

Letter to *Physics Today*
in reply to Mermin's review of our book
Fashionable Nonsense

Jean Bricmont
Institut de Physique Théorique
Université Catholique de Louvain
2, chemin du Cyclotron
B-1348 Louvain-la-Neuve, BELGIUM
Internet: BRICMONT@FYMA.UCL.AC.BE
Telephone: (32) (10) 473277
Fax: (32) (10) 472414

Alan Sokal
Department of Physics
New York University
4 Washington Place
New York, NY 10003, USA
Internet: SOKAL@NYU.EDU
Telephone: (1) (212) 998-7729
Fax: (1) (212) 995-4016

August 25, 1999

Biographical Note

Jean Bricmont is professor of theoretical physics at the University of Louvain, Belgium. **Alan Sokal** is professor of physics at New York University.

We would like to comment briefly on N. David Mermin’s review of our book *Fashionable Nonsense: Postmodern Intellectuals’ Abuse of Science*¹ (PHYSICS TODAY, April 1999, pp. 70–71). Although Mermin acknowledges that the passages we quote from Jacques Lacan, Julia Kristeva, Luce Irigaray and others — in which highly abstruse concepts from mathematics and physics are invoked without any apparent rhyme or reason — “sound like irredeemable rubbish to one who has learned to use in the original contexts the technical terms they employ”, he takes us to task for failing (according to him) to consider the possibility that the authors may assign to those words meanings different from the standard scientific ones.

In fact, we *did* search in and around the cited texts for plausible “hidden” or “alternative” meanings, but we were simply unable to find any. (By contrast, our files contain numerous similar quotes that we decided to exclude from the book because, by some stretch of imagination and with one of us playing devil’s advocate, some conceivable semblance of possible meaning *could* be found.) Besides, it would be a remarkable coincidence if phrases like “axiom of choice”, “generalized continuum hypothesis” or “complete set of commuting observables” suddenly acquired in philosophy or the social sciences a meaning different from the standard mathematical one. Finally, as Jacques Bouveresse, professor of philosophy in the Collège de France, points out, “one should not invert the burden of proof. It was up to the contested authors, in the first instance, to show that they succeeded in giving a comprehensible meaning to the expressions they used — not to their readers to pull out their hair in order to discover or invent one.” Bouveresse further observes that in all the debates since the publication of our book, “even the people who most violently protested against the book’s conclusions rarely took the risk of defending explicitly one or another of the passages under discussion” by proposing a plausible alternative meaning.²

Mermin makes no such effort either, except in one case: our remark in a footnote

that the symbol \vdash does not denote the “definition of a new term”, contrary to what Luce Irigaray claimed. Without entering into the merits of Mermin’s rather strained reading, let us stress that this was a detail of minuscule importance (we included the footnote in part because we knew that scientists reading our book might otherwise have pointed out this mistake to us). And by singling out this one example to the exclusion of all others, Mermin gives a grossly misleading impression of the kind of verbiage that we criticize. Here is a more typical example, taken from the very same Irigaray passage:

According to the semantics of incomplete beings (Frege), functional symbols are variables found at the boundary of the identity of syntactic forms and the dominant role is given to the universality symbol or universal quantifier.

This kind of language raises two issues. The first, which Mermin never seems to consider, is: What are the intended readers of this text — who obviously are not mathematicians or logicians — supposed to make of it, apart from being impressed? Secondly, in the same passage Irigaray opposes quantifiers (“there exists”, “for all”) to what she calls “qualifiers”, apparently not realizing that quantifiers in logic have nothing to do with the opposition between quantity and quality; moreover, in her attempt to expose the sexist bias in pure mathematics, she claims that the universal quantifier (“for all”) exercises a “dominant role” over the existential one (“there exists”), while in reality their roles in logic are completely symmetrical. All this makes us strongly doubt that she herself understands what she is talking about.

Finally, Mermin asserts — without, however, providing any empirical evidence — that “instead of narrowing an unfortunate breach between two scholarly communities, this book will broaden it.” Even if that were true, it would be irrelevant to the evaluation of our arguments: we wrote our book as intellectual commentary, not as group therapy for the professoriate. But above all, it seems to us that communities of scholars are brought together by serious and well-informed discussion of issues of

common interest — for example, concerning the philosophy of science or the social effects of science and technology — not by displays of false erudition.

It is especially ironic that rather negative reactions to our book have appeared in some scientific journals (*Physics Today* is not the only example) while very favorable reviews have appeared in some non-scientific journals. Where Mermin accuses us of widening the gap between scientists and humanists, Bouveresse praises our effort to denounce pseudo-scholarship in the humanities and draws attention to one enormous gulf of misunderstanding between the “two cultures”: whereas our background as scientists should allow us to understand the technical concepts invoked by Lacan *et al.*, were they to make any sense, we face people who, without having any scientific competence, “nevertheless claim that what they do not understand may actually very well be understood.”² These comments, and many similar ones coming from the “other side”, indicate that our exposure of nonsense is not regarded there as totally useless or fundamentally unfair, and that not all people in the humanities consider us, as Mermin fears, “every bit as naive, simple-minded, self-important and ridiculous” as our “victims”.

Jean Bricmont

(*bricmont@fyma.ucl.ac.be*)

Université de Louvain, Belgium

Alan Sokal

(*sokal@nyu.edu*)

New York University

References

- [1] A. Sokal and J. Bricmont, *Fashionable Nonsense: Postmodern Intellectuals'*

Abuse of Science (New York: Picador, 1998). Published in the British Commonwealth under the title *Intellectual Impostures: Postmodern Philosophers' Abuse of Science* (London: Profile, 1998).

[2] J. Bouveresse, *Le Monde Diplomatique* **545**, 27 (August 1999).