



# Epistemic Disadvantage

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## Abstract

Recent philosophical literature on epistemic harms has paid little attention to the difference between deliberate and non-deliberate harms. In this paper, I analyze the “Curare Case,” a case from the 1940’s in which patient testimony was disregarded by physicians. This case has been described as an instance of epistemic injustice. I problematize this description, arguing instead that the case shows an instance of “epistemic disadvantage.” I propose epistemic disadvantage indicates when harms result from warranted asymmetric relations that justifiably exclude individuals from hermeneutical participation. Epistemic disadvantage categorizes harms that result from justifiable exclusions, are non-deliberate, and result from poor epistemic environments. This analysis brings out a meaningful difference between accidental and deliberate harms in communicative exchanges.

**Key words** Epistemic Injustice · Epistemic Exclusion · Feminist Epistemology · Hermeneutical Disadvantage · Marginalization · Medicine

## 1 Introduction

Miranda Fricker’s (2007) analysis of asymmetric epistemic relations described the unjust epistemic exclusion of marginalized persons in knowledge exchanges. Such harms are forms of epistemic injustice. Yet more attention could (and should) be given to the distinction between epistemic injustice and epistemic harm, and to different types of epistemic harms. For instance, there seem to be situations where it is appropriate for lay people to be excluded from certain epistemic practices in virtue of their lack of expertise (where exclusion includes lack of ability to participate). Such situations are indicative of unintentional harms that result from impoverished epistemic environments. Harms resulting from warranted asymmetric relations are not, by their nature, unjust. Consequently, it is wrong to label these kinds of harms

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as instances of injustice; such harms are better described as forms of, what I shall call, “epistemic disadvantage”—related to, but distinct from, Fricker’s terminology.<sup>1</sup>

This paper seeks to fill a gap in the epistemic injustice literature by elaborating on the concept of epistemic disadvantage, carving out a heretofore unidentified space in the epistemic harm literature. Epistemic disadvantage occurs when **non-deliberate, asymmetrical relations exclude person(s) from social participation, leading to an intellectual or moral harm**. In other words, epistemic disadvantage marks when a person or group is *warrantedly* excluded from knowledge exchanges, but the exclusion results in an intellectual or moral harm. Epistemic exclusion has previously been characterized as a transgression against knowers’ ability to participate in epistemic exchanges.<sup>2</sup> I introduce an expanded definition of epistemic exclusion, characterizing epistemic exclusion as either a warranted or an unwarranted epistemic process, in which a knower (or group of knowers) are excluded from a knowledge practice. An *unwarranted epistemic exclusion* occurs when a knower (or group of knowers) is (are) unjustly kept out of knowledge exchanges relevant to understanding their social experience. Unjust epistemic exclusions mark instances of *epistemic injustice*. A *warranted epistemic exclusion* occurs when a knower (or group of knowers) is (are) justifiably kept out of knowledge exchanges relevant to understanding their social experience. A knower’s agency might be warrantably curbed in contexts where knowledge-labor is asymmetrically distributed, like in environments where there are experts and non-expert. Just epistemic exclusions mark instances of *epistemic disadvantage*.

It is part of good epistemic practices to share epistemic resources. Yet both unwarranted and warranted exclusions can leave marginalized groups vulnerable to harm. For this reason, it is important to account for a wider range of epistemic harms than are currently described. Otherwise the concept of ‘epistemic injustice’ risks being overstretched, losing significance of what it points to. Furthermore, epistemic harms are largely subsumed by the category of epistemic injustice, but this category misses a class of harms that occur in warranted asymmetric epistemic relations. Warranted asymmetric relations can give rise to non-deliberate harms in unfortunate historical circumstances. To motivate my argument, I will analyze a historical example from medical history, which I call the “Curare Case.” This is a case in which curare (a poison that causes muscle paralysis) was mistakenly believed by medical practitioners to be a numbing agent in the 1940’s. Patients suffered from their physicians’ grave misunderstanding of the relevant properties of curare. I will highlight the ways in which this case demonstrates both forms of testimonial and hermeneutical injustice as well as a form of epistemic disadvantage.

<sup>1</sup> Fricker (2007) distinguishes between injustice and hermeneutical disadvantage, but she does not give a precise definition of the latter.

<sup>2</sup> Kristie Dotson (2012), for instance, characterizes epistemic exclusion as “infringement on the epistemic agency of knowers that reduces [their] ability to participate in a given epistemic community” (24). Dotson’s characterization involves the unwarranted compromising of epistemic agency, or the ability to utilize shared epistemic sources in order to participate in or revise knowledge production. Cf. Irene Omolola Adadevoh (2011) and Cynthia Townley (2003).

In Section I, I explain three forms of epistemic exclusions: hermeneutical marginalization, non-dominant hermeneutical marginalization, and epistemic isolation. It is worthwhile going over the different types of epistemic exclusion because whether an exclusion is warranted or unwarranted can help us to distinguish whether the harm is a form of epistemic injustice or epistemic disadvantage. In Section II, I present epistemic disadvantage in light of the third type of epistemic exclusion: epistemic isolation. In section III, I analyze the Curare Case, a token case of epistemic disadvantage. Then in section IV, I conclude.

