

BOOK REVIEWS

Tainted Truth: The Manipulation of Fact in America by Cynthia Crossen.
New York: Simon & Schuster, 1994. 272 pp. \$23, (c).

As anyone in the discipline knows all too well, the subject of statistics arouses negative and hostile emotions in the general public and in those forced to study it. Perhaps the two foremost among these emotions are fear and suspicion. Fear because of math anxiety, even though statistics is not part of mathematics but belongs to the sciences and despite there being precious little actual mathematics in a typical introductory course. Suspicion because of innumeracy and lack of background.

Nevertheless, one cannot be too suspicious when being on the consumer end of a statistical study. Surprisingly, given the cynical nature of our age, many people fail to understand that statisticians purvey the views of those who pay them. Cynthia Crossen's *Tainted Truth: The Manipulation of Fact in America* is a detailed exposé of how the piper payer calls the tune.

Take your pick of subjects discussed in the book: disposable vs. reusable diapers, safety of breast implants, oat bran and cholesterol, Alar, caffeine, Coke vs. Pepsi, political polling, IUDs, amoxicillin's effect on ear infections, or Crossen's own experiment in which she hires Gallup at a cost of \$4500 to do a study to see if Americans trust studies. Each topic reveals how statistical data or results can be manipulated to suit the sponsor's interest.

That we suspect drug companies, political parties or industrial corporations of having a pecuniary agenda is readily accepted by my students. It takes more time, however, to convince them that scientists too have financial — as well as personal — capital invested in their endeavors. According to Crossen, typical of the situation concerning "the consistency of research support for the sponsor's desired outcome" was that for 107 published studies picked at random, "In not a single case was a drug or a treatment manufactured by the sponsoring company found inferior to another company's product." If you are wondering why research on vital issues of health and safety is not sponsored by an impartial entity, then you are not aware of the high cost of acquiring data.

While data can be hard to come by, places to publish aren't. In the biomedical field, there are "some fifteen-thousand journals" which "publish about two-hundred-fifty-thousand articles a month." The just named numbers are truly astounding especially when one considers the number of studies that must have been rejected because — to use the jargon of the trade — the significance level was greater than five percent. And then there is the contract research which is not allowed to be published because "Drug companies have neither incentive nor obligation to publish research showing the drug was not effective."

The last chapter, "Solutions," is devoted to "ways to clean up each part of the information stream and to restore, at least partially, people's faith in numbers." Among the suggestions are such things as to print much greater detail of any published survey result, separate the sponsoring corporations from the university researcher, educate the media people who comment on the studies, and demand "that the scientists involved in the research be available for interviews outside of carefully controlled news conferences."

Crossen's best suggestion, as far as I am concerned, is to "teach their reporters and editors not only fundamentals of statistics but also how to be critical readers of many different kinds of research. One person on each staff should be a trained statistician, available to review research on deadline." I fear that this will never come to pass but note that I am available (but don't forget to be suspicious of me as well).

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Death and Personal Survival: The Evidence for Life After Death by Robert Almeder. Lanham, MD: Rowman & Littlefield, 1992. 285 + xii pp. \$17.95 (p). ISBN 0-8226-3016-8. \$50.00 (c), ISBN 0-8476-7728-1.

This is a well-organized and clearly written book that deserves to be widely read and pondered. It makes audacious claims, some of which, to my mind, are extravagant; but they appear in a book in which the author challenges the reader to acknowledge the occurrence of many curious facts, thought by some to show that human consciousness can extend beyond bodily death, and to explain them in a way that entails no such extension.

Almeder, who teaches philosophy at Georgia State University in Atlanta, has published extensively in epistemology, the history of philosophy, and other areas. Among his works is *Beyond Death: Evidence for Life After Death* (Almeder, 1987), but he states that to regard the present work as a second edition of that book "would be a serious mistake" (p. x). The newer volume "seeks to offer a much stronger defense of personal survival" (p. x) than was possible in the earlier. He argues for the rationality of belief in personal survival and holds, instead, that "in the presence of the data and arguments" (p. xi) to be found here it would be irrational not to believe in it — surely an overstatement.

There are six chapters. In the first five, Almeder discusses, one per chapter, what he terms categories of research: reincarnation, apparitions, possession, out-of-body experiences, and mediumship; in the final chapter, he gives "The General Picture." The longest and in my opinion the most interesting chapter is the first, on reincarnation. I shall now examine it at some length and then touch on chapters 2-6.

Almeder begins by assuming something he will later attempt, not altogether