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Claremont McKenna College

Medical Knowledge as a Recalcitrant Epistemological System:

*An application of Standpoint Epistemology in the Analysis*

*of Marginalization within U.S Healthcare*

submitted to

Professor Toole

by

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for

Senior Thesis

Spring 2021

May 3, 2021

**ABSTRACT**

Research on healthcare disparities outside the field of epistemology tend to miss the true origins of oppressions imposed on marginalized individuals by the U.S healthcare system. This happens because of the false belief that these oppressions are reducible to social or political oppressions. By employing the perspective of a standpoint epistemologist, we can better identify the origins of these oppressions and subsequently consider more appropriate solutions. The standpoint epistemologist's perspective (1) provides an intuitive case for the role individuals' schemas play in the evaluation of what healthcare professionals know; (2) situates medical knowledge within epistemology, leading us to the determination of the system's recalcitrance; (3) and lastly, provides us with new and appropriate diagnostic tools for addressing these distinctively epistemic oppressions. The standpoint epistemologist's perspective is our only saving grace, because when we fail to consider medical knowledge as an epistemological system, we fail to understand the origins of these healthcare oppressions altogether.

**Keywords:** epistemology, medical oppressions, epistemological recalcitrance, cognitive psychology, standpoint theory, marginalization, healthcare disparities

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## CHAPTER ONE

The U.S has faced an unprecedented number of challenges in these past months. The upsurge in awareness about racial inequality in tandem with the outbreak of coronavirus has made racial disparities related to the pandemic a primary focus of research and conversation. The response to the pandemic itself has involved a disproportionate lack of care to lower socioeconomic classes and racial minority groups. The CDC's reports on coronavirus cases, hospitalization, and deaths show that in comparison to white, non-Hispanic persons, Black persons are 1.4 times more likely to get infected, 3.7 times more likely to need to be hospitalized, and 2.8 times more likely to die from the virus. In lieu of the quarantine order, I moved to Chicago where these gaps in coronavirus outcomes are even more significant. In Chicago specifically, the number of deaths from coronavirus are three times higher in Black individuals than in any other demographic.

These consequential disparities have to do with discrimination, accessibility, quality of care, and economic barriers within the U.S healthcare system. Although these shortcomings seem a direct result of current and past social, economic, and political inequalities – this is not the whole truth. A majority of these consequential disparities can be traced back to biases in the construction and maintenance of the U.S. healthcare system, today. This presence of biases in healthcare has been a subject of extensive research and academic conversation for some time, despite not being universally understood as the key contributor to disparate health outcomes. I will explore the mechanisms behind biases, schemas, and epistemological systems as they exist within medical knowledge, in my evaluation of the origins of healthcare disparities disproportionately impacting marginalized groups.

*Bias* works by warping an individual's interaction or reaction to an environmental cue or another person in a way which most often leads to unwarranted discriminatory behaviors. For example, imagine two research colleagues are presenting a research idea to their university's funding committee: both individuals propose ambitious and rigorous plans for how they would utilize the university's funds. Despite being equally worthy and of the same academic 'prestige,' the cis-male professor immediately receives generous funding, while the female professor is given a smaller stipend, which takes weeks to arrive in her mailbox. Both professors presented almost identical research proposals, yet *gender bias* has functioned in a way which causes the committee to react in a more favorable way to the male professor's research project. This bias is independent from any meritocratic feature of either professor's research presentation, and results in unjustified withholding of funding to the equally deserving female professor. The bias mechanism is more complex than just 'liking' one person more, and is partially influenced by an individual's *schema*.

A *schema* is a set of tools unique to an individual, which is intended to help them engage with and understand the world better. Understanding that each individual has a different 'toolbox' of knowledge which they use to interact with, understand, and discuss the world around them is a complex task, but critical to understanding my project. These 'tools' within a larger 'toolbox of knowledge' – which I will discuss later, make up our schemas and are developed through past experiences. Schemas contain our collective knowledge, experiences, feelings, moral values, and preferences – all of which we use when interacting with our surroundings. I will later discuss Virginia Valian's work *Beyond Gender Schemas*, which will highlight the ways in which schemas contribute to the propagation of harmful, historically-rooted

ancillary belief-systems, like the one we see above in the unmeritocratic favorable treatment of the male professor.

In relation to epistemology, the ways in which different individuals' schemas can be similar or different impacts how easily they can share knowledge, communicate their experiences, and generally participate in knowledge production. Thus, the types of schemas an individual has influences what kind of epistemic agent they are – and how easily they can engage with, disperse, and validate information.

During my first two years in college, I had the personal realization of how influential schemas are. Schemas, similarly to Railton's idea of 'epistemological frames' – have the ability to both enhance and restrict the scope of one's understanding. One way that schemas can limit an individual's understanding, is when they are engaging with another epistemic agent who has a drastically different set of 'tools' they use to understand the world. When I say 'tools' I intend to include features such as the language, examples, and explanations which an individual draws from, to convey their message or make an argument. An individual's schema is made of their experiences, knowledge and values – and their 'tools' are derived from them. When two individuals have different tools and try to interact, it can be difficult to find a common ground, or similar understanding. Imagine trying to hang up a picture but one person has a hammer and the other one has a screw as opposed to a nail. Without some common understandings, the language, examples, or explanations one person uses may not resonate with another in their intended way, and the intended communication is difficult. I experienced this phenomenon regularly when I worked at a nursing facility my first two years in college. I believe that the diversity of social identities– being from different educational, socioeconomic, and political backgrounds, was the primary contributor to this phenomenon.

