentioned, once.