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Repairing Warranted Public Trust in Science Through Political Reconciliation

By

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Thesis

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ABSTRACT:

The ability of science-based policy to promote public welfare is contingent upon the presence of warranted public trust. However, as exposed by the case of COVID-19 vaccination efforts, public trust in the scientific community is not so readily attained. Many communities, particularly those who are systematically marginalized, have suffered severe harm in the name of scientific advancement. As a manifestation of tarnished rapport, individuals within these communities arguably engage in warranted distrust. While many scholars have attempted to articulate the conditions for warranted public trust in science, proposals have failed to account for the non-neutral state of the relationship between harmed members of the public and the scientific community. The aim of this paper is to (1) characterize the normative conditions for warranted distrust in science and (2) provide a novel analysis of reparative trust between the harmed public and the scientific community. I provide a five-step process of political reconciliation that imagines an avenue to renewed public trust through political apology and emotional reparation. This account departs from the current paradigm in four primary ways: (i) it intends to foster recognition of the other through shared narrative and sympathy; (ii) it excavates the roots of generational trauma and mutual resentment; (iii) it commits wrong-doing to the moral memory of the public; (iv) it imagines a mutually restorative healing process that builds trust between stakeholders.

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I. Introduction

In the wake of a devastating global pandemic, the need for collaboration between the scientific community and policymakers is as evident as any time in modern history. As the pandemic enters its second year, COVID-related death rates remain high, and increasingly the pandemic exposes the gap between the scientists' consensus and public's trust in that consensus. This phenomenon is brought to light in the current divide over vaccine regulation and safety protocol. Upon recent FDA approval, the United States is urgently launching a nationwide vaccine campaign to combat the spread of COVID19. According to a recent government census, only half (51 percent) of adults yet to receive a vaccination claim they "definitely" plan to receive it when made available (USCB 2021). Such reluctance to adhere to scientific expertise reflects a lapse in trust between the public and the scientific community.

Lack of public trust in the scientific community may have detrimental effects on public welfare as the success of science-based policy in promoting public welfare arguably depends on the allotment of public trust in the science that underlies policy. That is, public welfare depends on two primary elements: public policy and public approval of such policy. The success of the former, in a democratic society, is heavily contingent upon the presence of the latter. The first element involved is sound policy; more often than not, sound policy is rooted in the best available empirical knowledge of the world, i.e. scientific knowledge. Sound policy alone, however, is often not sufficient to bring about public welfare; in addition, a second element is often required: public approval of policy. In order for science-based policy to garner public approval, there must first be public trust in the scientific expertise that grounds it. Because the public at large cannot be expected to possess full competence in scientific matters, trust is a vital compo-

ment of policy soundness based on scientific expertise. Therefore, warranted public trust in science is necessary for science-based policy to promote public welfare.

In order to establish warranted public trust, we must seek to determine the elements that ground it. In this paper, I examine and criticize existing accounts of public trust, ultimately proposing an alternative and complementary account of political reconciliation that should be treated as a necessary bridge to permit warranted public trust in scientific expertise grounding policy.¹ An array of scholars have attempted to identify the conditions for warranted public trust in science. Their proposals, however, have consistently failed to acknowledge the non-neutral state of the relationship between historically harmed members of the public and the scientific community. Schroeder (2019) proposes that science should be guided by democratic values, “the values of the public or its representatives” (1), as a means to ground public trust. In doing so, Schroeder’s account unjustifiably assumes a neutral relationship between the epistemic and moral actors: the members of the public and the scientific community. Schroeder has failed to take into account the instances of distrust toward scientific expertise that are arguably *warranted*, in light of a deeply tarnished rapport between historically marginalized populations and the scientific community. Democratic values historically have neglected to serve the values and interests of these harmed populations. As a result, these populations in particular exhibit varying degrees of *warranted distrust*. Any adequate account of warranted public trust in science thus ought

¹ Although the ability of public policy to promote public welfare may also involve the assessment of other social and political phenomena, this paper is concerned with the reparation of public trust in the science itself. I provide a normative account of the conditions under which public trust is warranted. The fulfillment of these proposed conditions does not guarantee that public trust will ensue, yet the normative account is a preliminary and important measure to achieve improved relations between the public and the scientific community.

to take into consideration the state of warranted distrust in some historically disenfranchised communities.

In the case of science-based policy, what is at stake is a rather demanding, enhanced species of trust that Bennett (2020) refers to as recommendation trust, which supposes that citizens not only believe what they are told by experts, but also follow and implement expert recommendations accordingly (1). I will use Bennett's account of trust and Biddle and Leuschner's inductive risk account of epistemically detrimental dissent to offer an analysis of warranted recommendation distrust. Using the inductive risk account, I will argue that a particular species of distrust is warranted whenever the inductive risks are aligned in such a way that the interests of the distrusting agents are not weighed appropriately by the scientific community. To demonstrate the fulfillment of these criteria and the exacerbation of distrust in a historically harmed group, I examine a contemporary case study from the highly racialized TB/HIV syndemic. This case study also exemplifies the intrusion of "illegitimate" or racist values that Schroeder's account of democratic values allegedly fails to incorporate. ²

In order to properly address the various forms of warranted public distrust that pervade the relationships between harmed members of the public and the scientific community, I propose a reparative account of political reconciliation which aims to rebuild public trust in tandem with citizen science initiatives. This account of political reconciliation deviates from the current paradigm in four primary ways: (i) it intends to foster recognition of the other through shared narrative and sympathy; (ii) it excavates the roots of generational trauma and mutual resentment; (iii)

² In recognizing the intrusion of politically illegitimate non-epistemic values in science, Schroeder offers an unsatisfactory and idealistic solution: "launder" and "filter" values to discard those that are politically illegitimate or to refine those "based on false empirical beliefs" (11).

it commits wrong-doing to the moral memory of the public; (iv) it imagines a mutually restorative healing process that builds trust between stakeholders.

