Review of: "Straightening the ‘Value-Laden Turn’: Minimising the Influence of Values in Science"

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Potential competing interests: I am a practicing social and behavioral scientist. This is the first time I have commented on a purely philosophical text. This automatically brings some values into the peer review process that are inevitable in scientific discourse.

Philippe Stamenkovic, writes a piece that builds logical (i.e., philosophical) arguments supporting reducing the impact of values in scientific research and scientific judgments as much as possible. The arguments suggest that (a) there has been a turn in philosophical arguments towards allowing more values in the scientific process (the ‘value-laden turn’), and (b) that we should bring philosophy back toward something that seems to have been prevalent historically, namely the ‘value-free ideal’ of science.

I admit I am not a philosopher, and read almost no philosophy. None the less, the Qeios editors asked me to review the paper, and as a scholar interested in and pushing for better scientific practices, my quick reading of the title and abstract piqued my interest. That said, I need to make an important, and certainly value-laden claim right away. This claim is not specifically directed at Stamenkovic, but represents my overall reaction to the paper. This reaction is probably a general reaction to philosophy.

My overall reaction is that Stamenkovic, like most philosophers, may not have actually performed any scientific research. Stamenkovic's Google Scholar page suggests not. Therefore, it seems ill advised that Stamenkovic, and other philosophers, write papers about how to improve science. Put another way: why should practicing scientists, funding agencies, governments, journals or any other parts of the academic machinery heed any of these arguments? Based on what experience and expertise? Therefore, the article may make a contribution to philosophy, but it is written as if it would inform agencies and praciticing scientists.

Thanks to X (formerly ‘Twitter’), I was alerted to this interesting paper by Daniel C. Dennett (2006, you can listen to it read in a podcast here) which essentially summarizes the problem: That a philosopher, by definition, basically needs no actual knowledge of why and how people conduct science or what constraints and incentives they face, to come up with logical arguments about the scientific process; this applies to most topics of philosophical discourse, not just science.

With this general point out of the way, here are my specific responses to this article. Again, I cannot comment at all on the philosophical merit of this work as I am not a philosopher, nor do I have any familiarity with the history of philosophy on which the article might be (or should probably be) based.

1. **The Open Science Movement needs no philosophy.** In the past decade or so, a long and previously slow-growing movement has reached a critical mass. This movement has led to some exceptional changes in the scientific

machinery. Government based funding agencies such as the ERC and NIH, now require all research findings produced from public monies be open access. There was a reseracher-led boycott of Elsevier for its ruthless anti-science practices. This was followed by a university-level boycott led by information scientists (libraries). This resulted in the first major hit to Elsevier's profits, and a scrambling on this publishing megalith to try and reorient toward better practices. Some journals have started requiring open materials and data. Some prominent journals switched to 'diamond open access' where there are no fees whatsoever and all articles are open access (*Demography* was a pioneer). This list goes on and on. The point is that these changes resulted from the knowledge that our scientific research is not as reliable than we would hope, or previously believed. We needed no philosophical arguments to pursue these ends. Basic knowledge acquired from research on science itself (meta-science) was sufficient to spawn this movement. The values being reduced are those that get tapped and developed in scientists because of perverse, status-seeking incentives in the scientific machinery; for example, companies making science goods and services, journal publishing or publish-or-perish systems, and university hiring and research body funding practices.

2. **Facts versus values.** Stamenkovic uses a dichotomy between "facts" and "values". And although part of this argument includes reference to the inherent uncertainty in scientific research, it suggests that at a certain level of low uncertainty we have achieved "facts". This is a false dichotomy for me, and there is great disagreement on cutoffs among practicing scientists. Values may be something clearly defined and definable, but facts not. Everything comes with uncertainty, and the quantification of uncertainty itself (standard error, confidence interval, etc) is uncertain due to sampling, idiosyncrasies in the instrument of experiment or observation, and unknowns in the causal data-generating process. It is a slippery slope to use a term like "facts" as representing something like ground truths. I would assume that philosophers must debate this heavily, but this is not my area.
3. **Science is already aware of values and trying its best.**The author writes "…the majority of philosophical literature now allows value influence in the A/R [accept/reject] phase" and that "this threatens the epistemic integrity of science." I was not aware that philosophers had any effect on whether we use values in our judgements as scientists, or whether we think they are or are not useful in the scientific process. But assuming some kind of philosophical authority just for the sake of argument here, I would still argue that there is no value-free science and scientists who are not corrupted by perverse incentives, see it as their role to minimize these values already. Even critical theories seen as heavily value-laden lead to concrete research that is minimal in value-judgements. For example, critical race theory spawned research in genetics that demonstrated that randomly drawn genes from persons racialized as black and persons racialized as white are more likely to have more in common with each other, than with another randomly drawn gene from the same 'racial' pool. All of this is driven by values, but supported by research that is objective as possible, and all undertaken without a need for philosophical discussion. Long ago, Max Weber pointed out that every scientist is value-laden but should attempt to minimize their impact in research and especially teaching (*Wissenschaft als Beruf* 1919 [Science as an Occupation]). My point is to question wether scientific research itself has made this 'value-laden turn'. My experience is that I doubt it, and therefore I wonder if philosophers philosophizing on science are out of sync with the actual scientists practicing science. Again, this is not a criticism strictly of Stamenkovic.
4. Minor points

    1. "science is just one way…to gain knowledge" could be a false statement depending on one's definition of science.

Science can simply mean knoledge acquisition. Might be better to refer to the “scientific method” here.

2. “VFI” is introduced as an acronym in the abstract without its fully written out words.
3. “1.b” is menitoned in the text, but there is no “1.b” in the list, only “1”.

Dennett, Daniel C. 2006. ‘Higher-Order Truths about Chmess’. *Topoi* 25(1):39–41. doi: 10.1007/s11245-006-0005-2.