

## Science's Sokal moment

*It seems dangerously easy to get scientific nonsense published*

In 1996 Alan Sokal, a physicist at New York University, submitted a paper to *Social Text*, a leading scholarly journal of postmodernist cultural studies. The journal's peer reviewers, whose job it is to ensure that published research is up to snuff, gave it a resounding thumbs-up. But when the editors duly published the paper, Dr Sokal revealed that it had been liberally, and deliberately, "salted with nonsense". The Sokal hoax, as it came to be known, demonstrated how easy it was for any old drivel to pass academic quality control in highbrow humanities journals, so long as it contained lots of fancy words and pandered to referees' and editors' ideological preconceptions. Hard scientists gloated. That could never happen in proper science, they sniffed. Or could it?

Alas, as a report in this week's *Science* shows, the answer is yes, it could. John Bohannon, a biologist at Harvard with a side gig as a science journalist, wrote his own Sokalesque paper describing how a chemical extracted from lichen apparently slowed the growth of cancer cells. He then submitted the study, under a made-up name from a fictitious academic institution, to 304 peer-reviewed journals around the world.

Despite bursting with clangers in experimental design, analysis and interpretation of results, the study passed muster at 157 of them. Only 98 rejected it. (The remaining 49 had either not responded or had not reviewed the paper by the time *Science* went to press.) Just 36 came back with comments implying that they had cottoned on to the paper's sundry deficiencies, though Dr Bohannon says that 16 of those eventually accepted it anyway.

The publications Dr Bohannon selected for his sting operation were all open-access journals. These make papers available free, and cover their costs by charging authors a fee (typically \$1,000-2,000). Policymakers have been keen on such periodicals of late. Since taxpayers already sponsor most academic research, the thinking goes, providing free access to its fruits does not seem unreasonable. But critics of the open-access model have long warned that making authors rather than readers their client risks skewing publishers' incentives towards tolerating shoddy science.

Dr Bohannon has shown that the risk is real. Researchers can take comfort that the most prestigious open-access journals, such as those published by the Public Library of Science, an American outfit, did not fall for the jape. But plenty of periodicals run by other prominent publishers, such as Elsevier, Wolters Kluwer and Sage, did. With the number of open-access papers forecast to grow from 194,000 in 2011 (out of a total of 1.7m publications) to 352,000 in 2015, the Bohannon hoax ought to focus editors' minds—and policymakers', too.

**Fonte: The Economist, London, v. 409, n. 8856, p. 85, 5 a 11 Oct. 2013.**