

## **Can social diversity best be incorporated into science by adopting the social value management ideal?**

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Abstract: The social value management ideal is an alternative to the value-free ideal of science. It recommends that the role of non-epistemic values in scientific inquiry is analyzed, criticized, and judged as either acceptable or unacceptable by a scientific community which satisfies certain conditions. I defend the social value management ideal by responding to two objections, one suggesting that the ideal is not capable of incorporating all the diversity that is epistemically beneficial in science, and another one suggesting that the ideal is too generous to the kind of diversity which is problematic from a moral and political point of view.

### **1. Introduction**

The *social value management ideal* is the view that scientific knowledge is objective to the degree that a scientific community satisfies the four criteria of publicly recognized venues, uptake of criticism, shared standards, and tempered equality of intellectual authority (Longino 2002, 129-131; see also 1990, 76-81). Whereas the first criterion requires that there be scientific forums not only for the publication of research but also for the *criticism* of research, the second criterion demands *responsiveness* to criticism. And whereas the third criterion requires that there be publicly recognized *standards* by reference to which theories, hypotheses, methods, and observational

practices can be criticized, the fourth criterion requires that the community be *inclusive* of scientists independently of their race, ethnic identity, gender, age, and sexual orientation. Equality of intellectual authority is “tempered” only insofar as human beings differ in domain specific expertise. But even when some human beings are more knowledgeable than others in some domains, they all should be treated as equally capable of understanding reasons as well as providing criticism and alternative points of view (2002, 132-133).

Thus, the “social” in the social value management ideal is meant to suggest that insofar as scientific knowledge is objective, objectivity is achieved by scientific communities rather than by individual scientists or research groups. The “value management” in the ideal is meant to replace the notion of “value-freedom.” In order for scientific knowledge to be objective, it is not necessary that it is free from non-epistemic values, that is, values which are not justifiable by appealing merely to the goal of truth. The social value management ideal does not require that non-epistemic values be eliminated from scientific inquiry; instead, it requires that the role of non-epistemic values be analyzed, criticized, and judged as either acceptable or unacceptable by a scientific community which aims to realize the four criteria to a high degree.

The social value management ideal is introduced and defended by Helen Longino who argues, like many other philosophers, that *the ideal of value-free science* is not feasible, and therefore, an alternative to the value-free ideal is needed (see also Brown 2013; Douglas 2009; Kitcher 2001, 2011; Kourany 2010; Lacey 1999, 2005; Miller 2014a, 2014b; Solomon 2001). According to the ideal of value-free science, non-epistemic values are not allowed to play a role in the practices where scientific theories and hypotheses are justified and evaluated epistemically. Against this ideal, some philosophers claim that non-epistemic values can legitimately play a role in the assessment of inductive risk as long as they do not replace evidence (see the chapter by Douglas in this volume, as well as Biddle 2013; Douglas 2009; Elliott 2011, 2013; Steel 2010, 2013). Some others propose that non-epistemic values can legitimately influence the way epistemic values are

interpreted and weighed as long as they do not replace epistemic values (Longino 1995; Solomon 2001). Yet others suggest that non-epistemic values can legitimately have an impact on the choice of background assumptions used in evidential reasoning as long as no-one has challenged these assumptions (Anderson 1995, 2004; Longino 1990, 2002). And not only can non-epistemic values play a legitimate role at the level of an individual scientist's decision making, but also, some philosophers argue, at the level of the scientific community as long as these values maintain a distribution of research efforts among theories that have some empirical successes (Kitcher 1993; Solomon 2001).

Acknowledging that the value-free ideal is not attainable, many philosophers have endorsed the social value management ideal (Anderson 1995, 2004; Borgerson 2011; Rolin 2011b; Wray 1999). Yet, some other philosophers argue that the social value management ideal is in need of further refinement and defense. The challenges come from two directions. Some critics worry that the social value management ideal is not capable of incorporating all the diversity that is epistemically beneficial in science, whereas some other critics worry that the social value management ideal invites the kind of diversity into science which is problematic from a moral and political point of view.