In section one, I evaluate the role of values, particularly democratic values, in the restoration of public trust. I reject democratic values as grounds for warranted public trust on the basis of their historically exclusive nature. In section two, I provide the five conditions that constitute warranted public distrust in science. Here, I introduce the notion of recommendation distrust and apply it in the context of the TB/HIV syndemic. In the third and last section, I recommend an account of political reconciliation to serve as a complementary approach to build trust between the harmed public and the scientific community.

II. Public Trust and Democratic Values

In this section, I will explain how the debate on warranted public trust historically revolves around the possibility of the intrusion of values in science. In recognizing that non-epistemic values often pervade the core of scientific practice, concerns have arisen about public trust being warranted, and how it ought to function given the fact that science is not value free. In an attempt, then, to salvage warranted public trust in scientific expertise, representative values and democratic values have been offered as alternative solutions to value free science. Representative and democratic values, however, also fail to constitute the grounds for warranted public trust, as they disregard the history of exclusion and abuse between the scientific community and the harmed members of the public.

Traditionally, public trust in science has been perceived as warranted on the basis of science providing value-free, factual truths. The value-free ideal (VFI) has permeated scientific en-

deavors, attempting to hold scientific research to a strict standard of objectivity. Such a value-neutral stance, if attained, has been thought to produce a conclusion that is free of value judgments, disguised interest, or biased methodology (Elliott 2017). Even in cases where the VFI is maintained, however, sources of doubt persist, contributing to mistrust in science. While the underlying scientific reasoning itself may be free of non-epistemic values³, ethical abuse and misconduct may infuse scientific research and generate biased results that exacerbate the trust gap between the public and the scientific community. In addition, philosophers of science have recognized that the value-free ideal is neither realistic nor desirable for science (Douglas 2016, Elliott 2017, Intemann and de Melo-Martin 2018, Brown 2014, Brown 2020). Research laden with non-epistemic aims can be both socially beneficial as well as epistemically sound (Douglas 2016, Intemann and de Melo-Martín 2018). Values, including non-epistemic values, intrude in many areas of scientific inquiry (Elliott 2017). If so, then the idea that public trust is warranted because non-epistemic values are discarded from scientific practice and results is flawed.

To illustrate the “ineliminable role” that non-epistemic values play in the evaluation of scientific hypotheses (Biddle and Leuschner 2015, 271), an array of scholars have utilized the notion of inductive risk (Douglas 2000; Elliott 2011; Wilholt 2009). Inductive risk is the possibility of error in accepting or rejecting a scientific hypothesis. As a scientist determines whether to accept a hypothesis, she ought to weigh the significance of making epistemic errors (Hicks 2018). To do so, the scientist tasked with forming a conclusion must reject or accept a hypothesis by considering the consequences of taking a false conclusion as true v. taking a true conclusion as false. The

³ Defined by Intemann and de Melo-Martin, non-epistemic values include social, political, economic, or personal values and interests that may influence certain forms of scientific research. In contrast, epistemic values include empirical adequacy, internal coherence, and explanatory power (34).

decision is dependent upon the perceived strength of both evidence supplied and the consideration of these consequences. Such considerations typically involve non-epistemic judgements, so that the strength of evidence become “a function of the *importance*, in a typically ethical sense, of making a mistake in accepting or rejecting a hypothesis” (Rudner 1953, 2). Hence, “the scientist qua scientist makes (ethical) value judgments” (Biddle and Leuschner 2015) and non-epistemic values are an integral part of the internal facets of scientific reasoning for all cases where inductive risk includes risk of non-epistemic consequences (Douglas 2000).

Controversy may arise, however, when members of the public are skeptical of the means and motives behind non-epistemic values that are employed within scientific research. If large portions of science indeed aim at public welfare, then the values that influence it ought to represent the public’s interests. Many scholars have suggested that the best way to represent the public interest is to appeal to democratic or representative values (Elliott 2017, Intemann and de Melo-Martín 2018). In hopes to establish a pathway to constructing public trust in science, Schroeder (2019) has most recently argued that scientists ought to promote trust by appealing to democratic values (rather than transparency or value alignment) when value judgments are called for in the scientific process. Schroeder vaguely defines democratic values as “the values of the public or its representatives” (1). He claims that we may refer to political philosophy for instruction on how to determine the “legitimate” values that represent “some populations” (11). Once identified, the values undergo a process of *filtering* and *laundering* which refine those based on political illegitimacy (i.e. racism) or false empirical beliefs. Democratic values, Schroeder claims, are derived from a “broad social consensus” (11), evaluated by political philosophers that engage in empirical research. When the scientific process requires value judgment or inductive risk assessment,

scientists refer to and employ democratic values to arrive at a conclusion. In proposing this appeal to democratic values in science, Schroeder considers his account to resolve two obstacles. First, his approach seeks to safeguard the public from the burden of constant critical thought, or the need to comprehend the relevant scientific methodology to locate the values that grounded the research. Second, it seeks to overcome politicization of science by providing a common reference point for public discourse.

