

***Reply to Ron Westrum***  
**Henry Bauer, Virginia Tech**

I am quite gratified by Ron Westrum's review, in particular that he found the "arguments convincing and . . . examples disturbing". (10) That was my chief ambition for the book. I should add that I concur that there are pertinent issues that I failed to address, like groupthink that affects scientists as much as any other human beings. As to the incidence of fraud, though, I do think it is the case that uncovered fraud has been much more common in the last two or three decades than earlier. My reading of Brush's essay had been that popular views of science as objective were not true to reality, but not especially regarding the issue of fraud.<sup>1</sup>

In my reading over the years, I had become increasingly disturbed as more and more instances of unwarranted dogmatism turned up in more and more fields of science and medicine. In my earlier career as a chemist, I had noted instances of unjustified dogmatism on the part of individuals, but I was not prepared to find it in whole disciplines. What was worse, and what made writing this book even more difficult, was that I found the evidence and arguments presented by the dissenting minorities to be so often more plausible than the mainstream dogmas.

But I had a sense of how any reasonable person would react if I claimed outright that science is wrong about global warming, and about HIV/AIDS, and about string theory, and about the death of the dinosaurs, and about cold fusion, and about other things as well; so, I tried to acknowledge my beliefs while also claiming that I was asking readers to follow me only so far as to recognize — at least at first — the unequivocally demonstrable fact of suppression of minority views. I worried all along that the attempt not to be directly arguing for my actual beliefs could detract from the effort to gain conviction.

That I had good reason for concern was soon evident. I had offered review copies to a number of STS journals: "I hope . . . might be interested in reviewing my new book, *Dogmatism in Science and Medicine: How Dominant Theories Monopolize Research and Stifle the Search for Truth* (McFarland 2012). Here's a synopsis:"

Unwarranted dogmatism has taken over in many fields of science: in Big-Bang cosmology, dinosaur extinction, theory of smell, string theory, Alzheimer's amyloid theory, specificity and efficacy of psychotropic drugs, cold fusion, second-hand smoke, continental drift . . . The list goes on and on. Dissenting views are dismissed without further ado, and dissenters' careers are badly affected. Where public policy is involved — as with human-caused global warming and HIV/AIDS — the excommunication and

---

<sup>1</sup> *Editor's Note:* Bauer refers to Westrum's mention of Stephen G. Brush's article "Should the History of Science Be Rated X?" (*Science*, New Series, Vol. 183, No. 4130. (Mar. 22, 1974), pp. 1164-1172).

harassment of dissenters reaches a fever pitch with charges of “denialism” and “denialists”, a deliberate ploy of association with the no-no of Holocaust denying. The book describes these circumstances. It claims that this is a sea change in scientific activity and in the interaction of science and society in the last half-century or so, and points to likely causes of that sea change. The best remedy would seem to be the founding of a Science Court, much discussed several decades ago but never acted on. If you are interested, please send me a mailing address to which I may have a copy of the book sent.

The editor of one STS journal responded: “Interesting topic for a book. One would expect innovation to derive from dissent; without it there is the risk of stagnation. Does your ‘dogmatism’ include evolutionary theory in biology?”

I was a little taken aback at this apparent ignorance of the routine resistance to innovation as well as dissent documented long ago by Bernard Barber and Gunther Stent (not to mention Thomas Kuhn) but restricted myself to a very brief reply:

Interesting topic for a book. One would expect innovation to derive from dissent; without it there is the risk of stagnation.

Expectation and ideals are one thing. Actual practice is another.

Does your ‘dogmatism’ include evolutionary theory in biology?

No.

A few weeks later, the book review editor of that journal did request a review copy, mentioning however that it was intended for an essay review of several books on “denialism”. I await that review with a certain amount of interest. Will that reviewer also find my examples and argument disturbing and convincing?

After the sheer weight of evidence had forced me to recognize that HIV is not the cause of AIDS, I struggled for years to try to understand how so massive a mistake could not only occur but could persist for so long to the detriment of so many. It seemed incredible that there could be so enormous an aberration in medical science and evidence-based medicine.

At some point I recalled my introduction to the story of the Loch Ness Monster. In the book of that name by Tim Dinsdale, I found quite believable his recounting of capturing on film something large moving in the loch, and the supporting evidence from many eyewitnesses and a few other photos added believability. But then came a chapter (“Monsters Galore”) citing evidence of similar creatures from many other lakes all around the world, and I balked — surely one such big,

dinosaur-like creature yet unknown to science was hard enough to swallow, let alone dozens around the world . . .

I do not recall how long it took me to realize that my reaction was the very opposite of logical. If Loch Ness Monsters are real creatures, then it is much more likely that they have siblings in other parts of the world than that they are the sole surviving family of this species.

So too with global warming or HIV/AIDS. If the mainstream really is dogmatically and massively wrong on one of those, it seems more likely that science is far from self-correcting than that there could be such a single lonely enormous and long-lasting aberration. If one of these is really a mistake, then it is very likely that there will also be other such mistakes.

And indeed the array of examples I found points to an underlying fallibility in every situation where science determines public policy on a socially significant issue — and even in such abstract matters as string theory, I suggest because the erstwhile ivory tower is now a hotbed of cutthroat competition for grants and careers and social or political status.

The point that I would really like to be taken up and discussed is this broad and deep claim that scientific activity has undergone what amounts to a sea change, from largely reliable to very often untrustworthy, understandably so because it was in earlier times largely in an ivory tower but is now so significant to society that it is subject to all the pressures that influence any social or political activities.

**Contact details: [hhbauer@vt.edu](mailto:hhbauer@vt.edu)**

## References

Bauer, Henry. 2012. *Dogmatism in Science and Medicine: How Dominant Theories Monopolize Research and Stifle the Search for Truth*. Jefferson, North Carolina: McFarland.

Brush, Stephen G. 1974. Should the history of science be rated X? *Science*, New Series, 183 (4130): 1164-1172.

Dinsdale, Tim. 1989. *Loch Ness Monster*. Routledge.

Westrum, Ron. 2012. Review of Henry Bauer, *Dogmatism in Science and Medicine: How Dominant Theories Monopolize Research and Stifle the Search for Truth*. *Social Epistemology Review and Reply Collective* 1 (10): 10-11.