## 2 Section I: Epistemic Exclusions

In this section, I suggest that testimonial and hermeneutical injustice are cases of harm that stem from unwarranted epistemic exclusions. Well-known are two forms of unwarranted epistemic exclusions: hermeneutical marginalization (à la Fricker 2007) and non-dominant hermeneutical marginalization (à la Rebecca Mason 2011). A third form of unwarranted epistemic exclusion, ‘epistemic isolation,’ has been proposed by Havi Carel and Ian James Kidd (2014; 2017). In what follows, I argue that epistemic isolation has a dual nature: there are forms of epistemic isolation that are both warranted and unwarranted, which in part depends on the historical context. Harms that stem from warranted forms of epistemic isolation are cases of epistemic disadvantage. I begin by laying out each form of epistemic exclusion. Then I show that there are cases of harm from asymmetrical epistemic relationships that do not fall neatly into any of these categories.

To begin, *hermeneutical marginalization* occurs when there is a global lack of conceptual resources, and as such social groups do not have adequate resources to make sense of their experiences (Fricker 2007: 153). A distinguishing feature of hermeneutical marginalization is the global lack of conceptual resources, which indicates that neither the marginalized group nor the group with social power have the relevant concepts available.

Fricker draws on Carmita Wood’s experience to represent hermeneutical marginalization. Wood experienced subtle microaggressions, groping, and forcible kissing by a distinguished professor at her place of employment. From the incidents, she developed somatic pain and was forced to quit her job. Wood applied for unemployment stating that she left for “personal reasons” (Fricker 2007: 150). Her claim was denied, however, since the termination cause was not considered justifiable at the time (pre-1970’s). Wood’s marginalized status, as a woman in a 1960’s workplace, meant that she was unable to stop the practice as it was not considered poor behavior by the institution or by broader social norms. Her status excluded her from communicating with those with social power (her employer). Eventually, Wood shared her experience with other women, who also reported similar interactions, which led to speak-outs and later filled a conceptual gap as women gave name to these negative social experiences: ‘sexual harassment’.

When these experiences first occurred in the workplace, women lacked the conceptual framework to make sense of the harassment. They did not know harassment was systemic. Their exclusion was as much a result from the unavailability of the

concept of ‘sexual harassment’ to *anyone in society at the time* as it was from their *marginalized status as ‘women’*.

Hermeneutical marginalization is an unwarranted epistemic exclusion. It occurs, in part, from beliefs on structural identity prejudice. Identity prejudice is formed on the basis of negative stereotypes. Negative stereotypes can include propositions such as ‘Women are emotional’; ‘Muslims are extremists’; ‘HIV is a homosexual disease’; ‘Black people are violent’. These negative stereotypes on social identity reside in the repository of unconscious scripts, images, or concepts collectively shared by society.<sup>3</sup> Negative stereotypes prejudice listeners against speakers, preventing speakers from communicating knowledge. Negative stereotypes evolve into injustice when a speaker is not given due credibility, because she is unwarrantedly excluded from the exchange of knowledge.

Identity prejudice is never justified and ought not to inform whether non-dominant groups are included in knowledge exchanges. For this reason, identity prejudice gives rise to both testimonial injustice and hermeneutical injustice. Testimonial injustice occurs when a speaker’s credibility is considered deficient by a hearer in virtue of identity prejudice held by the hearer (Fricker 2007: 28). Hermeneutical injustice, on the other hand, occurs at a structural level, specifically when prejudice obscures an individual’s social experience from collective understanding (Fricker 2007: 155). When an area of one’s social experience is obscured from understanding, there is a gap: some concept is not available to make the experience understandable--this is what Camita Wood’s experience unfortunately describes. Gaps occur when social groups are unwarrantedly marginalized, since their experiences are not deemed authoritative. As such, social groups may be excluded from attempts at understanding negative social experiences. Thus, hermeneutical marginalization represents a type of epistemic exclusion that is never justified because it evolves from identity prejudice.

Similarly, *non-dominant hermeneutical marginalization* describes unwarranted epistemic exclusions. Non-dominant marginalization occurs when social groups are able to render their experiences intelligible, but their conceptual resources are not respected by the dominant group (Mason 2011: 298). Mason (2011) has argued that Fricker’s account of marginalization did not acknowledge the knowledge capacities of marginalized groups, since Fricker failed to acknowledge the ability of non-dominant groups to make sense of their own experiences (p. 300).

Mason reinterpreted Wood’s experience as a time when women were silenced by the dominant group (i.e., white men in 1960’s workplace). It was in the dominant groups’ interest to remain epistemically ignorant of their actions.<sup>4</sup> Indeed, Mason

<sup>3</sup> For a detailed analysis of the injustices arising from negative stereotypes in the social imaginary, or unconscious repository, see Medina (2012).

<sup>4</sup> Charles Mills (1999) conceptualized a view of ignorance, which argues that ignorance is a cognitive dysfunction that distorts dominant groups’ understanding (p. 18). A prominent form of epistemic ignorance is Mills’ normative notion “white ignorance,” an intentional, collective cognitive bias among white agents that causes false beliefs of other non-white groups (see Mills 2007). Examples of racially-based ignorant beliefs include the belief that whites and blacks had equal opportunities post-civil war (Mason 2011: 306), or that black Caribbean or Africans weren’t soldiers in the British army during the Second

argues that Wood's actions to seek out other women and voluntarily share her experiences of workplace mistreatment "betray Fricker's description of her as someone who failed to understand" (Mason 2011: 297). On Mason's interpretation, Wood had adequate resources. She could make sense of her social experience, but those resources were not respected by the dominant group. Non-dominant hermeneutical marginalization then also describes an unwarranted exclusion of credible testimonies on the basis of structural identity prejudice.<sup>5</sup>