The first concern, the concern about exclusion, is expressed by Kristen Intemann and Inmaculada de Melo-Martín (2014) who argue that there is a tension between the requirement for tempered equality of intellectual authority and the requirement for shared standards. While the requirement for tempered equality of intellectual authority is meant to ensure that scientific communities benefit from a wide range of criticisms, the requirement for shared standards is likely to compromise the epistemic benefits of diverse criticisms. The reason for this is that the requirement for shared standards excludes those critics who do not share all or a sufficiently large number of the standards of the scientific community.

The second concern, the concern about inclusion, is raised by Daniel Hicks (2011) who argues that the social value management ideal is not capable of excluding morally and politically problematic views, such as sexist and racist beliefs. While Longino's intention is to ensure that scientific communities are inclusive of those social groups which have historically been excluded from scientific education and the scientific profession because of gender and/or race, or if not excluded, marginalized within scientific communities, the requirement for tempered equality of intellectual authority can be abused by sexists and racists to demand not only attention but also resources to scientific theories which are complicit in sexist and racist ideologies. In Hick's view, there is a tension between the egalitarian ethos of the social value management ideal and its anti-egalitarian implications.

In this chapter, I defend the social value management ideal by arguing that it is capable of incorporating epistemically beneficial diversity, while at the same time, it is capable of managing morally and politically problematic diversity. Thus, my answer to the question of the title ("Can social diversity best be incorporated into science by adopting the social value management ideal?") is "yes." In order to defend the social value management ideal, in Section 2 I review the most important arguments supporting the ideal. In Section 3, I review the most important arguments defending the view that diversity is epistemically beneficial. In Section 4 and 5, I respond to the critics of the social value management ideal.

## **2. The social value management ideal**

In order to understand the worries about the social value management ideal, it is necessary to review the most important arguments supporting the ideal. The social value management ideal is built on a contextualist understanding of epistemic justification. In this view,

epistemic justification is relative to a context of background assumptions. Background assumptions are necessary in evidential reasoning because an observed state of affairs in itself does not tell for what hypothesis or theory it can be taken as evidence (Longino 1990, 40-43; 2002, 127). As Longino explains, “a state of affairs will only be taken to be evidence that something else is the case in light of some background belief or assumption asserting a connection between the two” (1990, 44).

A contextualist understanding of epistemic justification has interesting implications for the role of non-epistemic values in evidential reasoning. While non-epistemic values are not allowed to play the same role as empirical evidence in evidential reasoning, they can be “encoded” in background assumptions (Longino 1990, 216). Given a contextualist understanding of epistemic justification, there is no mechanical method that can guarantee the value-freedom of evidential reasoning. Whether non-epistemic values have played a role in determining which background assumptions scientists rely on has to be judged on a case-by-case basis (2002, 50). As Longino explains, “contextual values, interests and value-laden assumptions *can* constrain scientific practice in such a way as to affect the results of inquiry and do so without violating constitutive rules of science” (1990, 83). As she adds, “the reliance on assumptions directly encoding contextual values is not by itself grounds for rejecting the work as science” (1990, 128).<sup>1</sup>

Someone may object to Longino’s account of value-laden background assumptions by arguing that most background assumptions are value-free because they can be justified by appealing

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<sup>1</sup> By *contextual* values Longino means value judgments concerning what is morally acceptable or praiseworthy, or what is a desirable social order (1990, 4). By *constitutive* values she means values that are generated from an understanding of the goals of science (1990, 4). So whereas such values as truth, consistency, and explanatory power are constitutive values in science, moral and social values such as equality and justice are contextual values in science. In her essay ‘Gender, Politics, and the Theoretical Virtues’ (1995), Longino suggests that the distinction between constitutive and contextual values is not as clear-cut as she had assumed in *Science as Social Knowledge* (1990).

to empirical evidence which is independent of the particular empirical evidence cited in support the hypothesis. For example, an electron microscope embodies background assumptions which have been empirically confirmed in numerous studies in physics. When an electron microscope is used to produce observational data of micro-organisms, the evidential reasoning from the data to a hypothesis seems to be value-free because the background assumptions embodied in the technology have been empirically confirmed in other studies.