During these two years, I was managing to work full-time as a certified nurse assistant (CNA) in an underfunded, pediatric long-term care facility, while also being a full-time student at a private liberal arts college. My understanding of a schema's power and influence stemmed from a dual-perspective which developed due to my occupation within these drastically different environments on a weekly basis. Not only was I surrounded by two completely different groups of people, with completely dissimilar lives and understandings of the world, I personally had a somewhat divided perspective of the world. I use the word divided in reference to my perspective here to illustrate that, while I could easily relate to the low-income nurse aids that I worked with, I also identified with my academically prestigious peers. As someone who originally came from west Los Angeles where my family and I were comfortable, to becoming relatively financially independent for two years— I had fostered a 'dual positionality' in which I could connect with individuals in both sides of this spectrum. Being able to understand both the of the low-income nurse aids that I worked with and the academically prestigious students with aspirations of high salaries and PhDs – allowed me to use knowledge from one community as a means to understand the happenings in the other, and vice versa.

As a certified nursing assistant (CNA), you are at the bottom of the food chain amongst medical professionals. Despite holding an undesirable status, you become the person with the most first-hand experience of the going-on's of your patient. Any disparities in quality of care or inequalities between patient's care outcomes are explicitly available to you, given you have the tools to understand them. However, it is not within the skill set of most CNAs to fix these problems, or quite honestly, even understand them. If anything, CNAs are expected to report any shortcomings in care they notice – but often these reports are not taken seriously, or as I mentioned – the CNA will not have the tools to even understand the problem itself. For example,



my course in bioethics allowed me to become painfully aware of numerous cases of ethical questionability at my work – but learning bioethics is certainly not in the curriculum for becoming a CNA. In comparison to most of my coworkers, my experience as a CNA was different: I had enough background in medicine and ethics to understand what was wrong and why. I had spent the past two years dedicated to biochemistry and medical research, making my knowledge more extensive than anyone else there, with few exceptions. Despite my heightened knowledge, my credibility label – based upon my label as a CNA – remained deflated and prevented me from sharing my knowledge.

These dilemmas were what made me realize the importance of understanding what ‘toolbox’ an individual is working with in two critical senses. First, in the sense of the specific individual’s cognitive architecture and schemas – formed from their experiences, knowledge, and values. The second sense is in regards to what epistemological framework is at work, within a given community. This framework provides the epistemological tools from which a community draws when both engaging with and sharing an understanding of the world with one another. Understanding these two types of ‘toolboxes’ highlights how easily features of knowledge production can elicit and/or prevent certain societal and institutional changes from occurring. Turning to the institution of healthcare in the United States, I will explore the roles of schemas, biases, and epistemological recalcitrance within medical knowledge. I will ultimately argue, that it is these features – not mere social and political oppressions, – which are responsible for disparate health outcomes among marginalized communities.

To understand this claim, first more must be said about the epistemological operations that guide medical knowledge. Medicine, I claim, functions as an epistemological system. Epistemological systems serve as the governing body with which we engage with the world

around us – it is how we collect and interpret the information we use to form our beliefs.

Epistemological systems can be resilient - which I will say more about next - or they may be *recalcitrant*. I will argue that medical knowledge itself is a *recalcitrant epistemological system*, and functions to maintain a multitude of disparities specific to marginalized people.

One virtue of epistemological systems, is their resilience – resilience in this sense concerns “the magnitude of disturbance that can be absorbed before the system redefines its structure (Gunderson, 2000). Another aspect of resilience within an epistemological system is its ability to resist new information lacking in evidential support or epistemic value. Consider climate change, which illustrates both these virtues of epistemological resilience. Within the field of climate change, research is utilized if it supports the reality of climate change with significant evidence, while counter-evidence with weak evidence or conflicting claims is reflected from the overall body of knowledge. This type of resilience strengthens the epistemological system by increasing the epistemic validity and relevance of the resources from which researchers can draw from.

To some extent we want systems to absorb change without redefining the system. But is it possible that this resilience in some cases is undesirable and maladaptive? I will argue that the answer to this is *yes*, in some cases epistemological systems can be *recalcitrant*. A recalcitrant epistemological system is one that has become maladaptive and additionally resists the changes needed to address its maladaptive-ness. If a resilient system is one like climate change, then a recalcitrant system could be the body of knowledge supporting the idea that race is a biological factor. The latter is a body of knowledge which is unfounded and stubborn to statistically-significant counter-evidence. This governing body of knowledge is maintained because is so ingrained that it reflects any counter-evidence that race is not biological, regardless of the

evidence's validity or support from acclaimed sources. This ideology regarding race is real, and continues to support discriminatory healthcare practices on the basis of race.

Recalcitrant epistemological systems are supported via their intrinsic features as well as through individual's schemas, poor explanations, and unfounded data. Schemas support the maintenance of recalcitrant systems by scaffolding similar ancillary belief-systems into our cognitive architecture. Poor explanations and unfounded data are easily incorporated into the maladaptive epistemological system when they align with the goals of the system's beneficiaries.