Whether concepts are available can be contingent on historical circumstances. There can be contexts when concepts are unavailable to all members of society as well as contexts in which marginalized groups understand their own knowledge practices, while these practices remain unrealized to members of the dominant group. The relevant point is that both forms of marginalization describe unjust exclusions when some groups are excluded from processes that could help make their experiences understood. In the case of workplace harassment, Wood was denied credibility because she belonged to a socially powerless group (as a woman) in the workplace. Depending on what features of her case one highlights, different forms of exclusion emerge. The concept of sexual harassment was not available to society at large during the time Wood was employed. The society at large, then, suffered from hermeneutical marginalization. Yet one can interpret from Wood's position an ability to understand her social experience, lacking the standing to communicate her negative experiences. These are compatible interpretations, highlighting different phenomena. This method of teasing apart different phenomena in historical environments will be relevant to conceptualizing epistemic disadvantage, in particular to understanding forms of warranted and unwarranted exclusion in asymmetric epistemic relations.

Hermeneutical marginalization and non-dominant hermeneutical marginalization are exclusionary practices that occur on the basis of unwarranted beliefs about social identity. These exclusions are never justified, and they morally and epistemically harm both the listener and the speaker. The last form of epistemic exclusion we will discuss is *epistemic isolation*. Epistemic isolation describes when a person or group lacks the knowledge of, or means of access to, particular information. This form of exclusionary practice—unlike hermeneutical marginalization and non-dominant hermeneutical marginalization—can be either unwarranted or warranted, depending upon the circumstances.

I borrow the term 'epistemic isolation' from Carel and Kidd (2014; 2017), who locate forms of epistemic injustice in the medical field. They describe epistemic isolation as

situations where a person or group lacks the knowledge of, or means of access to, particular information; for instance, if they live within a politically repres-

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Footnote 4 (continued)

World War—a fact that has been left out of most post-war films (Phillips & Phillips 1998: 5, as cited by Fricker 2016: 171).

<sup>5</sup> Ultimately I disagree with Mason's critique of Fricker. Both hermeneutical and non-dominant hermeneutical marginalization are relevant to categorizing epistemic exclusionary practices.

sive society *which forbids access to* the necessary sources of information in order to protect the government's hegemony (for example, by blocking certain websites, outlawing certain literature, and so on). (2017: 183-4; my emphasis)

We can consider epistemic isolation as a coercive form of marginalization since, in the definition provided, persons are *forbidden* access to necessary sources of information. In other words, epistemic isolation describes when resources are coercively withheld from groups of potential knowers within a particular repressive society. For this reason, epistemic isolation can be one cause of a hermeneutical gap. According to Carel and Kidd (2014), epistemic isolation also points to when non-dominant resources are unjustifiably excluded. Non-dominant resources can include certain expressive styles, like emotional expressions of fear, sadness, anger, or intuition about one's phenomenological experience. Such expressive styles are not generally considered rational evaluations of one's ailment by physicians in medical environments.

In addition, Kidd and Carel (2017) note that epistemic isolation "can take different forms, from physical exclusion to subtler forms of epistemic exclusion, such as the procedural insistence upon the employment of strenuous legal, medical, or academic terminologies and conventions" (p. 184). They assert that medical jargon, for example, excludes patients from engaging in the deliberative processes concerning their own diagnoses or treatment, since the medical field often relies on strenuous terminologies and conventions. And if the style of expression is not considered rational, then communication efforts to understand patient experience can be undermined (Carel and Kidd 2017: 184).

Carel and Kidd describe an unjustified form of epistemic isolation, a form that is coercive. By definition, then, epistemic isolation is unjustified and so is a form of epistemic injustice. But there ought to be a distinction between excluding groups on the basis of identity prejudice, or otherwise in an effort to maintain social power, and *warranted* exclusionary practices based on precise academic, medical, or legal knowledge. Conflating these two has the consequence of categorizing *expertise* as an unwarranted exclusionary practice.<sup>6</sup> With expertise comes more precise category distinctions and a deeper knowledge of intricate processes. Generally speaking, a novice is not always in a position to evaluate the technical knowledge of experts, and that alone should not suggest an unjustified form of epistemic isolation.<sup>7</sup> There are good reasons to exclude novices from some knowledge practices.

To be clear, epistemic isolation is unwarranted when a social group is denied access to information on the basis of an identity prejudice, such as when marginalized groups are kept out of universities (like when there are Jewish, or Black, or Asian quotas) or are segregated into poorly funded school districts. When a

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<sup>6</sup> Following Goldman (2001), we can characterize an expert as one who can claim to have "superior quantity or level of knowledge in some domain and an ability to generate new knowledge in that domain" (p. 91).

