

Can Morally Superior Values Produce Beneficial Outcomes in Science?

Abstract

One proposed criterion for discerning legitimate value influences in science is to allow values that further justice-related social aims. According to this moral account, promoting human egalitarian values is legitimate and productive in science because of the moral superiority of those values. I argue that we can have a more general and feasible guide for science without appealing to the social aims of science. Earlier proposals that are more empirically focused (e.g., highlighting the significance of knowledge) can better achieve the intended outcomes of the moral account.

1. Introduction

When it comes to the discussion of the role of values in science, it is not that controversial that the influence of commercial values on pharmaceutical research is problematic. Profit-driven motivations can harm the integrity of science in various ways, from cherry-picking of favorable data to the publication of misleading evidence in favor of a particular policy. In order to condemn such harmful influences of values, there is no need to invoke the age-old notion of science as a value-free enterprise. It has been demonstrated that scientific research is pervasively influenced by contextual factors including social, moral, and political value considerations (Longino 1987; 1995; Okruhlik 1994). It is not the influence of values *per se*, but the illegitimate influence from them.

One strategy of discerning legitimate value influences on science focuses on identifying the right kinds of values. Commercial values in pharmaceutical research are problematic due to their profit-driven nature. The influence of feminism on various sciences is legitimate and fruitful in part because of the moral superiority of human egalitarian values to other androcentric values. The justification of the moral account is based on the multiplicity of the aims of science. Besides the aim of revealing truths about the world, science has other important aims of contributing to “human flourishing” (Kourany 2010), promoting “social justice” (Intemann 2017; Brown 2017), or promoting “our central ethical values” (Elliott 2017). Thus, values that further the social aims of science can legitimately influence the entire process of scientific inquiry. However, this moral account has difficulties of its own. As Miriam Solomon (2012) points out, “classifying values, independent of their scientific context, into the over-general and binary categories of “good” and “bad”” is not a viable strategy to pursue in practice (333). There are cases where the connection between moral superiority of values and good outcomes—both epistemic and social—is very tenuous.

In this paper, I aim to demonstrate that the moral account of distinguishing right kinds of values in science on the ground of their moral standing is limited in guiding scientific inquiry. First, it is often the case that what can stall a research program from making progress is not that the values involved are harmful in themselves but the different ways of articulating those good values. Second, the idea that science has multiple constitutive aims—epistemic and social—might not be appealing to those scientists whose research aims are remotely related to the social aims. Thus, I side with another approach that focuses on discerning right kind of influence of values rather than right kind of values themselves. This account, proposed by Elizabeth Anderson (1995; 2004), acknowledges the legitimate and fruitful role of social, moral, and

political values in science by prioritizing the aim of generating “significant” knowledge in science. This account allows science can promote social justice without endorsing the multiplicity of scientific aims and assuming the moral superiority of feminist values.

2. How Good Moral Values Can Lead to Beneficial Outcomes

The moral account aims to re-configure science as “socially responsible” that meets “the justice-related needs of society” (Kourany 2012, 348). Those values that can legitimately influence science should reflect “our ethical principles and social priorities”¹ (Elliott 2017, 177). If we know what social and ethical priorities are, and which line of research to pursue while giving “low research priority” to those research that is not in line with the social and ethical priorities, etc. (ibid., 22)

In her demonstration of socially responsible science, Janet Kourany (2010) introduces a research program on intimate partner violence among African Americans by Carolyn West (2002). One persistent problem researchers on domestic violence among African American families had is the unresponsive attitude from the relevant community. Given the historical traumas that African American male family members undergo, many victims of domestic violence are reluctant to report their perpetrators to the police with worry about losing their partners. This tendency has created a culture of silence (West 2002a, 226–29). The feminist

¹ Although Elliott (2017) states that “what makes values legitimate is not that they are of a particular sort (e.g., conservative or liberal, religious or secular),” it is clear that the values that can legitimately enter into science are ethical (163).

researcher's commitment to egalitarian values such as the assumption that the experiences of African American women matter, and they deserve to live free from domestic violence drew cooperation from the relevant community that was sympathetic to the research. Here, the morally good values led to not only morally praiseworthy outcomes but also epistemically fruitful outcomes. The cooperation from African American women enabled the researcher to identify types of violence, including verbal and psychological violence. Compared to earlier research on domestic violence that narrowly focused on physical violence and measured its severity and frequency, the feminist research results in epistemically fruitful outcomes in identifying the so-called "escalation of violence" from verbal and psychological to physical abuse, occurs (ibid., 220). Based on this knowledge, practical recommendations of how to deal with partner violence can be given to the victims. Kourany attributes the success of the research program to the moral superiority of feminist egalitarian values. The ideal science—socially responsible science—is the one that is conducted according to "the morally justified political conditions" (Kourany 2010, 68).

Although I share the same concerns the ideal of socially responsible science raises, I find the moral account problematic in several points. One reason is its unrealistic feature: the assumption that "“good” values including the values of social responsibility and the epistemic values of science are thought to coincide, or at least to be strongly connected” is not tenable in practice (Solomon 2012, 335). If we can have analogous cases in comparison, where two research programs committed to the same moral value but resulted in different outcomes, then we have a good reason to reconsider the feasibility of the moral account.