I will argue medical knowledge is recalcitrant, and that it is driven by a small pool of epistemically powerful individuals, who are the sole beneficiaries of the system. Thus, medical knowledge resists the accommodation of information about a diversity of bodies outside this dominant group, leading to epistemic oppressions in these marginalized groups.

This phenomenon must be understood as a cycle reinforced by schemas and ancillary belief-systems which rationalize the accumulated advantage of the recalcitrant system's beneficiaries. This cycle then reinforces the continuation of oppression on marginalized individuals seeking healthcare. Only through the application of standpoint epistemology in the medical field, however, can this relationship of schemas and recalcitrance to oppression be understood. The application of standpoint theory, makes apparent the nature of medical knowledge as being recalcitrance. It should become clear through this project, that when we fail to utilize the standpoint epistemologist's perspective, we fail to understand medical knowledge as an epistemological system – missing the true origins of these oppressions altogether.

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## CHAPTER TWO

*Situating Social Identity as Relevant to Epistemology*

Schemas are essentially classificatory sets of tools within a larger toolbox, which we use to understand the world more quickly. For example, if you think of ‘wife,’ you may think about someone who cooks, cleans and does not pursue higher education. As we see in this example, although schemas are intended to improve our understanding of the world, they can be ‘sticky’ – remaining consistent with past social norms more easily than with current ones. Schemas are especially relevant within medical knowledge because of the nature of medical knowledge and the pace of the environment in which medical knowledge is used. The complexity of medical knowledge demands that doctors use the full extent of their cognitive skills to diagnose and treat patients in a timely manner, thus doctors are heavily reliant on their schemas to make quick determinations about a patient’s condition. So, understanding how these individual-specific ‘tools’ influence what individuals know facing healthcare decisions, is a critical part of understanding medical knowledge as an epistemological system more generally, and eventually will aid in identifying this system’s recalcitrance. In the section that follows, I will go into depth on how schemas function, how they originate, and whether they accurately reflect the world; - then later, I will do a deeper analysis of how these relate to our medical diagnostics.

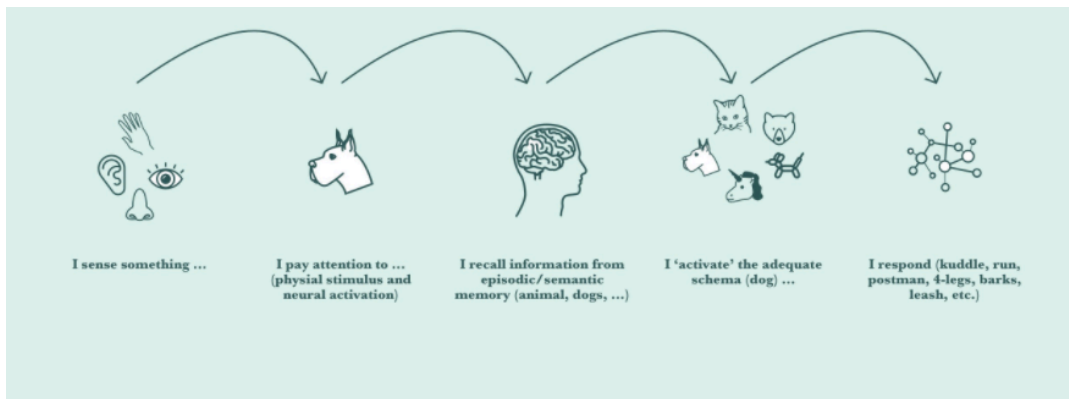
**Part I***Defining schemas in cognitive psychology*

Under the umbrella of psychology, a *schemata*<sup>1</sup> is defined as a cognitive framework or conceptual tool that helps us organize and interpret information. It does this in three primary ways: I posit that *schemas* (1) provide a structure for representing and retrieving classes of

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<sup>1</sup> interchangeable with *schemas* (pl), which I will use moving forward

typical situations for which a similar response is required of the individual (Lane, 2000); (2) provide a behavioral modelling algorithm explaining the causal relationship between and individual's behavior and the situation; and (3) are based around an individual's social identity and location.



**Figure 1.** Schema theory in cognitive psychology (Marc-Oliver, 2021)

To begin, schemas simplify how we engage with information in the world by familiarizing it using recall of similar past knowledge or experiences. For example, let's consider: Kaila, a four-year-old, is learning about animals, Kaila and her family have a cat and a guinea pig at home but she has never seen a dog before. When they are on their morning stroller walk with their mom, the dyad passes a dog, and Kaila asks "cat?" Their mom explains what the dog is, and Kaila understands. However, it is important to understand the mechanism behind Kaila's question: her schemas and past knowledge told her that what she saw (dog) definitely wasn't a guinea pig because it was much too big, thus she guessed the closest thing she knew about: a cat. This recall of information in Kaila's case is a downscaled example of how complex schemas function. Lane explains that an advantage of having schematic knowledge is that we can oftentimes rely on it as default knowledge when we are in situations where we must make quick judgements in the absence of specific information about the situation. (Lane, 2000)

Secondly, schemas provide a behavioral modelling algorithm explaining the causal relationship between an individual's behavior and the situation. For example, if we knew what animals Kaila had been exposed to before seeing the dog – we could easily guess she would think the dog was a cat, based on the role we now know schemas play in cognition.

