

Epistemology and HIV Transmission: Privilege and Marginalization in the Dissemination of Knowledge

Mark Satta and Lacey J. Davidson

Section 1: Theory, Cases, and HIV Risk Intuitions

The philosophical work of feminists and critical race theorists has resulted in the formation and development of important epistemological concepts and theories. Many of these, such as theories of epistemic injustice, have been remarkably effective in confronting issues resulting from current, wide-sweeping power imbalances between and among the intersections of race, gender, socioeconomic status, and sexual orientation. In this paper, we apply some of the lessons from feminist and critical race epistemology to an area where philosophers have traditionally had less to say—namely, epistemic issues related to HIV and HIV transmission risk. More specifically, we bring together a broad swath of empirical work conducted in a wide range of disciplines alongside recent work in feminist and critical race epistemology to highlight and address these issues.

We identify ways in which popular social perceptions about HIV do not properly align with empirical findings, and we develop a framework for explaining this incongruity. Central to our discussion is the identification of epistemic harms related to HIV and some of the normative implications of the presence of these harms. By epistemic harm we mean damage done to an individual in his or her capacity as a knower (or harm done to a group in their capacities as knowers). We use the term ‘epistemic harm’ as a general category that encompasses, among other things, both epistemic injustice and epistemic oppression (Cf. Fricker 2007, Dotson, 2014). Epistemic injustice is “a *wrong* done to someone specifically in their capacity as a knower” (Fricker 2007, 1; emphasis added). Epistemic oppression “refers to

persistent epistemic exclusion that hinders one's contribution to knowledge production" (Dotson 2014, 115).

We identify these epistemic harms by examining case studies and research findings through the lens of feminist and critical race epistemology. Some of these harms, like Miranda Fricker's testimonial injustice and Kristie Dotson's contributory injustice, are previously identified harms that we are identifying in a new context. In looking at how these injustices arise and how they are (in some cases) being addressed, we identify patterns of marginalization and privilege among communities significantly affected by HIV and the combinations of knowledge and ignorance to which these patterns give rise. Because applying theories of epistemic harm in an extensive manner to issues pertaining to HIV is new terrain, our treatment is somewhat general. We hope this work will spur further discussion about how feminist and critical race epistemology can inform our understanding of the epistemic conditions of HIV-positive people and of those at risk of contracting HIV. To help frame our discussion, we open with four scenarios that will help us take stock of the epistemic landscape and provide reference points for our analysis:

Scenario 1: Adam is a gay, cisgender American man. Adam has had five different male sexual partners in the past year. Adam asked each of his partners before having sex with them for the first time whether or not they were HIV-positive. Each one told Adam that they were HIV-negative and had been tested recently. Adam has good reason to think that each of the partners was being honest with him. Adam usually uses condoms when he has sex, but not always. Adam's last HIV test was about a month ago. He tested negative and he has not had sex since.

Scenario 2: Ben is also a gay, cisgender American man. Ben has also had five different male sexual partners in the past year. Unlike Adam, Ben did not discuss matters related to HIV with his partners, but he thinks it is likely that if any of his partners were HIV-positive that they would have said something. Unlike Adam, Ben does not usually use a condom when he has sex. Ben's last HIV test was about three months ago. He tested negative for HIV and has only had sex a few times since.

Scenario 3: Carrie is a straight, cisgender American woman. Carrie has also had five different male sexual partners in the past year. Like Ben, Carrie did not discuss matters related to HIV with her partners, but she thinks it is likely that if any of her partners were HIV-positive that they would have said something. Like Ben, Carrie does not usually use a condom when she has sex (although she uses birth control). Carrie's last HIV test was about three months ago. She tested negative for HIV and has only had sex a few times since.

Scenario 4: Dan is a gay, cisgender American man. Dan has been in a monogamous sexual relationship with an HIV-positive male partner for the past year. Dan's partner was diagnosed with HIV five years ago and faithfully adheres to the treatment prescribed by his doctor whom he meets with every three to six months. Dan and his partner have sex on a regular basis and do not use condoms. Dan gets tested for HIV twice a year. Dan's last HIV test was six months ago and he tested negative for HIV.

When juxtaposed, these scenarios raise interesting questions concerning perceptions of individual risk and understanding of risk. Many will judge, with a good degree of confidence,

that Dan, the man having sex regularly with his HIV-positive male partner, has the greatest risk of contracting HIV and that either Adam, the gay man whose partners all identify as HIV-negative and who uses condoms regularly, or Carrie, the straight woman, has the lowest risk of contraction. Many will also think that Carrie and Adam should have a fairly good understanding of their risk levels being low. Others might think that Dan has a less accurate understanding because it has been longer since his last HIV-negative test and because he has had sex regularly with an HIV-positive person since his last test.

Such judgments result from certain common assumptions about some of the major contributing factors in HIV transmission. Such assumptions include that the risk of sexually transmitting from an HIV-positive to HIV-negative partner is always relatively high (or at least never negligibly low), that heterosexual sex comes with a low risk of HIV transmission risk, and that condom use is the most salient (or only) preventative measure to pay attention to in assessing risk levels for sexual transmission of HIV between serodiscordant couples. Assumptions like these are problematic in at least two ways. First, they fail to acknowledge how radically undetermined the above scenarios are—i.e. such responses fail to identify the significance of a whole host of other factors relevant to knowledge of risk levels. People making such assumptions are working with a very simplified understanding of HIV transmission and risk. The empirical data we present will reveal the inadequacies of this simplified understanding. Second, once these additional factors are taken into account, it turns out that there are good reasons to think that Dan may have the lowest level of risk of HIV infection and may have the most accurate understanding of his own low risk level. As we shall show, these outcomes are plausible upshots of recent biological and sociological findings.