<sup>7</sup> To clarify, Goldman (2001: 90) suggests that novices tend to regard themselves as not being able to evaluate expert knowledge using his/her own opinion. To help novices, Goldman offers five strategies a novice can use to decide between two or more expert opinions.

dominant group has a stake in maintaining social power by means of epistemic isolation, the exclusion is unwarranted. But there are also warranted forms of epistemic isolation, such as when individuals freely choose to forgo access to certain types of knowledge (e.g. choosing not to go to university, when university education is available at no cost). In these cases of voluntary epistemic exclusion, the exclusion is warranted. In cases of specialization, one must choose a focus in order to gain expertise, which is also a form of voluntary epistemic exclusion. Scientific fields are so specialized that it behooves one to rely on the knowledge-labor of others. For example, randomized controlled trials (RCTs) are an experimental design for causal inferences. They are meant to show the effect of treatment on a given population size with minimal error rate (Andreoletti and Teira 2017: 224).<sup>8</sup> Often teams running RCTs require not only scientists to design the experiment, but technicians to monitor the equipment and statisticians to analyze data. Even though quantitative scientists undergo rigorous training in statistics, funding agencies usually encourage them to include a statistician on the team because statisticians have more experience and training analyzing data and serve to ensure that the data is sound. Due to the required years of rigorous training to analyze data, or produce sound experimental designs, it is difficult for someone without such training to both assess the experimental design or inferences drawn from it. Without training, one is justifiably excluded from related knowledge exchanges.

This is similar to justified epistemic exclusions in medicine, which relies on technical language to categorize illness. Medical expertise takes years to develop and a lack of expertise when diagnosing or suggesting treatment can cause serious harm. Medical decisions are arduous, require complex reasoning, and the ability to integrate nuanced features of a problem. Most patients do not have sufficient training to integrate nuanced medical information into observations of their own bodily experience. Moreover, most patients do not have the precise medical terminology to effectively communicate their experience. In this way, patients are isolated from medical decision-making processes. This isolation can be warranted when both parties agree to the distribution of knowledge-resources.

Specialized knowledge in any domain (be it in medicine or some other field) lends itself to the exclusion of some groups from deliberative participation. But that does not mean that the exclusion is wrong. Epistemic injustice describes wrongful exclusions, and any asymmetric relation that contains wrongful exclusions ought to be overturned--the asymmetric relation should be fixed so that the group initially kept from the knowledge exchange is admitted into the deliberative process. Warranted exclusion practices should mark those asymmetric relations that we value, like those between experts and laypeople, physicians and patients, parents and children, or teachers and students.

To summarize, the three ways in which groups can be excluded from knowledge exchanges are

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<sup>8</sup> For a discussion on the role of randomized controlled trials and mechanistic reasoning see Lijmer and Bossuyt (2009); for arguments on the ways diagnostic tests and procedures should be evaluated, see Kennedy (2016).

*Hermeneutical Marginalization* (always unwarranted): social groups do not have adequate resources to make sense of their experiences, in which case the concept is not available to anyone in the society.

*Non-Dominant Hermeneutical Marginalization* (always unwarranted): social groups may have adequate resources (that is, their members can make sense of their experiences), but those resources are not respected by the dominant group.

*Epistemic Isolation* (can be either warranted or unwarranted): social groups lack the knowledge of, or means of access to, particular information.

### 3 Section II Epistemic Disadvantage

In this section, I will develop the concept of epistemic disadvantage, which categorizes harms that result from such warranted exclusionary practices. As we discussed in the last section, at least one form of epistemic exclusions arises from the necessary distribution of knowledge-labor in complex epistemic environments. Epistemic isolation can imply the inability to understand or communicate using precision or mastery of certain terminology to effectively communicate one's experience. Although some exclusionary practices are warranted, there is still the risk of harm in any asymmetrical epistemic relationship. In asymmetrical relations between physicians and patients, for example, physicians can make wrong decisions that leave patients in serious pain, with lasting negative psycho-physiological effects.

Epistemic isolation, which results from an asymmetric relation, is part of the broader category of hermeneutical inequality. **Hermeneutical inequalities** are

**non-deliberate, asymmetrical relations that either exclude one from social participation or obscure one's social experience from collective understanding.**

Both epistemic injustice and epistemic disadvantage start from a hermeneutical inequality. On Fricker's (2007) view, a hermeneutical inequality becomes an "injustice only when some actual attempt at intelligibility is handicapped" (p. 160). That is, a hermeneutical injustice arises when it is "no accident" that a person's (or group) experience is not considered (Fricker 2007: 153). An injustice, then, is deliberate; injustice entails the deliberate exclusion of some groups from making their experience known. Epistemic injustice occurs when asymmetrical relations are deliberately maintained and marginalized groups are coercively excluded.

On the other hand, a hermeneutical inequality becomes an epistemic disadvantage when an attempt at intelligibility is handicapped by exclusionary practices that are merited, as opposed to deliberately and coercively maintained. Exclusionary practices can be meritorious when they follow from a just division of epistemic labor. It is not merited in the sense that one *deserves* to be in either the position of layperson or expert; it just so happens that we all have the possibility of ending up either in one or the other position at some time. When one is in a greater epistemic position, such that others rely on one for their knowledge or expertise, epistemic harm can occur against those who are not in an equal position. Recall



that epistemic disadvantage occurs when **non-deliberate, asymmetrical relations exclude person(s) from social participation, which then leads to an intellectual or moral harm**. Epistemic disadvantage evolves from a hermeneutical inequality when a person or group without epistemic capability is harmed by one with greater epistemic advantage.

There are three key conditions that separate epistemic disadvantage from epistemic injustice. First, identity prejudice: epistemic injustice requires that one's experience is obscured on the basis of identity prejudice. Prejudice keeps some people from being heard when their testimony is not taken seriously (this is testimonial injustice). Sometimes testimony is ignored, not on the basis of identity prejudice, but because a speaker lacks precision or mastery of concepts. Ignoring testimony on this basis is likely a case of epistemic disadvantage rather than cases of epistemic injustice.