In proposing to ground public trust in democratic values, Schroeder's account unjustifiably assumes a neutral relationship between the epistemic and moral actors: the members of the public and the scientific community. By doing so, Schroeder has failed to take into account the instances of distrust toward science that are arguably *warranted*, in the light of a deeply tarnished rapport between historically marginalized populations and the scientific community. The idea that relying on democratic values will foster public trust disregards the violent history of disenfranchisement in the Western democracies and the enduring effects that reverberate among public consciousness in some communities. For example, the Black community has suffered at the hands of the medical community for centuries; from medical exploitation of slaves on Southern Plantations to eugenic sterilization and bioterrorism experiments in Black neighborhoods, atrocities have long been perpetrated against the Black population in the name of scientific advancement (Washington 2006). Schroeder's account, in advocating for a determination of sweeping "democratic values," blatantly fails to account for such battered relationships between harmed populations and the scientific institutions. Democratic values have historically neglected to serve the values and interests of harmed and underprivileged populations.

Schroeder's (2019) appeal to democratic values is also highly ambiguous. His argument seems to draw upon two different types of democratic values, though he makes no distinction between the two. Originally defined as "the values of the public or its representatives" (1), Schroeder contends that his account of democratic values is based on representativeness of public consensus. In describing the process of value determination, however, Schroeder suggests we rely on political philosophy to advise us how to determine the (legitimate) values among the representative value of the population of interest. Illegitimate values, such as racist or sexist ones (15), conflict with basic democratic principles of equality, and thus cannot be candidate democratic values. The process of filtering and laundering which he appeals to in order to measure the "legitimacy" of values seemingly frames democratic values as an ideal of liberal democracy. So, we end up with at least two notions of democratic values: the former depends on empirical facts, while the latter is a normative notion.

It is unclear, then, what Schroeder means by shared public values. If Schroeder's democratic value argument hinges on the values shared by the public as a matter of fact, which he explicitly states (1), then historically disenfranchised communities have little reason to believe that their values will be represented and their interests served, as a tumultuous record shows.

Alternatively, if "democratic values" refers to the normative values of liberal democracy, at least three problems arise: (1) how do we choose among the various inconsistent political philosophies available on the market: shall we ascribe to Rawlsian, utilitarian, communitarian, or libertarian ideals to guide us? It is not clear that there is reason to believe that any of the ideals put forth by these views are inherently democratic, or that the public would agree with and adhere to them. The public is not homogeneous in thought, values or needs. And (2) are there any

values leftover once the empirical values are filtered and laundered through the normative values of liberal democracy? For instance, if we were to commit to classic and demanding liberal values per Rawls or Kant, then it is not clear that much would remain after a tedious process of filtering and laundering. Also, such overarching liberal democratic values tend to be abstract and insubstantial. For instance, they often fail to address crucial ethical and political questions, i.e. what is virtue and the Good (SANDEL, JUSTICE, CHAPTER 10). In addition, they hold internal tensions in their commitment to both equality and liberty. Lastly, (3) if there are values left, are they precise enough to address systemic racism? When liberal values do contain provisions toward equality, they are often so vague that they fail to serve as an adequate guide to combat an issue as complex as systemic racism. A commitment to anti-racism and the uprooting of embedded racist values requires much more than an avoidance of overt racism. The democratic values elected through Schroeder's process of filtering and laundering ought to include a means to counteract systemic racism, proving precise enough to capture the long-neglected interests of disenfranchised minorities.

Based on its ambiguous nature, democratic values are insufficient to guarantee that the values and interests of harmed populations be served; as a result, these populations exhibit varying degrees of *warranted distrust*. Any adequate account of warranted public trust in science thus ought to take into consideration the state of warranted distrust in some historically disenfranchised communities. In addition, it ought to not solely aim to filter out politically illegitimate values, but rather aim at deliberately anti-racist efforts and reparations that address medical institutions based on racism. My first goal is to precisely articulate the notion of warranted public distrust.

III. Warranted Public Distrust

In this section, I distinguish between two levels of trust: (i) epistemic trust and (ii) recommendation trust. To better understand these two forms of trust, I then draw upon two recent analyses of epistemically detrimental dissent (EDD) as they effectively delineate the conditions under which scientific claims ought *not* permit public trust; I expand upon these two forms of trust and provide the criteria for their fulfillment. Lastly, I introduce a case study that exhibits the manifestation of both levels of warranted public distrust within a historically disenfranchised community.

In the case of public policy and the promotion of welfare, two levels of public trust are of concern. The first, and more basic level, is epistemic trust. Defined by Bennett (2020), “epistemic trust is placed in an individual or a group when one perceives the source of knowledge to merit trust”; this requires that “the truster ascribes sincerity to the trusted, but also competence in the matter about which the trusted is providing testimony” (7). In any effort to produce public welfare, science-based policy must be allotted with epistemic public trust based on the two conditions provided by Le Bihan and Amadi (2017) below. The second and enhanced level of trust, recommendation trust, may develop if and only if epistemic trust is present. Beyond basic epistemic research integrity, recommendation trust also requires that the truster believes that their or their group’s interest is taken into account in scientific research, thus making the actor more likely to implement scientific expertise into their own lives. It allows for citizens to not solely believe in what they are told by experts, but to follow and implement expert recommendations accordingly (Bennett 2020, 1).

Although not easily achieved, recommendation trust may serve as the ideal form of trust that the scientific community could strive to cultivate in order for science-based policy to spawn public welfare. This is especially the case with disenfranchised communities, as their ability to adhere to scientific guidelines may prove most vital to their long-term health and wellbeing. While their distrust in expertise is often warranted, this apprehension to act upon the basis of scientifically informed policy may further perpetuate their marginalization. This is certainly the case in the public health sector. For example, a large portion of the Black population is reluctant to receive the COVID19 vaccine. With the lowest percentage among any ethnicity surveyed, a mere 42 percent of Black claim that they will definitely get the vaccine (Pew 2021). However, reports reveal that Blacks are three times as likely to contract COVID19 than White peers and twice as likely to die from the virus (Pathak, Ishaan et al 2020).