Lastly, schemas are a direct product of an individual's social identity and location. Based on our understanding of schemas so far, this should feel intuitive. Kaila comes from a family who could afford to own two pets and go on morning strolls – thus, she now knows what a guinea pig, cat, and dog are. Jerome, another child around the same age may be in a dangerous, lower income neighborhood – because of this, he may not have any pets and may not go on morning strolls as often as Kaila. If this is the case, there is a much higher chance Jerome does not yet know about guinea pigs, cats, or dogs in the same way Kaila does. This is a simplified example of how social identity can influence what we know, and how our knowledge affects how we engage with the world. The Kaila and Jerome examples are concise and thus reflective of only a simplified version of how schemas function in their full complexity. Schemas are complex cognitive structures and have the ability to significantly diversify the 'tools' each person has to utilize upon sharing knowledge and interacting within the world around them.

## **Part II**

### *On Social Identity's relevance to what one is in a position to know*

In order to understand my thesis – that medical epistemology can be a recalcitrant epistemological system, we first need to situate this in a framework of epistemology more broadly. Within epistemology, medical knowledge is comparable to traditional epistemology, which posits that social identity *does not play a role in what one is to know*. I will take on the

perspective of the standpoint epistemologist, which stands in stark contrast to traditional epistemology. Standpoint epistemologists argue that *social identity does play a role in what one is in a position to know*. In the upcoming section, I will utilize standpoint theory in an effort to critique principles of traditional epistemology reflected within the epistemological system of medical knowledge. Given that I will adopt the perspective of the standpoint epistemologist moving forward, I will present a more general argument for standpoint epistemology as it stands alone, prior to relating it to our medical diagnostics. I will turn to Toole's paper, *Demarginalizing Standpoint Epistemology*, to explore in more detail, how social identity can affect an individual's epistemic agency (Toole DSE, 2020).

Standpoint epistemology supports the view that an epistemic agent's social identity is a non-epistemic factor which makes a significant difference in what they are able to know. Toole provides a clear argument for standpoint epistemology and presents an eloquent response to opposing schools of thought, which I will reference in this next section as build a groundwork for my thesis.

The principles of standpoint epistemology stand in contrast to those within traditional epistemology, most notably in regards to the role *non-epistemic* features play in knowledge-production and participation. *Intellectualism*, a key thesis endorsed by the principles of traditional epistemology, posits that knowledge is independent of non-epistemic features (Stanley, 2005). The intellectualism thesis is supported by two guiding assumptions: the *atomistic view of knowers*, and *aperspectivalism*. I will respond to both of these next, as I aim to provide an intuitive case for standpoint epistemology over intellectualism.

*Rejecting intellectualism: a severe lack of intuitive support*

To begin, aperspectivalism is the view that an epistemic agent's justification for some proposition must be accessible to other epistemic agents who are exposed to the same epistemic features of a situation (Kukla, 2006). Toole's interpretation of aperspectivalism focuses on the idea that one's evidence for some belief must be accessible to other agents under the same circumstances. Thomas Kelly articulates this idea, saying that this idea creates a predicament such that anything which cannot be grasped by multiple individuals is either not genuine evidence or is at best a degenerate species thereof (Kelly, 2016). I use the term *accessible* to mean that, in Toole's words, "*E* is evidence that *P* for *S*<sub>1</sub> relative to *S*<sub>2</sub> if *E* is evidence that *S*<sub>2</sub> could have, or that *S*<sub>2</sub> could rationally infer because *S*<sub>2</sub> could know what it's like to have the evidence that *S*<sub>1</sub> does" (Toole DSE, 2020). However, the pragmatic encroacher denies aperspectivalism; I will present 'The Bank Cases' to outline the pragmatic encroacher's objection to aperspectivalism.

Next, the *atomistic view of knowers* characterizes epistemic agents as generic or interchangeable (Grasswick, 2004), also suggesting that features of an individual are irrelevant to the knowledge capabilities of the agent themselves. This view complements aperspectivalism in that it also ignores the agent-specific features of a knower's situation. The atomistic view of knowers essentially says that if we are considering whether two individuals, let's say *A*<sub>1</sub> and *A*<sub>2</sub> know *P* – any features particular to either individual would be irrelevant in our determination. This claim suggests that it doesn't matter which specific individual we are evaluating – looking at whether one epistemic agent knows *P* would tell us if the other one does as well, and vice versa.



The following excerpt is from *Demarginalizing Standpoint Epistemology* (Toole DSE, 2020) and presents The Bank Cases (5):

**Low Stakes.** Hannah and her wife Sarah are driving home on a Friday afternoon. They plan to stop at the bank on the way home to deposit their checks. It is not important that they do so, as they have no impending bills. But as they drive past the bank, they notice that the lines inside are very long, as they often are on Friday afternoons. Realizing that it isn't very important that the paychecks are deposited right away, Hannah says, 'I know the bank will be open tomorrow, since I was there just two weeks ago on Saturday morning. So we can deposit our paychecks tomorrow morning.'

**High Stakes.** James and his husband Amir are driving home on a Friday afternoon. They plan to stop at the bank on the way home to deposit their paychecks. Noticing the lines are long, James says that he was at the bank two weeks before on a Saturday morning, and it was open. However, they have an impending bill due, and very little in their account, so it is very important that they deposit their paychecks by Saturday. And, as Amir points out, banks do change their hours. James says, 'I guess you're right. I don't know that the bank will be open tomorrow.'

