Truer facts through stronger values: confronting science's sociopolitical realities

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Abstract

Assaults on science have led scientists to demand "politics-free/values-free" science that safeguards science against error by grounding it in "politically neutral" evidence. Considering racial disparities in lead poisoning, HIV/AIDS, and COVID-19, we show the solution is doomed. Politically charged beliefs are essential for assessing public-health research; thus, the beliefs' truth affects the research's accuracy. However, science's sociopolitical uses systematically distort politically charged beliefs. Since errors assimilate into our scientific corpus and inform new hypotheses, scientists need accurate sociopolitical theories of distorting forces to identify errors. Analyzing Black-Panther opposition to violence research, we argue since racial disparities structure society and science has been distorted to buttress racial inequities, knowledgeable anti-racist scientists exert corrective forces on research. They hold accurate politically charged beliefs about sociopolitical forces shaping science and health, and are committed to eradicating distortions. Thus, rather than quarantining politically charged beliefs, scientists should sharpen their sociopolitical theories and normative commitments.

Keywords: anti-racism; epistemology; health inequities; health disparities; scientific methodology; values

1. Introduction

Recent assaults on science have sparked scientists' alarm. Throughout the COVID-19 pandemic in the U.S., ruling-class politicians, business owners, and their allied scientists have downplayed the virus's virulence and sown confusion about likely sources of transmission, opposing shutdowns with income supports and other public-health measures, killing hundreds of thousands.^{1–5} Before COVID-19, the Trump administration used its bully pulpit to discourage rational inquiry by spreading disinformation, delivering “alternative facts” polemics, and countermanding scientific research by fiat,⁶ a more brazen gloss on the tradition of deception by powerful elites.^{7–}¹⁰ Simultaneously, public-health researchers have roiled under revelations of decades of collusion between regulators and chemical manufacturers,¹¹ covert industry funding of research,¹² and coercion and deception by industry-funded, politically connected scientists.¹⁰ Minimally, our society's ability to make informed decisions is at risk.

In response, many scientists have called to safeguard science's accuracy, i.e., its truth or approximate truth, through an apolitical or value-free science. For example, prominent scientists decried the politicization of 2017's March for Science, denouncing efforts to diversify science as “identity politics” and demanding non-partisanship.^{13–15} Some scientists opposed marching entirely because political engagement would “trivialize” science.¹⁶ Likewise, in a 2018 *American Journal of Public Health* editorial, a dean of a major school of public health suggested that scientists with political convictions had “ideological conflicts” of interest that might jeopardize the quality of their scientific research – implying that apolitical science was possible and preferable.¹⁷ A now-repudiated editorial by *Nature's* editors echoed these arguments.¹⁸ Dismissing

objections to a statue memorializing gynecologist J. Marion Sims – who experimented on enslaved women and infants – because Sims discovered life-saving techniques benefitting “black and white women alike”,¹⁸ the editorial presupposed science’s political neutrality, foreclosing inquiry into the interplay between our scientific and sociopolitical histories and casting episodes like eugenics as aberrations, not outcomes of white supremacy’s systematic influence on scientific knowledge production.

We share scientists’ alarm. We agree that the sociopolitical conditions of science’s production can undermine its accuracy, and that avoiding error requires ensuring that hypotheses are accepted because sound evidence supports them, not for other reasons. We also agree that politically charged beliefs, i.e., beliefs that tend to vary with political persuasion, carry heightened empirical risks. However, the solution of *prospectively* excluding politically charged beliefs from the domain of scientific evidence reflects a misdiagnosis of the empirical problem; ironically, a misdiagnosis that has been used to shield research from empirical scrutiny by dismissing as “political” or “ideological” well-founded empirical challenges to dubious scientific hypotheses, when those hypotheses reflect entrenched politically charged presuppositions (background beliefs).^{19–21} In contrast to scientists’ proposed solution, we argue that the starting point for promoting accuracy is recognizing that politically charged beliefs are evidentiary and empirical, and that they have already shaped our scientific corpus, thus the evidence available to assess new research.

In this paper, we analyze prevailing explanations for racial disparities in lead poisoning, HIV transmission, and COVID-19 to argue that politically charged descriptive beliefs about societies and groups are integral to assessments of the likely truth of

public-health hypotheses, including not merely beliefs about how specific socio-structural factors shape health, but also beliefs about how sociopolitical factors shape science. Accordingly, public-health research's accuracy depends upon politically charged beliefs' accuracy, and such beliefs must be empirically investigated.