Section 2: HIV Research Findings and Initial Epistemic Implications

2.1 Basic Epidemiology of HIV

HIV (human immunodeficiency virus) is a virus that attacks the body's immune system and spreads through transmission of certain bodily fluids. The typical progression of the virus, when left untreated, is divided into three stages. The first stage, primary (or acute) infection, lasts for roughly three to six months. During this stage the infected person's viral load (the amount of virus present in the blood) is very high, making the person much more infectious compared to the second stage. During this stage the majority (but not all) of those infected experience flu-like symptoms or other maladies.

The second stage, asymptomatic HIV infection, begins when primary infection ends. During the asymptomatic stage the virus remains active and continues to replicate, but at a much slower rate. For those not on treatment the length of this stage varies, although it is usually a matter of years (and at times a decade or longer) before the virus progresses to the third stage. In this second stage, infected persons may not experience any symptoms, but remain capable of infecting others. How long this period lasts and how infectious people are both depend on whether one is on proper medical treatment. (Current standard treatment consists of regular check-ups with physicians and taking a set of pills daily. A daily regimen of this combination of pills is known as anti-retroviral therapy—ART for short.)

During the final stage of the virus, those infected develop AIDS (acquired immunodeficiency syndrome). By this stage the virus has caused substantial damage to the infected person's immune system (in the form of a very low CD4 or "T" cell count) leaving them vulnerable to many opportunistic infections, which can prove fatal for someone in their

immunocompromised condition. The viral load of a person with AIDS is high, leading to increased infectivity. Without treatment people typically survive about three years with AIDS.

<1>

In the thirty-five years since HIV/AIDS first came into cultural consciousness in the United States and around the globe, remarkable medical advances have been made in our understanding and ability to treat HIV. A variety of treatments have been developed to help persons living with HIV or AIDS (PHAs) to stay or to become healthy, such that “with these treatment regimens, survival rates among HIV-infected adults who are retained in care can approach those of uninfected adults” (Günthard et al. 2016, 191). These treatments also can decrease dramatically the likelihood of infecting others. Treatment for HIV/AIDS consists in taking a combination of doctor-prescribed anti-retroviral medications. This combination treatment is called anti-retroviral therapy (ART). While not a cure, ART has been very successful in increasing quality of life and prolonging the life expectancy of PHAs and has led to a reclassification of HIV from a fatal condition to a chronic treatable condition.

2.2 Ignorance of HIV-Positive Status

One method to avoid contracting HIV—i.e., seroconverting—is to avoid contact with the virus completely. Common sense thinking like this leads some people (many of them men who have sex with other men—i.e. MSM) to engage in serosorting. Serosorting is the practice of intentionally selecting sexual partners who identify as having the same HIV status as you. <2> But serosorting is based on the serostatus reported (or perceived to be reported) by potential partners. Such reports are effective only to the extent that the status reported matches the status those potential partners actually have, biologically speaking.

Some HIV-positive individuals may lie or give unclear responses that could be misinterpreted by others (Dodds et al. 2009, 142). Alternatively, serosorters may make incorrect assumptions about what constitutes an indication that a prospective partner is HIV-negative. For example, one might assume that silence on the topic is a tacit way of indicating that one is HIV-negative. But research shows that, among HIV-positive MSM, clear reports of HIV-positive status are relatively low, likely less than half the time, and even in cases where disclosure does occur, the disclosure frequently fails to be explicit (Dodds et al. 2009, 142; Koblin et al. 2006, 735). Even when casting these issues aside, effective serosorting requires that those reporting their status know if they are infected. Current estimates suggest that roughly 13-20% of HIV-positive people in the United States do not know they are positive (Chou et al. 2012, Hall et al. 2016; McNulty et al. 2016). In some communities in the United States those numbers are much higher, with research suggesting that as many as nearly half of all HIV-positive people in certain communities are unaware that they are HIV-positive (Koblin et al. 2006, 735; Millet et al. 2006, 1010). An estimated 20,000 new HIV infections occur annually in the United States due to transmission from persons who are unaware that they are infected (Chou et al. 2012), with over 30% of new infections coming from those with undiagnosed HIV according to the CDC.<3> Thus, there are significant limits to one's ability to knowingly avoid contact with HIV solely by relying on the reported HIV status of others.

2.3 HIV Testing, The Window Period, and Epistemic Limits

An obvious reason why many HIV-positive people do not know that they are positive is because they have not been tested. Increasing the percentage of at-risk individuals getting tested and the frequency at which they get tested is widely recognized as important way to decrease the

percentage of HIV-positive people unaware that they have the virus (McNulty et al. 2016). But there is another factor at play here—namely, the window period between contraction of HIV and the ability of an HIV screening to accurately render an HIV-positive result. For a highly informed population this window period might prove minimally problematic. But part of the problem here is epistemic; i.e. many of those tested do not understand the window period.