In The Bank Cases, the pragmatic encroacher will have two responses, the first being to deny aperspectivalism. The pragmatic encroacher argues that  $S_1$  and  $S_2$  do not each know P in the same way, despite having the same evidence for P. They will argue that something other than evidence, in this case that being the differing stakes for each individual, is available to only one subject and makes a difference in their determination of P. In the *Low Stakes* situation, Hannah does know that the bank will be open (P) tomorrow; however, in the *High Stakes* situation, James

is correct in thinking that he does not know that the bank will be open (P). Therefore, because Hannah knows P and James does not know P, but Hannah and James share the same epistemic features, there must be some non-epistemic feature which makes a difference in what Hannah and James are in a position to know about P. This conclusion should feel intuitive: if we were to put ourselves in the positions of Hannah and James, we would likely come to very similar conclusions. This is because there *is* some role that the stakes of a situation seem to play in how we set our confidence level about more weighty claims.

The standpoint epistemologist agrees about the phenomenological difference between the conclusions drawn from the two Bank Cases, but points to a different explanation. While the pragmatic encroacher concludes that a non-epistemic factor, the stakes, raises the *threshold* required for knowledge, the standpoint epistemologist concludes that a non-epistemic feature, the individual's social location, to affect *how they interpret the evidence* they have. This transition is critical to understand as it carries us from the intuitive pragmatic encroacher's reasoning, to the standpoint epistemologist's conclusion.

The pragmatic encroacher's second response will be to also deny *atomism* and its interpretation of The Bank Cases. It is clear in the Bank Cases that Hannah knows P while James is much less confident about whether he knows P. Thus, it cannot be the case that Hannah's knowledge of P can actually tell us anything about James' knowledge, which is what atomism would suppose. It is because of this that the pragmatic encroacher would claim that atomism takes this "view from nowhere" (Toole DSE, 2020). It is clear that there is something specific to each individual that does make a difference in what they know.

From the Bank Cases, we can see that intellectualism does a poor job of illustrating our intuitions. We see now that non-epistemic features can affect what one is in a position to know;

and that these non-epistemic features can be accessible only to certain individuals. Having ruled out the intellectualist objection, hopefully the standpoint epistemologist's view is now more convincing. There must be something about an epistemic agent's social position which makes a difference in what they are in a position to know. I will present one more case study from Toole's paper, in order to clarify the ways in which social identity can affect one's epistemic agency.

*Roles (3) of social identity in epistemic positionality & agency*

This excerpt presents two more cases from Toole's *Demarginalizing Standpoint Epistemology*, one involving a black subject (Moira) and the other a white subject (June) and focuses on how they understand and interpret a news report on a case of sexual assault (Toole DSE, 2020). This news report is real, and the perpetrator Daniel Holtzclaw did assault these women – he was convicted on 13 counts of sexual assault in 2015.

***Black Subject.*** Moira, an African-American resident of Oklahoma City, is watching the local news as they turn to their lead story: 'White Cop Convicted of Serial Rape of Black Women'. The story covers the ongoing case of Daniel Holtzclaw, an Oklahoma City police officer, who is accused of the rape of at least 13 women who, save one, were all African-American women living in a poverty-stricken, predominantly black neighborhood in the northeastern section of the city. The report notes that many of the alleged victims were suspected of prostitution and drug possession, and that many delayed coming forward about the assault. The reporter wonders aloud about the veracity of these women's claims, citing as evidence for her doubt their criminal backgrounds.

*Moira says to herself, 'I know those women were sexually assaulted. They took so long to*

*report it because he's a cop and they are poor black women – they thought no one would believe them.'*

**White Subject.** June, a white resident of Oklahoma City, is watching the local news as they turn to their lead story: 'White Cop Convicted of Serial Rape of Black Women'. The story covers the ongoing case of Oklahoma City police officer, Daniel Holtzclaw. Holtzclaw is accused of the rape of at least 13 women who, save one, were all African-American women living in a poverty-stricken, predominantly black neighborhood in the northeastern section of the city. The report notes that many of the alleged victims were suspected of prostitution and drug possession, and that many delayed coming forward about the assault. The reporter wonders aloud about the veracity of these women's claims, citing as evidence for her doubt their criminal backgrounds. *June says to herself, 'Those women have criminal records – they could be lying. I am in no position to know that they were sexually assaulted.'*

Toole suggests that Moira can "know *P* where June does not either because of (1) differences in their background beliefs or (2) differences in how they evaluate the evidence," and provides three possible explanations for the role of social identity on these differences. In order to fully understand how Moira and June's knowledge of *P* differ, we must consider facts about the social identity of each person, and how these can change what each individual is in a position to know.

First, let us consider the different *conceptual resources* available to individual's with differing social identities. The standpoint epistemologist says that one's standpoint allows them to develop the relevant conceptual resources to make sense of their experiences within that

standpoint. In this sense, conceptual resources are simply tools which an epistemic agent may utilize to understand their experiences. Variations within these ‘tools’ in turn will influence what this individual is in a position to know. Furthermore, this idea clarifies how individuals’ standpoints can diversify the types of conceptual resources used between people, either bolstering or inhibiting communication efficiency. Conceptual resources include things such as language, concepts, learned associations, and the related features of these things which allow for their correct cognitive categorization.

