

## LITERATURE REVIEWS

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### THE DOGMATIC SKEPTIC

SCIENCE: GOOD, BAD AND BOGUS. Martin Gardner. 1981. Buffalo, NY: Prometheus Books. 412 p.

*Reviewed by Katherine Ching, Geoscience Research Institute*

*Science: Good, Bad and Bogus* represents thirty years of Martin Gardner's scathing articles and book reviews about pseudoscience. Often the contents of anthologies by one author are carefully selected to reveal growth and perhaps even changes in attitude and thinking over a span of years. This is not the case with Gardner's book, even though each chapter has been updated with a postscript.

In his introduction, Gardner bemoans the futility of amassing rational arguments to combat irrational ideas:

*People are not persuaded by arguments to give up childish beliefs; either they never give them up or they outgrow them.... For these reasons, when writing about extreme eccentricities of science, I have adopted H.L. Mencken's sage advice: one horse-laugh is worth ten thousand syllogisms (p xv-xvi).*

Any reader who ignores the warning and proceeds to the rest of the book can be assured of an overabundance of wisecracks, sour jokes, and almost-vitriolic sarcasm. Of the 38 chapters (18 articles and 20 book reviews), only one — on Carl Sagan's *Broca's Brain* — comes close to saluting the accomplishments of another person (Sagan). But even this chapter deteriorates into a diatribe against Velikovsky and Protestant fundamentalism, and it becomes apparent that Gardner is merely using Sagan's book as an excuse for denouncing his cherished pet peeves and their supporters.

The first three chapters discuss "hermit scientists" (L. Ron Hubbard, Immanuel Velikovsky, George McCready Price, and Wilhelm Reich) who have already received attention in Gardner's *Fads and Fallacies in the Name of Science*, the stifling Party control on Soviet nuclear physics, and the *Ars Magna* of Ramon Lull, a 13th-century theologian who attempted

“to employ geometrical diagrams for the purpose of discovering nonmathematical truths.” Thereafter, with few exceptions, the remaining chapters attack such phenomena as precognition, psychokinesis, ESP, mentalism, and the occult. Once Uri Geller, the Israeli magician who claims paranormal powers, has been introduced, his name comes up continually as the whipping boy for all the trickery, fakery and deceptive techniques employed by purveyors of belief in the paranormal.

Repeatedly Gardner expresses the plea for tighter and more specialized controls in experiments designed to investigate the validity of extraordinary claims. Believing that only a magician — a “consummate liar” (p 91) —, is trained to detect deceptions, he appeals to his own status as a knowledgeable student of conjuring for authority to provide rational explanations (e.g., fakery) for psychic phenomena. After postulating possible scenarios by which the deception *could have* taken place, he concludes that this is how it *must have* happened. As long as the possibility of deception remains, he apparently assumes the phenomenon to be fraudulent.

Needless to say, Gardner’s essays have engendered emotional reactions from the targets of his verbal thrusts. Perhaps to give the readers a chance to decide for themselves, he includes some of these letters in his postscript to the chapters. He shrugs off their criticisms of his inaccurate statements as being “trivial” and merely reiterates his contempt for “Geller-gawkers.” Though the book is entitled *Science: Good, Bad and Bogus*, very little is said about good science. This leads one to wonder if good science is anything that agrees with Gardner’s mind-set, while bad science is anything seemingly irrational and/or fraudulent. Perhaps his essay entitled “Close Encounters of the Third Kind,” which blasts the book, the movie, the director, the philosophy and writings of the technical consultant, and UFO studies, might qualify as a discussion of “bad” or “bogus” science. But why include a review of a book entitled *Four Arguments for the Elimination of Television?*

More curious are his book reviews on *The Preachers* (Oral Roberts, Billy James Hargis, Kathryn Kuhlman, Herbert W. Armstrong, and Billy Graham) and on Ruth Carter Stapleton’s *The Gift of Inner Healing* (which concentrates on her personal life, ministry, and her influence on her brothers Jimmy and Billy). It is unclear as to why a popular-science writer even bothers to review books that are usually classified as “religious.” Does he intend to show that science (i.e., naturalism) is the only source of truth and that religion is a pseudoscience?

