Democratic Values Do Not Secure Trust

Abstract

The demise of the value-free ideal constitutes a threat to public trust in science. One proposal is that whenever making value judgments, scientists rely only on democratic values. Since the influence of democratic values on scientific claims and recommendations is legitimate, public trust in science is warranted. I challenge this proposal. Appealing to democratic values will not suffice to secure trust because of at least two obstacles: polarization and marginalization.

1. Introduction

Many philosophers of science have rejected the value-free ideal (See Elliott 2022 and references therein). All kinds of values are woven into the fabric of scientific practices, claims, and recommendations. Value-laden judgements are inevitable, sometimes desirable, whenever scientists choose which research questions to pursue, which representations of their target to use, how to collect data, how to set evidentiary thresholds, how to conduct themselves as professionals, how to communicate their results, and how to use these results (Elliott 2017). While a few remain faithful to the value-free ideal (Betz 2013), most scholars recognize that value-laden judgements are core to science.

One worry arises: if science is value-laden and if some of these values are controversial, idiosyncratic, or ideological, then science lacks the kind of epistemic standing that warrants

public trust (most recently: Bright 2018, Lusk 2021).[1] Here is one attempt at articulating the problem. Public trust in science requires not only epistemic trust – that the public has good reasons to believe that scientists have good reasons to believe their claims to be true – but also what Bennett (2020) dubs "recommendation trust" – that the public has good reasons to believe that what science recommends is in their interests. Recommendation trust is hence *not* warranted if the public has good reasons to believe that scientific claims do not serve their interests. Since values and interests are entangled, the public has good reasons to believe that scientific claims and recommendations do not serve their interests if such claims and recommendations are influenced by values that are not clearly theirs. If so, public trust in value-laden science may not be warranted.

Here is a tempting remedy: value influence is legitimate if the intruding values are grounded in democratic processes (Intemann 2015; Elliott 2017; Schroeder 2021, 2022; Lusk 2021). On this view – the Democratic Values Account (DVA) – the influence of democratic values over science is not as problematic as the influence of the idiosyncratic values of individual scientists. Public trust in scientific claims and recommendations influenced by democratic values is warranted because such values are representative of the public's values and interests.

[1] The focus here is on normative theories concerning conditions of warranted trust, not on descriptive theories concerning empirical conditions of actual trust.

Schroeder has articulated three desiderata for any account of legitimate value intrusion warranting public trust in value-laden science, which I call 'Burden', 'Politicization', and 'Legitimacy' (2021):

1. Burden: Members of the public should not bear the burden of assessing whether scientific claims or recommendations are trustworthy because they have neither the training nor the time to investigate such issues. So, any adequate account of public trust in value-laden science should make assessment of trustworthiness straightforward.
2. Politicization: Science shouldn't become politicized even if value-laden. The privileged epistemic status of science relies on science's stemming from "facts". Influence by political ideology undermines science's privileged status and warranted public trust. So, any adequate account of public trust in value-laden science ought to avoid the division of scientific claims along party lines.
3. Legitimacy: Intruding values must have some level of legitimacy for the public. Schroeder does not expand much on this. I propose to use Bennett's analysis. If both epistemic and recommendation trust are necessary for public trust in science, then the trust-conducive legitimacy includes at least two elements: an epistemic one – the trusting person ought to have good reasons to believe that scientists' claims and recommendations are based on sound reasoning and a value-related one – the trusting person ought to have good reasons to believe that scientists' claims and recommendations were forged with the person's values and interests in mind. If so, then legitimate values both promote a solid epistemic status for scientific claims and the public's interests.

Schroeder claims that the DVA meets "two and a half" of the conditions above (2021, 10). Burden is met because, provided it goes through appropriate professional assessment, science is

trustworthy. Politicization is satisfied because the scientific community shares common values and disagree only in matters of science. Environmentalists and industrialists, for example, will reach the same conclusions and "speak with a single voice" (12). Legitimacy is met due to the democratic process: ``If democratic procedures… were carried out properly, then my values were an input into the process… This (…) means that those values should have a kind of legitimacy for me." (13) Democratic processes guarantee that the values influencing science reflect the public's values and interests and hence warrant public trust.

In this paper, I present two challenges for the DVA: polarization and marginalization. Polarization in democratic societies results in democratic processes' outputs being representative of only one portion of the public, while the rest considers their values and interests to be neglected (Section 2). Second, democratic values may allow for marginalization of minorities (Section 3). Overall, democratic processes do not suffice to select values that warrant public trust if by 'public' one means more than factions within the population. The path from democratic values to trust needs to be paved more securely.