The second is that epistemic disadvantage can be non-deliberate, even arising from circumstantial bad luck.<sup>9</sup> Fricker gives the following example of hermeneutical disadvantage from the medical field. She writes,

If, for instance, someone has a medical condition affecting their social behavior at a historical moment at which that condition is still misunderstood and largely undiagnosed, then they may suffer a hermeneutical disadvantage that is, while collective, especially damaging to them in particular. They are unable to render their experiences intelligible by reference to the idea that they have a disorder, and so they are personally in the dark, and may also suffer seriously negative consequences from others' non-comprehension of their condition. But they are not subject to hermeneutical injustice; rather, theirs is a poignant case of circumstantial epistemic bad luck. (Fricker 2007: 152)

Fricker's focus is hermeneutical disadvantage, which highlights conceptual gaps in epistemic resources. I am expanding the concept of hermeneutical disadvantage to epistemic disadvantage by incorporating warranted exclusionary processes that keep one party from communicating their experience. A group with greater conceptual resources may have the concepts that a lesser conceptually resourced group lacks. Also, both groups may have the conceptual resources, but one group may lack the ability to effectively communicate their experience due to a lack of technical vocabulary.

Fricker asserts that hermeneutical disadvantage describes cases of "circumstantial epistemic bad luck" (2007: 152). I take it that the point of marking bad luck

<sup>9</sup> Dotson (2012) describes epistemic bad luck as having at least two features: (1) 'accidental or historically incidental' and (2) causing 'harm to knowers' (p. 38). There is a history of interlaying 'accident' with the concept of 'luck' (see for instance Unger, 1945, Moriollo 1984, Harper 1996). But 'accident' is not an accurate description of Fricker's (2007) characterization of bad luck. Indeed, Fricker is explicit about the background view she takes on. She describes epistemic bad luck as the "epistemic counterpart to what Nagel (1979) calls 'circumstantial moral bad luck,' which is to say moral luck occurs when circumstances are beyond one's control (p. 25, as cited by Fricker 2007: 33). At present, I am not sure if anything hangs on this misunderstood conflation, and, for the purposes of this analysis, I must leave aside a more in-depth discussion of circumstantial epistemic bad luck.

in epistemic environments is to note when an agent may not have direct access to the relevant concepts that can remove prejudice on judgments of credibility.<sup>10</sup> At a general level, if one is in an environment where access to the relevant concepts are not available, the environment can be marked as circumstantial bad luck. The relevance of bad luck to epistemic disadvantage is that epistemic disadvantage picks out these environments in which one does not have access to the relevant concepts. Due to being in an environment where the relevant concepts are not available, the harm that arises can be said to be non-deliberate. In other words, epistemic disadvantage describes when social conditions lead to epistemic harm non-deliberately. The epistemic harm can be non-deliberate when, for instance, an agent (or group of agents) lacks access to the relevant conceptual resources to prevent bias from affecting judgments of credibility.

It is important to note that cases of epistemic injustice need not be deliberate. For example, one can downgrade the testimony of another due to implicit bias. This seems like a non-deliberate case of testimonial injustice. In addition, Carel and Kidd explicitly deny that the forms of epistemic injustice they identify are necessarily deliberate.<sup>11</sup> They write “we do not suggest that these strategies are systematically employed consciously or deliberately and certainly not with malice (although they may be)” (2014: 532). However, epistemic disadvantage ranges over particular cases in which there is no consciousness or deliberateness. Even though there can be testimonial injustice which is not deliberate, there cannot be epistemic disadvantage that is deliberate. The point I am trying to make is that we ought to reserve the concept of epistemic injustice for cases in which there is a kind of deliberateness. In epistemic environments where there is a hermeneutical gap, and epistemic resources are not forbidden, then I think it is prudent to refrain from describing the environment as necessarily prone to epistemic injustice, and instead use the concept of epistemic disadvantage to more precisely define what is at issue.

Clarifying the difference between epistemic disadvantage and epistemic injustice has the advantage of more precisely categorizing communicative exchanges. It can help with how to assign blame or praise, and where to focus ameliorative attention. With the concept of epistemic disadvantage, then the concept of epistemic injustice can range over communicative exchanges that are actually unjust. Epistemic disadvantage, on the other hand, ranges over contexts with the following three conditions:

- (1) Harms are non-deliberate, arising in circumstances of bad luck.
- (2) Speakers lack precision or mastery of concepts to effectively communicate their experience.

<sup>10</sup> Fricker (2007: 102) describes her account of luck as being a historical-constitutive form of bad epistemic and moral luck, which involves what reasons one can access—which affects what one does—and what reasons one can have—which affect who one is. Her concern is whether one can be culpable for failing to be testimonially virtuous if the requisite critical consciousness is unavailable. Ultimately, she argues a person cannot be blamed for failing to do something if one was not in a position to access the reason to do it (2007: 100–101), but such a person can be subject to moral negative reactive attitudes, specifically the ‘resentment of disappointment’ (2007: 104).

<sup>11</sup> My thanks to an anonymous reviewer for making this point.

- (3) Affected participants are justifiably excluded or subordinated from the practice that could make the concept known.

