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BOOK REVIEWS

Why People Believe Weird Things: Pseudoscience, Superstition & Other Confusions of Our Time by Michael Shermer. New York: W. H. Freeman, 1997. 306 + xii pp. $22.95 (c). ISBN 0-7167-3090-1.

This book has much to recommend it, in particular an unusually sound understanding of what science is and a detailed analysis of some salient contemporary controversies. The author shares some personal experiences that are relevant to his exposition and to the forming of his attitudes, and in doing so reveals an open seeker after knowledge or enlightenment whose self-description as "skeptic" is uncommonly apt, by contrast to the many self-styled "skeptics" who are in actuality dogmatic debunkers.

Shermer's choice of topics raises interesting questions. Part 1, "Science and Skepticism," can be thoroughly recommended as a summary of how science works and of how human thinking easily goes awry. The author's recounting of how he was led to skepticism is engaging. Part 2 is a motley group: Edgar Cayce, near-death experiences, UFO abductions, witch crazes and their modern counterparts, and the cult of Objectivism à la Ayn Rand. Perhaps the clearest explanation for this grouping is that "Most of the chapters began as essays originally published in *Skeptic* magazine, which I edit" (p. 9). So this book is really a collection of essays with some connecting discussions, more than a determined, coherent attack on the questions adumbrated by the book's title. Part 3 is about creationism, Part 4 largely about Holocaust denial, Part 5 a sort of summary and analysis.

I recommend this book strongly. If the bulk of this review nevertheless seems rather negative, it is only because I see little point reiterating the many things the author has done right, but do think it may serve readers well to be warned of the few places where the author seems to have gone a little wrong. Among the deep points in the book not addressed are, What exactly do you mean by "weird"? What warrant is there for pronouncing "weird" a belief like creationism that is held by a very large proportion of our society? Wrong, maybe, but "weird"?! Could one not call *all cosmology* weird on the same sort of grounds?

Stephen Gould's foreword adverts to another issue that could have borne more discussion: "facilitated communication" is described as irrational and unscientific; yet one of the knotty aspects of this and similar enthusiasms (therapeutic touch, recovery of memories of sex abuse or of Satanic rituals) is that many proponents hold certified positions in the relevant professions.

But I will not continue thus, reviewing a book that was not written rather than the one actually at hand. Shermer begins very engagingly by recounting experiences "debating" on the Oprah show, and introducing the salient point, (p. 7) that science has progressed through eliminating both false positives and

false negatives. How long-distance competitive bicycling led Shermer to skepticism makes Chapter 1 a page-turner. I applauded "The flaw in pure skepticism is that when taken to an extreme, the position itself cannot stand" (p. 16). But on the same page, "Some things... have been tested and have failed the tests often enough that we can provisionally conclude that they are false" — sure, but would everyone include among those, as Shermer does, water dowsing, extrasensory perception, and creationism? This illustrates an enduring pitfall or pratfall for anyone who writes about these subjects: unexceptionable principles, but disagreement over application to specific cases. Another illustration: "Shouldn't we know by now that the laws of science prove that ghosts cannot exist?" (p. 27) Really?! What laws are they? And Shermer allows to pass without comment the Gallup poll that included under "paranormal" the opinion that humans and dinosaurs coexisted; wrong, almost certainly; but "paranormal"?! That (p. 33) the "search for extraterrestrial life is not pseudoscience because it is plausible" begs the question, plausible to whom, in light of what? Still, the substance of Part 1 is commendably well based and judicious.

The cases in Part 2 are discussed at appropriate length. A really serious lapse (p. 71) comes however with the "Bell Curve," where a *symmetrical* curve rather than the correct unsymmetrical one is drawn for the correct hits out of 25 to be expected by chance in Zener-card trials — though a histogram *in the same Figure* gives the correct numbers. This is a crying shame, for Shermer correctly points to popular ignorance of probability and statistics as a common source of confusions, and a lapse like this undermines the book's credibility in a crucial area. There is another such lapse in "Science and Immortality" (p. 83-87) — itself a distracting digression — "25 percent of a child's genes come from each parent"; with the norm of 2 parents, however, that accounts for only 50% of the child's genes. It seems a little gullible, too, to accept that "for girls born in 1984 [the life expectancy in Japan] is 80.18 years" (p. 84). Shermer should be a little more skeptical about numbers and the precision they imply through the manner in which they are written.

As for near-death experiences and the like, Shermer sticks his neck out admirably: "Baker, Kreskin, Randi, and others think that hypnosis is nothing more than fantasy role-playing. I disagree" (p. 75). "If a coma is not an altered state [of consciousness], I do not know what it is" (p. 76).

It captures interest when Chapter 6 begins, "On Monday, August 8, 1983, I was abducted by aliens." The author plays fair and square with the reader, moreover, in his analysis of the experience. Chapter 7 is sound enough on the commonalties in "Epidemics of Accusations," but perhaps the sociological analysis is too general to be of much specific help on the pseudo-science-versus-science front. Thus of the 8 "components of the early witch crazes" (p. 100), 7 are also clearly to be found as components of the contemporary miasma of political correctness. But a little-known and worthy point is that science does *not* displace superstition so much as stimulate counterparts like

witch crazes (p. 105).

The chapters about creationism cover much of the important ground, including legal battles; and the author deserves a hearing if only because he reveals at the outset that he had been a born-again Christian (p. 127). It may well be that we can learn best about these knotty intellectual issues by being guided through them by one who has run the gamut of beliefs.

The chapters on Holocaust-denying have several points of high value. For one, a determined defense of the benefits of freedom of speech for unpopular views. For another, a frighteningly true-ringing description of the intellectual ineptness and lack of preparation of talk-show hosts. And further, interesting biographical sketches of prominent Holocaust deniers. Shermer's generalizations about such groups and their methods (p. 207, 212) are well founded and useful. He concludes by reviewing a mass of evidence to confound the deniers.

The concluding Chapter 17 cannot be said to do justice to the book's title, but its points are solid nevertheless: there is not a single answer, but among them are believing what we wish to believe, seeking immediate gratification, liking simplicity rather than being bothered by details, and seeking morality and meaning which seem so elusive in modern society. As a whole, the book offers much of interest for people curious about the topics discussed, and its analyses are in the main both well based in logic and ethically appealing.

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The Conscious Universe: The Scientific Truth of Parapsychology Research by Dean I. Radin, Ph.D. New York: Harper Collins Publishers, 1997, 340 pp. $25 (Cloth).

When Dean Radin set out to write a book that would raise the level of public discourse about what 150 years of parapsychology research has shown, he took on a daunting task. Perhaps no area of science has so much controversy as the study of parapsychological phenomena and no area of parapsychological science has so much controversy as the nature of the conclusions that can be drawn from the data. A post to an Internet parapsychological discussion group about the scientific conclusions from parapsychology research started a heated debate that went on for days. Dr. Radin clearly comes down on one side of the topic, saying the short answer to the scientific proof question about *psi* phenomena — "Is this for real?" — is "Yes." The book will serve as his long answer.

This is not an objective, unbiased review. I was delighted to find a review copy of the draft manuscript in a journalist friend's office. As a long time "*psi* enthusiast" with an interest in bringing the scientific method to the anomalies