The time period between contracting HIV and testing positive for it is dependent on several factors, including the strain of HIV one has contracted and the type of HIV test being administered. By far the most common type of HIV test given is an antibody test, which identifies the presence of HIV by testing for the antibodies our bodies make in response to the virus. Because it takes time for these antibodies to be produced, the quickest a person will test positive for HIV given a standard antibody test is three weeks, but evidence suggests it can take up to three months or longer to develop the necessary antibodies to test positive.<4>

If we think back to our four scenarios in the first part of the paper of Adam, Ben, Carrie, and Dan, given their regular sexual activity, any of them could have been infected with HIV when they last tested negative. Furthermore, for Adam and Carrie, even though their partners disclosed an HIV-negative status, for all Adam and Carrie know, any of their partners could have been in a similar situation of having contracted the virus too recently at the time of their last HIV screening to have tested positive. This is not to deny the important epistemic advantage gained by HIV-negative screenings, but rather to recognize the limits of that advantage.

These epistemic limits have very real practical effects. In 2006 the results published from a longitudinal study run with over 4000 HIV-negative MSM conducted in six US cities found that over one-fifth (21.6%) of the seroconversions that occurred were “accounted for by unprotected receptive anal intercourse with partners believed to be HIV negative” (Koblin et al.

2006, 735). This number was in fact higher than the percentage of seroconversions accounted for by unprotected receptive anal intercourse with partners believed to be HIV-positive (18.6%). Crucially, in this study partners were classified as HIV-negative only when “a partner told the participant they were negative and the partner had no reason to doubt it” (Koblin et al. 2006, 731), meaning that the seroconversion rate of 21.6% does not account for the cases of seroconversion due to contact with sexual partners whose status was classified as unknown. Seroconversions from partners with unknown status accounted for an additional 28.4%. Findings like these, along with a lack of awareness of the full window period for positive HIV results from HIV screenings, call into question the effectiveness of things like serosorting or assumptions about the low risk level of HIV contraction during sexual contact with self-identified HIV-negative individuals.

2.4 Viral Loads and Infectivity

Misperceptions cut both ways. Many who do not see relevant differences in risk levels for sexual contact among partners labeled as HIV-negative, also fail to see relevant differences in risk levels for sexual contact among HIV-positive individuals. One of these relevant differences among HIV-positive persons is the HIV-positive person's viral load. Viral load is important when considering risk of infection because higher viral loads are strongly linked to greater infectivity (McNulty et al. 2016).

A person's viral load is particularly high during primary HIV infection. This high level of virus in the blood (and, in males, semen) leads to hyperinfectivity during primary HIV (Pilcher et al. 2004, 2789-2790). A 2008 study found that primary infection was twenty-six times more infectious than the second asymptomatic stage (Hollingsworth et al. 2008, 687). Thus, for

biological reasons, primary infection is a time in which transmission is more likely. This is compounded by the epistemic factor that many people in primary infection are unaware of their infection (Pao et al. 2005, 89; Koblin et al. 2006, 735, Chou et al. 2012). As a result, these individuals may be less apt to take precautions and may unintentionally disclose a status that does not accurately reflect the presence of infection. Such biological, behavioral, and social elements combined have led to primary infection serving as a particularly potent factor in the ongoing spread of HIV (Cates 1997; Koopman et al. 1997, 249, Brenner et al. 2007). Studies estimate that between a quarter and one half of new infections occur during primary infection (Pao et al. 2005, 86), with one study estimating that in 2010 infection from undiagnosed HIV-positive men, the majority of whom were in primary infection, accounted for 82% of new infections in the UK (Phillips et al. 2013).

2.5 ART and Suppressed Viral Loads

While research has shown the high infectivity of primary HIV, it has also shown that with proper treatment infectivity is very low or non-existent for many HIV-positive people. A noteworthy recent case of such findings occurred in 2014 when a group of European researchers reported their initial findings on HIV transmission risk through condomless sex between serodiscordant couples in which one partner was HIV-positive, on ART, and with a low viral load (less than 200 copies/ml) and the other partner was HIV-negative (Rodger et al. 2012, 2016). The study, known as the PARTNER study (referring to partners of people on ART), revealed that over a two-year period and an estimated over 40,000 occasions of vaginal or anal sex (comprised of roughly 16,400 instances of homosexual sex among MSM and 28,000 of heterosexual sex) within a sample of 767 couples resulted in zero cases of transmission of HIV

from the positive partner to the negative partner (Rodger et al., 2014, 2016). This result is congruent with results from previous studies (notably, Cohen et al. 2011), although PARTNER represented a significant advance over previous studies due to the larger sample size of homosexual couples. While showing zero cases of transmission is not the same as showing zero risk, the researchers in PARTNER concluded that risk of sexual transmission for those on ART with a highly suppressed viral load was very low and that their best estimate was there being zero risk (Cairns 2014).

ART has proven highly effective for the vast majority of those who faithfully adhere to the treatment and can lead to viral loads significantly more suppressed than even the less than 200 copies/ml required for participation in PARTNER. In fact, ART allows many people's viral loads to get so low that the presence of the virus cannot currently be detected, which, depending on the test, typically requires a viral load of between less than 40 to 75 copies/ml. Individuals, during periods in which they achieve such low viral loads, are referred to as 'positive undetectable'. This is a term that many HIV-positive people use to convey information about their viral load, adherence to treatment, and identity (Grace 2015, 333).