#### 4 Section III: The Curare Case

To bolster my claim that epistemic disadvantage contains three such conditions, I will analyze the Curare Case. I first came across the Curare Case while reading Carel and Kidd's (2014) applied analysis of epistemic injustice in the medical field.<sup>12</sup> Carel and Kidd argue that patient testimony is sometimes assigned a deflated epistemic status by providers. As I explained before, they suggest that the medical field's insistence on procedures which heavily rely on arduous legal, medical, or academic terminologies exclude patients, or force them to adopt an epistemically marginal role in decision making during consultations (2014: 520). Thus, some of the experiences of patients are coextensive with testimonial and hermeneutical injustices. In accordance with their analysis, Carel and Kidd label the Curare Case as an example of epistemic injustice. In some respect, I think they are right: the case demonstrates testimonial injustice. But I do not think this is a case of hermeneutical injustice. Instead, the case exemplifies the three central conditions for epistemic disadvantage.

Curare is a poison that produces skeletal muscular relaxation but does not cause analgesia or alter consciousness awareness (Smith et al. 1947: 1). The first documented use of curare in anesthesia was reported in January 1942. By December 1942, anesthesiologists suggested the safe use of curare as an adjuvant with other anesthetic agents, specifically cyclopropane (Bennett 1968: 484-92).<sup>13</sup> In 1944, two physicians observed (or thought they observed) the successful dosage of curare to induce general anesthesia (Whitacre 1944; Whitacre and Fisher 1945)—from my reading of the reports, it seems at some point patients lost consciousness, or lost any *sign* of conscious activity (Whitacre and Fisher 1945: 126).

Some physicians began using curare with preanesthetic medication only, and, in some instances, it was used without additional medication, especially with infants and small children (Smith, et al. 1947: 1). At least one patient (52 years old and weighing 180 pounds) reportedly complained “of pain and discomfort, but after 1 hour, when 200mg. curare had been given, consciousness was lost” (Whitacre and Fisher 1945: 126; see also McIntyre 1947: 195). In *Brainstorms Philosophical Essays on Mind and Psychology*, Daniel Dennett (1981) reports that some patients told physicians about feeling pain during surgery, but physicians did not take their testimony seriously (p. 209). Dennett attributes the credibility gap to the fact that many patients who received curare without anesthetic were infants and small children. It was not until 1947, when Smith, et al. (1947) reported a trained observer's

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<sup>12</sup> There are other concrete examples of testimonial injustices in the medical field. For example, see Freeman (2015).

<sup>13</sup> See also McIntyre (1947). McIntyre writes, “In the opinion of the author a combination of cyclopropane and curare most nearly approaches the ideal in anesthesia; this is particularly true when deep relaxation of muscles is essential” (p. 193).

experience under curare (without added analgesics), that patient testimony was believed.<sup>14</sup>

Carel and Kidd (2014: 534) labelled the Curare Case as a case of epistemic injustice.<sup>15</sup> To say that this is a case of epistemic injustice is to say that there is both a credibility deficit (testimonial injustice) and that a person's experience is deliberately made unintelligible by an asymmetrical power dynamic (hermeneutical injustice). *Prima facie*, the Curare Case shows an instance of testimonial injustice. Physicians used curare on patients without analgesic compounds, some who were infants and small children. Post-operatively, if the patient had sufficient language development to complain of pain, their testimony was not believed. This was likely due to an identity prejudice against children. Children, like animals, are often believed incapable of rationality; they are thought to be too emotional or not fully developed in this capacity. Furthermore, Smith et al. (1947) documented a trained observers' reaction to curare because they believed that "subjective reports with regard to pain by patients ... are not entirely reliable" (p. 3). Their reasons for why patient testimony are not reliable include that "pain modality is variable from patient to patient" and "that emotional stress per se may produce analgesia" (1947: 3). Yet they do not reflect on the fact that these reasons should also apply to physicians as well. Like any other patient, physicians too, *qua* patients, can be vulnerable to "emotional stress" produced by analgesia, and pain described by a physician is just as variable as that described by a patient. But physicians are granted a higher credibility status; they are granted expertise of bodily experience. So, when a physician reports pain, their testimony is believed. The same status is not granted to patients; they are not experts of their bodies. But the credibility inflation with regards to bodily experience given to physicians is little more justified than the deflation given to patients and children.<sup>16</sup>

The patients in this case can be thus described as experiencing testimonial injustice. They were not taken seriously on the basis of their status as non-expert, non-rational ill persons and/or children; they were not taken seriously as experts of their bodily experience. In fact, physicians valued their own discipline's expert opinion higher than that of their pediatric patients.

There is a reading of this case in which patients may have suffered from hermeneutical injustice as well. Hermeneutical injustice would indicate that patients were excluded from knowledge exchanges with physicians about their medical experience, and patient experience was deliberately obscured from collective understanding. Patients were excluded from knowledge exchanges. It is possible that physicians

<sup>14</sup> Smith et. al. were concerned about whether curare has any central depressant or analgesic properties (p. 1). Thus, they did not perform surgery on the patient, but took the testimony of the patient after being induced with curare. The patient indicated that "he can hear, see, and feel touch and pain as well as ever" when induced with curare (1947: p. 5).

<sup>15</sup> Carel and Kidd (2014) introduce this example, alongside eight others, as "some examples of testimonial and hermeneutic injustice" (p. 533). They do not, however, explain why each case is an instance of epistemic injustice. I am filling in the details.

<sup>16</sup> Studies, in fact, suggest that children can make epistemic and moral evaluations. See, for example, Koenig, Tiberius, and Hamlin (2019).

also had reasons to obscure patients' experience from collective understanding. Patients likely had an understanding of their own bodily experience of pain, but those with social power (the physicians) did not listen. In other words, the patients' conceptual resources were not legitimized. Their marginalized status made them vulnerable to hermeneutical injustice. Indeed, the Curare Case could be read as a deliberate, unwarranted exclusion of patient testimony by physicians.