In response to this objection, I argue that even if some background assumptions are value-free, some others may be laden with non-epistemic values. Value-laden background assumptions can be found in those areas of scientific research where empirical evidence underdetermines the choice of background assumptions. To illustrate this claim, let me use an example Longino introduces in *Science as Social Knowledge*. In a 1970's controversy over human evolution, "man-the-hunter" and "woman-the-gatherer" were two competing background assumptions which were used to interpret empirical findings (Longino 1990, 106-108). Neither assumption was apparent in light of empirical evidence. And both assumptions "encoded" non-epistemic values in the sense that they assumed the centrality of one sex's behavior in the evolution of the entire species. As Longino explains, background assumptions can depend on non-epistemic values for their justification even when these values are invisible for the scientists who use the assumptions in their interpretation of empirical findings (1990, 80).

If Longino is right to suggest that evidential reasoning can sometimes depend on value-laden background assumptions, then philosophers are urged to reflect on the question of how the role of non-epistemic values and subjective preferences is controlled in scientific inquiry. In response to this problem, Longino proposes that a community practice constrained by the four criteria of publicly recognized venues, uptake of criticism, shared standards, and tempered equality of intellectual authority is needed to ensure objectivity. She argues that the four criteria are epistemically desirable because they facilitate "transformative criticism" (1990, 76). In order for

scientific knowledge to be objective, individual scientists or research groups need to justify their knowledge claims to a particular scientific community where, ideally, their claims are subjected to criticism from diverse points of view and either defended, revised or rejected in response to criticism (1990, 73-74). Criticism from diverse points of view is epistemically beneficial because scientists are more likely to identify non-epistemic values in scientific research when the values are not the ones they themselves share (1990, 80). Without diversity of perspectives scientific communities run the risk of accepting value-laden background assumptions dogmatically.

Longino argues that the criterion of publicly recognized venues facilitates transformative criticism by requiring that criticism of scientific research be given the same or nearly the same weight as original research (2002, 129). The criterion of uptake facilitates transformative criticism by requiring that each party to a critical exchange is willing to respond to criticism, and if needed, to revise its views instead of merely tolerating dissent (2002, 129-130). The criterion of shared standards facilitates transformative criticism by requiring that criticism appeals to at least some standards of evidence and argumentation publicly recognized in a relevant scientific community (2002, 130-131). The criterion of tempered equality of intellectual authority facilitates transformative criticism in two ways, by disqualifying those communities where certain perspectives dominate because of the political, social, or economic power of their adherents (1990, 78), and by making room for a diversity of perspectives which is likely to generate criticism in a scientific community (2002, 131). As Longino explains, “Not only must potentially dissenting voices not be discounted; they must be cultivated” (2002, 132).

In sum, the most important argument supporting the social value management ideal is that there is no mechanical method to identify non-epistemic values in scientific research, and consequently, the “value management” done by scientific communities is the best available procedure to ensure that non-epistemic values will be detected, and their desirability as well as the desirability of their impact on scientific research will be discussed from diverse points of view.

As the notion of diversity plays an important role in the social value management ideal, in the next section I explain how diversity is understood in philosophy of science and why it is thought to be epistemically beneficial.

### **3. The epistemic benefits of diversity**

In order to answer the question of whether the social value management ideal is capable of incorporating epistemically fruitful diversity while at the same time policing morally and politically problematic diversity, it is necessary to review recent debates on the epistemic benefits of diversity in science.