2.6 Developments in Prophylaxis

Recent developments have also provided new means for HIV-negative individuals to decrease their likelihood of infection independent of the precautions that may or may not be taken by their partners. In 2012, a new means became available in the United States with the FDA approval of Truvada (emtricitabine/tenofovir disoproxil fumarate) for the purpose of HIV pre-exposure prophylaxis (PrEP) (Jefferson 2012). Such prophylaxis consists in uninfected persons at higher-than-average risk of contraction of HIV taking Truvada on a daily basis.

Clinical studies have shown that Truvada, when taken consistently, reduces the risk of HIV transmission via sex by more than 90% and for transmission via injection drug use by more than 70% ("PrEP" 2015). And PrEP usage in combination with other forms of prophylaxis, like condoms, further reduces the risk of HIV transmission.<7>

2.7 Reviewing the Epistemic Implications

Reflecting on this research, we can revisit our four scenarios. Dan, who regularly has condomless sex with his HIV-positive male partner, may have initially appeared to have by far the highest risk of contracting HIV. But recall that Dan's partner faithfully adheres to ART and meets with his doctor regularly. These regular visits include measurements of Dan's partner's viral load, and given Dan's partner's adherence to ART, his partner has a high chance of having a very low viral load. New research, like PARTNER, shows that this makes Dan's chance of contraction of HIV very low, perhaps non-existent. In addition, even if a small chance of risk remains, Dan can greatly reduce that remaining risk by going on PrEP. Thus, if Dan is on PrEP and his partner has a low viral load, not only is the likelihood of Dan contracting HIV very low or non-existent, Dan also has a high degree of knowledge about his risk level given the information Dan's partner gets from his regular doctor visits and given that Dan and his partner are in a monogamous relationship. On the other hand, Adam, Ben, and Carrie all have a variety of unaccounted for variables that might influence their risk levels (e.g. when their partners were last tested, if any of their partners use injection drugs, if any of their partners are in primary infection, etc.), which certainly influence how clearly they understand their own level of risk. Adam, Ben, and Carrie are also in a position where they have to assess the honesty of their potential partners when it comes to their partners' reports on HIV status and risk. And as will be

discussed more in the following section, their partners may be incentivized to be dishonest. But the communication of wrong information is not limited to cases of dishonesty. Issues can arise when someone reports a status without having been tested at all or when tested at a time that doesn't account for a window period—something of which the person being tested may not have known to be mindful.

As concern about the HIV/AIDS epidemic has receded from the forefront of the general population's consciousness in much of North America, many advances in our understanding of and ability to treat HIV, along with their implications for how to avoid contraction of HIV, have not come to be widely-known or well-understood across the public as a whole. In 2013 and 2014 only 21% of adults in the United States were aware that ART could reduce the risk of an HIV-positive person infecting a partner and only 14% were aware of PrEP and its ability to lower risk of contracting HIV (Firth et al. 2016). Of course, the extent to which a person is apt to be well-informed about advancements in HIV treatment and to have thought through the implications of those advances for personal health and/or risk management is correlated with one's perceived likelihood of being at risk of contracting HIV or of knowing others who are HIV-positive or at higher-than-average risk of becoming so.⁸ In turn, the likelihood of being in such a situation is correlated with many aspects of one's social situation. For example, MSM, African American men and women, and intravenous drug users (among other populations) continue to make up grossly disproportionate amounts of infections in the United States ("HIV in the United States: At A Glance" 2015).⁹ Given the ways in which these groups are already marginalized and stigmatized, the further marginalization and stigmatization of being HIV-positive has led to complex patterns of risk management, methods of knowledge collection and dissemination, and forms of communication (or communication avoidance) concerning HIV.¹⁰

Section 3: Epistemic Harm, Epistemic Injustice, and HIV

We are now in a position to identify some of the epistemic harms related to HIV and HIV transmission. Much more could be said on the topic than we have space for, but we hope to offer a sampling of the sorts of issues that arise in what follows. We first argue for the presence of two previously identified types of epistemic harm—hermeneutical injustice (Fricker 2007) and contributory injustice (Dotson 2012)—affecting HIV-positive people. We then examine the state of social knowledge and linguistic practices concerning HIV, and to an extent STDs more broadly, to identify a different type of epistemic harm that we call *structural-linguistic epistemic harm*.

3.1 Hermeneutical Injustice, Contributory Injustice, and the Epistemic Resources of HIV-Positive MSM

Miranda Fricker writes, “hermeneutical injustice occurs...when a gap in collective interpretive resources puts someone at an unfair disadvantage when it comes to making sense of their social experiences” (2007, 1). Members of dominant communities, who frequently control the development of collective interpretive resources, due to their lack of interest in or awareness of certain salient experiences of those in non-dominant groups, often prevent the development of the resources needed to explain or understand the experiences of the marginalized. On Fricker’s account, the unfair disadvantages that the marginalized face due to an inability to explain, or even understand, their own experiences constitute hermeneutical injustice.

