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Social exclusion in academia through biases in methodological quality evaluation: On the situation of women in science and philosophy

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ABSTRACT

Empirical studies show that academia is socially exclusive. I argue that this social exclusion works, at least partly, through the systematic methodological disqualification of contributions from members of underrepresented social groups. As methodological quality criteria are underdetermined their interpretation and weighting can be biased with relation to gender, race, social background, etc. Such biased quality evaluation can take place on a local or global level. The current situation of women in academic philosophy illuminates this. I conclude that only mechanical solutions can effectively change the situation.

1. Introduction

"I have never seen a first rate woman philosopher." This was a statement a professor made to Sally Haslanger when she was an undergraduate student (Haslanger, 2008). One might simply be stunned about such a remark and wonder why a philosophy professor would make such an obviously sexist claim. However, the statement from Haslanger's professor matches the poor situation of women in academic philosophy quite well. During the last few years, philosophers from all directions have provided anecdotes and data that paint a dismal picture: a rising number of current investigations show that women in academic philosophy have to face strong disadvantages (e.g., Haslanger, 2008; Jenkins & Hutchison, 2013; Saul, 2013), and empirical data confirm not only the underrepresentation of women in academic philosophy, but also that women philosophers are less likely to be employed (at least in full time and tenure positions) in high-ranking departments and to publish in high-ranking journals (cf. Bishop, 2013; Bishop, Beebee, Goddard, & Rini, 2013; Jenkins, 2013, p. 82; West, Jacquet, King, Correll, & Bergstrom, 2013). What are the attitudes, norms, and standards that are at work here?

In the last few years, the role of social behavior in philosophy has been investigated thoroughly. Academic philosophy is characterized by a combative working environment, and women, being underrepresented in this scientific area, find themselves in a situation in which their performance attracts particular attention; their sheer isolation makes them feel observed and "deviant from the norm" (Fehr, 2011, pp. 151-152; cf. also Beebee, 2013; Haslanger, 2008). This intensifies the role that gender schemas play in philosophy, "hypotheses shaping expectations about performance and behavior that vary for men and women" (Jenkins & Hutchison, 2013, p. 2). Such schemas influence the behavior of women which has been robustly confirmed by social psychological studies[1]: the schemas are usually reinforced by stereotype threats, "ways that a person's (awareness of their) own group membership may negatively affect their performance" (Saul, 2013, p. 40), and by implicit biases "that affect the way we perceive, evaluate, or interact with people from the groups that our biases 'target'." (Saul, 2013)

However, in contrast to the thorough analyses of gendered attitudes in *social* norms and standards shaping the atmosphere and conversational tone in philosophical discussions, debates, and

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[1] For a good overview of these social psychological studies cf. Beebee (2013), Hutchison (2013), and Saul (2013).

academic social life, it is largely unclear how shared *philosophical* norms and standards contribute to an exclusion of women from the philosophical establishment. As Katrina Hutchison stresses, "we ought to pay more attention to our interpretative methods and the role of interpreting, understanding, and explaining in philosophy." (Hutchison, 2013, p. 117) In this paper, I wish to take a step in this direction and transcend any merely social-behavioral explanations by investigating whether social exclusion in academia is also generated through methodological evaluation practices and processes—despite methodological quality criteria which are meant to avoid unjustified exclusion of valuable contributions. Using ideas from the philosophy of science, I will argue that the application of methodological quality criteria can transport and reproduce gender-related biases. This rests on the premise that gender-related prejudices can unconsciously influence the evaluation of theories via methodological criteria for interpretation and weighing. While the issues for women are certainly not identical in different academic environments, the problem I am about to analyze is one that might be relevant in other areas of academia wherever women are underrepresented, be it in the natural sciences, social sciences, or the humanities. I will, thus, speak of "contributions" or "theories" most of the time without further specification of the exact kind that these contributions or theories are.

In Section 2, I will draw upon Thomas Kuhn's insights into the underdetermination of methodological criteria. In light of Helen Longino's conception of background assumptions that allow the influence of personal interests and value preferences to creep into the context of scientific justification I will suggest that this "Kuhnian underdetermination" presents a severe problem for scientific theory evaluation as implicit (e.g., gender-related) biases might be shared by a scientific community and subtly influence how methodological criteria in that community are interpreted and weighed. This problem can be a *local* as well as a *global* one, as I will show in Section 3. In Section 4, I will demonstrate how the general ideas from Sections 2 and 3 apply to the specific situation of women in academic philosophy: after having shown how biases can lead to a systematic exclusion of the contributions of women in science, I will proceed by arguing that the same sort of exclusionary biases can operate in philosophy. In light of these findings, I will ultimately, in Section 5, criticize some idealistic improvement suggestions and call for pragmatic mechanical solutions instead.