Recommendation trust is thus the enhanced level of trust that can exist between actors. At times, though, neither level of trust is present; if epistemic distrust develops, then recommendation distrust may as well. In what follows, I draw from Le Bihan and Amadi (2017) and Biddle and Leuschner (2015) to provide conditions for (i) epistemic distrust and (ii) recommendation distrust. Le Bihan and Amadi (2017) propose criteria for epistemically detrimental dissent, or dissent that may likely impede knowledge production (Biddle and Leuschner 2015), for which arguably epistemic distrust is warranted: (1) lack of epistemic integrity and (2) unconventional means of academic dissemination. At this level, the individual appropriately engages in *warranted epistemic distrust* since they do not ascribe either sincerity or competence to the provider of information, as the information seemingly does not meet the basic standards of science. Based on these criteria, I propose my own condition for warranted epistemic distrust: *(C1) the dissenting*

research employs poor scientific methodology – keeping in mind that this may involve both questions of epistemic integrity and modes of dissemination.

Even if epistemic trust is warranted in this basic sense, however, it may still be the case that due to the asymmetrical inductive risk distribution at play, an enhanced version of epistemic trust may not be warranted. Biddle and Leuschner's (2015) account of detrimental dissent is an inductive-risk-based account composed by four conditions that jointly identify epistemically detrimental dissent. Again, these conditions for distrusting detrimental dissent can also function as bases for *warranted epistemic distrust* in scientific expertise in some cases. The conditions proposed by Biddle and Leuschner are: (1) the non-epistemic consequences of wrongly rejecting hypothesis (H) are likely to be severe; (2) the dissenting research that constitutes the objection violates established conventional standards; (3) the dissenting research involves intolerance for producer risks at the expense of public risks; (4) producer risks and public risks fall largely upon different parties (2015). For the purpose of establishing an understanding of warranted epistemic distrust, the analysis proposed in this paper is concerned with the ideas of the interests of the different parties being misaligned and the stakes being high. Leaving aside the questions of inductive risks, which is central to hypothesis acceptance but not to trust, I contend that recommendation distrust is warranted whenever (C2) *the distrusting agent has good reasons to believe that their interests of the recommendation providers are misaligned with their own* and (C3) *the risks associated with wrongly trusting the recommendation provider are likely to be severe*. If C2 and C3 are met, then the actor has good reasons to believe that their interests are not appropriately taken into account, and hence have good reasons to lack recommendation trust as defined by Bennet.

Note that, while Biddle and Leuschner's conditions are helpful, they are more heavily focused on

epistemic distrust, as their account is more narrowly focused on the arena of knowledge production. Conditions C1-C3 includes criteria for warranted recommendation distrust by incorporating broader factors about the way in which science is being used and employed beyond the inductive risk calculation behind scientific claims. Indeed, the “good reasons” the distrusting agent may have to believe that the recommendation providers’ interests are misaligned with their own may rely on historical, sociological, and economic factors. In what follows, I will use the three conditions proposed above to offer an analysis of warranted public distrust in the context of a public health case study.

To contextualize these two levels of warranted distrust, I turn to a case study in public health. While COVID19 racial disparities may demonstrate the ability of warranted recommendation distrust to further harm welfare in Black communities, the evolution of this distrust is justified and contends with the history of institutionalized racist ideals in science that obstruct the proposal of public trust built on democratic values. The alarming lack of recommendation trust that is demonstrated by COVID19 vaccination efforts has gradually emerged from an unequivocally racist history that is well demonstrated by the highly racialized TB/HIV syndemic⁴. A glimpse into the TB/HIV syndemic reveals a long, entrenched lineage of medical abuse and neglect of the wellbeing of the Black community. In what follows, I will argue that the actions of the medical community (and the state presumably charged with the role of oversight and inter-

⁴ In *Medical Apartheid*, Washington investigates both TB and HIV as a syndemic (synergistic epidemic). The two diseases often occur as a co-infection; those living with HIV are much more likely to contract active TB (CDC 2016). Therefore, I pull statistics from both TB and HIV cases, at times referring to the effects of the TB/HIV syndemic as a whole that constituted a public health crisis.

vention) permitted warranted epistemic distrust from the Black community by meeting the three conditions proposed above.

Well prior to the onset of the COVID19 outbreak, Blacks have been immensely vulnerable to infectious diseases (Washington 2006). The TB/HIV syndemic echoes the racial disparities in relation to COVID19 vaccination attempts addressed above, offering a disturbing portrayal of the large-scale research abuse that continues to impact the relationship between the Black population and the scientific community today. The TB/HIV syndemic unveils the disquieting racialized nature of infectious diseases that often result from dissenting research and a neglect to address intersectional social and political inequalities that disproportionately harm disenfranchised populations, or in this case the Black community. In the midst of the TB resurgence, the Black population constituted 34 percent of the TB cases in the United States, though accounting for a mere 12 percent of the national population -- a 300 percent greater TB risk for Blacks than for Whites (Washington 2006, 328). The prevalence was not due to genetic susceptibility, but socioeconomic conditions and a disparate racial response (340). Margaret Kadree, M.D., chief of infectious disease at Morehouse School of Medicine alludes to this intersectional challenge: “We [Blacks] have been among the poorest people and often live in urban centers amidst crowded conditions and a lack of access to health care” (Washington 2006, 328).

