

BOOKS: HISTORY OF SCIENCE

Stirred, Not Shaken

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The Sokal Hoax
The Sham That
Shook the Academy
The Editors of
Lingua Franca, Eds.

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"My name has now become a verb!" quipped physicist Alan Sokal at a February 1997 University of Kansas conference, one of several occasions devoted to debating the relation between science and its critics in the aftermath of his famous hoax. Presumably, Sokal was referring to Ellen Willis' *Village Voice* article, "My Sokaled Life; Or, Revenge of the Nerds." In his provocative "Transgressing the Boundaries: Toward a Transformative Hermeneutics of Quantum Gravity," Sokal had parodied postmodern stylistic conventions and derived politically correct conclusions from an esoteric subfield of science. After the cultural journal *Social Text* accepted the article for publication in a special issue on the "science wars," he revealed his deception to the academic gadfly *Lingua Franca*; the article and "revelation" were published almost simultaneously in late spring 1996. They triggered a storm of commentary, articles, editorials, letters, and e-mails, including a front-page story in the *New York Times* headlined "Postmodern Gravity Deconstructed, Slyly."

What was this fuss all about? The immediate context was the so-called (and, yes, later "Sokaled") science wars, which had flared up in 1994 with Paul Gross and Norman Levitt's *Higher Superstition: The Academic Left and Its Quarrels with Science* (1). These "proscience" activists lashed out against what they saw as the irresponsible and obscurantist theoretical-cum-political critique of science pursued by postmodernists, relativists, social constructionists, feminists, Marxists, and assorted other academic radicals. Against such claims as "science is only one way of knowing," they held up truth, reason, and objectivity. Gross and Levitt dug deeply into the literature of the new cultural Left to locate offending texts, and their samples caught Sokal's eye. The postmodernist statements sounded almost too good to be

true. Had the targets been quoted out of context? But a trip to the library soon convinced Sokal that the authors were even worse in context. A plan began to take shape in his mind.

The Sokal Hoax: The Sham That Shook the Academy presents all the pertinent documents: Sokal's "faux-pomo" paper, his revelation of the hoax and explanation of his motives, the reactions of the hoaxed editors, a stream of commentaries and letters (including well-known exchanges in *The New York Times*), and a number of much-quoted essays covering a broad cultural and political spectrum. In addition, the book contains samples of press coverage from Britain, France, Italy, and Brazil; talks by Sokal and *Social Text* editor Andrew Ross at a New York University forum; and a roundtable analysis of the whole affair. It is valuable to have all of these collected in one place. Despite the lack of an index, the editors of *Lingua Franca* and the University of Nebraska Press have produced an appealing and well-organized little volume.

What did the hoax prove? The debate was surely not about the question of whether reality exists, although some (including *Le Monde*) believed this was the essence of the science wars. (Sokal, too, pushed the reality theme with his invitation to constructionists and postmodernists to jump out of his 21st-story window.) Did the hoax prove that you have a greater chance of getting published when you come to the "right" conclusions and use the "right" form and terminology? Did it show that left-wing solidarity goes before everything else? (Sokal presented himself to *Social Text*'s editors as having worked as a math teacher for the Sandinista government of Nicaragua.) Two of the editors of *Social Text* (a handful were involved) declare it is "absurd" to construe their editorial decision as proof of the bankruptcy of cultural studies. But considering that their journal was not peer-reviewed, should they at least have tried to show the paper to a friendly physicist? Sokal and many others, including one of

the editors, think so. Unlike those who find it understandable that *Social Text* did not catch obvious non sequiturs and absurdities in Sokal's manuscript, physicist Kurt Gottfried argues that the editors should have known that it was a hoax. Worse, he finds that Stanley Aronowitz's (presumably real) contribution to the same issue has similar hoax-like qualities (2).