At least implicitly, this characterization of the collective interpreted resources seems to assume that there is a single shared set of resources. Following Rebecca Mason (2011), we argue

that although the collective resources are often insufficient to provide understanding of certain experiences within broader knowledge communities, non-dominant groups are often very successful in developing their own additional resources, which may not be part of the collective resources of the larger community, to understand their experienced world. Thus, Mason asserts, and we concur, that "...marginalized groups can be silenced relative to dominant discourses without being prevented from understanding or expressing their own social experiences" (2011, 301). In this latter sort of circumstance, rather than being mystified by an experience that does not yet have robust epistemic discourse, the marginalized are unfairly disadvantaged because those in power fail to understand or to make use of the hermeneutical resources developed by the marginalized. When this failure is willful, Gaile Pohlhaus calls this *willful hermeneutical ignorance* (Pohlhaus 2012). This unwillingness by the powerful to learn about or make use of the hermeneutical resources developed by the marginalized leads to an avoidable and epistemically unjust gap in understanding between the powerful and the marginalized.

Mason's distinction between different types of discourse communities and Pohlhaus' identification of willful hermeneutical ignorance point to a second type of epistemic injustice that arises when the dominant engage in willful hermeneutical ignorance in a way that disadvantages non-dominant populations. Kristie Dotson calls this contributory injustice (Dotson 2011). In the case of contributory injustice, the injustice of being unfairly silenced and/or misunderstood by the dominant constitutes the epistemic wrong. This is contrasted with Fricker's understanding of hermeneutical injustice in which there is the separate wrong of the marginalized being robbed of the ability to understand or explain their own experiences due to a lack of adequate hermeneutical resources. In what follows we argue that both forms of injustice

are present for HIV-positive MSM. We think these injustices apply to HIV-positive people generally, but, by way of example, we focus here on MSM.

To see how these injustices arise, it will be useful to take stock of several different communities with differing levels of marginalization. Sexually active adult males can be separated into a dominant community, those engaging in hetero-normative sexual activity only, and a non-dominant community, those who engage in homosexual sex (i.e. MSM). Another distinction can be made with HIV-negative MSM constituting a (comparatively) dominant community and HIV-positive MSM an additionally marginalized community. This puts HIV-positive MSM in a doubly marginalized position and HIV-negative MSM in an intersectional position in which they are both marginalized as part of a broader group and dominant within a specific community. In the remainder of this section, we first describe ways in which many HIV-positive MSM have developed resources to understand their world (as well as looking at those who do not have such resources). We then identify hermeneutical and contributory injustices in light of these knowledge and discourse community distinctions.

Two areas of discourse relevant to understanding the world as an HIV-positive MSM are medical/health discourse and social/relationship interaction discourse. The former refers to understanding HIV as a virus, its precautionary measures, and treatments. The latter refers to social processes such as the stigmatization and isolation that may occur as a result of one's status and the perceptions of HIV-positive people by HIV-negative people.¹¹ As we will show, both these areas of discourse have important epistemic components.

Many HIV-positive MSM develop epistemic resources relevant to understanding the virus and its potential health impacts. As we learn more about HIV and new treatments are developed, these epistemic resources expand, but are limited by the pace and focus of biological

research. Fricker acknowledges the complexity of trying to understand one's own experiences living with medical conditions that are not fully understood or diagnosable. In situations where little is understood about a disease but this lack of understanding is not due to any kind of willful ignorance or prejudice, the lack of collective cognitive resources is a case of "circumstantial epistemic bad luck" and not a case of hermeneutical injustice for those suffering from the disease (Fricker 2007, 152). When HIV/AIDS first began to spread and impact MSM living in the United States, their own and others' inability to understand the virus or how it affected social practices was limited by the state of knowledge in the medical community at large. Thus, initially, HIV-positive MSM may have encountered a state of circumstantial epistemic bad luck. (Although to the extent that bias against MSM may have influenced even initial diagnoses, treatment, and research, this period of circumstantial epistemic bad luck may have been very short.)

As we have learned more about HIV and as affected communities have developed modes of communication that allow for an increased understanding, contributory and hermeneutical injustices have by and large replaced any circumstantial epistemic bad luck that may have obtained initially. This is because there are many epistemic resources currently available to help explain the experiences of HIV-positive MSM, which many HIV-negative people, including many HIV-negative MSM, fail to recognize or use. Focusing on the developing discourse around serostatus, communication, and safe-sex practices, we can see the ways in which dominant HIV-negative MSM commit epistemic injustices against non-dominant HIV-positive MSM.

As the biomedical research on viral loads and transmission rates expanded, the new term 'positive undetectable' emerged, referring to HIV-positive individuals with low viral loads associated with decreased transmission risk. In a longitudinal study, Grace et al. found that viral

load information impacts communication and sexual activity. First, they found that many HIV-positive MSM report abstaining from sex during the period shortly after diagnosis, in part, in order to avoid transmitting the virus (2015, 338). This period of abstinence typically ended when viral loads decreased, especially for those labeled 'undetectable' (2015, 340-1). As this label is increasingly used in medical discourse, it translates into social discourse. 'HIV-positive' alone no longer fully reflects the relevant experiences of many positive-undetectable MSM. And when our experience of the world cannot be expressed by our current epistemic resources, we develop new ways of understanding our lives so that we can understand our world and in some circumstances explain it to relevant others (Pohlhaus 2012, 719). As one participant in Grace et al.'s study notes, "most guys, they put 'undetectable,' actually, instead of that they're positive" when discussing online dating and sexual partnering (Grace et al. 2015, 341). <12> Several participants noted that knowledge about HIV and undetectable status was an important factor for some HIV-negative MSM's decision to engage in sexual activity with an HIV-positive partner (Grace et al. 2015, 343). HIV-positive MSM have constructed a set of epistemic tools to understand their own experiences and transmission risks, and the willingness of HIV-negative MSM to use these tools impacts sexual decision making and can decrease stigmatization of HIV-positive MSM (and HIV-positive persons generally).