Drawing on research regarding the sociopolitical production of science, we argue that research on the causes of racial disparities is especially vulnerable to distortion and requires heightened empirical scrutiny. False theories of racial difference and racial hierarchy (politically charged beliefs) gain currency disproportionate to their evidentiary support because they are useful in maintaining racial inequities. Since existing false beliefs inform assessments of new hypotheses, errors ramify. To avoid error, public-health researchers need accurate sociopolitical theories (politically charged beliefs) of the forces shaping the evidence for race-related research generally, as well as of the structural factors causing specific health inequities.

In this perilous context, where science has been systematically distorted to justify oppression, what is to be done? Invoking the Black Panthers' challenge to violence research, we argue that in our historical moment, where science and society have been shaped by relations of racial domination, holding accurate sociopolitical theories of race and racism, as well as corresponding anti-racist normative commitments, has a salutary effect on public-health research and practice. All else being equal, knowledgeable anti-racist scientists are not only disposed to be more accurate researchers than other scientists, they are also motivated to organize politically to eradicate distorting forces. In short, rather than prospectively quarantining politically charged beliefs and retiring to

their labs, we urge scientists to strengthen their sociopolitical theories and normative commitments.

2. Politically charged beliefs in public-health research

Competing explanations for racial disparities in lead poisoning, HIV transmission, and COVID-19 demonstrate the relevance to public-health research of politically charged beliefs, including beliefs about: (a) how sociopolitical systems allocate resources, risks, and power; (b) what social groups are like; and (c) how sociopolitical forces shape belief.

Concerning racial disparities in lead poisoning, competing mid-twentieth-century explanations included:²²

Hypothesis One: Black children's higher blood lead levels reflect lead consumption encouraged by “deviant” cultural and behavioral practices, like pica.^{23–25}

Hypothesis Two: Black children's higher blood lead levels reflect exposure from contaminated housing environments and inadequate industrial and environmental regulations.²⁶

Scientists whose beliefs were informed by the “Culture of Poverty” theory, whereby “deviant” behaviors, values, and family structures explained Black people’s subordinate status in the U.S., may have preferred Hypothesis One,²⁷ which the theory supported. The Culture of Poverty theory aligned with dominant biomedical and lifestyle

theories of disease, which posited that disparate distributions of inborn “risk factors” and presumptively freely-chosen “risk behaviors” explained unequal societal burdens of morbidity and that addressing such factors and behaviors would suffice to ameliorate health disparities.²⁸ The theory and hypothesis also aligned with the economic interests of real-estate and lead-industry executives, who forestalled government action to prevent lead poisoning and regulate industry by promulgating disinformation emphasizing the roles of personal responsibility and cultural failings rather than structural factors.^{29,30} Beyond influencing scientists’ assessments of the hypotheses’ relative credibility, theory choice influenced scientists’ research strategies; that is, *where* in the causal structure scientists looked for explanations of the observed lead-poisoning inequities (e.g., at the individual, not structural, level) and what *type* of explanations they sought (e.g., behavioral, not environmental). Given finite resources, such a narrowing of scope can profoundly affect future research programs and proposed solutions.^{31,32}

In contrast, scientists whose beliefs included the theories that structural racism segregated Black families into dilapidated, lead-contaminated housing and that racism and business interests motivated governmental inaction on lead-poisoning prevention may have preferred Hypothesis Two.³³ Such scientists may have been informed by political economy of health theory, which emphasizes how social structures and relationships of power/domination (like racism) are embodied unevenly, thus explaining inequitable distributions of exposure and disease as functions of *power*, not behavior.³⁴ They may also have doubted the cultural-deviance hypothesis due to its historical uses in justifying racial oppression and economic exploitation.²⁷ The structural theories were relevant to scientists’ assessments of the hypotheses’ relative credibility, as well as to

their research strategies, i.e., *where* they looked for explanations of the lead-poisoning inequities and the *type* of explanation they sought.