2. Polarization and Politization

The DVA fails to avoid politicization because of the problem of polarization. Polarization is the phenomenon by which a group is divided into a small number of subgroups with sharply contrasting views. Current democratic societies are in a state of polarization regarding values (Abramowitz and Saunders 2008), including values that are relevant to science. Examples include polarization between the values of individual liberty and public health during the COVID-19 pandemic, of environmental protection and economic development regarding climate change mitigation policy, etc. In a polarized environment, the entire public will not consider

democratic processes' outputs as representative of their values. If the public is divided into two opposite sides, for example, one group will likely see the democratic processes' outputs as a win, while the other will see them as a loss. Accordingly, one group will deem the output values as representative of their own, but the other group won't. If so, the democratic processes' output will not support recommendation trust for the public as a whole. While a portion of the public may consider the value-laden science as trustworthy, others will strongly reject it.

The case of wolf population management around Yellowstone National Park (YNP) illustrates this point. It features (1) science-based recommendations that are value-laden, (2) values that inform such recommendations as the result of democratic processes, and (3) democratic processes that fail to foster public trust.

Wolf conservation in the US has been science-based, value-laden, and deeply divided since its inception. YNP was established in 1872. Famously, President Roosevelt pushed for the creation of National Parks. As Anja Heister (2022) explains, Roosevelt was equally dedicated to promoting the North American Model for Wildlife Conservation (NAMWC). On the NAMWC, wildlife is seen as a resource reserved for human benefit. Wildlife conservation reduces to hunting and trapping stock management. Yield maximization is the primary goal of science-based policy. Together with the Boone and Crocket Club, Roosevelt forcefully promoted the NAMWC against the preservationist model, defended by John Muir and the Sierra Club, and according to which wildlife ought to be protected from use. Seen as rivals over ungulate hunting stock, wolves were systematic exterminated with the NAMWC as justification. The last Yellowstone wolf was killed in 1926.

Elk population sharply increased over the course of the 20th century as the Park Service took over wildlife management. Overgrazing resulted in illness and starvation. The preservationist movement was revived. Some advocates of the NAMWC changed their minds concerning predator management. The Endangered Species Act was (ESA) passed in 1973, enlisting the grey wolf in most of the 48 lower states. Michael Soulé, co-founder and first president of the Society for Conservation Biology, described conservation science as a crisis-oriented discipline, in which value judgments are an inherent part (Soulé 1985). At the end of the 20th century, the two sets of values led to serious conflicts among conservationists.

The conflict raged throughout the reintroduction of wolves in YNP in 1995 and wolf population management around the park thereafter. Hunters, trappers, and ranchers strongly opposed wolf reintroduction. Heated discussions resulted in a compromise: the Yellowstone wolf population was designated as "nonessential population", not protected by the ESA. Wildlife advocates fought this compromise. Grey wolves were already re-populating Montana from Canada. Soon they would reach YNP. Giving up on federal protections for expedited re-introduction seemed short-sighted. Despite opposition on both sides, the wolf re-introduction moved forward, and was a success. A few breeding pairs were flown from Alberta, kept in acclimatization pens for a few months, and released in the park. Wolves being opportunistic, and elk then being over-abundant, the population increased and stabilized around 100 individuals. Some scientists, such as Ripple and Beschta (2012), have argued that the reintroduction of wolves caused a trophic cascade, restoring cottonwood and willow, beaver colonies, river health, and more.[2] While this

[2] Contrast with Marris (2018).

is perhaps overstated, the YNP wolves are thriving. However, YNP wolf management has crystallized the conflict between consumptive and non-consumptive users.

On the one hand, a cultural movement around wolf research and watching arose around YNP. The YNP wolves have grown up not worrying about humans with scopes and have offered the best opportunities in the world for direct observation. The Yellowstone Wolf Project, led by Doug Smith, has gathered some of the most important research on wolf behavior. Millions of people regularly come to YNP to watch their favorite wolves. An entire industry surrounding wolf-watching burst into existence, creating an economy of more than $82 million a year (RRC Associates et al. 2022). Wolf researchers and wolf watchers are driven by non-consumptive values, portrayed in Rick McIntyre's series on the YNP alphas (e.g. 2022): wolves are esteemed as full individuals, with sophisticated lives deserving of respect.