What would be the reasons for deliberately excluding patients? One reason might be that physicians adamantly wanted to believe curare was an anesthetic and not just a muscle relaxant. Curare was, in fact, an improvement to alternative anesthetics used at the time. Ether and cyclopropane were two common anesthetic agents, yet both had serious risks for patients and physicians: ether is flammable and requires a prolonged period of time to produce anesthesia; cyclopropane is highly explosive (it was later used as rocket fuel). Furthermore, these drugs put patients at risk of aspiration (inhaling your own vomit) and post-operative nausea and vomiting.<sup>17</sup> Curare was said to be an improvement. Bennett (1968), a leading researcher on curare in the 1940s-60s, collected the testimonies of early workers on the usefulness of curare. Many physicians reported that curare minimized "post-operative shock and depression," showed "fewer post-operative complications," protected patients from "traumatic fracture," reduced the danger of "laryngeal spasm" as well as "cardiac arrhythmia."<sup>18</sup> Curare, if truly an analgesic, would have a "revolutionary effect on the practice of anesthesiology" and on patient care (Bennett 1968: 448).<sup>19</sup> To physicians in the 40's, these reports presented good reason to believe their own discipline's expert opinion rather than that of their pediatric patients. Trusting fellow experts had the unintended effect of obscuring patient experience.

There are, however, a few reasons why the Curare Case does not neatly fit into the category of hermeneutical injustice. First, physicians had good reason to believe the testimony of fellow experts and did so on the basis of improving patient experience post-operatively. Physicians, whose social status enabled them to make decisions on behalf of patients, thought they were acting in their patients' best interest. Furthermore, there is not a clear lack of conceptual resources. Recall that hermeneutical injustice indicates when some social group is marginalized. Marginalization can lead to either a global lack of conceptual resources (hermeneutical marginalization) such that a concept may not be available to anyone in society, or to a local lack of conceptual resources (non-dominant hermeneutical marginalization) such that a concept is available to the marginalized group, but their conceptual resources are not respected by the dominant group. In the Curare Case, patients and physicians shared the concept of pain. It stretches the imagination to think that physicians did

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<sup>17</sup> The risk of ether and cyclopropane on patients came from a discussion with retired anesthesiologist Stephanie Walden, M.D.

<sup>18</sup> Various testimonies as cited by Bennett (1968: 448).

<sup>19</sup> These testimonies were, however, later proven wrong. Reports on the benefits of curare were so mistaken that one report even suggested that curare eliminated deep anesthesia without the risk of hypoxia (Griffith 1951, as cited by Bennett 1968: 488).

not acknowledge patients' reporting of pain. Instead it may have been the case that physicians did not attribute the pain patients felt to the lack of a numbing agent.<sup>20</sup>

If a communicative exchange can reasonably be categorized as *only* an instance of testimonial injustice, then there should be some caution to describing the exchange as a full blown instance of epistemic injustice. Epistemic injustice categorizes more than just one type of unjust harm. Indeed it is a broad category covering a range of unjust harms. Therefore, for some communicative exchange to be categorized as an instance of epistemic injustice, it must satisfy more than one of the subconcept. Otherwise, we should more precisely refer to the instance as what it is: for example, as either an instance of testimonial injustice, hermeneutical injustice, or contributory injustice. If an exchange is characterized as more than one of these, then the exchange is an instance of epistemic injustice. Thus, some communicative exchange is epistemically unjust if it is an instance of more than one subconcept. If, however, a communicative exchange is describable as, let us say, *only* an instance of testimonial injustice, then it is not a full blown case of epistemic injustice (which again, captures the range of unjust harms). This is where epistemic disadvantage plays a role by more precisely categorizing the harm.

I introduced earlier the method of teasing apart different phenomena within historical environments in an effort to understand forms of warranted and unwarranted exclusion in asymmetric relations. This is relevant in the curare case, since, granting that the curare case is an instance of testimonial injustice but not hermeneutical injustice, it is sufficient to show that the curare case is not merely an instance of epistemic injustice. To make the case that the Curare Case is an instance of hermeneutical injustice requires stretching the concept beyond its proper scope. Epistemic disadvantage plays a better explanatory role.

#### 4.1 The Curare Case and Epistemic Disadvantage

Recall that the first condition of epistemic disadvantage requires that

(1) **Harms are non-deliberate, arising in circumstances of bad luck.**

There are some features in the Curare Case which should not be considered deliberate. Although physicians were mistaken about the benefits of curare, and their mistake subjected patients to the torture of full surgical awareness, their actions were not to the benefit of the structural power relation between themselves and patients. Rather, their actions were to the benefit of patient experience post-operatively. In addition, part of their mistake in reasoning can be attributed to how blood pressure was monitored at the time. Blood pressure and heart rate both increase when in pain. In the 1940's, without the benefit of continuous EKG monitoring, intraoperative blood pressure and heart rate were monitored every 20-30 minutes, as opposed to

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<sup>20</sup> This analysis evolved from discussions with Annalisa Coliva. I am grateful for her insight.

every 3–5 minutes, which is the standard of care today (Pardo and Miller 2017).<sup>21</sup> Without taking these vital signs, it was impossible for the evidence (high blood pressure equating to increased pain) to be properly evaluated by physicians. Given the standard of care at the time, physicians made a mistake. They did not realize patients were in pain. Their continued use of curare, and the subsequent harm arose accidentally. Patients were unfortunately treated in a time when blood pressure was not as closely monitored.