With knowledge of these inequitable infection rates among Blacks, the U.S. medical establishment failed to adequately address the population with testing, medications, and recruitment for medical trials. When HIV therapy, azidothymidine (AZT) became available to the public, it was often withheld from Blacks. This lack of distribution in the Black community was partly based on misguided research conducted by the Department of Veterans’ Affairs. Following this

1991 study on the effectiveness of AZT against HIV infection and AIDS, the VA researchers consulted the FDA, proclaiming that AZT ought not be prescribed to Blacks as it was inefficacious and potentially dangerous to the Black population (340). As a result, many physicians resisted treating infected Blacks with AZT. Whites began to manage their HIV with the therapy, and contagion continued to pervade the Black community.

With a lack of treatment options available, the syndemic continued to devastate the Black population, and AIDS became a Black disease through both stigma and statistics (Washington 332). In 1997, the CDC championed an auspicious decline in death rate and an increase in national drug distribution. The achievements announced, however, reflected the severe racially disparate response that hampered the drug development process. As the AIDS death rate for Whites fell a whopping 21 percent, that of Blacks dropped a mere two percent. Death rates surged higher in the Black female population (341).

All three conditions for warranted distrust were met by the highly racialized response to the TB/HIV syndemic. The HIV therapy production and distribution process involved multiple actors whose wrongdoing and biases contributed to the manifestation of distrust. In presenting the fulfilled conditions for warranted public distrust in the context of this case, I refer to the wrongdoings of multiple actors, i.e. the VA, the pharmaceutical industry, the medical community, and the CDC.

This case study permits warranted epistemic distrust as it fulfills (C1) -- *employment of poor scientific methodology*. In this case, both the VA and the pharmaceutical industry were at fault. The research demonstrated (i) lack of epistemic integrity: Upon further examination, the faulty character of the methodology at the root of the VA's findings became conspicuous. Al-

though the majority of HIV-infected individuals in the general population were Black, the study failed to represent such racial differences with low representation of Black patients. Without proper representation of Blacks, the drug was not designed to “ferret out racial differences” and led to research based in racial disparities (Washington 2006, 340). Hence, the generated results themselves were based on a dramatic racial disparity that served as a catalyst for the partial prohibition against using AZT to treat Blacks (340). Once the under-representation of Blacks was disclosed, the idea of a racially disparate response had already well propagated and AZT had a tainted reputation in Black community. The research also demonstrated (ii) unconventional dissemination: although the VA study was presented in front of an FDA committee, the FDA did not endorse or disseminate the VA’s findings. They were, however, disseminated through less conventional channels (i.e. Cimons 1991), affecting both prescriber distribution tactics and public perception of AZT (Washington 2006).

The two conditions for warranted recommendation distrust are also fulfilled: (C2) *the trusting agent has good reasons to believe that their interests of the recommendation providers are misaligned with their own*. For centuries, the consciousness of the Black community has been plagued with racist bias, nonconsensual and harmful experimentation, and a withholding of medical treatment (Washington 2006). Apart from this dark lineage of racist medical practices, Blacks also had substantial reason to be skeptical of the medical community’s response to the TB/HIV syndemic. Based on the explanation above, the VA did not seem to account for the interests of the Black community in the research process. The pharmaceutical industry failed to do so as well. In prioritizing profit over the wellbeing of the public, the industry demonstrated intolerance for producer interests at the expense of public interests. Presumably, the producer risks in

the HIV therapy distribution case were heavily based on profit; the newly patented HIV therapy was staggeringly expensive and largely unavailable to most Black TB/HIV patients, costing an individual about \$14,000 a year. As pharmaceutical companies opted to keep drug prices high, they neglected the interests of disadvantaged groups, particularly Blacks, who experienced disproportionate infection rates. The pharmaceutical industry could have prioritized welfare by opening the market to competition or reducing drug costs to meet a wider demographic demand (i.e. non-White, financially privileged members of society). While there are broader intersectional issues that play into this equation, the pharmaceutical industry was certainly at partial fault by failing to account for the wellbeing of the entire public in their quest to maintain profit margins.

The medical community was also heavily responsible for the racially disparate response to the TB/HIV syndemic. Prescribing physicians employed problematic distribution tactics, reflecting a biased prioritization of welfare. White, economically privileged members of the public were disproportionately accounted for in the production process, thus more likely to be treated for infection. Medical providers serving the indigent rarely prescribed HIV therapy, often claiming that low income, drug abusing patients were likely incapable of following a strict intake regimen, threatening the efficacy of the therapy for the wider public. Instead of emphasizing education and compliance efforts for these heavily infected, lower socioeconomic populations, prescribing physicians prioritized a small and advantaged patient population over Black welfare. Rather than treating Black TB/HIV patients, the medical community incarcerated many of them, forcing many Black men to containment therapy upon contracting the diseases. Caregivers ignored public health laws which required a hearing prior to involuntary commitment. Between 1988 and 1991, the New York City health commissioner ordered thirty-three TB patients to be

held in hospitals against their will until they no longer showed signs of contagion -- seventy nine percent of these individuals were Black (Washington 2006, 326). Punitive practices long overshadowed medical solutions such as wide-scale vaccination or the strengthening of public-health systems, both of which remain highly inequitable today. Instead, “health policy simply abandons or incarcerates the infected as ‘noncompliant’ when they fail to scale the formidable barriers of cost and access between themselves and good medical care” (329). Rather than accounting for the interests of Black patients through proper information dissemination and treatment options, the medical community stigmatized, ignored or incarcerated them at disproportionate rates, thus giving Black communities good reasons to believe that the medical community’s interest were not aligned with theirs.