By contrast, many hunters, trappers, and ranchers see wolves as rivals over hunting stock and dangerous predators for cattle. They lobbied for delisting the wolves in Idaho, Wyoming, and Montana, so that wolf population management returned to the states, which pushed aggressive anti-wolf policies. In April 2021, the Montana legislature passed a mandate to "reduce the wolf population in this state to a sustainable level, but not less than the number of wolves necessary to support at least 15 breeding pairs." (SB 314, April 2021). Interpreting SB 314 as a mandate to reduce the wolf population to about 150 individuals, the 2021 Fish, Wildlife, and Park (FWP) Commission allowed neck snares, baits, night-vision or blinding lights for night hunting on private land, sharply increased the bag limits on wolf harvest, and raised the quotas around YNP.

During the 2021-22 hunting season, the YNP wolves, accustomed to humans and unknowingly wandering out of the park, were disproportionately decimated.

The NAMWC's influence on recent Montana conservation science and policy is profound. The decision-makers, the FWP commissioners, benefit from the advice of state ecologists, who use models to estimate population count, population dynamics, and the effect of harvest on population. The "harvest theory", according to which conservation's main tool is hunting and trapping and its main goal is to maximize harvest yield for humans, runs deep in the science of resource management (Heister 2022, Chapter 6). Arguably, the models used, especially the recently introduced integrated Patch Occupancy Model, both overestimate the wolf population and underestimate the effects of harvest on that population, thus serving hunters' and trappers' interests (Creel 2021). Consistent with the NAMWC, population models also consider individuals as fungible, neglecting pack dynamics and harvest's impact on it. Whether a sickly, low-ranking wolf or a healthy alpha is killed makes no difference. This contradicts recent research according to which social dynamics of wildlife ought to be considered in conservation (Fitzpatrick and Adnrews 2022). The NAMWC is so entrenched in US wildlife resource management science that alternative views, such as compassionate conservation (Bekoff 2019), are rejected by many experts without serious consideration (Coghlan and Cardilini 2022). The NAMWC is undoubtedly core to US resource management.

I have argued that YNP wolf population management is both science-based and deeply value-laden. It is also grounded in democratic processes. The commissioners are nominated by the democratically elected governor. The Montana legislature, also democratically elected, gives

guidelines to the commission. The commission allows for in-person and online public comments on any wildlife management plan. Commissioners make themselves available to constituents for direct consultation. Civic engagement is strong: public hearings are buzzing with people and online public comments abound. So, political representation as well as direct citizen engagement inform wolf management.

By no means, however, have such democratic processes allowed constituents to find satisfaction with the commission's decisions. Rather, polarization and distrust rule. Commissioners have complained about threats from animal activists. Wolf advocates report threats during community meetings in Gardiner, MT. Public comments in front of the commission are heated. Moderate views are the exception. Such conflicts are neither recent nor anecdotal. Historically, the NAMCW did not emerge from consensus but has been promoted within wildlife management by a subgroup of conservationists devoted to consumptive users' interests (Feldpaush-Parker and al. 2017). The NAMCW is very divisive: "The historic and ongoing insertion of the NAM into the already fractured conservation community continues to cause fraction and animosity between groups with opposing perspectives of the role of hunting in conservation. Essentially, by championing a wildlife-conservation system that values the interests of hunters over those of non-hunting wildlife enthusiasts, the NAM serves as a polarizing force with wildlife conservation." (Heister 2022, 84). In short, democratic processes have proved insufficient to avoid polarization.

In conclusion, DVA advocates argue that influence of democratic values in science is legitimate because democratic values delineate some common ground, avoid politicization of science, and

warrant public trust. In our democracy, however, polarization between sharply contrasting views rules, especially concerning science-based recommendations pertaining to "hot" debates, such as wildlife conservation, where the issue of legitimate value influence is the most prominent. Democratic processes in a polarized society result in one side winning over the other. The other side's values and interests are neglected. For that portion of the population, epistemic and recommendation trust is not warranted. Appealing to democratic values in polarized societies hence secures neither lack of politicization nor public trust.

3. Marginalization and Legitimacy

The DVA faces a second challenge: the problem of marginalization. Democratic processes typically allow for the marginalization of values and interests of minorities and other historically subjugated groups. Marginalization undermines the claim that appealing to majoritarian democratic values appropriately secures legitimacy for value-laden science for the entire public. If legitimacy is compromised, public trust is not fully warranted. The DVA fails to deliver on its promise.

Consistent disenfranchisement has deeply tarnished the rapport between historically subjugated groups and the scientific community. Western science has persistently catered to the belief that racial differences are biologically grounded and correspond to different levels of intelligence and quality of character (Saini 2019). In the U.S., Black communities have suffered medical exploitation in the name of scientific advancement (Washington 2006). Pervasive prejudice in science and medicine resonates in many of today's communities.

