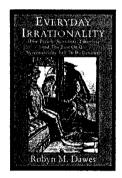
they selectively remember astrological predictions that "come true" belongs in the bias category. Finally, the sin of persistence refers to the fact that memories of traumatic events, far from being repressed, are often very difficult to keep out of one's mind.

For each sin, Schacter provides a lucid, entertaining, and up-to-date review of the relevant research, along with plenty of informative examples. In the final chapter "The seven sins: Vices or virtues?" Schacter compellingly argues that the seven sins are, in fact, "byproducts of otherwise adaptive features of memory, a price we pay for processes and functions that serve us well in many respects" (184). As one example, consider the sin of persistence. A memory system that really did repress

memories of traumatic events would be most maladaptive. If an ancestor of mine repressed the memory of being attacked by, but escaping from, a sabertoothed tiger when he unknowingly ventured too near the tiger's lair, he would be likely to return to the spot again. And I wouldn't be sitting at my computer right now typing this review.

Schacter's book is by far the best popular book on memory I have ever read. It will be very useful for anyone who wants to know more about both why memory works the way it does and why, sometimes, it doesn't work. The book would make an excellent adjunct text in any college course on memory. It is very well referenced so that the interested reader can find the original scientific papers Schacter discusses.



Let's Be Rational

JOACHIM KRUEGER

Everyday Irrationality: How Pseudo-scientists, Lunatics, and the Rest of Us Systematically Fail to Think Rationally. By Robyn M. Dawes. Westview Press, Boulder, Colorado, 2001. ISBN 0-8133-6552-X. Hardcover, \$25.

eaders of the SKEPTICAL INQUIRER regularly see irrational beliefs demolished by evidence and argument. Communication with the dead and the existence of aliens are recurring favorites. The primary objections to such beliefs are that they are false, that they can do harm, and that they keep cropping up in spite of it all. Debunkers usually emphasize the lack of evidence for these beliefs (or the existence of evidence against them) and they plumb the psychological mechanisms supporting the maintenance of these beliefs.

In his latest book, Everyday Irration-

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ality, Robyn Dawes takes a slightly different tack by defining rationality as the coherence of related beliefs. According to his definition, beliefs are irrational if they lead to outright contradictions. Although evidential support and beneficial consequences remain important aspects of rational thought, coherence is the paramount criterion.

Dawes's book is the fruit of a revolution that occurred in cognitive psychology over the last three decades. Cognitive psychologists now distinguish two modes of thought. Thinking in the intuitive mode is swift, effortless, and associative, whereas thinking in the rational mode takes time and effort. Rational thinking often requires the application of specific rules so that a problem can be "thought through" and contradictions avoided. The intuitive

mode also works well inasmuch as it is sensitive to associations that actually exist in the world. However, intuition guarantees that at least on occasion some incoherence will occur.

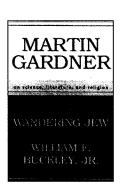
Consider two examples, first the common tendency to judge the truth of a claim by one's familiarity with it. This may sound like a good idea. All we need to assume is that by and large beliefs are corrected by evidence, so that false beliefs are more likely to be weeded out than correct beliefs. Therefore, true statements should be encountered more often than false statements. Intuitive thinking takes advantage of this association and assumes that familiar statements are more credible than unfamiliar ones. Why is it irrational to rely on familiarity as a sign of truth? Because of its imperfection, the association can be systematically exploited. Advertisers know that they can boost the appeal of their claims simply by repeating them. In a culture awash in "information," many conflicting claims become familiar when only some of them can be true. To believe them all or to believe many without further checking is irrational.

The second example is the assumption that in an inert world, the past tends to predict the future. Again, this is not a bad idea. It is safe to say, for example, that mediums and charlatans will continue to sell old wine in new bottles until they are debunked yet again. In the realm of action, people learn to expect that efforts already expended and investments already made tend to pay off in the future. Yet, these expectations become irrational when the link between the past and the future is cut. Some holders of sports season tickets, for example, go to a game even on days when they would rather stay home. These individuals already know what they want. But by honoring their irretrievable past investments, they act as if these investments still foretold future benefits. Doing what they prefer not to do, they admit incoherence and thus irrationality.