When HIV-negative individuals refuse to acknowledge, educate themselves about, or use the terms and practices around 'positive undetectable' a contributory injustice occurs, often as the result of willful hermeneutical ignorance. For example, a disclosed positive serostatus frequently is sufficient for HIV-negative individuals to cease pursuing any relations with an HIV-positive individual, even if the HIV-positive individual's viral load is undetectable and the developing discourse is used to communicate this information. This is part of a general tendency

in which HIV-positive men report “that they sense fear among HIV negative men regarding HIV/AIDS and that many men avoid the topic of HIV and will avoid potential sex partners if the topic does arise” (Courtney-Quirk et al 2006, 62). Such responses from HIV-negative individuals fail to take into account or attend to salient aspects relating to the health or infectivity of these HIV-positive MSM and indicate a distrust of health-based self-knowledge by HIV-positive MSM. Recall our character Ben who assumes that silence about status indicates safety. Any discussion of HIV-status often leads to avoidance, despite open discussion of status typically being a sign of diligent research and commitment to not transmitting HIV. We are by no means claiming that concern about contracting HIV constitutes an injustice, but an unwillingness to investigate and understand the current research on HIV transmission risk unjustly results in the further marginalization of HIV-positive men, even among communities where risk is high overall and understanding these identities is relevant to the health of the broader MSM community.

Additionally, this willful hermeneutical ignorance results in an increase of risk for HIV-negative participants by limiting conversations about HIV prevention and decreasing the likelihood that an HIV-positive partner will disclose their status. Due to the high stigmatization of HIV, MSM may not be willing to discuss HIV prevention for fear that others will think they have HIV (Ramallo et al. 2015, 308). The hesitancy to mention HIV in any capacity radically undermines the development of epistemic resources around sexual health and HIV prevention. In addition, Ramallo et al. note that HIV-positive MSM may not discuss their HIV status with potential partners online prior to engaging in high-risk sexual activities (2015, 300). They write, “The HIV-positive participants expressed conflict in whether to be forthright by disclosing their status on social networking hook up sites, and the potential consequences of men being

uninterested in them” (Ramallo et al. 2015, 305). In cases where HIV-positive MSM avoid disclosing—for any of a variety of reasons including fear of rejection, nervousness, shame, or discomfort being honest—they may further do something epistemically unjust to their potential partners—leading to a cycle of reciprocal epistemic injustice.

Ramallo et al. attribute serosorting by HIV-negative individuals to HIV stigma. Not only does the popularity of serosorting result in a decreased chance of HIV disclosure, but utilizing serosorting as the primary tool for sexual safety also emphasizes a dichotomy between those that *know* they are positive and those that *believe* (and yet often falsely believe they know) they are negative. However, due to window periods, infrequent testing, and other risky sexual behavior, decisions made utilizing this distinction are unreliable, reinforcing this dichotomy as harming the MSM community as a whole.

Additionally, because of society's slow uptake of the new hermeneutical resources developed to explain and understand the medical and social aspects of living with HIV, many HIV-positive people themselves lack any sort of exposure to hermeneutical resources that can be used to describe their own experiences and identities. As a result, hermeneutical injustice still obtains in the portions of society where HIV-positive people faultlessly lack the hermeneutical resources needed to explain or understand their own experiences. This occurs in addition to the contributory injustice experienced in other segments of society where HIV-positive individuals are marginalized and silenced because others fail to recognize or make use of the hermeneutical resources those HIV-positive individuals possess and use in explaining their own experiences and identities.

In summary, willful hermeneutical ignorance on the part of HIV-negative MSM leads to both contributory and hermeneutical injustices for HIV-positive MSM, further marginalizing this

group in the MSM community. In addition, the further stigmatization and unwillingness to learn about current HIV research decreases the likelihood of fruitful conversations between serodiscordant individuals that may engage in sexual relations. These epistemic injustices hurt the MSM community as a whole. Acceptance into the MSM community-at-large (as well as communities other than that of MSM) of epistemic resources aimed at helping explain the experiences of HIV-positive MSM is an important step toward epistemic justice, decreased marginalization, and lower seroconversion risk.

3.2 Structural-Linguistic Epistemic Injustices and Talking about HIV

Elizabeth Anderson (2012) distinguishes between transactional and structural injustices. Transactional injustices are violations of justice in particular interactions, while structural injustices are derived from global properties of a system of rules governing transactions. Anderson points out that this distinction applies to epistemic injustices. A similar distinction between harms arising from specific interactions and harms derived from global properties of the rule systems governing transactions also applies in considering epistemic harms more generally. Viewing language practices as having a type of rule-governed structure, certain language practices, which currently govern discourse about HIV status operates, generate systemic epistemic harm by covering over some of the risk factors and knowledge-gaps relevant to risk management for HIV-exposure.