The CDC was also a moral actor charged with wrongdoing in this case. As mentioned by Washington (2006, 341), the CDC failed to address the racialized public health crisis by undertaking a large-scale public relations effort necessary to repair the image of AZT in the Black community. The lack of damage control and action on behalf of the CDC and the US medical establishment fostered the belief of misaligned interests and thus reinforced warranted distrust within Black communities. While the Black population had developed warranted recommendation distrust in light of these ethical lapses and the general management of the TB/HIV syndemic, it was widely conveyed that lingering distrust from the Tuskegee Syphilis Study led to an AZT aversion, an “emotional overreaction of Blacks to this single investigation abuse”. Medical literature and popular coverage ascribed the medical establishment's failures to the Black community as yet another “manifestation of the blame-the-victim mentality” (Washington 2006, 339) which conveys a clear message of misaligned interests. By attributing the Black community’s

distrust solely to the Tuskegee experiments, the CDC minimized the magnitude and scope of the distrust, failing to acknowledge or address its roots. As a government and medical agency, the CDC had an obligation to engage with fearful Black patients through open-ended discourse to determine and address the source of growing distrust. Rather, the lack of intervention by the CDC allowed the medical establishment to re-traumatize the Black population and resort to perilous assumptions about the root of their trauma (Washington 2006, 339). These attitudes portrayed within medical literature and news coverage both dismissed and fostered the warranted recommendation distrust that Black communities engaged in during the TB/HIV syndemic.

Lastly, (C3) is also fulfilled: the risks associated with wrongly trusting the recommendation provider are likely to be severe. In this case, what was at stake for the Black community was indispensable: life, health and wellbeing. Placing or withholding recommendation trust in the medical establishment was a question of life and death, determining the odds of contracting life-diminishing and often fatal diseases.

By fulfilling C1-C3, the racially disparate response to this public health crisis constitutes a case of warranted recommendation distrust rooted in entrenched, generational trauma that continues to taint the relationship between the scientific community and the public today. In order to properly address this warranted recommendation distrust and seek to rebuild it, harmed communities must be assured that their interests and wellbeing are appropriately weighed in the scientific process. Community participation is one way forward. While citizen science initiatives are beyond the scope of this paper, they have been recognized by philosophers of science for their potential to alleviate recommendation distrust through an emphasis on equality through inclusion in a deliberative scientific process that prioritizes dialogical communication between representative

citizens and scientists (Irzik and Kurtulmus 2018, Brown and Kitcher 2011). In order for such participatory initiatives to function and allay the issue of public distrust, I argue, an attempt at political reconciliation must be made to repair the damaged relationship between the scientific community and the historically harmed public.

IV. Repairing Trust Through Political Reconciliation

In what follows, I propose a five-step process of political reconciliation that aims to restore recommendation trust by acknowledging the historical roots of public distrust. While not sufficient on its own, the five-step process would serve optimally as a complementary approach to citizen science initiatives that offer a means to incorporate under-represented and disenfranchised populations in the scientific process. Arguably, in order for citizen science initiatives to encourage citizen participation, the historical roots of public trust must first be acknowledged by the scientific community. I attempt to exhibit the way in which the five-step process could function in the real world by applying each step to the TB/HIV case study. Before addressing the five steps, I will lay the conceptual groundwork for political reconciliation, illuminating its divergence from the current paradigm.

I set my five conditions for political reconciliation inspired by Griswold's (2007) theoretical framework of political apology. In *Forgiveness: A Philosophical Exploration*, Griswold investigates the function of forgiveness in a political or civic context. Differing in nature from interpersonal forgiveness, he argues that political forgiveness takes the form of political reconciliation (134). Griswold accentuates the utterly complex and imperfect form that reconciliation takes against the backdrop of an imperfect socio-political realm. He validates its purpose and value

nonetheless. He asserts “and yet when arrived at through forgiveness or apology, interpersonal or political reconciliation confronts what is the case, without blindness of evasion, insists that wrong-doing be addressed appropriately, and affirms the value of moral repair” (xxvi). Through open engagement, shared narrative, and formal political apology, the process of political reconciliation serves as a means to address mutual resentment and pave a path toward a strengthened moral community.

In adherence to this account of political reconciliation, my five-step process has four significant aims. First, it fosters recognition of the other through shared narrative and sympathy. Second, it confronts the roots of generational trauma and mutual resentment. Third, it commits wrong-doing to the moral memory of the public. Fourth, it imagines a mutually restorative healing process that integrates stakeholders into one moral community. In addressing these steps, I will attempt to provide contextualization with the case of the TB/HIV syndemic. I set my conditions as follows:

(1) *the responsible party recognizes and takes responsibility for wrong-doing.* After shared discourse, the two parties engage in a shared narrative about the conflict at hand. As a result, the responsible party acknowledges the wrong-doing committed and acknowledges the source of the public distrust as *warranted*, i.e. that a breach in trust that has arisen out of moral violation.

Application: in the case of the TB/HIV syndemic, the responsible party may be identified as the medical institutions who were responsible for the prevention and treatment through drug development and distribution efforts. The VA and the pharmaceutical industry were at fault for a racialized and prejudiced response to the public health crisis. The injured party, while not homogenous (Daye 2004, 127), may be identified as a large portion of the Black community. In or-

der for political reconciliation to effectively address recommendation trust, it must address generational trauma by including those who suffered harm from the conflict, whether firsthand or otherwise. Diverging from traditional hearings, the parties exchange what may be a highly emotional, yet transformative experience that is necessary to proceed through a powerful reconciliation process. The mutual engagement may include inquiry and shared testimony, which serve an opportunity for victim empowerment. In contrast to traditional justice frameworks, the victims in the political reconciliation process are encouraged to speak on their own behalf, openly inquiring into the root of the harm, seeking “real information, not speculation or the legally constrained information that comes from a trial or plea agreement” (Zehr 2002, 14). The efforts of the Truth and Reconciliation Commission⁵ demonstrated the transformative nature of mutual engagement. As Martha Minow observes, “the trauma story is transformed as testimony from a telling about shame and humiliation to a portrayal of dignity and virtue; by speaking of trauma, survivors regain lost worlds and lost selves” (2000, 243). Oftentimes, victims crave an explanation for their target, although a clear rationale may not exist, learning that their own actions had nothing to do with their victimization may help them cope (Kohen 2009, 402). After decades of pain and loss due to negligence and biased drug production and distribution tactics, Black TB/HIV sufferers deserve a means to transform and recover dignity through shared dialogue and the sharing of trauma stories.