Not surprisingly, there is a diversity of views concerning the question of how diversity should be understood in scientific communities and what kind of diversity is of epistemic interest. Sometimes the term “diversity” refers simply to the diversity of idiosyncratic research styles, skills, and talents (Solomon 2006). Some philosophers suggest that epistemic benefits accrue to scientific communities with a diversity of theoretical approaches (e.g., Rolin 2011a; Zollman 2010); some others suggest that a diversity of research strategies (e.g., “followers” and “mavericks”) is beneficial for scientific communities (e.g., Weisberg and Muldoon 2009). In all these approaches diversity is thought to be epistemically useful insofar as it maintains a distribution of research efforts in scientific communities (Solomon 2001). As no-one is in a position to know in advance which lines of inquiry will be fruitful, scientific communities are better off by distributing their resources on several different and sometimes competing lines of inquiry (Kitcher 1993; Wray 2011).

Even among feminist philosophers we can find a diversity of views on diversity. Feminist empiricists, such as Longino (1990, 2002), suggest that a diversity of values is beneficial for scientific communities because scientists are more likely to identify values that have influenced



scientific inquiry when the values in question are different from their own. In feminist empiricism, diversity is thought to be epistemically beneficial not only because it generates a distribution of research efforts, but also because it generates critical perspectives.

Whereas feminist empiricists emphasize the diversity of values, feminist standpoint empiricists emphasizes the diversity of social locations (Fehr 2011; Harding 2004b; Intemann 2010a, 2010b; Rolin 2016a; Wylie 2003, 2011, 2012). Sometimes it is the social location of scientists which is thought to provide them with a critical perspective on their specialty or a particular object of inquiry. For example, scientists who are “outsiders within” are thought to occupy an epistemically significant social location in virtue of having first-hand experience of marginal social locations in the society (Collins 2004). Sometimes social locations matter even when scientists themselves do not have first-hand experience of marginal social locations. It is the social location of their informants or the social location of stakeholders to whom scientists see themselves as being socially responsible that matter epistemically.

Like Longino, standpoint empiricists believe that diversity is epistemically valuable because it is likely to give rise to critical perspectives (Wylie 2011). In addition, standpoint empiricists suggest that the diversity of social locations brings two other benefits to scientific communities. One benefit is creativity. As Miriam Solomon (2009) argues, ensuring the diversity of social locations is an effective way to mobilize the kind of human resources which are associated with creativity such as outsider status, critical ability, and an intrinsic motivation to do scientific research. Another benefit is an understanding of how relations of power interact with the production of knowledge. Marginal or unprivileged social locations are potentially a source of insight on the way relations of power work in the society as well as in the academic world whereas other social locations are not (Wylie 2012). And while other kinds of diversity may be epistemically beneficial in many ways, they are unlikely to offer an insight on relations of power; only the inclusion of

experiences rooted at marginal or unprivileged social locations is likely to generate such insights (Intemann 2010b).

Some standpoint empiricists argue that a marginal or unprivileged social location by itself may not have epistemically interesting consequences unless it is developed into a *standpoint* (Harding 1991, 123). A standpoint differs from a social location in three important ways. First, achieving a standpoint requires that one is critically aware of the social conditions under which scientific knowledge is produced (Harding 2004a, 31; Wylie 2003, 31). As Alison Wylie explains, a critical awareness involves an understanding that marginal scientists are likely to have less recognition for their work and less impact on the development of their specialties than others unless they attempt to change the social conditions under which scientific research is done (2012, 66-67).

Second, participating in the formation of a standpoint requires that one shares some moral and social values with other participants (Harding 1991, 126-127). Ideally, moral and social values inform not only the goals of scientific inquiry but also the kind of activism that researchers are engaged in (Intemann 2010b, 786; Wylie 2011, 165). The emphasis on activism makes it possible to understand how otherwise differently located individuals can come together to form a standpoint. Developing a standpoint involves the project of building epistemic communities (Rolin 2006, 135).