Ben has been seeing a guy, Joe, and the two are considering becoming sexually active. In discussing this possibility Joe asks Ben “are you negative?” (meaning HIV-negative). Carrie recently met a man on a business trip. Before inviting her up to his room he asked “are you clean?” (referring to being “clean” of (without) STDs). Adam uses the male-only dating and

hookup app, Grindr, to meet guys. A guy he's considering meeting sends him a message reading "ddf?" (short for "[are you] drug and [sexually-transmitted] disease free?").

On the surface, once translated, these questions may seem relatively straightforward. But there are underlying epistemic problems with the structure of these questions.¹³ First, these questions conflate an epidemiological status with an epistemic status. Presumably, when one asks "are you clean?" or "are you negative?" they're asking about what diseases you do or do not have. Interest in your test results is derivative because such test results are the primary means by which you can secure information about your epidemiological status. But when the two statuses (epidemiological and epistemic) are woven so tightly together in conversation, the distinction between them is minimized, if not lost. Due to this conflation, a respondent may mistakenly take his knowledge about his test results to constitute knowledge about viral status, or even in cases where this conflation hasn't been made internally, a respondent's language may allow an interlocutor to draw mistaken conclusions about the level of information the respondent has.

Of course, one could address these problems by giving a nuanced response that pulls the two statuses apart, but the linguistic and social rules governing such interactions often provide disincentives for doing so. On the linguistic level, the syntax of these questions encourages yes or no answers, and can render responses of other forms infelicitous. Thus, these responses imply (and perhaps even require) a level of trust that is unwarranted. Furthermore, if whenever one makes an assertion one is claiming knowledge (as those who have defended the view that "knowledge as the norm of assertion" have argued, e.g. DeRose 2002), such yes or no responses constitute knowledge claims despite factors that frequently prevent one from knowing the answer to that question (factors like outdated test results, having never been tested, or not taking into account the window period). Socially, someone who gives a nuanced response is often viewed

with suspicion—with nuance suggesting that one is untrustworthy or has something to hide. (For example, it probably will not go over well for Adam if he types back “probably” or “it depends on what you mean” or anything along those lines.)¹⁴ Thus, the current structure of such linguistic practices harm on two levels—1) they distract from the gap between one’s epistemic state concerning HIV status and biological condition, and 2) they disincentivize more honest or nuanced expressions that try to make clear the epistemic gaps.

We call this type of epistemic injustice a *structural-linguistic epistemic harm* because it is the structure of the language and the accompanying social practices that create the epistemic harm. This situation harms askers because they are less apt to receive the best information with which to make an informed risk assessment, and it harms those asked because it encourages either giving epistemically suspect answers or risking social consequences by providing a more informative response.

This cycle of harm is perpetuated by, and in turn contributes to, epistemic injustice. In cases where a systematic absence of the understanding of the harm of current social and linguistic practices surrounding discussions of HIV and STDs prevail, hermeneutical injustice occurs. For HIV-positive people the hermeneutical injustice occurs via sociolinguistic practices that harm them and contribute to their stigmatization and isolation, and that stunt the development of other sociolinguistic practices, which may make clearer the epistemic reality and the stigmatized condition of HIV-positive people. For HIV-negative people the hermeneutical injustice occurs via sociolinguistic practices that hide the epistemically salient factors to their own risk. And in cases where some parties recognize the epistemic and social issues of current sociolinguistic practices but are negatively impacted when they attempt to break the sociolinguistic practices with more honest and nuanced responses, contributory injustice occurs.

Furthermore, those who avoid deviating from current social or linguistic practices because of fear of negative consequences encounter a type of epistemic harm, which Dotson calls epistemic smothering. Epistemic smothering is “the truncating of one’s own testimony in order to ensure that the testimony contains only content for which one’s audience demonstrates testimonial competence” (Dotson 2011, 249). Testimonial smothering often occurs when one chooses to suppress their own testimony because they perceive the testimony to be risky or unsafe (Dotson 2011, 249-50). If one avoids giving nuanced and helpful responses about HIV status because of a perceived risk from doing so, one’s testimony is smothered and a coerced silence occurs. Thus, the structural-linguistic epistemic injustice present in the discourse regarding HIV has the potential to lead to testimonial smothering and coerced silence.

These structural-linguistic epistemic harms, and the epistemic injustices both caused by and resulting from them, can be addressed via the promotion of alternative language that makes the epistemic reality clearer. These harms and injustices can also be addressed via the promotion of other means such as education, which may help people come to properly understand the epistemic reality even if the social language norms, for a time, remain unchanged. These remedies can be implemented on both a transactional level (e.g. a personal commitment to responding in an epistemically forthright way despite social consequences) and on a structural level (e.g. a public health initiatives to educate people about the social realities of HIV transmission). In addition, given the way language communities work, amassed transactional remedies have the power to become a structural remedy.

To some extent, such remedies have occurred in the MSM community. For example, many users of gay dating apps have changed the dialectic by posting things like “last tested HIV negative on X/X/XX” or “on PrEP” on their profiles. And recently many of these apps

themselves have added areas to profiles dedicated to providing a place for users to share information about status, testing, and other preventative measures (Staley 2015).<15> Such actions result in a movement towards the normalization and encouragement of disclosing this kind of information. By posting information explicitly about testing dates one highlights the epistemic intermediary and by posting about prophylactic practices one highlights steps being taken to minimize risk. These new phrases come with their own problems, but they still seem to represent a marked improvement in bringing epistemic limits to the fore. Cases like these show ways in which our language and understanding can be used to obscure or illuminate our epistemic situations and create or rectify epistemic injustices for those at risk for contracting HIV.