In fact, environmental exposures and inadequate regulations – not cultural practices – drove the inequity.^{22,35–37} Scientists holding the politically charged belief that structural racism^{38,39} shunted Black families into hazardous housing and polluted environments were more accurate judges of the hypotheses than scientists holding the now-debunked politically charged Culture of Poverty theory.⁴⁰ They were also better judges of health policy:⁴¹ preventing lead poisoning and mitigating inequities requires rectifying sub-standard housing and strengthening industry regulations, not changing behaviors.^{36,37,42} (And regardless of behaviors' roles, if the paint had not contained lead to begin with, eating it would not have caused lead poisoning.)

The role of politically charged beliefs in assessing hypotheses, choosing research strategies, and developing public-health policies is also evident in recent debates about HIV transmission in southern Africa and COVID-19 among people of color in the U.S. Regarding HIV transmission, the hypothesis that promiscuity fuels the epidemic may appear plausible to scientists informed by prevalent colonial theories of African peoples' family formations and sexual practices.⁴³ Contrarily, scientists who have investigated how global capitalism, colonialism, and transatlantic slavery have shaped African societies and Western beliefs about them⁴⁴ might doubt the promiscuity hypothesis or suspect significant structural factors, e.g., that conditions of deprivation augment viral transmission.⁴⁵ Likewise, regarding COVID-19, the hypothesis that “unhealthy” behaviors explain the disproportionate burden of COVID-19 morbidity and mortality among people of color in the U.S. may appear plausible to scientists informed

by racist stereotypes about drug use, diet, exercise, and adherence to public-health guidelines.⁴⁶ Contrarily, scientists informed by scholarship on racial capitalism^{47–49} may find more credible or comprehensive explanations invoking the segregation of people of color into hyper-exploited “essential” labor, environmentally degraded neighborhoods, overcrowded housing, and jails and prisons.⁴⁹ In both cases, the preferred hypothesis has implications for health policy. If behavioral factors drive the racialized differences, educational interventions may eliminate the disparity; if the causes are structural, however, radical interventions contravening capitalism’s profit-making imperatives may be necessary.

3. Lessons from the philosophy of science

The lead-poisoning, HIV-transmission, and COVID-19 examples suggest that politically charged beliefs about science and society are relevant to assessments of the likely: (a) truth of public-health hypotheses, (b) fruitfulness of research strategies, and (c) efficacy of public-health policies. They are relevant not merely because socio-structural factors affect health,⁵⁰ but also because politically charged beliefs are evidentiary and sociopolitical forces shape science, scientific theories, and scientific common sense.⁵¹

Broader research on scientific epistemology corroborates the evidentiary import of politically charged beliefs. Accounting for scientific knowledge requires a holistic theory of scientific methodology that accommodates background beliefs’ (including politically charged beliefs’) evidentiary roles.⁵² As demonstrated in the previous examples, hypothesis choice requires making theory-laden – and often politically charged – judgments about the relative credibility of alternative accounts of the

evidence.⁵³ Such judgments may be informed by background beliefs based on accepted scientific theories, common sense, personal experience, or observations. When a belief is challenged, it can only be assessed by weighing it against others and achieving a tenable balance.⁵⁴ Although not all hypothesis choice implicates politically charged beliefs, background beliefs inform all scientific assessments. No sound basis exists for a *priori* privileging any class of empirical belief, whether that class be theories, observations (which are sometimes reasonably rejected as erroneous or due to equipment failure), or otherwise. Thus, scientific methodology involves “inference to the best explanation” (“abduction”): hypotheses are chosen based on their relative abilities to explain the totality of the evidence.⁵² In the examples discussed previously, the “totality of the evidence” included politically charged theories about how racism and other aspects of our political economic system shape health, scientific practice, and the scientific corpus.

Scientific methodology’s belief dependence has significant implications for accuracy in public-health research. Thus, whatever their philosophical and political persuasions, public-health scientists must consider the implications for accuracy of scientific methodology’s belief dependence. First, because extant politically charged beliefs are used to assess hypotheses and inform research strategies, their truth affects the assessments’ and research’s accuracy. Second, because politically charged beliefs have already shaped our scientific corpus, earlier errors continually mislead scientists and ramify through new hypotheses and research strategies. Accordingly, promoting accuracy in public-health research and designing effective public-health policies requires investigating politically charged beliefs and correcting existing errors.