3. How Morally Good Values Can Lead to Harmful Outcomes

In this section, I introduce a case study that shows the weak connection between morally good values and fruitful outcomes in terms of both epistemic and non-epistemic. It is contextualized articulation of values, rather than the moral standing of those values, that are responsible for the success of research in this case. Theresa Tobin and Alison Jaggar (2013) provide a case study on the female genital cutting (FGC) practiced within the Maasai women in Kenya. This case study demonstrates that activism on the eradication of FGC—despite its good intention and promotion of the universal moral value of women’s human rights—failed to achieve its intended outcome. Although this case study is offered to shed light on the issue of justifying moral claims, with some details added, we can re-frame the case as another incident of value-driven social inquiry.

Let’s suppose that two sociological research teams approach the Maasai community in Kenya to study the phenomenon of FGC and, at the same time, to initiate an eradication campaign in that area. Both research teams are committed to the value of women’s equal human rights and consider the practice of FGC as a severe violation of women’s rights. Thus, they have two aims to pursue: first, to have better knowledge about the phenomenon of FGC, and second, to suggest practical measures to eliminate the practice of it. However, the research and the eradication campaign meet with strong resistance from Maasai women. Confronted with resistance, one research team tries to teach and convince the people, believing that the resistance stems from ignorance. This paternalistic approach fails to achieve its aims, and worse, it causes much harm to the Maasai by the abuse of social power, etc. The other research team acknowledges the resistance as a way of expressing “moral agency” of Maasai women, and thus, begins to invite them to share their perspectives (Tobin and Jaggar 2013, 431).

Engaging with Maasai women reveals that their experience of colonization by the British had a devastating impact on their equal standing with Maasai men. The forced reshuffle of the economic structure by colonizers represents “severe political and economic disempowerment and symbolic devaluation of Maasai women” (ibid., 426). To Maasai women, the eradication efforts from westerners are considered to be another form of invasion or denial of the agency that Maasai women had enjoyed pre-colonial times. With this historical knowledge, the research team was able to recognize that the most severe harm and violation of women’s equal rights was a deprivation of moral agency by colonization, thereby casting light on how to explain the resistance. Thus, it can conclude that without dealing with the “reasonable skepticism about interventions promoting cultural change” first, any eradication efforts are likely to fail (ibid., 432).

The above illustration is meant to give the general idea that appealing to moral values that are universal in nature can cause harm unless the moral values are articulated, interpreted, and contextualized. In the case of FGC, the contextualized approach calls for a fair representation of relevant stakeholders’ perspectives and concerns. This case also reinforces the point that activism-based or policy-related research programs do have social justice-related aims that are on a par with epistemic aims. In this case, the existence of social aims and relevant moral motivations did not lead to success.

At this point, one might argue that the success of the second research team, in this case, can be attributed to the moral superiority of values. The paternalistic attitude the first research team had stems from its denial of the moral agency of Maasai women. The research failure is, at least in part, due to the moral inferiority of the values. The contextualized articulation of

women's equal rights should have acknowledged the moral agency of Maasai women. Then, does this case study prove that the moral account is right?

It is true that contextualized articulation can refine the abstract and universal value and make it stronger in its moral power. The same point can be made for Kourany's analysis of West's research on intimate partner violence. West did not promote an abstract value of human rights for Black people. Her motivation was already well articulated in the aim of research: to reveal racial differences within the black and white communities and to suggest practical recommendations for the victims "without negating the particular experiences of Black women" and "without perpetrating the stereotype that African Americans are inherently more violent than other racial/ethnic groups" (West 2002b, 11).

However, I want to avoid the conclusion that what is causally responsible for the success of the research program is the higher moral standing of the values involved. We can explain the success in terms of epistemic motivation. I answer the above objection in the next section by acknowledging that science aims to generate significant knowledge without imposing other aims to science. Moreover, it is important to examine another assumption the moral account has: ensuring the proper engagement of stakeholders is crucial in achieving the justice-related aims of science.

3. How the Aim of Generating Significant Knowledge Can Achieve Social Aims

As presented in the earlier section, the moral account argues that justice-related aims are constitutive of science. This idea is also well demonstrated in the moral account's emphasis on stakeholder engagement in science. Some philosophers promote the fair representation of

stakeholders' interests, perspectives, and knowledge and even elevate the status of stakeholders to enjoy the power to regulate value influences in research (most notably Elliott 2017). Thus, the issue of how values can play legitimate and fruitful roles in science seems to hinge on the degree of stakeholder engagement, how it can guard science against harmful value influences. In a similar vein, the development of "morally just policies" in climate-change research, demands the aims of research to be "democratically endorsed" by relevant stakeholders from the initial stage of developing a research program (Intemann 2015). The pressing issues are, then, how to identify relevant stakeholders and how to draw valuable insight from them. It becomes an obligation for scientists to cultivate sensitivity and moral imagination to induce proper stakeholder engagement (Brown 2019).

