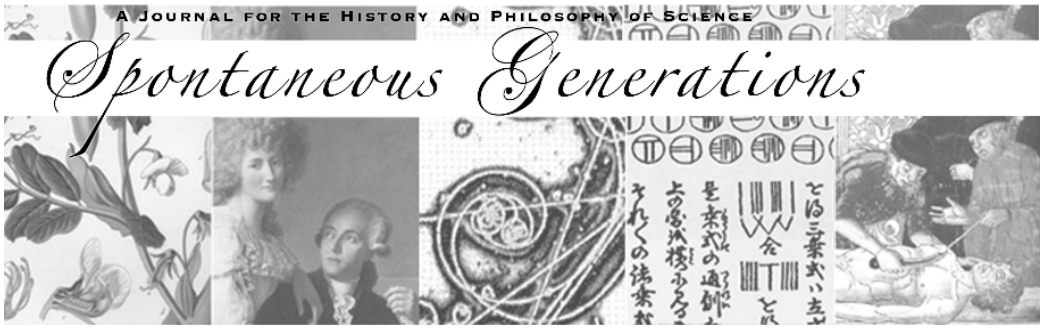

Response to Thicke

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Response to Thicke*

Steve Fuller†

First, I would like to thank Mike Thicke (2011) for his very perceptive and civil review of *Science: The Art of Living*. He himself alludes to the difficulty that reviewers have had with my previous books defending intelligent design as a necessary condition for the possibility of science, a point I have discussed in this journal (Fuller 2008b). Fuller (2010) has no less polarised reviewers. Here readers are invited to contrast the rather sophisticated critical review of *Science* that has already appeared in *Notre Dame Philosophical Reviews* (Fagan 2011) and the bigoted one in *Quarterly Review of Biology* (Malaterre 2011), which ascribes to me views I make a point of denying. Both reviews appeared in high-profile venues in their respective fields and both were written by younger people trained in both philosophy and biology. I am happy to let future historians sort this one out.

Thicke rightly observes that I support "historical counterfactualism" as a mode of philosophical insight. I plan to bring together my thinking on this method soon, although a short account of my orientation has already appeared (Fuller 2008a) that refers to work that goes back to *Social Epistemology*. But my commitment to historical counterfactualism goes back even further—and certainly predates my involvement with the intelligent design controversy. It is already present in my doctoral dissertation (Fuller 1985), which was strongly influenced by Jon Elster's (1979, 1983) secular re-framing of theodicy (i.e. how can this be the best possible world when it seems so bad?) through the then-hot Kripke-Lewis debates over the interpretation of "possible worlds." Even now I do not believe that the field in which my PhD was awarded, "history and philosophy of science" (HPS), makes much sense unless that phrase is meant in the strong conjunctive sense of "and" that supports historical counterfactuals. Metaphysically speaking, a strong HPS perspective presupposes that modal claims can be cashed out temporally. Indeed, I am inclined to the Hegelian view that philosophy is about the ultimate causal structure of history.

* Received 26 July 2011.

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Thus, when T. H. Huxley claimed that had Darwin preceded Newton, science would never have reached the levels it had in the late Victorian era, he meant that Darwin's resolutely earthbound orientation to human beings would have inhibited modern science's universalist aspirations. Universalism demands the sort of pretence to a divine standpoint that Newton's Unitarian brand of Christianity allowed him to exploit so well. Huxley's judgement was a historically revealed observation about a conceptual requirement of science that had been previously obscured because it had never been challenged. After all, however extreme Newton's theological views may have been, most people adhered to an unreflective version of the biblical idea that we are created "in the image and likeness of God." But Huxley rightly imagined that were Darwin's diminished view of humanity to colonise popular culture, then people might start to question the wisdom of a science that presumes our species could comprehend, let alone dominate, all of nature. Of course, some people might still wish to continue pursuing Newton-style science, but it would no longer have the same cultural significance. It would become more like a hobby or even a cult, rather than the epistemic standard by which all other forms of knowledge are judged.