The second condition of epistemic disadvantage requires that

**(2) Speakers lack precision or mastery of concepts to effectively communicate their experiences.**

The second condition of epistemic disadvantage indicates when one party in the epistemic relation is without the proper tools to effectively communicate their experience. This is almost an inverse of hermeneutical marginalization and non-dominant hermeneutical marginalization. In the Curare Case, the group with social power (physicians) have the adequate resources, but the marginalized social group (patients) do not. Indeed, the concept in question may be, in fact, *available* to all. As I said before, both medical practitioners and patients had the concept ‘pain’. Neither attributed the pain to the lack of anesthesia. Patients certainly did not know what caused the pain they felt, and they did not have the sophisticated academic or technical resources to demonstrate that their pain was caused by a drug that only paralyzed muscles. Patient use of the concept ‘pain’ was disregarded by their physicians for systemic reasons. But the gap here concerns the *use* of the concepts, not its paucity. Physicians’ misapplied the concept of pain. They associated patient testimony about pain with a belief that ‘pain modality is variable from patient to patient.’ Indeed, physicians attributed the complaints of pain to dissociation or ‘emotional stress’ after surgery. Their mistake caused grave harm to patients as well as to the advancement of medical knowledge, which is both regrettable and deeply unfortunate.

Patients lacked mastery of the necessary concepts to communicate their experience. In the Curare Case, the marginalized speakers (patients) lacked the concepts possessed by the experts (physicians), and therefore could not communicate effectively to experts about their own experience. Patients would not know what substance they were given for anesthetic, nor could they pinpoint that curare was the direct cause of their trauma during surgery. For the case to be purely an instance of hermeneutical injustice, it must be that a concept is not available to some group—as in the case of ‘sexual harassment,’ which was not available pre-1960’s.

Finally, the third condition of epistemic disadvantage requires that

<sup>21</sup> My gratitude is again owed to Stephanie Walden, M.D., who gave me the idea that doctors may not have been checking blood pressure regularly to notice that patients were in pain.

- (3) **there is a gap in conceptual resources and affected participants are justifiably excluded or subordinated from the practice that could make the concept known.**

Epistemic disadvantage arises because the resources required for understanding one's social experience are not available to the marginalized group. They are epistemically isolated, such that there is a lack of knowledge, or means of access to particular information. In the Curare Case, patients did not have the adequate resources to evaluate the decision-making process of physicians. The patients were epistemically isolated. The isolation was, however, warranted on the basis that patient knowledge did not contain ongoing research in the medical field. Granted, their testimonies about feeling pain was unwarrantedly excluded—in that sense, patients were subject to testimonial injustice. But in the sense that patients could not have known that curare was not a numbing agent, and that physicians were under the mistaken impression that it was, they suffered from epistemic disadvantage. Carel and Kidd (2014) rightly point out that the knowledge of expert-patients, those who are able to navigate the more technical areas of the medical field, is still on the outside. It is not traditional for expert-patients to be invited to participate in committees that make determinations about changes to procedures. In this way, patients are unjustifiably epistemically isolated. Carel and Kidd have made the case that medicine would benefit from the participation of (even non-expert) patients on committees (2014: 532). But in the Curare Case, it is not certain that including patients on a committee would have resolved the epistemic disadvantage. Committees still rely on research conducted by medical experts, and it was, in part, the research on curare that was flawed. This is why the case represents an instance of epistemic disadvantage. The harm resulted from a justified, asymmetrical epistemic relation. It is not clear, as the case stands, that adjusting the structure of the institution would have prevented the harm.

## 5 Section IV: Concluding Remarks

I hope to have shown that the Curare Case exemplifies three conditions of epistemic disadvantage. The Curare Case shows that the harm patients incurred was (in part) non-deliberate, and the result of warranted asymmetrical epistemic relations. Physicians did not properly monitor blood pressure at the time, and they had countermending reasons to believe that curare was revolutionary (e.g., that curare reduced post-operative complications like traumatic fractures). Moreover, patients have a marginalized status, but their marginalization is not explained by hermeneutical marginalization, non-dominant hermeneutical marginalization, or the unwarranted form of epistemic isolation. It is, however, explained by warranted epistemic isolation, that is when the group with social power has the adequate resources to understand the epistemic environment, but the marginalized group does not. In the Curare Case, physicians had the resources to understand both the concept of pain and the more technical association between muscle relaxants and anesthetics. Yet physicians



made a faulty decision on behalf of patients, which led to grave harm. This harm belongs to the category of epistemic disadvantage, not epistemic injustice.

I want to stress that the concept of epistemic disadvantage is not in some way in opposition to epistemic injustice. Rather, the concepts can be co-extensive, ranging over the same phenomena, yet highlighting different aspects. Epistemic disadvantage fills a critical gap in our understanding of epistemic harms. For if epistemic injustice is put at the service of categorizing as unjust certain types of harms arising from testimonial exchanges with experts, there is a risk of further damaging our trust in expertise. So, it is important to distinguish between injustice proper and instances of disadvantage in our testimonial exchanges.

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## Declarations

**Conflict of Interest** On behalf of all authors, the corresponding author states that there is no conflict of interest.

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