I am not against the idea of incorporating stakeholder input. Rather, I want to point out that having proper stakeholder engagement can be promoted on epistemic grounds. Anderson has shown that scientific inquiry aims at "significant" truth rather than "bare accumulation of truths" (Anderson 1995). One important insight from emphasizing significance is that value-laden considerations can legitimately and fruitfully "figure in determining what counts as significant, even if they don't figure in determining what is true" (ibid., 37). The notion of significance can be understood in terms of a lack of bias. To see whether a scientific hypothesis provides an adequate representation of a phenomenon, we should "put the facts into the larger context" (ibid., 38). Only within the larger context can we properly assess how the body of facts constituting the hypothesis are cherry-picked and partially investigate the phenomenon under investigation. Another way to judge the relevance and significance of an answer to a question, we also need to reconstruct the question by making embedded value suppositions explicit. When value-laden considerations motivate a research question, the answer should not only have its empirical

content validated, but also adequately address the value considerations. In sum, assessing the significance of a scientific representation already makes room for moral justification of values.

It would be illustrative to visit another case study to see how focusing on the significance of representation can result in beneficial consequences. Anderson (2004) introduces feminist research on divorce conducted by Abigail Stewart et al. (1997) in her work on the legitimate and fruitful role of values in science. Although the term “stakeholder” was not used at all, it is clear that a fair representation of relevant stakeholders’ perspectives was critical for the success of the research. As Anderson points out, previous research on divorce tends to look for research participants in clinical settings because traditional research frames divorce as traumatic, leading to failure of the marriage, and loss of opportunity to live a happy life. In contrast, Stewart’s team was open to the possibility that divorce can provide “an opportunity for personal growth” (Anderson 2004, 14). Due to this value commitment, the researchers were able to find evidence that divorced women can develop a sense of autonomy by achieving financial independence from their husbands (Stewart et al. 1997, 102). Divorced women’s perceived losses and gains during and after divorce provided important information that “provided crucial data confirming the conception of divorce as an opportunity for personal growth” (Anderson 2004, 15).

Both the intimate partner violence case and the divorce case can give compelling reasons to have proper inputs from relevant stakeholders. However, the justification of having stakeholder input can be done in two ways—one, the moral account, and the other, the empirical account. In the former, proper engagement of stakeholders is promoted since science has moral aims, and those aims demand stakeholder input. The latter, the empirical account, recognizes the importance of having stakeholder input on the epistemic ground of generating significant knowledge. In the case of FGC, the aim of having significant knowledge about the phenomenon

called for consulting Maasai women. Clarifying their experience and emotional reactions to the research program and its eradication campaign were critical in having adequate knowledge about FGC and envisioning proper directions for the campaign. The epistemic account can still demand the fair representation of relevant stakeholders' perspectives without invoking the moral account. Existing ethical constraints on scientific research, such as “the concern not to harm the research participants, to respect their autonomy, and to respect their privacy” (Zahle 2017, 151), can also be appealed to in the call for adequate representation of stakeholder input.

It is important to recognize that what we call “science” encompasses a wide variety of forms. Classificatory practices, for example, constitute an important part of science, but they have vastly different forms compared to activism-based research programs or policy-driven research programs that are closely related to social justice concerns. Thus, it is less convincing to taxonomists the idea that classificatory practices should be aligned with social and political priorities.² However, the appeal to the aim of generating significant knowledge can still make room for values in scientific classification as well.

² One prominent classificatory system is the Linnaean hierarchy of the animal kingdom.

According to historiographical research, Linnaeus's choice of mammary gland as the defining feature of the class *Mammalia* was influenced by his gender politics: criticizing the practice of wet-nursing and promoting the natural role of women, which is to stay at home to nurse their own babies (Schiebinger 1993). Can we judge the moral standing of Linnaeus's choice? Not only does the current western world have different criteria for moral superiority, but also it is hard to identify what values are aligned with our social, ethical priorities of then-society. Given the high mortality of infants due to the practice of wet nursing at that time, we can conclude that

4. Conclusion

There is no denying that many scientific research programs have ethical and social goals that should be aligned with our social, ethical priorities. It is an empirical matter of how to prove that the commercial values of the pharmaceutical industry harm scientific inquiry. The harm can be done in numerous ways. The fact that profit-seeking values are bad in themselves does not give us much guidance to deal with other values involved in science. If we want to have a general criterion of how to distinguish legitimate from illegitimate value influences in science, then the aim of having significant knowledge can be emphasized. Even if the idea that science has many important goals other than epistemic ones fails to draw an agreement among scientists, we can still demand the necessity of stakeholders' input on epistemic grounds. As seen in the case study of FGC, appealing to morality superiority can cause harm to research participants and the inquiry itself. Thus, focusing on generating significant knowledge, demanding articulation and interpretation of values in relevant contexts, and consulting existing ethical constraints on scientific research in interacting with research participants might be a more general and feasible guide to the current science.

Linnaeus's choice contributed to reducing mortality among newborns. Or we can judge that the choice was a backward step in preventing women from entering public affairs. This is another case to prove the difficulty in assessing the morality of values that are involved in science.

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