In our view, because mainstream Western public-health research has been produced under conditions of racial capitalism,^{47–49} caution is required not only in assessing the accuracy of received wisdom in the field, but also in assessing the field's scope and explanatory paradigms. Public-health research is rife with modes of explanation generated to justify oppression and inequities. Even as certain older racist theories have fallen out of favor, the *structure* of explanation undergirding these theories carries forward. For example, while few public-health researchers today may *explicitly* believe the Culture of Poverty theory, the perennial search for behavioral causes of racial inequities (rather than structural ones) lays bare how deeply public health has been structured by, and continues to buttress, racial-capitalist oppression. This suggests that it is not enough to merely expel *prior* racist theories from the scientific corpus. Instead, as we do in the next section, we must investigate how racism, capitalism, and other systems have already shaped and continue to shape public-health theories, practice, and methodology, and use such investigations to correct errors. Science is not static. Investigating, challenging, and correcting our scientific beliefs will necessarily change our scientific practice.

4. Science and society co-construct

Since politically charged beliefs are integral to public-health research, the empirical risks they pose must be investigated and addressed. Although specific beliefs relevant to specific research require individual investigation, we approach the investigative task generically and consider politically charged beliefs as a class. Research shows that science is shaped by its political and economic uses and by the material conditions of its production.^{55–57} Externally to science, political and economic

forces distort science by causing false claims to gain currency disproportionate to their evidentiary support because the claims are useful to their promulgators.⁵⁸ Internally to science, false claims, once assimilated, distort science by influencing assessments of new hypotheses, sometimes long after the initial false claims have been debunked.¹¹

Politically, research shows that the social organization of power distorts Western science (scientists' intentions notwithstanding). Politically charged beliefs are especially vulnerable. False theories of group difference gain currency not because sound evidence supports them, but because they are useful in maintaining inequities.⁵⁹ “Biological determinist” theories of race (and gender) differences are perennial examples, reemerging with clocklike regularity and casting a pall over Western science.^{60,61} Such theories tend to reduce complex causal relationships to limited factors, discount social and environmental causes of group differences in favor of low-level (typically genetic) causes, and erroneously suggest that insofar as group differences have biological causes, they are intractable.^{59,62,63} As the lead-poisoning, HIV-transmission, and COVID-19 examples suggest, such theories, once promulgated, are often absorbed, pedigrees unexamined, into the prosaic corpus of received scientific belief. Moreover, because our society manifests structural racial inequalities, theories naturalizing inequality may appear plausible, especially to dominant groups. Such theories are useful in justifying inequities: if “intractable” inborn differences cause unequal social outcomes, those outcomes might seem fair or inevitable.⁶⁴

The current conditions of public-health research facilitate distortion. Research is shaped by researchers' dependence upon funding agencies, with constraints imposed by politicians, administrators, and industry. Since scientists assess competing

hypotheses by comparing their relative abilities to explain existing evidence, resultant knowledge gaps may mislead researchers, errors aside. Political influence can be blatant: Congress cut funding for CDC's gun-violence research after NRA lobbying.⁶⁵ Funders' predilections also create gaps: NIH allocations for research on genetic causes of racial health inequities dwarf allocations for research on socio-structural causes, even though socially defined racialized groups do not map neatly onto biological categories.⁶⁶ These elisions create "bodies of systematic ignorance ... alongside bodies of systematic knowledge"³¹ and forestall health policies challenging inequitable social structures.

Methodological strictures can also be distorting.⁵¹ In the current epidemiologic controversy over the potential outcomes approach to causal inference, a primary disagreement concerns whether the "well-defined intervention" assumption, which advocates conceptualizing exposures as treatments in randomized controlled trials, privileges research on the effects of narrowly defined exposures at the expense of research on the effects of radical shifts in social structures.³²

Knowledge gaps aside, industry funding can be distorting. Especially when interests are hidden, fraudulent research may remain influential long after industry involvement ends.¹¹ Beginning in the 1930s, the asbestos industry funded and marketed misleading academic research on asbestos fibers' safety that influenced North-American policy into the 21st century and facilitated sales of carcinogenic asbestos to the Global South.^{67–69} Less directly, the higher frequency of positive findings in randomized controlled trials where researchers have a conflict of interest suggests that researchers may – consciously or unconsciously – modify investigations to satisfy funders' goals.^{70,71} Industry funding's scale in the U.S. – the pharmaceutical industry

spends billions more on research than the NIH⁷² – makes even minor distortions significant.