Section 4: Conclusions and Additional Steps

The prevalence of HIV and the drastic changes in understanding and treatment in the past thirty years have given rise to complex patterns of knowledge and ignorance among different communities. In this paper, we've brought together empirical epidemiological and socio-cultural research about HIV transmission, transmission risk, and prevention with discussions of epistemic injustice to develop a framework for identifying and potentially addressing harms done to individuals and groups in their capacities as knowers in relation to their sexual activity, health, and identity. In our discussion, we have addressed the hermeneutical and contributory injustices committed against positive-undetectable HIV-positive MSM in the quest to both understand and communicate transmission-risk levels and the structural-linguistic epistemic injustices that arise out of sexual health communication patterns. These discussions not only highlight the types of

epistemic injustices committed against MSM, but also point to strategies for decreasing the potential risks associated with sexual activity.

Though we believe this discussion moves the conversation in a useful direction, there are other important, related topics that must be explored further to give a more complete theory of epistemic harms in relation to HIV. Just as sexual orientation and HIV status interact to produce varying levels of marginalization and privilege, so do other factors such as gender, race, and socioeconomic status. For example, the evidence regarding the racialized development of HIV-related laws highlights the importance of race in both the perception of HIV-positive individuals, as well as their epistemic situations. Anthony Lemelle argues that HIV-specific “laws are available to profile and arrest African Americans, in much the same way that powder and crack cocaine federal status were used to unevenly prosecute African Americans” (Lemelle 2003, 275). Further, Black women account for nearly two-thirds of women newly diagnosed with HIV (“HIV Among Women” 2016), and in addition, the top cause of death for Black women ages 25-35 is HIV/AIDS related illnesses (“HIV/AIDS 2017”). This rise of HIV prevalence is often left invisible in mainstream discussions of HIV and prevention.

Finally, we've left out of our account the often justified lack of trust in government and public health authorities found among many members of communities where HIV acquisition is prevalent (for example, communities that have been harmed by “public health” initiatives in the past, such as forced birth control or sterilization). Though our discussion of epistemic harms can certainly explain some aspects of these cases, we acknowledge and emphasize that more work must be done to provide a fully intersectional account. A fully developed account of epistemic harms is not reached without taking issues related to gender and race into account. We hope that our work here is a starting point for continued work in this area.

1. For more information on HIV and the stages of infection see the CDC's "About HIV/AIDS" (2015). For another quick overview of HIV see Malani 2016.
2. Serosorting is also a practice engaged in by HIV-positive persons for various reasons. See Adams et al. 2014, 145.
3. For more information see "HIV Testing" from the CDC.
4. For more information on the HIV testing window period see "HIV Testing Types" from AIDS.gov and "HIV Testing" from the CDC.
5. In addition the HIV-negative partner could not be on PrEP or PEP (prophylactic methods for HIV prevention) at any point in the study.
6. For an accessible discussion of the preliminary results from the PARTNER study, see Cairns (2014).
7. For more information on PrEP see the CDC's "PrEP" and "Pre-Exposure Prophylaxis (PrEP)".
8. Firth et al. 2016 provides confirmatory evidence with black adults in the US and gay and bisexual adult males in the US being better informed about the benefits of ART and PrEP—although these differences are quite small.
9. For demographic information broken down by race, ethnicity, and "risk groups" see the CDC's "HIV in the United States: At a Glance" (2015).
10. Our paper focuses on the developed world and the United States in particular. The reason we have limited our scope, despite the notable impact of HIV/AIDS on many other parts of the world, particularly the African continent, is because the epistemic circumstances are not unified geographically and to try and take cross-cultural issues into account, in addition to intracultural

issues in the United States, would not be doable in a single chapter of this length. That said, we recognize the need for and encourage the additional development of work in this area that addresses the epistemic circumstances of other parts of the world.

11. This is not to say there isn't important overlap between the medical and social realms, but for our purposes it will be useful to talk about these areas as two things that, at the very least, are not identical to one another.

12. It is important to note that not all members of the HIV-positive MSM community endorse the adoption of these epistemic resources and some suggest that these terms should not be used in relational negotiations on social media, though this view is not particularly pervasive (Ramallo et al. 2015, 305).

13. In addition to the epistemic problems with such language, there are also other important ways in which such language problematically contributes to the stigmatization of HIV, HIV-positive people, and those with other STDS. For example, the argument has been made that the phrase "ddf" is problematic because "it puts HIV status on the same level as drug use" (Humburg 2016). And many of those fighting to end HIV stigmatization have pointed out the stigmatizing effect of framing HIV-status in terms of being "clean" or "dirty" (e.g. King 2012).

14. The reasons why this may not go over well are varied and we don't have the space to lay out any kind of complex psychological account as to the different reasons why a questioner may not respond well to a nuanced response. But among the reasons why one may not want a nuanced response include a desire to avoid the discomfort of having to consider as a more live option that a partner may have HIV or STI, that the question asker may never have really wanted to know the answer (but rather only wanted to discharge the duty of asking a responsible question), and the desire to avoid the distrust that one may associate with nuanced responses.

15. For additional information see “New to Grindr Profiles: HIV status and last test date fields” and for a discussion in the media of the pros and cons of such a move see Chen 2016.

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