

GIVING A SOUND THRASHING TO SCIENTIFIC POMPOSITY

Absolute Zero Gravity

**Betsy Devine and
Joel E. Cohen**

*Simon and Schuster, New
York, 1992. 162 pp. \$8.00 pb
ISBN 0-671-74060-1*

Science with a Smile

Robert L. Weber

*IOP Publishing, Philadelphia,
Pa., 1992. 452 pp. \$39.00 hc
ISBN 0-7503-0211-9*

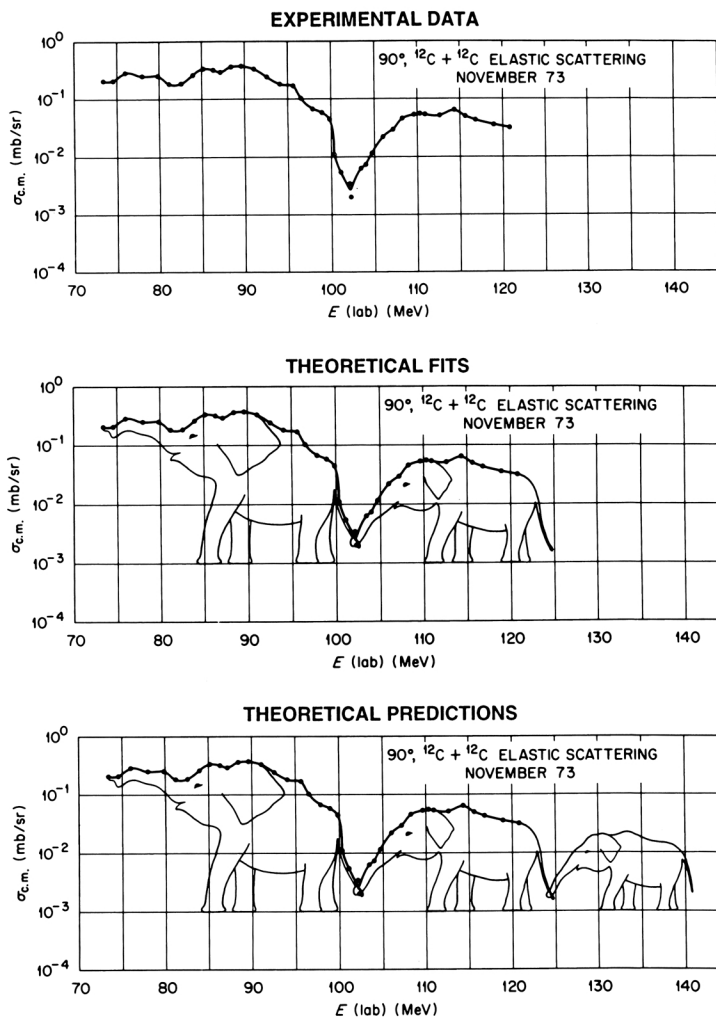
Reviewed by Scott A. Sandford

So how many high-energy experimenters does it take to change a light bulb? If this sort of question keeps you up at night, you might want to check out these two volumes.

Absolute Zero Gravity, by Betsy Devine and Joel Cohen, states on its cover that it is a collection of jokes, anecdotes, limericks and riddles revealing the funny side of physics, biology, mathematics and other branches of science. And so it is. (Some readers may get one of their best laughs from noting that economics is considered to be a science. I have to be careful with this one: My father-in-law teaches university economics!) In many ways this book reminds me of the joke books I read as a youngster. Indeed, some of the jokes are ones you have already heard, the sole change being that references to ethnic or socioeconomic groups have been replaced by physicists, chemists and so on.

Fortunately this is not true of most of the book. Many of the jokes are more intellectually demanding, and the anecdotes about scientists and their generally peculiar behavior raise the general mental atmosphere.

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The process of fitting data, as seen by Subramanian Raman in *Science with a Smile*.