In the case of Moira and June, their differing knowledge of what Holzclaw did can be partially attributed to them possessing different conceptual resources. As a black woman, Moira understands things about the women’s reactions in this case due to her shared positionality, a positionality which June likely has a harder time understanding on the basis of his identity.

*Positionality* refers to one’s social location and worldview which influences how they respond to their environment in different contexts. Toole presents knowledge of *hypersexualization* as a resource that Moira, but not June, has to draw from in her understanding of the situation.

Kimberlé Williams Crenshaw explains the implications of hypersexualization, showing how the nature of “representation of a Black female body suggests certain narratives that may make Black women’s rape either less believable or less important” (Crenshaw 1994; 1271). This knowledge, which Moira has, allows her to understand why the women who were assaulted waited to report their assault. June lacks this understanding, thus leading him to an opposing (and incorrect) conclusion about this case.

Second, Moira and June could have constructed different *hypotheses* to explain why there was a delay in the women’s reports of the SA. Moira and June’s different racial identity can explain how each might favor different hypothesis about identical evidence. This explanation

entails Moira being in a more relevant social position than June, to understand the role race played in the women's decision not to report. Moira likely immediately understood why the women did not report Holtzclaw, while June, although exposed to the same information, may struggled in understanding and creating a correct hypothesis about this delay.

The third explanation involves *de se knowledge*. Toole presents *de se knowledge* as being a tool to 'imaginatively grasp' the first-person perspective of another agent; it is personal knowledge one expresses using first-person conceptus, such as "I," "me," or "mine" (Ninan, 2010). Toole discusses how this imaginative capacity which allows for the application of *de se knowledge* is more difficult to possess the greater the social distance between epistemic agents. This shows us how, even if Moira has not experienced sexual assault or race-based hypersexualization, she likely has experienced microaggressions or other similar experiences allowing her to better put herself in the position of these women, in comparison to June.

To conclude, I have now presented an intuitive case for the standpoint epistemologist's position, provided two reasons for how social identity can influence knowledge, and presented the three explanations for how social identity contributes to what one is in a position to know. Through the *Bank Cases* and evaluation of the *High Stakes* and *Low Stakes* scenarios, we see that features specific to an individual can and does make a difference in what one is in a position to know. From the *Black Subject/White Subject* case, we see that differences in background beliefs or evaluations of evidence can lead subjects to different conclusions. Finally, by surveying Toole's argument, we see that how these differences in social identities can affect an epistemic agent's knowledge have three potential explanations. They can be explained by differences in conceptual resources, hypotheses, or access to utilizing *de se knowledge*. In the next section I will discuss how schemas figure more specifically, into our medical diagnostics.

### **Part III**

#### *How schemas figure into our medical diagnostics*

In parts one and two, I presented arguments for the relevance of schemas as well as developed a couple key points critical to understanding this next section. First, we now know that schemas originate in an individual's experiences or in their initial exposure to pieces of new information. We know that if this is true, and that individuals who occupy different social positionalities will have different experiences, that there is an intuitive case that each individual has a relatively unique set of schemas both in type (the number of schemas and the items they are for) and in nature (the associations and information encased within a particular schema). Having relatively unique schemas across different individuals means that each individual is working with slightly different 'tools' to understand and navigate the world. If people have different tools then they will engage with new information and respond to it in different ways.

The next step is to understand, that when medical knowledge denies that social identity plays a role in what one is able to know, we see why this system can become oppressive for marginalized individuals. I will discuss two ways in which schemas are relevant to how we currently handle medical diagnostics. The first way involves general differences between each person's toolbox, and how that alters their engagement with new information. The second will be pulled from Virginia Valian's paper *Beyond Gender Schemas*, and will involve a more in-depth discussion of how schemas contribute to oppression when coupled with ancillary belief-systems and personality structures.

*Unique toolboxes are used in unique ways*

To begin, it should feel intuitive that if an individual has a unique toolbox, they will use their tools a bit differently than people with other toolboxes. In the case of medicine, this stands true – even doctors each have different toolboxes with they use to diagnose and care for their patients. An intellectualist or traditional epistemologist may object here and say, “but all doctors must go to medical school, thus they must all have at least *generally* the same knowledge.”

Current medical epistemology would agree with this objection, as they, similarly to traditional epistemology, reject that knowledge is influenced by social positionality and stands by the objectivity, rather than subjectivity, of medical knowledge. They assert that the objective knowledge a medical school student learns somehow places all doctors on the same page when entering the healthcare profession. This cannot be true, though, because although diagnostic and procedural knowledge is fundamental to becoming a doctor, they are not the sole dictators of whether a doctor can successfully treat their patients. In order to illustrate this, I would like to provide my own extension of a previous case example from Toole’s paper regarding the Holtzclaw case. The case of Daniel Holtzclaw involves sexual assault of multiple women in 2015. Using an extrapolation of this case, I will show how social identity and an individual’s experiences can change the quality of care a patient receives.

*Extrapolation of the Holtzclaw serial rape case*

Just as a reminder of the case, Daniel Holtzclaw was a White police officer convicted of the serial rape of 13 black women, most of whom were living in a poverty-stricken, predominantly black neighborhood. Let’s now assume for the purposes of my explanation that Myra is an on-call nurse at the local public hospital, she is a Black woman, and she is a survivor



of sexual assault. John is also an on-call nurse at the same emergency room, however he is a man and not a survivor of sexual assault.