Gardner cannot be accused of utilizing staid or boring vocabulary in these essays. Among his favorite adjectives (which rapidly become jaded

as one encounters them repeatedly) are: “unscrupulous,” “shabby,” “crazy,” “foolish,” and “silly.” More colorful phrases include: “misleading assertions,” “wild, preposterous claims,” “conscious fudging,” “knuckle-headed volume,” “whopping misconception,” “charming heights of claptrap,” and “enormous gullibility.” He deplores a publisher’s failure to summon scientific evaluators “when a moronic manuscript has great potential for meeting the public’s hunger for scientific hogwash” (p 112). In an essay on black holes, he shudders at “the appropriation of astrophysical mysteries to shore up the doctrines of pseudoscientific cults, or the shabby performances of psychic rip-off artists” (p 343). Pseudoscientists are defined as “eccentric ignoramuses who work in far-out fringe areas where extraordinary claims are loudly trumpeted with an extraordinary absence of evidence” (p 381), while crackpots produce “ignorant, trivial, at times pathological work” (p 233).

While Gardner has made a valuable contribution by urging caution in accepting new or unusual ideas, it probably is not necessary to read this collection in its entirety, for most chapters only reiterate what the previous ones have said. For an encapsulation of Gardner’s philosophy, merely read his review of a book on psychokinesis in the 11 November 1982 issue of *Nature*. All the elements of *Science: Good, Bad and Bogus*, including the slurs on Geller, appear, and he concludes typically:

*Psychokinesis is only the latest, but surely not the last, of a seemingly endless line of lurid books about the paranormal, hacked out by gullible believers who are incapable of distinguishing competent investigations from shabby research and anecdotal poppycock.*<sup>1</sup>

Gardner attempts to correct the imbalanced tone of his book by also expressing doubts about the honesty of some orthodox scientists who either deliberately faked their data or “unconsciously distorted their work by seeing it through lenses of passionately held beliefs” (p 123). These include such notables as Gregor Mendel, Johann Beringer, and Paul Kammerer. He further voices discouragement about his inability to eradicate the persistent problem of the rising interest in the occult and the paranormal. While admitting that “modern science should indeed arouse in all of us a humility before the immensity of the explored and a tolerance for crazy hypotheses” (p 246), he laments:

*How is it that today, when science and medicine are advancing on a thousand spectacular fronts, people seem caught up in every conceivable variety of irrationalism?* (p 268).

Though blaming lack of information for the popularity of pseudo-scientific literature, he has not, unfortunately, contributed to the science education of the average citizen. He has arrogantly debunked sacred cows without providing substitute milk, and devotees of pseudoscience and the paranormal will continue to believe. One wonders why Gardner has not emphasized the positive results of scientific experiments and discoveries in his column, rather than making a career of belittling the beliefs of the pseudoscientist.

Perhaps Gardner should also consider the possibility that Jake Page, another popular-science columnist, has suggested. In a recent issue of *Science* 83 he states that impersonal science has not provided solace for those who live with its “fruits ... and its handmaiden, modern technology.” More scientific information alone is not enough, because those who reject science are not necessarily the uninformed:

*... to an apparently growing proportion of educated people in this society, science as a method of discovery, as a mode of cognition, as a description of reality, is inadequate. These people are in deadly earnest, and they are saying that for many if not most of the important layers of human concern, science simply does not work .<sup>2</sup>*

To be more effective, Gardner, the professional debunker and skeptic, should try to find out why science alone is unsatisfactory for this large group of people.

## ENDNOTES

1. Gardner M. 1982. Nuts about PK. *Nature* 300:119-120.
2. Page J. 1983. Ghostly persuasions. *Science* 83 4(1):80-82.