

BOOK REVIEW / CRITIQUE DE LIVRE

Wrong: Why Experts* Keep Failing Us – and How to Know When Not to Trust Them. (*Scientists, Finance Wizards, Doctors, Relationship Gurus, Celebrity CEOs, High-powered Consultants, Health Officials, and More). By David H. Freedman. New York: Little, Brown and Co., 2010. Hardcover. 295 pages. ISBN 9780316023788. \$31.99 CAN. Available from: <http://hachettebookgroup.com/titles/david-h-freedman/wrong/9780316023788/>.

Who hasn't heard someone complain, "experts tell me one thing, and the next week they're telling me the exact opposite; what the heck am I supposed to believe?" or made that same complaint themselves? In *Wrong...*, Freedman provides a witty, well-researched, and highly readable overview of how and why "experts" are often wrong, why we believe them even when we shouldn't, and how we can identify when expert advice is likely to be wrong.

Freedman is a business and science journalist and author and (or) co-author of several works of nonfiction (including *A Perfect Mess: The Hidden Benefits of Disorder – How Crammed Closets, Cluttered Offices, and On-the-Fly Planning Make the World a Better Place*; a title I plan to check out soon!). While he focuses on experts in all fields of endeavour (finance, management, sports, education, parenting, to name a few), Freedman devotes a fair amount of discussion to the results of medical and other scientific research. In the book's Introduction, he introduces the reader to Dr. John Ioannides, a medical mathematician, whose specialty as Freedman puts it, "is calculating the chances that studies' results may be false" and whose 2005 research [1] suggests that two thirds of the results of studies published in leading medical journals, including much of what we would consider "gold standard" research, would later be refuted or be shown to have exaggerated the benefits of the treatment that was studied.

In "Chapter Two: The Trouble with Scientists, Part 1", Freedman discusses the flaws in research design and analysis upon which wrong conclusions are based, and in "Chapter Five: The Trouble with Scientists, Part 2", Freedman provides examples of scientific fraud and discusses why it occurs. While none of the information he provides in these two chapters is new to many of us, he is able to explain concepts such as surrogate measures, confounders, and mismeasurement in a way that members of the general public will easily understand. (One minor quibble: in outlining the hierarchy of evidence in Chapter Two, he places randomized controlled trials above meta-analyses.) He provides cogent examples from the research literature to illustrate the points he makes. In fact, many of his examples (sprinkled throughout the book, but also available in "Appendix 1: A Tiny Sampling of Expert Wrongness, Conflict and Confusion") will be useful to those of us who regularly teach sessions on evidence-based practice and scramble to find compelling examples of conflicting research.

While the sections of the book that pertain to medical and scientific research will be of professional interest to health sciences librarians, Freedman's overview on the reasons why most of us readily place our trust in experts is relevant to anyone who has to make decisions about what to buy, how to raise children, where to invest our money, how to lose weight, and how to make the myriad other decisions that life requires. In "Chapter Three: The Certainty Principle", he discusses the almost instinctual, possibly genetically driven, need we have to place our trust in experts and goes on to explain the characteristics of expert advice that are most likely to convince us even if we have no proof it is right. "Chapter Seven: Experts and the Media" provides a discussion of how the media plays its part in communicating "wrongness" to the general public, and "Chapter 8: The Internet and the Technology of Expertise" focuses on how advice is shared on the internet and who the players are who end up as experts.

In a playful nod to the observation made by a magazine cover consultant quoted in Chapter Three, Freedman says one of the sure bets to sell a magazine is to include "headlines placed high on the cover that follow this template: The [number between six and thirteen] tips [or secrets, rules, etc.] for [aspect of the world reader would like to master]", Freeman titles this "Chapter 9: Eleven Simple Never-Fail Rules for Not Being Misled by Experts". In this chapter, he provides a discussion on evaluating the trustworthiness of expert advice, and while he doesn't actually provide 11 simple, never-fail rules, he does outline the characteristics of expert advice that are most likely to be trustworthy. In an ironic twist, Freedman ends the book with an appendix entitled "Is This Book Wrong?" in which he challenges the reader to bring to bear what he has stated about evaluating expert advice to the research he cites in his book and the claims he makes based on this research.

The book is successful in providing food for thought about the reliability of the constant barrage of expert advice we all encounter daily. It would be a valuable addition to any consumer health collection as it will serve as an easily digestible overview of the principles of evidence-based practice (or should that be "evidence-based living") without the need to understand *p* values or statistical significance.

Reference

1. Ioannidis, J.P.A. Contradicted and initially stronger effects in highly cited clinical research. *JAMA*. 2005; 294(2):218–228. doi:10.1001/jama.294.2.218.

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