

Race, gender and science: Should positionality statement ‘identity biographies’ be mandatory on science research papers?

In Defense of Universalism in Science

In a November article in *Science* magazine, journalist [Rachael Zamzow](#) informs us that many social scientists believe that every published paper should include in its author details a “positionality statement describing how their identity might influence their work”. For example, Zamzow writes declaring “race, ethnicity, geographic location, sexual orientation, gender identity, disability status, and career level”.

Defending such a practice, one researcher quoted in the piece maintained that it is “an invitation to think more broadly about your role as a researcher”. To illustrate the supposed benefits, an imaginary case is offered:

If you’re an astronomer ..., think about where your telescope is.... ‘Are you part of that community? Is that telescope put there with knowledge of the people who call that place their land?’

We, as scientists and educators, believe that although some might find this an interesting and important question for a sociological or ethnographic study, it has *nothing* to do with, in this example, the value of a report concerning a heavenly body discovered using that telescope. How a disclosure of the astronomer’s sexual orientation would add anything to the understanding of the matter by a reader of the article in an astronomy journal is puzzling, and comes across like a bad joke.

The call for “positionality statements” reveals a basic confusion about science inquiry, the difference between:

- The (interesting) description and analysis of the sociological and historical settings in which scientific endeavors are undertaken.
- The results of research reported in a scientific paper on whatever topic.

If the aim is “to think more broadly about your role as a researcher”, this self-reflection *concerns the writer, not the reader*, and the latter derives no scientifically critical information from the personal details of the author(s). On the contrary, such knowledge could — more or less (un)consciously — *bias* the reader’s judgement regarding the content and scientific merit of university research.

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The intellectual movement behind this type of thinking has variously been known as social constructivism, post-structuralism, deconstructionism and post-modernism. In its current iteration, social scientists embrace the dubious concept of the “cultural construction of knowledge, promoting subjective (and sometimes intuitive) approaches to scientific inquiry. As ecological anthropologist Homauun Sidky, has

[written](#), “In their discourse, science and scientific truths (deceptively misconstrued as “absolute truths”) were cast as the embodiment of that hegemonic power and its evils, such as racism, sexism, imperialism, colonialism, militarism, oppression, slavery, white supremacy, the atomic bomb, and the destruction of the biosphere.”

We believe such thinking delegitimizes science and critical thinking. We reject recommendations encouraging scientists to inject their personal biographies or relativistic perspectives into empirical science. Repositioning [John Rawls’ famous expression](#), one could argue that readers should be kept behind a “[veil of ignorance](#)” as regards the author(s). This is why a basic principle of peer review — which, notwithstanding its defects, is a pillar of evaluation/advancement in sciences — is anonymity (“blindness”).

Our aim in informing the science and the public should be to reaffirm the intrinsic nature of scientific research as a quest for verifiable truths based on all of the evidence available at that point in time – call it a basic [Popperian stance](#) – regardless of subjective conditions and orientations.

In the ideal, in the [normative prospect](#) established several decades ago by [Robert Merton](#), Universalism, is a key rule for the process of good research (he postulates five prescriptions popularly known by the acronym CUDOS). The concept may be understood in a double sense:

- First, it prescribes that research results (laws of nature, facts of history, etc.) are endowed with explanatory power regardless of the historical/social context of their discovery. For example, heliocentrism could theoretically have been ascertained as true by an Aztec or African astronomer or by several other scientists, at anytime and anywhere, rather than Copernicus, a Polish mathematician who, more than likely was building on Islamic Middle Age theoretical heritage.
- Second, “Universalism’ was identified as an essential component of science by Merton precisely because it makes clear that anybody may contribute to scientific discoveries, whatever their gender, nationality, etc.

For some post-modernist critics, “science is somehow disreputable because it is the province of European white bourgeois males”; yet, [it has been rightly replied](#) that “Mendel ... got it right about the wrinkled peas; and it would not have mattered if he had been a black handicapped Spanish-speaking lesbian atheist.”

That is a truism that epistemic relativists seem unable to grasp.

Signed,

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