The idea of community building brings me to the third condition for a standpoint, the view that a standpoint is a collective rather than an individual achievement (Crasnow 2013, 418; Intemann 2010a, 210; 2010b, 786; Wylie 2012, 49). Standpoint empiricists argue that insofar as there is an epistemic advantage associated with marginal or unprivileged social locations, the advantage is properly attributed to a value and interest based sub-community (Crasnow 2013, 2014; Intemann 2010a, 2010b). I have argued that value and interest based sub-communities are best understood as scientific/intellectual movements (Rolin 2016a). Such movements are epistemically productive insofar as they enable scientists to generate evidence under conditions where relations of

power tend to suppress or distort evidence, and they provide scientists with an epistemic community where they can receive fruitful criticism for research which may be ignored in the larger scientific community.

To summarize, epistemically beneficial diversity can come in many kinds, such as diversity of standpoints, values, theoretical approaches, and research strategies. Diversity is thought to be epistemically beneficial for at least four reasons. One reason is that diversity generates and maintains a distribution of research efforts among different research programs. A variety of research programs is an epistemically desirable feature of scientific communities because it is difficult to know in advance which lines of inquiry will lead to new and significant scientific discoveries. Another reason to value diversity is that it is a source of critical perspectives which can improve scientific knowledge in many ways. Criticism can help scientists identify and correct false background assumptions. And even when criticism does not lead to a transformation in scientific views, it can be epistemically valuable by enforcing scientists to provide better evidence and arguments for their views. Thus, criticism can help scientists avoid dogmatism about their views. Yet another reason to value diversity is that diversity is a source of scientific creativity. Diverse perspectives can lead scientists to pursue new lines of inquiry, search for new evidence, propose new hypotheses and theories, and develop new methods of inquiry. Finally, diversity is epistemically productive especially in those research programs which aim to understand how relations of power shape the production of knowledge.

Given these arguments, it is safe to conclude that it is ultimately an empirical matter to determine what kind of diversity is epistemically fruitful vis-à-vis a particular research project (see also Wylie 2003). As Longino is interested in understanding how the role of non-epistemic values is managed in scientific research, it is not surprising that she is concerned primarily with the diversity of values in scientific communities. Yet, the social value management ideal seems to be able to

incorporate other kinds of diversity as long as diversity gives rise to criticism that appeals to at least some of the standards of the scientific community.

In the next two sections, I discuss two worries about the social value management ideal, the concern that it is not capable of incorporating as much epistemically valuable diversity as it should, and the concern that it is too generous towards perspectives which are morally and politically problematic.

#### **4. The concern about exclusion**

The concern about exclusion is raised by Intemann and de Melo-Martín (2014) who argue that there is a tension between the requirement for tempered equality of intellectual authority and the requirement for shared standards. The requirement for tempered equality of intellectual authority is meant to ensure that scientific communities benefit from a diversity of perspectives, whereas the requirement for shared standards sets constraints for diversity. In this section, I argue that the tension can be resolved by interpreting the shared standards criterion in a thin way.

By demanding that criticism deserves to be heard independently of who presents it, the tempered equality criterion requires that scientists be responsive to criticism coming not only from their scientific communities but also from outside their communities (Longino 2002, 135). Outside criticism may originate from scientists working in other specialties and disciplines, scientists working in commercial research and development projects, professionals who apply scientific research in their everyday work, or lay people who are interested in scientific research. While these groups may not have the same expertise as scientists who are the target of their criticism, they may still be capable of presenting insightful comments and novel perspectives on research. The requirement for shared standards sets limits for outside criticism by insisting that

scientists have an obligation to engage criticism only insofar as the criticism meets at least some of the standards shared by the target community. This means that much depends on how the requirement for shared standards is interpreted. How many standards are the critics expected to follow before they will be taken seriously? Are all standards equally important or are some standards weightier than others?

As Intemann and de Melo-Martín explain, the requirement for shared standards can be interpreted more thickly or more thinly (2014, 2760). Under a thick interpretation, the criterion requires that the advocates of the criticized views as well as the critics share the same theoretical virtues, the same interpretation of those virtues, and sufficiently similar background assumptions. Under a thin interpretation, the requirement for shared standards allows for a disagreement concerning background assumptions and some theoretical virtues. The criterion requires merely a minimal overlap between the standards of the scientists endorsing the criticized views and the standards of the critics.