Such communities are arguably warranted in *distrusting* science influenced by dominant group's values, even if endorsed by a majority. Recall that public trust in science requires not only epistemic trust but also recommendation trust. Historically subjugated communities may acknowledge that value-laden science is worthy of epistemic trust while recognizing that such science is not framed using appropriate values and interests. If so, recommendation *distrust* may be warranted towards DV-laden science. In short: historically subjugated groups such as Black and Indigenous communities in the U.S. have good reasons to distrust DV-laden science.

The story of the National Bison Range (NBR) in Montana provides a compelling case of a science-based and democratically-informed conservation project that has consistently marginalized historically subjugated groups. From 1908, when it was founded, until 2022, the NBR has been under federal control. The refuge's management has been based on environmental assessments conducted by government ecologists. Conservation decision power belongs to the US Fish and Wildlife Service, responding to the ecologists, Congress, and the public through direct consultation. The NBR's management is hence science-based and democratically informed. Yet it features an egregious disregard for the values and interests of the Confederated Salish and Kootenai Tribes of the Flathead Reservation.

Targeted as part of an eradication program supporting the subjugation of the Indigenous Peoples of the Central Plains, the bison population dropped from some estimated tens of millions to a few hundred by the end of 19th century (Merchant 2007). In the 1870's, according to oral accounts of the Qĺispé peoples, Little Falcon Robe was tasked by elders to guide a handful of orphaned calves across the Continental Divide back to the Flathead Reservation in hopes to save bison.

The herd grew to approximately 300 free-roaming animals. During the allotment era, however, the U.S. government, seeing free-roaming bison as incompatible with white settlers' way of life, shipped the herd to Canada. Meanwhile, pioneer conservationists worried about the possible extinction of bison, including William Hornaday, an enthusiast sportsman, explorer, and taxidermist. Founding director of the Bronx Zoo and founding member of the American Bison Society, Hornaday played a prominent role in the establishment of the NBR. However, Hornaday's legacy is at best mixed. As Preston explains (2023, 61-62):

> "Hornaday's time at the zoo marked a new era for conservation, but his tenure was marred by his association with prominent racists and eugenicists. At one point, he put a villager from the Congo, Ota Benga, on display in the primate house. When he was criticized for his racism, Hornaday claimed he was simply being scientific. Hornaday's attitude matched that of many leading environmentalists at the time. Nature was pure in a way only the white man had the capacity to appreciate. Conservation was the privilege of Hornaday's race to pursue…the American Bison Society had no qualms about centering itself at the Bronx Zoo and anointing Hornaday as its dean."

The American Bison Society tasked University of Montana biology professor Morton Elrod to identify a piece of land suited for establishing a refuge for bison conservation. Elrod selected land on the Flathead Reservation, which the government appropriated to create the NBR. However, the tribes were excluded from the herd's management. Tribal members were not allowed to work for the refuge. From the tribes' perspectives, the fences were there "as much to keep the Indians out as to keep the bison in" (Glick 2018). The idea of a fenced-in refuge also reflects Western conservation values – nature is to be conserved as separate from human

dwellings, which contrasts with the tribes' values regarding human-nature entanglement. Only after a century of legal battles against the federal government was the NBR partially returned to the tribes. All along, government and public displayed contempt for the tribes' values and interests. Any consideration of tribal management was met with explicitly racist public comments (Glick 2018). Western conservationists consistently doubted the tribes' ability to manage wildlife and disparaged the tribes' profound historical, cultural, and spiritual ties to bison. Only in 2020, when the Montana Water Rights Protection Act was signed into law, were the tribes' involvement in the refuge's management restored. The history of the NBR is a paradigmatic example of how U.S. conservation has been infused with racist prejudice despite its fundamental values being democratically endorsed. Given such history, the tribes are arguably warranted to distrust white-settler's scientific claims and recommendations regarding bison management.

Schroeder offers two solutions to the problem of democratically endorsed prejudicial values: (1) prejudicial values ought to be laundered, and (2) minorities ought to be given extra weight. I contend that both solutions remain unsatisfactory.

Regarding the laundering of prejudicial values, Schroeder writes:

> "First, remember that the democratic values proposal launders and filters the actual values held by the public. Certain values -- for example, racist or sexist ones -- conflict with basic democratic principles of equal worth, and so cannot be candidate democratic values. Thus, even in a racist society, telling scientists to work from democratic values will not tell them to work from racist values" (2019, p. 16)

The claim is that filtering democratically endorsed values is legitimate whenever justified in terms of some fundamental principles of democracy. The DVA thus relies on two distinct notions of democratic values: (1) process-based values -- whatever values the public and its representatives hold and (2) values that found democratic authority. The first is a matter of fact, the second a matter of political morality. The latter serves as constraint upon the former. This strategy faces at least one significant challenge.