Dawes offers many entertaining and distressing examples of runaway intuitions.

The crux of his argument is a moral one, namely his conviction that the world would be a better place if we made the effort to think coherently. Professionals in particular, who render judgments in their areas of expertise, cannot justify their reliance on intuition and mental shortcuts. Instead of thinking in terms of association, they could and should think in terms of comparison. Take medical diagnosis as an example. Suppose it is known that many people who have a certain disease also display a particular symptom. Should one now conclude that a person with this symptom has the disease? The answer is no. It is essential to compare the prevalence of the symptom among people with this particular disease with its prevalence among other people, be they healthy or differently diseased. The same logic suggests that you are not necessarily depressed if you have trouble sleeping. There are other potential causes of insomnia.

Still, to condemn associative intuition in its entirety seems a bit harsh. Intuitive inferences are, after all, often correct. The question is how we know when to replace easy intuition with effortful, rational, and comparative thinking. Does this not mean that the choice between the two modes of thinking must be made at a higher, executive level? Cognitive psychologists have not solved the riddle of the executive, and Dawes wisely does not confront this question directly. Instead, he pragmatically suggests that certain groups of professionals (especially from the mental health field) should be taken to task for relying too much on easy intuitions. As trained experts, they should know better. Still, that leaves a question for the rest of us-or all of us thinking about all those areas of life in which we have no expertise. Are we all fools and lunatics? By implying that we are, Dawes denies us a kind of comparison that tends to make us feel good.



Lucid Commentaries with Something to Say

MARK DURM

From the Wandering Jew to William F. Buckley, Jr. By Martin Gardner. Prometheus Books, Amherst, New York. 2000. ISBN 1-57392-852-6. 350 pp. Hardback, \$27.

"From time to time, when the impulse sizes me, I sound off about topics of interest to me, and respond to requests for book reviews if I think I have something significant to say about a book."

o begins Martin Gardner in this book, his latest of many. We, the **)** readers, should always be thankful when Gardner "sounds off" on topics and has "something significant to say" about any book. Gardner's lucid style, eloquent wit, and carefully researched

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writings makes him one of America's foremost essayists. In this latest offering of essays and book reviews, Gardner explains that "the topics of this rambling anthology are mainly attacks on bogus science and what I regard as religious superstition."

Why does the Jew wander? Because Jesus says in Matthew 16:27, 28 "Verily I say unto you, There be some standing here, which shall not taste of death, till they see the Son of man coming in his kingdom." To Bible fundamentalists, everything in the Bible must be literally true-therefore, if Jesus said there were "some standing"

there who would witness his second coming—then there must be a Jew or Jews who are alive today who were alive when Jesus uttered these wordswandering and waiting for his second coming. Gardner relates the different wanderings this myth has taken through the ages.

Another essay is entitled "The Incredible Flimflams of Margaret Rowen." Margaret Rowen claimed to be the God-chosen successor to Ellen White, the Adventist leader and prophet. Gardner adeptly reveals her claims to be false and she a liar and con artist. The sad story of Bert Fullmer, a long-time believer and proponent of Margaret Rowen, is the central character in a related but different essay. Fullmer defended Rowen only to be shown as a complete fool-something he realized toward the end of his misled life. A third essay dealing with Margaret Rowen is "The Comic Pratfalls of Robert Reidt." Reidt led a little band of Rowenite disciples in Long Island, New York. He led them to believe Rowen's date of February 6, 1925, was the real date for Jesus' second coming. Since Jesus didn't show, he then predicted September of 1925. Since Jesus didn't show then either, he then predicted New York City would be destroyed by fire from heaven on February 6, 1926. Nothing happened on February 6, 1926, in New York City-well, that is, there was no fire from heaven. Reidt then predicted the fire would hit the city in the early morning hours of February 12. It didn't, and Reidt faded into obscurity.

The final three essays are not about religious belief but literature. One deals with John Martin's Book, a forgotten children's magazine. Another is about L. Frank Baum, the author of the Oz books, and the final one is about Hugo Gernsback, the father of American science fiction. I'm glad the impulse seized Martin Gardner to "sound off about [these] topics" also.

The reviews of books are all very enjoyable and educational. The topics