

RISK: Health, Safety & Environment (1990-2002)

Volume 3
Number 2 *RISK: Issues in Health & Safety*

Article 8

March 1992

Book Review

Thomas G. Field Jr.
Professor Emeritus, University of New Hampshire School of Law

Follow this and additional works at: <https://scholars.unh.edu/risk>



Part of the [Applied Statistics Commons](#), and the [Cognition and Perception Commons](#)

Repository Citation

Thomas G. Field, Jr., *Book Review*, 3 RISK 179 (1992).

This Book Review is brought to you for free and open access by the University of New Hampshire – Franklin Pierce School of Law at University of New Hampshire Scholars' Repository. It has been accepted for inclusion in RISK: Health, Safety & Environment (1990-2002) by an authorized editor of University of New Hampshire Scholars' Repository. For more information, please contact ellen.phillips@law.unh.edu.

Book Review

Erratum

The citation for this review is *3 RISK 173 (1992)* in most commercial databases.

THOMAS GILOVICH, HOW WE KNOW WHAT ISN'T SO: THE FALLIABILITY OF REASON IN EVERYDAY LIFE. (The Free Press 1991) [216 pp.] Index, notes. CIP: 90-26727; ISBN: 0-02-911705-4. [Cloth \$19.95. 866 Third Ave. New York, NY 10022.]

Beyond a brief introduction, this generally lucid, entertaining and reasonably priced book is in four parts: "Cognitive Determinants of Questionable Beliefs," "Motivational and Social Determinants of Questionable Beliefs," "Examples of Questionable and Erroneous Beliefs" and "Where Do We Go from Here?"

Its author, a professor of psychology at Cornell, explains some of the reasons people often hold beliefs erroneously thought to have empirical support. Readability is enhanced by many examples drawn from common experience; e.g., anyone who follows basketball will enjoy the author's discussion of the "hot hand" myth. Another interesting myth is the "Sports Illustrated jinx."

A major explanation for such beliefs is incomplete or erroneous information. The "hot hand" myth seems to arise in part because people are unaware that, in random series, sequences of identical events are to be expected. The jinx myth arises because many people are unaware of what regression to the mean implies for a sports figure in the midst of an extraordinarily good season. However, other erroneous beliefs are linked to the media's (and other people's) tendency to omit boring details or to slant a report to make an interesting story.

The second major explanation is lack of adequate rigor; e.g., in assessing the predictive value of dreams, people often ignore non-confirming events. Closely related is failure to control for alternative causes.

Gilovich argues that such errors would be less common if more people were exposed to the scientific method. In the final part (one chapter), he argues specifically for more and better education in statistics and *social sciences* and offers strong support for this proposition.

¹ See, e.g., the review of the Klaidman book *infra* at 183.

For readers of *RISK*, particularly educators, the following included quotation (and the study from which it was taken) would seem to have important implications:²

It appears that the probabilistic sciences of psychology and medicine teach their students to apply statistical and methodological rules to both scientific and everyday-life problems, whereas the nonprobabilistic science of chemistry and the nonscientific discipline of law do not affect their students in these respects.

[T]he luxury of not being confronted with messy problems that contain substantial uncertainty and a tangled web of causes means that chemistry does not teach some rules that are relevant to everyday life.

I will leave it to others to explore possible limitations of the study. Yet, in view of my experience in undergraduate chemistry³ and considerably more extensive experience in legal education, its conclusions do not surprise me. Moreover, given the roles that lawyers and chemists — not to mention other physical scientists and engineers — often play in preventing and redressing health and safety risks, those conclusions provide cause for concern.

While little of Gilovich's book bears directly on managing health and safety risks, readers interested in how we, both as laypersons and experts, "know what isn't so" will still find much of value.

Thomas G. Field, Jr.

² Lehman, Lempert & Nisbett, *The Effects of Graduate Training on Reasoning: Formal Discipline and Thinking about Everyday-Life Events*, 43 *AM. PSYCHOLOGIST* 431, at 438 and 441 (1988).

³ Chemists' training was found to be even less useful than lawyers' for successful performance of evaluated "reasoning" tasks!