Despite the ivory-tower myth, academic research exerts only a weak corrective force. Faculty increasingly need outside funding due to budget cuts and organizational restructuring.⁷³ However, funding agencies' preferences for "safe" research under mainstream paradigms can limit innovation,⁷⁴ while agencies' preferences for researchers with prominent publications can encourage fishing for publishable results.^{74,75} For want of funding or labor protections like labor unions, researchers challenging dominant paradigms, e.g., biological reductionism, may be fired or silenced by harassment.^{28,76,77}

Lack of diversity and workplace inequities also influence the production of scientific knowledge. Since lived experiences inform beliefs and values, scientists with different backgrounds may have different knowledge funds, assess hypotheses differently, and consider different research areas promising.^{78–80} Moreover, marginalized scientists may challenge weak group-difference claims ignored or promulgated by dominant groups.^{78,79} Thus, increased diversity fosters accuracy directly by reducing errors and knowledge gaps, as well as indirectly by ensuring talented scientists' inclusion.^{80–82} However, increasing diversity through inclusion is insufficient unless: (a) marginalized scientists are afforded the social, epistemic, and material conditions necessary to utilize their knowledge and experience (including experiences of oppression), and (b) marginalized scientists' findings are not summarily dismissed ex-ante as incredible by scientists from overrepresented backgrounds.⁷⁸ Yet, marginalized scientists remain underrepresented in academia, and their productivity is threatened by

racist/sexist workplaces, precarity, and undue administrative burdens.^{83,84} Although women are relatively well-represented in some public-health fields, substantial racialized, gendered, and classed inequities persist.^{85–87}

In sum, research shows that sociopolitical forces distort public-health research and that politically charged beliefs are especially vulnerable. However, research also shows that these distortions are structured and predictable, not random. The politically and economically powerful can and do promulgate disinformation that justifies their hegemony or enhances their profits. Moreover, overrepresented scientists with institutional power can and do ignore counterhegemonic scientific research and practices, sustain hostile epistemic conditions, and exclude minoritized scientists because they benefit from their overrepresentation in scientific communities.

Given this pessimistic picture, what is to be done? Minimally, to identify risks of error and correct distortions, public-health scientists need accurate theories of how the conditions of science's production shape scientific theories, practices, paradigms, and communities. More fundamentally, accuracy would be best ensured by fundamentally uprooting the sociopolitical and material conditions distorting science through anti-racist and anti-capitalist organizing. Such an active and coordinated effort is required if received scientific beliefs in the field are distorted but not recognized as such.

5. Anti-racist science

The Black Panthers' challenge to violence research, explored by Alondra Nelson in *Body and Soul: The Black Panther Party and the Fight Against Medical Discrimination*, provides a model for this approach to accuracy. The 1970s brought a new wave of “scientific” racism, including feeble biomedical theories claiming that

“uprisings like those...in...Watts in 1965 were carried out by unruly African Americans with diseased brains”⁸⁸ and that biological inferiority explained African Americans’ high incarceration rates.^{89,90} In 1973, UCLA formed the Center for the Study and Reduction of Violence to study violence from “genetic, endocrinal, psychological, neurophysical, epidemiological, and psychosocial” perspectives.⁸⁸

Drawing on their knowledge of the sociopolitical forces shaping race-related research and a history of African American challenges to biological theories of racial difference, the Panthers challenged the Center scientifically and politically. Beyond recognizing that the research would be used to oppress communities of color, they challenged the research’s scientific merits, arguing that “the greatest intellectual differentials are among individuals rather than races”⁸⁸ and that racism, capitalism, and imperialism – not biology – caused violence in Black communities.⁹¹

The Panthers and their coalition prevailed: a California Senate committee withheld the Center's funding weeks after the testimony of Fred J. Hiestand, an attorney who addressed the committee on behalf of the Panthers and their anti-Violence-Center coalition.⁸⁸ In withholding funding, the committee did not adopt the Panthers’ revolutionary anti-racist, anti-capitalist political analysis, but it was influenced by the Panthers’ critique of the Center’s scientific program.⁸⁸ The Panthers’ empirical critique was supported by the contemporaneous research of anti-racist geneticists like Richard Lewontin, who demonstrated that genetic variation is greater within “races” than between them.⁹² Lewontin’s scientific research was guided by “a conscious application of Marxist philosophy” (pp. 165), a politically charged framework that made him

skeptical of biological determinist theories and inspired his challenges to oppressive science.⁹³