2. How biases work in the methodological evaluation of scientific theories

In this section, I wish to illuminate how scientific quality evaluation is often biased in such a way as to lead to the exclusion of the contributions from certain social groups. At first glance, this might seem a controversial claim as there are standards guiding scientists in evaluating theories, standards which are thought to ensure the impartiality (neutrality/objectivity) of scientific quality evaluation. Such standards are, on the one hand, formal criteria such as the general fit into the thematic focus of a journal or conference, the length of a contribution, or speech intelligibility. I do not consider such formal standards to be particularly problematic as they are transparent and quite unambiguous. On the other hand (and the core of our problem), there are methodological criteria.

There has been a long-lasting debate on the role of these criteria (just consider the amount of literature on simplicity or the inference to the best explanation). Even though I cannot go into detail here, I would like to stress that I am convinced that traditional methodological criteria are in fact truth-conducive and, as such, epistemically significant. When scientists refine theories, construct and improve experiments, classify data, etc., methodological criteria help them to distinguish signal from noise, and how this works has been shown convincingly by inductive arguments (cf., e.g., Churchland, 1985; McMullin, 1983; Sober, 2004). However, the *application* of methodological criteria is not without problems. Thomas Kuhn, discussing a list of traditional methodological criteria (accuracy, external consistency, simplicity, breadth of scope, and fruitfulness), which are employed in scientific theory choice in order to decide which of a number of competing theories is epistemically best, wrote that these criteria are by no means unambiguous, but are in fact imprecise. They have to be interpreted and weighed in a given context of application and are often even conflicting:

> "When scientists must choose between competing theories, two men fully committed to the same list of criteria for choice may nevertheless reach different conclusions. Perhaps they interpret simplicity differently or have different convictions about the range of fields within which the consistency criterion must be met." (Kuhn, 1977, p. 324)

As Kuhn argues, this underdetermination of methodological criteria allows for the influence of personal preferences of scientists within theory choice. In Kuhn's view, this is not detrimental to science, but rather epistemically fruitful: if the methodological criteria were not underdetermined

> "all conforming scientists would make the same decision at the same time. […] What from one viewpoint may seem the looseness and imperfection of choice criteria conceived as rules may, when the same criteria are seen as values, appear an indispensable means of spreading the risk which the introduction or support of novelty always entails." (Kuhn, 1977, p. 332)

So the underdetermination of methodological criteria leads to diversity and dissent in scientific theory evaluation, and this is doubtlessly decisive for scientific advancement—on the condition of the methodological criteria being applied by a socially heterogeneous scientific community. As Helen Longino in particular has pointed out, this is because scientists' non-epistemic (moral, political, economic, etc.) preferences influence—consciously or not—the evaluation of scientific theories via background assumptions that depend on his or her personal situation such as individual experiences, gender, race, social background, etc. Such background assumptions can influence, as Longino and others have shown convincingly, a scientist's decisions not only within the context of discovery but also within the context of justification (e.g., Douglas, 2000, 2009; Longino, 1990, 2002). In light of the underdetermination of methodological criteria, this means that in a socially homogenous community the chosen interpretations and weighings of methodological criteria may be too narrow to sufficiently warrant epistemically fruitful diversity and dissent. Consequently, for Longino only critical discussion among scientists with different backgrounds can make biases in theory choice and evaluation visible; and social plurality in scientific communities is vital to ensure that criticism comes from all possible angles so that biases are kept in check and the impartiality (neutrality/objectivity) of scientific theory evaluation is reached (at least to a certain degree).

However, if biases are shared by an entire scientific community (or by the majority of members of that community) specific theories are highly likely to be disqualified from the outset, and such disqualification can be properly justified with recourse to methodological criteria. This mechanism is likely to work not only against voices that criticize established theories, but, more generally, against all kinds of deviant contributions: assuming that Longino's idea of background assumptions transporting social idi-