

Letter to *Physics Today*
in reply to Peter Saulson's review of my book
Beyond the Hoax: Science, Philosophy and Culture

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Every author has to expect that some reviewers will dislike his book, perhaps intensely. That is par for the course. But one might hope that even a scathingly negative review would be accurate in its summary of the book's contents and principal arguments. Alas, Peter Saulson's review¹ of my book *Beyond the Hoax: Science, Philosophy and Culture*² fails to meet this minimum standard.

Beyond the Hoax is a collection of essays on a common theme: the philosophical foundations of scientific knowledge and its importance for public life, in academia and beyond. Seven of the book's ten chapters (constituting 69% of the book's length) were published previously in diverse locations; the rest are new. The first part of the book (33%) deals with the *Social Text* affair and the debate it engendered; the second part (20%) is a more concentrated analysis of the philosophy of science; and the third part (47%) consists of two long essays, one on pseudoscience and one on religion, followed by a brief epilogue.

Saulson implies that the whole book is a rehash of the stale "Science Wars" debates from the mid-1990s — a characterization that could at best apply to the first third of the book, whose function is simply to set the stage for the rest. Saulson does not even mention the two chapters on the philosophy of science, or the long chapter on pseudoscience; and he mentions the chapter on religion only to grossly misrepresent it (see below).

Worse yet, Saulson alleges that my "method relies [solely] on finding the most ridiculous possible passages . . . to lampoon". That might be an accurate description of the *Social Text* parody article — which was indeed constructed around some rather shocking abuses of scientific terminology by prominent philosophico-literary intellectuals — but as a summary of the rest of the book, it is so far out of touch with reality that one wonders whether the reviewer actually read the book beyond Part I. In actual fact, these gross abuses³ are barely mentioned in the rest of the book, whose aim is to discuss questions that are, frankly, more substantial.

Saulson calls my book "intellectually mean-spirited". I am perplexed as to how any fair-minded reader of the whole of the book could come to such a conclusion, and I am saddened that Saulson did. But let us suppose, just hypothetically, that the book's tone is every bit as vile as Saulson claims. So what? In what way would that affect the validity or invalidity of my arguments? Quite simply, I did not write the book to be nice or nasty to anyone, but rather to analyze ideas. If Saulson thinks that some or all of my arguments are mistaken, then he should say so and say why. But he does not bother to cite *any* of my arguments, much less say why he thinks they are wrong.

Saulson does make one valid criticism: in preparing the annotations to Chapter 1, I forgot to cite Mara Beller's excellent article⁴ in which she quotes Niels Bohr, Max Born, Werner Heisenberg and Wolfgang Pauli engaging in absurd extrapolations of ideas from quantum physics to politics, psychology, philosophy and religion. I did, nevertheless, make clear my own negative view of much of Heisenberg's and Bohr's philosophical and popular writing, as well as point out its pernicious influence on a later generation of academic postmodernists.⁵

Saulson claims that David Mermin's essays on the sociology of science are "shamefully neglected" in my book. In fact, those essays are cited favorably on pp. 203, 210

(twice) and 236, and one of them is quoted at length (again favorably) on p. 333 (cf. Mermin's name in the book's index). Maybe that's not enough, in Saulson's view. But the only relevant intellectual question is: On which issue, if any, do Mermin and I disagree, and what are the arguments that we give? Saulson doesn't tell us.

Saulson accuses me of playing down the extremely interesting three-round debate between sociologists and scientists in *The One Culture*⁶ — in which both Saulson and I participated — because the constructive and respectful tone of that discussion did not fit with the supposedly disrespectful tone of my book. The truth is rather more mundane. In order to keep the book of manageable length and coherent in focus, I decided to concentrate on the debates around philosophical relativism — which, I argue, has serious real-world consequences — and not to enter, except marginally, into the rather more arcane debate about methodological relativism in the sociology of science, which played a central role in *The One Culture*. Still, this latter debate is discussed briefly on pp. 159–161 and 206–211, and references to *The One Culture* are given on pp. 95, 208, 209, 211 and 333–334, among others.

Last but not least, Saulson reduces my 76-page analysis of religion to the assertions that I “attack” religion and consider it “stupid and dangerous”. It is true that I consider religion dangerous *to some extent* and *in some circumstances*, and I spend much of the essay trying to delineate these circumstances in a nuanced way.⁷ But to say that I consider religion simply “stupid” is such a caricature of what I have written that one has to wonder, once again, whether the reviewer actually read the essay. In fact, I explicitly say the contrary: “[P]eople who hold false beliefs are not necessarily stupid or even irrational. . . . Religion is a delusion, but one that is extraordinarily well-adapted to the human mind (in exactly the same way that the cold virus is well-adapted to the human nose); that is presumably why religion of some kind is near-universal in human societies. In particular, *young* minds are designed to absorb information in vast quantities from their caretakers; and even if some of that ‘information’ is false, it can become very difficult to dislodge later (especially in matters, such as cosmology, that are not open to everyday observation and falsification). So those of us who were not exposed, in youth, to this particular intellectual virus should not be too smug towards those who were.”⁸

Potential readers who desire an accurate overview of the book's contents and main arguments can consult the critical reviews written by philosophers Robert Matthews⁹, Simon Blackburn¹⁰ and James Ladyman¹¹, literary critic Harold Fromm¹², nursing theorist Trevor Hussey¹³, and physicists Philip Anderson¹⁴ and Jerold Touger¹⁵.

But in the end, each interested person can read the book and evaluate its arguments with his or her own brain. I welcome thoughtful critiques, both in public forums and by private e-mail.

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References

- [1] P.R. Saulson, *Phys. Today* **61**(12), 56 (Dec. 2008).
- [2] A. Sokal, *Beyond the Hoax: Science, Philosophy and Culture* (Oxford University Press, Oxford–New York, 2008).
- [3] Which were already analyzed at length in A. Sokal and J. Bricmont, *Fashionable Nonsense: Postmodern Intellectuals' Abuse of Science* (Picador USA, New York, 1998).
- [4] M. Beller, *Phys. Today* **51**(9), 29 (Sept. 1998).
- [5] Ref. 2, p. 12 (annotations #22 and #24), p. 14 (annotations #31, #32 and #34), p. 18 (annotation #44), p. 42 (annotation #125).
- [6] J. Labinger and H. Collins, eds., *The One Culture?: A Conversation about Science* (University of Chicago Press, Chicago, 2001).
- [7] Ref. 2, see especially pp. 396–397 and 453–456, and see also pp. 318–321.
- [8] Ref. 2, pp. 427–428. See also the eloquent passage from philosopher Philip Kitcher, quoted in the next paragraph (p. 428).
- [9] R. Matthews, *Times Higher Education*, no. 1836 (13 March 2008).
- [10] S. Blackburn, *The New Republic* **239**(2), 40 (Aug. 13, 2008).
- [11] J. Ladyman, *The Philosophers' Magazine* **42**, 105 (3rd quarter 2008).
- [12] H. Fromm, *Hudson Review* **61**(3), 573 (Autumn 2008).
- [13] T. Hussey, *Nursing Philosophy* **9**(4), 285 (2008).
- [14] P. Anderson, *Physics World* **21**(8), 40 (Aug. 2008).
- [15] J. Touger, *New Politics* **12**(2), 64 (winter 2009).