There are three reasons to believe that the requirement for shared standards is meant to be interpreted in a thin way. First, as we have seen in Section 2, the social value management ideal is meant to facilitate the criticism of background assumptions as well as the criticism of standards. As Longino explains, “Standards are not a static set but may themselves be criticized and transformed, in reference to other standards, goals, or values held temporarily constant” (2002, 131). For this reason, the shared standards condition should not be interpreted so that it requires an agreement on all relevant background assumptions, standards, and the interpretation of standards. Second, the social value management ideal is meant to be consistent with pluralism about theoretical virtues. As Longino (1995) explains, theoretical virtues are many and they can legitimately be interpreted and weighed in different ways. Pluralism means that scientists can disagree about some theoretical virtues without violating the constitutive rules of science. Third, while Longino acknowledges that different communities may subscribe to slightly different but

overlapping sets of theoretical virtues, she emphasizes that the set has to include at least the virtue of empirical adequacy (1990, 77). For these reasons, it is plausible to suggest that the social value management ideal involves a thin interpretation of the shared standards criterion. As Kirstin Borgerson argues, the set of overlapping standards may involve only one standard: empirical adequacy (2011, 442).

If the shared standards criterion is taken to involve merely the standard of empirical adequacy, it is necessary to explain what empirical adequacy requires. It does not require that all claims involved in a scientific theory are true; instead, it requires merely that what the theory says about observable things and events is true (van Fraassen 1980, 12). Given Longino's account of evidential reasoning, empirical adequacy requires that scientists not only present observational data but also explain how the data is relevant to the hypothesis or the theory. This is because in Longino's view, observational data in and by itself is not evidence (1990, 40). The status of data as evidence is dependent on background assumptions (1990, 45). It follows that the standard of empirical adequacy may be interpreted in different ways depending on what kind of observations are seen as relevant to the subject matter of inquiry. Empirical adequacy does not require that scientists and their critics take observational data at face value. The standard of empirical adequacy leaves room for criticism which raises concerns about the reliability of the data or the status of the data as evidence. So, even if empirical adequacy is granted a privileged position in the interpretation of the shared standards criterion, the shared standards criterion does not exclude critics who disagree about data or the relevance of data to the problem at hand.

For these reasons, I argue that a thin interpretation of the shared standards criterion will solve the exclusion problem. A thin interpretation means that scientists have an obligation to seek and engage a wide range of critical perspectives insofar as criticism is expressed in recognized public venues, the critics are responsive to criticism (for example, they stop repeating their

objections when the objections are refuted), the critics recognize the standard of empirical adequacy, and they do not aim to intimidate or threaten scientists.

Someone may object to a thin interpretation of the shared standards criterion by arguing that, by lowering the standards for appropriate criticism, it burdens individual scientists with too many epistemic responsibilities. Scientific research is in danger of stagnation if scientists are obliged to spend a significant amount of their time and energy in responding to criticism of various kinds (see e.g., Kitcher 2011; Pinto 2014). Against this objection, I argue that a thin interpretation of the shared standards criterion does not need to overwhelm individual scientists with too many epistemic responsibilities. The requirement for the uptake of criticism can be interpreted so that instead of demanding uptake from each individual community member, it demands uptake from a particular scientific community as a whole. Under this interpretation, it is up to the members of a scientific community to decide how they distribute their epistemic responsibilities when they are expected to respond to criticism. Communities can decide to distribute their epistemic responsibilities so that some scientists respond to some criticisms whereas some others respond to some other criticisms. By distributing epistemic responsibilities, scientific communities are capable of engaging a wide range of critical perspectives without running the risk of stagnation.

While Intemann and de Melo-Martín (2014) do not object to a thin interpretation of the shared standards criterion, they emphasize that it involves the risk of needing to seek and engage perspectives which are potentially problematic from a moral and political point of view. In the next section, I discuss the inclusion problem.