*John answers.* Let's say one of the victims of Daniel Holtzclaw's serial rapes is named Mariyah. Mariyah calls the local hospital and June answers. She's in tears, and doesn't know what to do – she's worried her arm is broken and she's in shock. John, in an attempt to comfort her and get her to the hospital quickly, tells her to do whatever she needs to calm herself down, and then to come to the ER immediately.

*Myra answers.* Let us suppose now that Myra answers this call, and hears the same thing. As someone who's experienced rape, Myra sends a small team, small enough to not count as an ambulance fee – given the immense bills associated with that – to go pick up Mariyah immediately. She knows that the first thing she wanted to do was to shower and forget it happened; she also knows she wasn't able to think about anything else until she showered because of the psychological stress she was under. Myra knows however, that if Mariyah was to shower, a rape kit is no longer be possible.

Because of this insight, Myra's care decision allows Mariyah to both receive pertinent care, and get the rape kit done immediately, so she can shower and do whatever else she feels like she needs to do, to physically recover. John, although well intentioned, has never experienced sexual assault – which tends to occur at much lower rates in men compared to women. Because of this, John is less likely to go through the thought process and think about what a woman who's just been raped is going to want to do, hence failing to consider the evidence which Mariyah will immediately want to wash off. This is an example of how despite both nurses knowing the procedures for rape victim calls, the important features – getting the

rape kit done immediately and providing (low-cost) transportation – are much more apparent to Myra in this moment. Because of this, Myra ultimately would have provided better care for Mariyah than John could have.

Having now shown more generally, how different ‘toolboxes’ can affect the type of care a doctor or nurse provides, I am now turning to Valian’s argument for how schemas, when coupled with ancillary belief-systems and personality structures, can become oppressive.

*Valian’s Social-Cognitive Account: recruited schemas are used to justify ancillary belief-systems*

In my introductory presentation of Valian’s account of schemas, I am going to start with Valian’s subject of interest for ease of explanation and understandability: advancement for women across professions is significantly slower compared to the advancement of men. After a discussion of how schemas impact women’s professional advancement in an oppressive way, I will turn to how this can occur within the sphere of medical diagnostics.

Valian’s social-cognitive account of this phenomenon – lesser professional advancement among women – evaluates individuals’ schemas – overrating men and underrating women – and the accumulation of advantage. Valian explains that these small disparities coming from overrating men and underrating women, essentially accumulate over time and result in men having more advantages than women (Valian, 2005).

To unpack this a little, let’s first consider the nature of these schemas which view men and women differently. Schemas, at their core, are simply categorizations intended to quicken and further our understanding of the world. As Valian says, humans are built to categorize – categorization is the first step in development of hypotheses. We also tend to use the fewest categories that will ‘do the job.’ Hirschfield adds to this, noting that visual cues facilitate

categorization, so any visual input we perceive is likely to result in some sort of classification based on the category the input falls into. Furthermore, traits which are visually perceived and seem to be biologically based, such as a bent back, powerfully support beliefs of difference (Hoffman and Hurst, 1990).

Moving forward, Valian explains that our gender schemas sometimes accurately represent males and females, but often do not. Incorrect representations are not sexist alone, but if they are paired with prescriptive assumption, they then become sexist. For example, disapproving of a woman and not a man with identical, ambitious career aspirations – because one's schema of 'woman' does include motivations for an intellectually rigorous, high income, job, would be sexist; the misrepresentational schema of 'woman' would not be, but only when it stands without the paired disapproval. One common way which schemas become oppressive is through the insertion of a 'prescription' – which happens when they are justifying ancillary belief-systems (authoritarianism, heterosexism, or eurocentrism).

Valian describes this pairing of schemas with ancillary belief-systems as what makes this phenomenon 'hot' – allowing anger, violence, and sappy sentimentality towards women. The way this works is that a schema can be 'recruited' to rationalize some oppressive belief-system. For example, the idea the lesbian women are less feminine and 'butch' can be recruited to rationalize the belief system (heterosexism) that dictates queer women are just confused and thus are undeserving of equal rights in marriage and adoption.

### *Moving into medical diagnostics*

In healthcare, this same phenomenon can impact a patient's quality of care. Let us consider an example I will revisit again in the next chapter. Let's say that a young black man,

goes to the doctor complaining of severe pain in his back. He expects and trusts that a medical expert, his physician, who happens to be a white man, will assess his pain and prescribe the appropriate treatment to reduce his suffering. However, the doctor's schema of a black man consists of someone who is fundamentally untrustworthy, has a higher pain tolerance, and is more likely to exploit the medical system for drugs. The doctor's schema then justified the ancillary-belief system of racism and/or white supremacy. So, his schema has now justified this discriminatory belief-system and results in the doctor underrating his patient's pain and failing to prescribe any medicine or propose any solutions to his patient's chronic pain. This patient will continue to be in pain, and may even avoid seeking medical help in the future given the care he just experienced. Had his doctor been Black, or even a white doctor with a different schema of black men, they would have likely understood his reports of pain as valid, and treated him appropriately. Then, this patient could have left his appointment feeling understood and cared for, and – at least – with some hope that the potential solution he was given, would relieve some of his pain.