(2) in conjunction with the injured party, the responsible party determines needs that have arisen from harm done. Through shared narrative and mutual cooperation, the parties identify the phys-

⁵ The TRC was appointed by South Africa’s new parliament in 1995. Chaired by Archbishop Desmond Tutu, the TRC aimed to promote reconciliation and forgiveness between perpetrators and victims of apartheid.

ical, emotional, monetary, or symbolic needs of the injured. The responsible party is to establish a course of action which addresses victims' needs in a tangible and practical manner, offering the injured the opportunity to express resentment and imagine a means toward restorative justice. Reparations in themselves are null if the other steps in the reconciliation process have not been fully attended to.

Application: Desired reparations may vary widely. As demonstrated, the Black community experienced detrimental health implications from the TB/HIV drug distribution response, both physical and psychological. The victims may express the need for monetary reparations that address the resulting deterioration of their health and wellbeing, which serves as the basis for any prosperity. In this particular case study, the pharmaceutical industry accumulated a significant amount of wealth by withholding drugs from socioeconomically underprivileged HIV infected patients. To show accountability to the Black community, the industry could commit to harnessing its wealth and power as a means to lobby on behalf of disenfranchised communities in policy making decisions, particularly in the medical sector. According to 1999-2018 expenditure data, the pharmaceutical industry has spent, on average: \$233 million per year on lobbying the US federal government; \$414 million on contributions to presidential and congressional electoral candidates, national party committees, and outside spending groups; and \$877 million on contributions to state candidates and committees. These contributions “target senior legislators in Congress involved in drafting health care laws and state committees that opposed or supported key referenda on drug pricing and regulation” (Wouters O. J. (2020). After relying on wealth as political power and a tool to harm the Black population, the pharmaceutical industry would need to express a renewed commitment to utilize accumulated resources to combat the systemic subjugation

tion that it has helped to promote within the medical sector. In addition, monetary reparations could address resulting health implications through more traditional efforts, i.e. access to therapy and other medical services.

Symbolic reparations may also be decided upon. Although there have been demonstrations to honor HIV and AIDS victims, such as the NAMES Project AIDS Memorial Quilt in Washington, D.C., there is a lack of symbolic recognition for the Black HIV/AIDS victims. A symbolic reparation, then, could be a permanent monument to display the startling number of Black HIV victims. The monument may be designed by the descendants of these victims and placed in the area of choice. In addition, other monuments that reflect the dark history of medical experimentation and misconduct may be dismantled and replaced with an inscription of the public apology (expanded upon in the next section) recited to the Black community in this reconciliation process. The injured party may request the dismantling of statues erected to publicly honor White practitioners who pioneered racist medical misconduct. Although there is a growing movement to dismantle the erected statues of Dr. James Marion Sims, the “father of modern gynecology,” he remains honored in multiple states. Widely acknowledged as a notoriously racist practitioner, Sims performed dozens of involuntary surgical experiments on unanesthetized and enslaved Black people, under the assumption that Black people did not experience pain to the extent of their White counterparts. While not related to the racialized HIV response itself, such an effort could be made in an attempt to recognize and repair generational trauma within the Black psyche. As shown in the following section on political apology, a monument is not sufficient in itself. While reparations vary, the injured and responsible parties collectively determine which remedies should be explored and implemented to begin to restore trust.

(3) *in commitment to transparency of facts, the responsible party delivers a public apology.* Political reconciliation requires the formal delivery of a political apology,⁶ defined by Griswold as “encompassing a cluster of phenomena concerned with the giving and accepting acknowledgement of wrong-doing, always in relation to some political entity (be it a state, corporation, church, or other institution or organization in civil society)” (137). The political apology is decidedly distinct from the traditional notion of the interpersonal apology. Whereas the success of an interpersonal apology is gauged by the forgiveness of the responsible party by the injured party, a public apology is less personal in nature, emulating a proxy structure as it is an apology addressed to many from many. Groups qua collectives personify themselves and other collectivities; the collective is then anthropomorphized into an entity that may offer the public statement (190). The ultimate end of the political apology is not forgiveness of the responsible party, but rather acceptance or recognition of the apology’s heuristic role in the wider reconciliation and trust building process. In offering the public apology displaying external remorse, the responsible party does so as a member of a moral community. If the injured party moves to accept the apology, they “agree to mend the social fabric” by acknowledging the highly social perspective of injury and the wider moral community to which the responsible party aspires to belong (188).

⁶ In crafting his notion of political apology, Griswold recognizes that a society that is hospitable to political apology is a considerable achievement in itself. According to him, the substantive ideals which must be present to guide political apology include: accountability and responsibility; self-governance according to justified shared norms; trustworthiness; cooperation; forswearing of violence, revenge, and hostile behavior that threatens peaceable cooperation; the obligations of power over those whom it is exercised; and the indispensability of both truth and publicly stating the truth (190). When the parties involved are not committed to these ideals, the reconciliation itself is hindered. In this case, successful political apology is reduced to a “charade” (192) or a formality that facilitates political stratagem to accompany monetary objectives. In such cases, the commitments to trust building a mutual future are null.