## **5. The concern about inclusion**

The concern about inclusion is brought up even more forcefully by Hicks (2011) who argues that by embracing the diversity of values, the social value management ideal is too generous towards those scientists who advance sexist and racist ideologies in science (see also the chapter by Intemann in this volume). While the social value management ideal imposes epistemic constraints on criticism such as the standard of empirical adequacy, it does not impose sufficiently strong moral and political constraints. This gives rise to a tension between the egalitarian ethos of the ideal and its anti-egalitarian implications. While Longino intends the social value management ideal to empower feminist and anti-racist voices in science, the ideal can be used to promote anti-feminist and racist views in science. Insofar as scientists with sexist and racist beliefs are a minority within a scientific community, they can appeal to their minority status and demand that, for the sake of objectivity, the community needs to take active steps to ensure that their critical perspectives will be developed and heard.

In response to the concern about inclusion, I argue that the social value management ideal is not as even-handed with respect to all moral and political values as Hicks thinks. The reason for this is that racist and sexist ideologies violate two principles which are fundamental in the social value management ideal, the requirement for tempered equality of intellectual authority and the requirement for the uptake of criticism. Racist and sexist ideologies are in conflict with the tempered equality criterion because they promote, either explicitly or implicitly, the view that not all human beings deserve to be heard and treated respectfully. Racist and sexist ideologies are in conflict also with the uptake criterion. As soon as one realizes that racist and sexist beliefs are not compatible with the tempered equality criterion, one should give them up; however, if one persists in holding racist and sexist beliefs, then one has violated the requirement for the uptake of criticism.

In order to argue that racist and sexist ideologies violate the requirement for tempered equality of intellectual authority, more will have to be said about the “tempered” aspect of the equality requirement. As Longino understands it, the equality of intellectual authority is tempered in



scientific communities because domain specific expertise is not distributed equally among human beings (2002, 132-133). It is in the very nature of expertise that some people are more knowledgeable in some domains than some others. Yet, Longino suggests that even when people differ in domain specific expertise, they are equal with respect to some other aspects of intellectual authority. As she explains, “Intellectual authority is less a matter of having knowledge than of having cognitive and intellectual skills of observation, synthesis, or analysis, which enable one to make cogent comments about matters concerning which one knows less than another” (2002, 133, note 19). It follows that the tempered equality criterion does not tolerate racist and sexist ideologies because equality can be tempered only insofar as human beings differ with respect to domain specific expertise, whereas racist and sexist ideologies undermine someone’s intellectual authority on the basis of social identity prejudice.

Granting that the social value management ideal seems to exclude those critics who do not respect the tempered equality criterion and the uptake criterion, Hicks raises another concern. When the advocates of racist and sexist ideologies are a minority, they are likely to behave as if they respect the two criteria (Hicks 2011, 339). And insofar as they comply with the two criteria, the social value management ideal does not exclude them. In Hicks’s view, this is a challenge to the social value management ideal because the as-if egalitarians who are not egalitarians in their hearts, can appeal to the minority-friendly ethos of the social value management ideal and demand resources for a research program which harbors anti-egalitarian sentiments.

In response to this concern, I recommend a solution which Hicks himself discusses. The solution is the so called good faith principle which states that good faith participation in a scientific community aiming to realize the social value management ideal requires a commitment to the moral-political and epistemological values that underwrite and motivate the ideal (Hicks 2011, 340). To say the least, the good faith principle requires that one does not reject the moral-political and epistemological values that underwrite and motivate the ideal. Hicks argues, I think rightly, that

the social value management ideal is underwritten and motivated by two moral-political values, formal egalitarianism and liberal pluralism (2011, 342). The requirement for tempered equality of intellectual authority can be seen as an expression of *formal egalitarianism*, stating that “All members of the community enjoy the same formal standing; no individual or subgroup is, as such, given greater privileges or advantages than others” (2011, 342). The requirement for publicly recognized venues, the uptake of criticism, and a thin interpretation of the shared standards criterion are formulated in the spirit of *liberal pluralism*, stating that “There is room for reasonable disagreement; two members of the community may disagree substantially without one or both being unreasonable or irrational” (2011, 342).

