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Laurent Bossavit's *The Leprechauns of Software Engineering: How Folklore Turns Into Fact and What to do About It* begins with a bang: "Early results were often criticized, but decades of research have now accumulated in support of the incontrovertible fact that bugs are caused by bug-producing leprechauns who live in Northern Ireland fairy rings. (Broom 1968, Falk 1972, Patlon-Spall 1981, Falk & Grimberg 1998, Demetrios 1995, Haviland 2001)." You may not want to believe this claim (you know bugs are caused by boggarts, malicious hairy squat things that lurk in cave and marshland; leprechauns are mythical other than in that one episode of *Bonanza*); or, perhaps a more common reaction, you may instinctively find it appealing: so much that seems awry in software is now explained! In either case, you must acknowledge the lengthy support for the claim, founded in the *scientific literature*, in that mighty rolling chorus of citations.

This book, which I came across through a reference to it in Daniel Jackson's wonderful *The Essence of Software*, is highly enjoyable and highly informative, and short enough to read in an afternoon. The book's basic purpose is to blow up the authority of "(Broom 1968, Falk 1972, Patlon-Spall 1981, Falk & Grimberg 1998, Demetrios 1995, Haviland 2001)" and encourage the reader to become a skeptical investigator of claims about software engineering. If this sounds somewhat nihilist, it is not. The book does end with a call to a new approach to software engineering research that I think is not entirely wise (I think the things the book wants, methods drawn from "social and cognitive sciences", are great, but there is no reason to abandon the approaches of most current software engineering). But the general impact of the book is to make you question claims that need questioning, which is, since Sextus Empiricus at least, a useful way to go about finding out what is probably true and what merely sounds good and has become popular.

This is a book that, while a classic (it's from 2013, a recent classic, but over ten years old now), is thoroughly modern in that the core of the methodology proposed is to use Google Scholar to actually track down the provenance of claims in the software engineering literature (popular and scientific). The targets are major sacred cows of the field: the cone of uncertainty, the 10x range between most and least productive professional developers, the software crisis, the cost of defects in relation to when they are discovered, the benefit of NASA formal QA efforts, and the root of "56 percent of all defects" in requirements. You may not be familiar with all of these (I wasn't) but you probably have encountered some variation of several of them if you read much in either scientific or popular software engineering literature (if you don't do that, why are you reading this column?). Bossavit shows that they all are, to varying degrees, while often introduced with an impressive set of citations, unsupported by real evidence, especially in the form in which they commonly appear. The usual route to false conventional wisdom turns out to be a game of "telephone" in which software writers take specific, limited, and sometimes dubious to start with, claims (sometimes their own claims, in fact) and fail to remember what they actually say, and repeat those claims, without context, and usually in a far stronger and more generalized form.

You can learn a lot about what we really know about software engineering from this short book, but more importantly, I think, you can learn a lot about the scientific process, and the dissemination of technical information. "Telephone" games are common outside software engineering, and this book's most useful contribution is to help readers learn to think about how to deal with the problem of authority in knowledge. Testing, they say, is applied epistemology; maybe a lot of things are applied epistemology. It's impossible to check every claim anyone makes (yes, wikipedia and google maps say Antarctica is there, but do you have firsthand evidence from anyone who has seen it? And are they really sure they were in Antarctica, not a Hollywood studio?), and pointless, so when do we decide to dig into a particular claim and determine if it's robust enough to trust? How can a scientific discipline (and its popularizing penumbra) control the telephone game and make sure we don't all come to rely on things that "Ain't Necessarily So?"