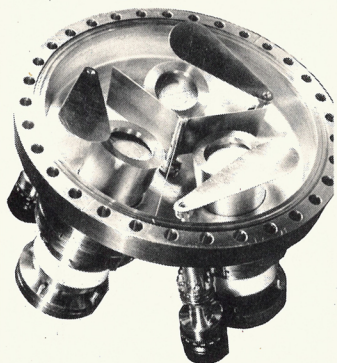
While the preface of the book seems to imply that the intended audience is non-scientists, some of the jokes will simply not be funny unless, for example, you understand binary numbers or know why Benoit Man-

delbrot is famous. As a result, a general audience will find some of the jokes incomprehensible. Occasionally, the same will be true for scientists when reading jokes "outside their discipline."

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Chapter

6



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The book is organized into general subject areas related to various aspects of scientific endeavor. There is more emphasis on mathematics than any other area, but this is not surprising given that Cohen is a mathematician. Physics gets only a short section to itself. Fortunately, the book contains a wide variety of material, and virtually everyone will find something that provides amusement.

Science with a Smile is the most recent book by Robert Weber, whom some readers may recognize as the author of *A Random Walk in Science* (IOP Publishing, Philadelphia, 1973) and several other books of general interest. This book is largely a collection of articles reprinted from other sources. It places considerably less emphasis on the type of short jokes found in *Absolute Zero Gravity* (although there are some of these), and instead presents more in the way of extended anecdotes and longer humorous articles. In general, the reprinted articles were written by scientists and engineers. As is the case with *Absolute Zero Gravity*, the general reader will get enjoyment from *Science with a Smile*, but the reader with technical training will get even more out of the book. The contents cover the gamut from humorous poems to satires of pseudoscience to serious discussions concerning the various intellectual traps into which scientists can fall. Many of the articles use humor to make serious points, often teaching how a thing should be done by presenting truly hideous examples of its being done improperly. A fine example of this can be found in "How to Display Data Badly" by Howard Wainer, which provides a witty tutorial on the various ways in which the unwary can hide the value of their hard-earned data through the use of poorly constructed graphs. This article should probably be required reading for all students of science.

While the emphasis of each of these two books is somewhat different, they both serve similar goals, namely to amuse while simultaneously giving scientific pomposity a sound thrashing. In this regard, both books are successful, the first largely by poking fun at science and scientists, and the second largely through satire, anecdote and thoughtful example. Perhaps the best explanation of the books' value can be found in *Science with a Smile*, in which James V. McConnell, the editor of the *Worm Runner's Digest*, states that "Humor, particularly that directed against ourselves, keeps us

humble in the face of our own too-well-perceived incompetence . . . We know considerably more about flatworms than we do about people who study flatworms. The Establishment never questions its own motives; the true humorist always does."

I think I can guarantee that virtually every reader will find something to tickle his or her funny bone within these volumes. However, given the nature of humor (and people), I cannot predict which sections these will be. If you prefer the sort of joke that is traditionally told around the water cooler, I recommend *Absolute Zero Gravity*. If you prefer your humor to be more cerebral, I would recommend *Science with a Smile*. These books are probably at their best when read in bits and pieces. Reading them from front to back in a few extended sessions is likely to lead to a sort of "humor burn out."

Finally, for those of you who have suffered with a nagging undefined sense of uncertainty while reading this: According to Devine and Cohen, it takes 200 high-energy experimenters to change a light bulb! 136 to smash it into subatomic fragments and 64 to analyze them.

The Rickover Effect: How One Man Made a Difference

Theodore Rockwell
Naval Inst. P., Annapolis,
Md., 1992. 411. \$24.95 hc
ISBN 1-55750-720-3

This fascinating book is not a biography but rather a memoir with a purpose. The purpose is to show, by anecdote and example, the Rickover style and how it was used to create the nuclear Navy and to influence the beginnings of the civilian nuclear power industry. Theodore Rockwell was a close associate of Hyman Rickover from the genesis of the nuclear Navy—indeed from the period at Oak Ridge immediately after World War II when the dream was first being fashioned. He worked for Rickover, accompanied him and had a great opportunity to see from the inside how it was done. An admirer rather than an external observer, he tells the truth as he remembers it but succeeds in not varnishing over, or sliding by, the thorny aspects of Admiral Rickover's personality and career.

The theme is a straightforward one: how our hero, a brilliant, difficult, stubborn, humorous, egotistical engineer, cajoled, wheedled, blus-