The challenge pertains to the identification of prejudicial values. Schroeder suggests that racist *motives* are more easily identifiable than racist *policy* (2022, Section 6). I disagree. First, deciphering motives is difficult. Personal motives are typically different from explicit policy rationales and epistemically inaccessible. Explicit rationales rarely tout prejudice. Transgender bathroom use policies are promoted in the name of women's safety. Justifications for the war on drugs appealed to the necessity to be tough on crime, not to systematically disenfranchise Black communities. The anti-immigration movement, which is historically entrenched in white supremacy (Jones 2021), invokes public safety and job security, not the preservation of the white race. Explicitly prejudiced talk has become rare. Alternative strategies abound (Hanez-López 2014). Finally, when prejudice is disguised as genuine concern for public safety, job security, etc., laundering processes are easily portrayed as anti-democratic. Overall, laundering prejudicial values might be harder that Schroeder suggests.[3]

Schroeder's second proposal is to give minorities' values "more weight". Against the "one person-one vote" view of democracy, Schroeder suggests that "in cases where minority values

[3] This is not to suggest that discriminatory practices are impossible to identify in policy. Which strategies work best is however still up for debate in the philosophy of law literature (Tasioulas 2020).

are held by a group that is or has been the subject of exclusion or discrimination, democratic principles may sometimes require giving those values extra weight, or a voice disproportionate to their statistical representation in the population, as a way of accounting or compensating for their past or present exclusion." (2019, 16-17) However, the mechanisms by which minority voices can be amplified remains unspecified. Surely the burden of proof falls upon Schroeder. Also due is an explanation how the majority would agree to a system that gives disproportionate representation to minorities. Decades of battle over affirmative action indicate that promoting minorities' interests is challenging (Fullinwider 2018). Resentment and distrust from majority stakeholders is a serious concern. These difficult issues regarding democratic process, democratic authority, minority representation, and public trust deserve more extensive treatment.

One strategy consists in switching away from representative democracy to opt for a deliberative democracy model instead (Fishkin 2009). Greg Lusk (2021) explores this option. Value-laden science, Lusk argues, may have legitimate authority if values are selected via deliberative democracy processes. Many hope that deliberative democracy can serve as a restorative tool for Western democracies (Dryzek 2019), but several issues arise. First, Bennett (2020) has convincingly argued that deliberative democracy, at least in the form of deliberative polling à la Fishkin, fails to secure recommendation trust: "Deliberative polling could successfully disabuse a citizen of epistemic prejudice against expert testimony without thereby giving them a reason to accept that the same epistemic-trustworthy expert is issuing recommendations that are in their interest." (14) If so, while deliberative polling may secure epistemic trust, it may not secure recommendation trust. Second, some studies suggest that traditionally under-represented groups may be marginalized in citizen deliberations just as they are in traditional voting-base processes

(Ghergina 2021). Third, trust in the system may not generally increase thanks to deliberative processes. Polarized people may not recognize the legitimacy of the deliberations' outcome (Van Dijk 2023). Finally, some studies suggest that whether trust is restored depends on whether deliberative outputs are adopted by decision-makers (van Dijk et al. 2023). Given deliberating bodies' typical advisory role, recommendations are often "cherry-picked" (Font et al. 2018). These concerns cast some doubt on whether deliberative democracy can restore trust in the political systems (Curato et al. 2022). If deliberative democracy may not properly remedy polarization and marginalization effects and effectively restore trust in outcomes, then it is at least unclear whether it can resolve the problem of legitimacy of value-laden science. Here again, the burden of proof falls upon DVA advocates.

To conclude, appealing to democratic values to restore public trust in value-laden science faces the problem of marginalization. Historically marginalized communities have no good reasons to believe their values and interests will be given adequate consideration within democratic processes. However, trust within such communities is often especially crucial for scientific recommendations to be successfully implemented. Any proper articulation of the DVA ought to address this issue.

Conclusion

This paper offers a critical examination of the DVA, i.e., the view that, if scientists work with democratically endorsed values, public trust in value-laden science is warranted. I have argued that the DVA faces two serious challenges: the problems of polarization and marginalization within democratic societies. More work lies ahead for DVA advocates.

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