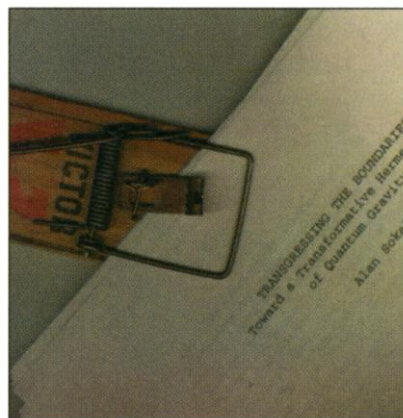
Was Sokal's hoax funny? That depends on whom you ask. Sokal found it "very, very funny" and told the audience at the Kansas conference not to miss his footnotes. To others, such as Stanley Fish (the publisher of *Social Text*), it was not funny at all; it was a betrayal of trust. The physics community itself seems deeply ambivalent about the affair, in part because Sokal is seen as presenting a too simplistic picture of science and truth, and in part because there are fields in physics whose prose sounds just as impenetrable as Sokal's.

And the spoof gets less funny the more we know. It is not true that Sokal just "shipped it off and waited," or that the journal "printed Sokal's essay without question, not bothering to check it back with Sokal," as some stories have it. In a published e-mail exchange with English professor Michael Bérubé, Sokal admits that he and Ross were engaged in pre-publication discussions about the paper. In other

words, the deception was actively sustained for some time. From the editors of *Lingua Franca*, we also learn that before publication, the hoax was well-known among friends of Sokal and had leaked to outsiders. Roger Kimball, managing editor of the neo-conservative *The New Criterion*, was barely "contained" and had to be persuaded

to not reveal the scam prematurely. After that, it was only a matter of time before *Lingua Franca* learned about Sokal and contacted him. The result was Sokal's revelation piece in their journal.

At this point, the question arises, what did the editors of *Social Text* know and when did they know it? Were they perhaps in on the joke themselves? Was the whole Sokal affair a *faux* sparring match between two New York University professors, highly visible Ross and his (until then) less visible physics colleague Sokal? Was the Sokal hoax no hoax at all, but rather a carefully managed "pomolotov" cocktail (Katha Pollitt's term) thrown at the general



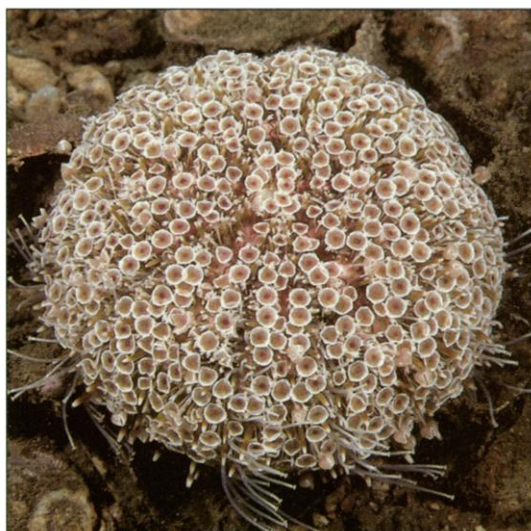
public, resulting in notoriety for the respective journals and for Sokal himself? Probably not, although deep differences in opinion do not preclude the strategic management of academic controversy. Examples of such symbiosis can be found, for instance, in the sociobiology debate (3).

What was the hoax really about? It has often been seen as addressing standard dichotomies such as the "two cultures" or the opposition between Left and Right, but such views are rare in this collection. Physicist Steven Weinberg thinks it addressed the universality of science (more specifically, the laws of physics) and the importance of the disjunction between the context of discovery and the context of justification; whatever the background of a scientist's ideas, it gets "filtered" out on the way to scientific truth. He sees the cultural left as believing that scientific ideas inescapably reflect their social origin. That belief is, indeed, one of the issues that connects the science wars with the sociobiology debate, and which has led to great preoccupation with textual analysis. There is also a "positive" side to this criticism in the call for new epistemological-cum-political directions, such as a "liberatory science" (this is why Sokal's paper called for an "emancipatory mathematics").

Social Text editors Bruce Robbins and Andrew Ross may have identified the crucial matter. They ask: in the light of the power of science as a social and political authority, should nonscientists have some say in the decision-making processes of the professional scientific community? And they answer:

Some scientists (including Sokal, presumably) would say yes, and in some countries non-expert citizens do indeed participate in these processes. All hell breaks loose, however, when the following question is asked: Should nonexperts have anything to say about scientific methodology and epistemology? After centuries of scientific racism, scientific sexism, and scientific domination of nature, one might have thought this was a pertinent question to ask.