In the delivery of the political apology, the responsible party is to “enter sympathetically into the narrative of their victim” (Griswold 2007, 188), formalizing a concrete commitment to the fulfillment of needs established in the previous step. In doing so, the public address speaks truth to power and recognizes the wrong-doing in a way that penetrates the moral memory of the public. In his chapter “Political Ethics as Moral Memory”, Shriver speaks to this need for Americans to overcome their tendency for historical amnesia. He states, “Americans, in general, find this truth hard to comprehend, for ours is a culture that disparages history in our drive to get on with the future. We tend to forget that memory, one taproot of civic peoplehood, can also be a time bomb ready to explode into political conflict” (1995, 4). As spoken truth is stamped onto the public record, parties are not to solely be defined by the relevant injury, but endowed with the renewed possibility to redefine their identities in a way that facilitates long-term healing and reconciliation. This entails, Griswold asserts, that “a group’s sense of identity will not express itself through a narrative immune to revision” (191). The delivery of a public apology should, rather, reflect the content of the thorough reconciliation process and ensure accountability and commitment to systemic reform on the behalf of the responsible party.

Application: Emulating the proxy structure, the VA, the pharmaceutical industry and the CDC could formulate a formal political apology⁷ that reflects the acknowledgement of wrongdoing, commitments to tangible reparations, and dedication to a mutually restorative future. The politi-

⁷ To contextualize political apology in his account of political reconciliation, Griswold examines two contemporary examples of rare political reconciliation in the US. First, the Vietnam War Memorial in Washington, DC; he argues that, without overtly saying so, the memorial offers reconciliation without apology. By avoiding confrontation with truth and transparency, or confronting the justification for the war and bloodshed, the Memorial itself is a means of side-stepping a stance on the moral essence of the matter (xxiv). This failure to offer a political apology undermines its success as moral memory, as well as the degree of reconciliation that it facilitates. Griswold states, “the Memorial thereby makes an indirect case for the political importance of full and honest confrontation with injury and wrong” (xxiv).

cal apology must be delivered in a public, well broadcasted setting, demonstrating an obligation to visibility. Ideally, the apology would be discharged in the presence of the TB/HIV survivors and descendants. It could include the essential history of the TB/HIV syndemic, the number of documented infection rates and deaths among the Black population, and the ways in which the medical establishment failed to take action. Although this process of political reconciliation could not possibly change the horrific trajectories of the past, a formal recognition of atrocities committed by the medical establishment and aided by the complacency of the State may provide a focal point for a mutually restorative future.

(4) *reparations, if decided upon in step (iii), are enacted.* Rather than a substitute for substantial future change, reparations are to be understood as a mere portion of the reconciliation process.

Application: As the reparations hypothetically determined for TB/HIV victims in step (iii) are formalized, they are also publicized in step (iv) for the sake of public accountability and moral memory.

(5) *ongoing outreach between parties.* Sustained outreach and communication are key to long-term reconciliation; the parties remain conscious of the potential need for further conflict resolution that will aid the reconciliation and development of trust.

Application: If each step is not thoroughly met, or if the injured party perceives that agreements are not upheld, the TB/HIV victims may reconvene to discuss further action. In this final step, citizen science initiatives may prove to be most opportunistic and productive by providing a constructive process to include stakeholders in the scientific process. Citizen science initiatives may also gauge success in alternative, quantifiable ways. The CDC, who proved to be a compla-

cent moral actor in the TB/HIV response, could advocate and oversee the implementation of citizen science initiatives.

When adhered to, the five-step process of reconciliation aims to address the roots of public recommendation distrust by acknowledging the warranted status of recommendation distrust in harmed communities and addressing the interests of the harmed public through shared discourse. Once identified, the process requires that the responsible party acknowledges and apologizes for wrongdoings. In delivering a formal and publicized commitment to serving these interests, the responsible party may shift its trajectory of scientific endeavors with the objective of creating a mutually restorative relationship with the injured. By addressing the need to repair the moral relationship between the scientific community and the harmed public from an alternative approach, the five-step process of political reconciliation may facilitate participation in citizen science initiatives. This account of reconciliation departs from the current paradigm in four primary ways: (i) it intends to foster recognition of the other through shared narrative and sympathy; (ii) it excavates the roots of generational trauma and mutual resentment; (iii) it commits wrong-doing to the moral memory of the public; (iv) it imagines a mutually restorative healing process that builds trust between stakeholders.

V. Conclusion

In order for science-based policy to promote public welfare, there must first be an attempt to restore trust between the medical community and the historically harmed members of the public. Rather than appealing to exclusive or abstract democratic values, the scientific community and policymakers must acknowledge the failure to account for the interests of historically disen-

franchised communities. Identifying the need to account for the non-neutral state of relations between the medical establishment and historically harmed communities, I distinguished between basic epistemic trust and recommendation trust, providing normative conditions to constitute warranted public distrust at each level. By weighing the quality of scientific methodology and calculating risks involved in medical research, many historically harmed communities engage in warranted public distrust. While citizen science initiatives aim to encourage public participation in the scientific process, historically harmed communities are often hesitant to participate due to a long history of scientific misconduct and systemic exclusion. The five-step process of political reconciliation examined herein addresses this and approaches distrust through alternative and restorative means. This paper concluded with a five-step process of political reconciliation which, when adhered to, aims to facilitate participation in citizen science initiatives. Ultimately, the political reconciliation process intends to construct a more just and cohesive moral community.

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