In short, Darwinism does not provide the conceptual resources for a robust universalist defence of science. If the scientific life led Newton to self-mystification, as is often claimed, it led Darwin to self-demystification. At this point, I want to pick up Thicke's complaint that I exaggerate Darwin's intellectual distance from Mendel, based simply on his failure to cut the pages of the book that Mendel sent him. In fact, I believe that their intellectual proximity has been long exaggerated to provide a coherent Whig-historical backstory for the Neo-Darwinian synthesis. (A similar comment might be made of Durkheim and Weber—neither having taken much interest in the other—vis-à-vis the received history of sociology.) My view is that, even had he cut the pages, Darwin would have been put off by the "self-mystifying'"character of Mendel's science: that is, the mathematical exactitude of his approach to heredity that was born of a view of God as a superchemist who combined elements in different proportions to produce organisms. While this view suggests the confident spirit of today's biotechnologists, Darwin would have seen in the Moravian monk's numerology evidence of wishful thinking (cf. Bowler 1989).

That the scientific establishment has so far failed to see Darwin's demystifying implications is revealed in its bewilderment as to why Darwin-style appeals to innate animal curiosity fall flat as an adequate justification for public support of science: Such appeals fail to distinguish the self-serving fancies of an elite from the sort of disciplined, intergenerational commitment required of science. What I call "Protscience" is a set of contemporary attempts—modelled on the Protestant Reformation—to rescue science (cf. Christianity) from this decadent state by demanding a tighter integration between the pursuit of science and the realization of human potential. Science is compelling not because we trust the word of

experts but because it is the signature form of human empowerment. However, as the history of Protestantism warns, it remains a very open question whether this democratic sensibility ends up generating so much epistemic diversity as to undermine science's conceptual coherence.

Thicke does not like that I include climate change sceptics and intelligent design (ID) proponents with AIDS activists as "Protscientists" because only the last have had "productive" relationships with scientists. In the case of ID proponents, the charge is very telling because their basic epistemic assumptions and general approach to scientific inference are pretty much the ones that propelled the first two hundred years of the Scientific Revolution. So, in that respect, ID has had an exceptionally productive intellectual relationship with science. However, the cultural politics surrounding Darwin's reception over the past 150 years have effectively instilled a strong prejudice against ID in the scientific establishment, which has been exacerbated in the US by an intellectually perverse reading of the constitutional separation of church and state.

My point here is that the scientific establishment and the wider culture share only partially overlapping prejudices. The inclusion of the AIDS activists' claims demand a much smaller change to science's overall self-understanding than the claims of climate sceptics or ID proponents. Indeed, the success of AIDS activists is only the thin end of the much wider wedge of Protscience that faces greater resistance from scientists, especially as Protscientists insist on incorporating a meta-level understanding—of the sort HPS encourages—that puts the current consensus of scientific opinion in historical perspective. For example, if our best computer models now say that we have fifty years to save the planet, yet those models tend to undergo a sea change every twenty-five years, then do not the climate change sceptics have a point? Sometimes people say that the Protscientists "misuse" or "distort" HPS, but all they are doing is taking commonplaces in our field as grounds for redressing the burden of proof in public science policy debates.

Finally, let me comment on the lack of references in the text, which has bothered people in ways I find somewhat puzzling. First, Fuller (2010) is a 166-page book, 20 of which comprise a bibliographic essay on the main intellectual sources for my argument. While this format is common to the "Art of Living" series, it was also a feature of the best selling of my books, *Kuhn vs. Popper*, where it did not seem to cause such problems. To a large extent, I believe that the complaint reflects *prima facie* intellectual resistance to *Science*'s argument, though perhaps such resistance was mitigated in the case of *Kuhn vs. Popper* by its having been preceded by a large scholarly work (*Thomas Kuhn: A Philosophical History for Our Times*) that covered much of the same ground. However, at a more general level, in our thoroughly "informatised" world, I do wonder about the wisdom of including references that go beyond establishing matters of fact not readily available elsewhere (e.g. original archival material). The ideal that a text should be self-sufficient in accounting for all its sources appears increasingly outmoded,

when any name, concept or title can be easily accessed on the internet. Academics would do better to resist the temptation to turn their texts into paper search engines and put more effort into developing critical judgements about the main sources that frame their own arguments. In short, we need more bibliographic essays and fewer footnotes.

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