The upshot is that when the good faith principle is added to the social value management ideal, the concern about mere outward compliance to the tempered equality criterion and the uptake criterion is eliminated. As Hicks himself explains, no group that rejects formal egalitarianism and liberal pluralism can participate in good faith in a community aiming to realize the social value management ideal (2011, 342).

As promising as this solution to the problem of racist and sexist ideologies is, Hicks (2011) is not satisfied with the social value management ideal. He raises yet another concern about the ideal, the concern about the neutrality that is implicit in liberal pluralism. Far from vindicating or privileging feminist values, the social value management ideal recommends a diversity of values excluding only those values which are in conflict with formal egalitarianism and liberal pluralism. Yet, Hicks thinks, like many other feminist philosophers (Clough 1998; Goldenberg 2015; Intemann and de Melo-Martín 2016; Kourany 2010), that the social value management ideal should be more explicitly committed to feminist values.

In response to the concern about neutrality, I argue that the apparent tension between the liberal value of neutrality and feminism disappears as soon as we remember that the social value

management ideal is meant to govern scientific communities rather than individual research projects. By the liberal value of neutrality I refer to the view that the state should stay neutral with respect to more specific conceptions of good life that individuals and social groups can strive to realize within the confines of liberal democratic states. The social value management ideal can be seen as an attempt to express the liberal value of neutrality at the level of scientific communities by allowing that individual research project serve specific interests and by recommending that different value-outlooks are represented in scientific communities (Rolin 2016b). The social value management ideal does not require individual research projects to be neutral with respect to different values and interests in liberal democratic societies. Instead, the social value management ideal suggests that the liberal value of neutrality is best realized in scientific communities, by combining rational deliberation with a diversity of value-laden approaches excluding only those values that threaten to undermine formal egalitarianism and liberal pluralism. Insofar as feminist values can legitimately guide scientific inquiry, they do so at the level of individual research projects (see e.g., Anderson 2004). Thus, the liberal value of neutrality is not in conflict with feminism. Quite the contrary. The very idea that neutrality is best implemented in scientific communities gives a moral-political justification for the pursuit of the so called “advocacy scholarship” such as feminist research (Turner 2009).

In sum, I have argued that given the social value management ideal and the good faith principle, sexist and racist ideologies are not on equal footing with other moral and political views. Also, I agree with Hicks that the social value management ideal can be seen as an expression of formal egalitarianism and liberal pluralism. But I do not agree about the claim that the liberal value of neutrality is problematic from a feminist point of view. By aiming to implement the liberal value of neutrality in scientific communities, the social value management ideal gives a moral-political justification for feminist and anti-racist scientists to pursue emancipatory research projects.

## 6. Conclusion

I have argued that the epistemic benefits of diversity can best be incorporated into science by adopting the social value management ideal. The social value management ideal does not require that the justification and evaluation of scientific theories and hypotheses is free from non-epistemic values. Nor does it imply that anything goes when it comes to defining the proper role of non-epistemic values in science. Instead, the social value management ideal requires that the justification and evaluation of scientific knowledge takes place in scientific communities which aim to satisfy the four criteria of publicly recognized venues, uptake of criticism, shared standards, and tempered equality of intellectual authority.

Against the concern about exclusion, I have argued that the concern disappears as soon as we adopt a thin interpretation of the shared standards criterion. As it is difficult to tell in advance what kind of diversity will turn out to be epistemically fruitful, it is better to take seriously even those critics who share only one standard with the members of the scientific community. Against the concern about inclusion, I have argued that the social value management ideal does not tolerate racist and sexist ideologies because they are in conflict with the tempered equality criterion and the uptake criterion. I have argued also that the social value management ideal is the best option for feminist scientists not only because it protects scientific communities from anti-egalitarian ideologies but also because it provides a moral-political justification for the pursuit of scientific research in the service of unprivileged or marginal social groups.

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