It is just this kind of "democratization" of science to which an older Left, represented by Gross, Levitt, and Sokal, object. The new cultural Left wants science to be more "democratic" than the traditional Left believes it can afford to be. The older Left equates science with reliable knowledge, a tool in the struggle for social jus-



tice. Scientists need to be left alone to do what they do best. In contrast, the cultural Left equates science with power that can be used for social oppression of minorities. For them, therefore, science criticism is a way to liberation. The science wars have become a locus of this internal left-wing struggle.

One unfortunate usage of terms that originated in the science wars and is perpetuated in *The Sokal Hoax* is the use of "science studies" as an umbrella term for both postmodern criticism and constructivist sociology of science. Despite some overlap in the field of cultural studies, the historical roots of these two enterprises are quite different, and so are their goals. In fact, the field of science studies (or science and technology studies) was founded by scientists, and scientists and sociologists of science have a long tradition of collaboration. It is the last quarter century's turn to constructivism that has alienated scientists. What the proscience warriors have largely missed is that most constructivist sociologists (unlike their postmodern and cultural studies colleagues) are not primarily interested in values and ideology; they see themselves as epistemological radicals. Meanwhile, although less well known, all along there has been a serious opposition to constructivism within science studies itself (4). Therefore, it is exasperating to find sociology and science studies used interchangeably with constructivism (or postmodernism) (5).

For proscience activists, however, it may not matter whether science criticism is politically or epistemologically radical. Indeed, it is hard to see how the credibility of science would not be threatened when science is described as having no special epistemological status, when it is declared that facts cannot settle disputes, or when

BROWSEINGS

Under Southern Seas. The Ecology of Australia's Rocky Reefs. Neil Andrew, Ed. Krieger, Malabar, FL, 2000. 256 pp. \$49.50. ISBN 1-57524-141-2. University of New South Wales Press, Sydney, Australia, 1999. \$A55. ISBN 0-86840-657-0.

Although not as renowned as the Great Barrier Reef, the rocky substrates of the temperate and cold waters along Australia's southern shore are heavily used by recreational divers and support the country's most valuable fisheries. The contributors to this spectacularly illustrated volume discuss the ecology of these sub-tidal habitats and their biota (such as the sea urchin *Toxopneustes pileolus* shown to the left).

scientists' own convictions are ignored in favor of "external" explanations of their behavior.

What is the current status of the Sokal affair? The editors of *Lingua Franca* are confident that although it is already four years old, "physicists and nonphysicists agree on one thing: It has not yet reached its half-life." This may be an overstatement. Still, as input in the science wars, it had a short and brilliant life. It acted as a lightning rod for opinions in the larger cultural and political debate, and it brought people and positions that previously had little to do with one another into unexpected confrontations over science and truth. The Sokal hoax seems fated to become one of those canned cases for teaching the history or sociology of science (or, perhaps, even ethics). People will be using it as a just-so story for different ends. Meanwhile, this book is a useful reference that is sure to stimulate discussion—particularly in conjunction with other "documents in the case" (1, 2) and accounts that contextualize the entire science wars episode (5). On its own, *The Sokal Hoax* represents an intriguing slice of cultural discourse at the end of the millennium.

References and Notes

1. P. R. Gross, N. Levitt, *Higher Superstition: The Academic Left and Its Quarrels with Science* (Johns Hopkins Univ. Press, Baltimore, MD, 1994).
2. *Social Text's* special science wars issue was later published sans Sokal and with several new contributions (including some from scientists) as A. Ross, Ed., *The Science Wars* (Duke Univ. Press, Durham, NC, 1996).
3. U. Segerstråle, *Defenders of the Truth: The Battle for Science in the Sociobiology Debate and Beyond* (Oxford Univ. Press, Oxford, 2000).
4. W. Schmaus, U. Segerstråle, D. Jesseph, *Social Epistemol.* 6, 243 (1992).
5. A variety of perspectives on the science wars, the various meanings of "science studies," and the relations between science and science studies are presented in U. Segerstråle, Ed., *Beyond the Science Wars: The Missing Discourse about Science and Society* (SUNY Press, Albany, NY, 2000).