The Panthers' experiences of racism and their knowledge of racism's role in structuring science and society (their values in the sense of politically charged beliefs) informed their empirical critiques, and their beliefs that we *should* not live in a racist society (their values in the sense of normative commitments) motivated them to investigate and contest race science.⁵⁸ In other words, the Panthers' politically charged anti-racist beliefs and commitments guided their scientific intervention. In averting an ill-founded research project, the Panthers protected science and society from further empirical errors and unfounded policies, and from the inequitable conditions and distorting forces that the errors would sustain and engender.^{58,94} Science, normative values, and social conditions are interconnected. Minimally, what we should do as a society, given our goals, depends upon the facts (reducing violence requires knowing its causes);⁹⁵ concomitantly, descriptive empirical claims about groups ("diseased brains" versus "oppressed communities") inform normative assessments of how those groups *should* be treated.^{96,97}

This example suggests that knowledgeable anti-racist scientists are *disposed* to exert a corrective force on public-health research: since our society is racist and science has been distorted to buttress racial inequities, scientists who accurately apprehend these facts and are moved to counter them have a salutary effect on science. All else being equal, public-health researchers with more accurate sociopolitical theories of race and racism are disposed to produce more accurate science than other researchers, and

researchers with stronger anti-racist normative commitments are disposed to exert a stronger corrective force against distortion.

6. Conclusion

As the powers that be play fast and loose with the facts, scientists have sought to ensure accuracy *prospectively* by arguing for politics-free/values-free science. We showed the solution is ill-conceived and self-defeating. Politically charged beliefs are integral to research in public health and similar sciences, and insofar as they are false, they have already infected science and remain contagious. In contrast, we outlined an *empirical* approach to promoting accuracy that is informed by research on scientific methodology and the material conditions of science's production. Focusing on race-related research, we showed that science's sociopolitical uses systematically distort politically charged beliefs. However, because politics often enters science in the form of implicit background beliefs, banishing *explicit* politics will never be sufficient to transform science. Accordingly, concerned scientists are well-advised to investigate the politically charged issue of how sociopolitical forces shape race-related research, work to correct existing errors, and organize politically to change the conditions breeding distortion. While even advocates of "value-free" science likely agree that personal commitments play an extrinsic role in science, guiding research programs and practical decisions,⁹⁸ our conclusion is stronger. In our historical moment, anti-racism fosters accuracy for reasons *intrinsic* to science: distorting forces follow trajectories that anti-racism counteracts.

In a social epistemic context that disposes us to believe in the naturalness, rationality, or inevitability of social hierarchy, explicitly holding anti-oppression values

can counteract those dispositions. Maintaining untenable theories of scientific methodology that presuppose scientific belief can be quarantined from the influences of sociopolitical conditions shields false beliefs from rational empirical scrutiny, upholding the unjust status quo. Thus, expanding on feminist philosopher Miranda Fricker's work on epistemic injustice⁹⁹ and inspired by environmental justice principles of solidaristic organizing,¹⁰⁰ we urge scientists to cultivate anti-oppression practices in their scientific programs and institutions, including: investigating the politically charged issue of how sociopolitical forces shape science and common sense; correcting resultant errors in our scientific corpus; revising credibility judgements to recognize and prioritize the knowledge of oppressed communities; designing hypotheses that do not implicitly or explicitly rely on racist and sexist theories; working in diverse research teams on scientific questions proposed by members of oppressed groups; redistributing institutional resources and power to oppressed communities; and considering the sociopolitical implications of research. As materialists, however, we know that cultivating better practices is insufficient to immunize science from error: we must also organize politically to radically change the political and economic conditions distorting science.

We are not inviting a political free-for-all. Our approach to accuracy is informed by research on distorting forces. Using politically charged beliefs to assess hypotheses and correct distortions is not bias. Bias is dogmatism: maintaining beliefs (of any type) despite the weight of contrary evidence (which may include politically charged beliefs). In contrast, objectivity requires evaluating claims on the weight of the evidence. Avoiding bias or distortion in science requires empirically investigating potential sources of error, not dismissing such investigations as trumpery. In short, we invert the call for

an apolitical, value-free science. We call for “truer facts” through stronger values, and stronger values through truer science.

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