We can now see how a doctor's schema, which is based on their social positionality – not their education, can significantly affect how they approach their patient and in turn affects the care outcome and type of treatment their patient receives. This continues to be true, even when we acknowledge that medical school curriculums are standardized to a certain extent, and the procedural and diagnostic knowledge every doctor has *is* relatively identical.

In this last chapter, I discussed how an individual's positionality and past experiences shape their schemas; and, how social identity plays a significant role in what one has the potential to know. We've also seen how deflated epistemic agency and the occupation of non-dominant social identities can cause epistemic harms (failing to be believed in one's reports of

pain) and more general oppressions (failing to receive adequate healthcare). These harms include the reduction of what one is in a position to know via a bad or small toolbox, which can result in them failing to understand or failing to be understood by others. It may seem like the revision of these problems within schemas could be resolved simply by revising the schemas themselves. However, revision is not that easy, because of the nature of epistemological systems.

Epistemological systems, which are the subject of the upcoming chapter, are broader networks which are essentially a ‘pooled toolbox’ shared by multiple individuals having a similar positionality. Epistemological systems are so powerful that, when they become recalcitrant, they can actually prevent the effective revision of these schemas and other epistemic resources, thus maintaining the systemic and oppressive harms imposed on marginalized communities.

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## CHAPTER THREE

### *Epistemological Recalcitrance in Medical Knowledge:*

#### *Manifestation, Examples and Implications*

In the previous section, I established that medical epistemology functions in a similar manner to traditional epistemology. With that background in place, I can now do a little more to explain why its functioning in this way furthers the medical oppression of marginalized groups. I am going to now argue that medical knowledge is a recalcitrant epistemological system making it unable to accept new information. This will then show us how epistemological recalcitrance relates to harmful schemas, and leads us to eventually highlight how the two work together to maintain oppressive ancillary belief-systems.

In this chapter, I will: 1) establish how epistemological systems are necessary and beneficial to us, and our understanding of our world; 2) identify the problematic side of epistemological systems in which they become recalcitrant; 3) use case specific examples to discuss Dotson's three types of epistemic oppression and explore how these illustrate epistemological recalcitrance; and then conclude by 4) taking a broader look at the other 2 (out of 5) features of epistemological recalcitrance, discussed Toole's paper *What Lies Beneath: The Epistemic Roots of White Supremacy*. In the first two sections I hope to clarify that epistemological systems are fundamental, but it is because of this fundamental role that they are to harmful when they become maladaptive. Lastly, in sections III and IV, I will draw from both Toole and Dotson's work to identify consequences of epistemological recalcitrance within medical knowledge, specifically.

Overall, I will analyze medical knowledge as an epistemological system in order to make the argument that a lot of the injustices we see are due to distinctively *epistemic* issues. This analysis of the system and of its resulting oppressions reminds us that when we fail to think about medical knowledge as an epistemological system, we miss the true origins of these injustices.

## **Part I**

### *The fundamentality of epistemological systems: what they are and why they're necessary*

An epistemological system functions as the 'toolbox' we utilize to effectively engage with the world – impacting how we identify and perceive information, and then how we turn that information into beliefs. Railton provides an eloquent description of how epistemological systems function, though using the term epistemic frame in place of epistemological systems. He

writes that one could think of an epistemic frame as functioning like a camera frame; when taking a picture, one does not see the frame of the camera, but what is seen is seen through it. In this way, the frame provides a limit on the otherwise “undelimited and unbounded character of one’s experience” (Railton, 2006). Railton’s description conveys how epistemological systems both provide tools for understanding, as well as placing limits on, what we do and do not know. It also captures the unawareness that many have of the system itself, just as when taking a picture, one may not be consciously aware of the frame they are employing, many are unaware of the epistemological systems they are functioning under.

As the background from which we engage with the world and form new beliefs, epistemological systems place some constraints on what we know. Toole proposes that there are three identifiable ways in which these systems constrain our knowledge: they are *normative*, *predictive*, and *attendant*. First, they are *normative* in that they allow certain beliefs and eliminate others which are unsupported or inconsistent with the pre-existing beliefs in the system. Second, they are *predictive* in that they prime us to form particular hypothesis more readily than others when digesting a body of evidence. And lastly, they are *attentive*, in that they direct our attention to certain features of the world while subsequently making us blind to other features.

Epistemological systems are crucial to our engagement with the information around us. Without them we would lack tools to understand our surroundings effectively and would be overloaded with too much information to digest.

## PART II

*How epistemological systems can become maladaptive: what it looks like and what it means*

The issue lies in when these systems become maladaptive or faulty epistemological systems, in which a plethora of epistemic harms arise as a by-product. The breadth of epistemic harms is large, and for clarity I will limit my exploration to medical knowledge as a maladaptive epistemological system. I'd like to begin by narrowing the focus to three specific forms of epistemic oppression (Dotson, 2014). Moving forward, I will use the term *recalcitrant* epistemological system in reference to maladaptive epistemological systems which have become resistant to changes that would alleviate their maladaptive nature.

I should begin by noting that existing discussions of the nature of epistemological systems, use the language of resilience rather than recalcitrance. The reason for my use of *recalcitrant* is because it holds a different meaning from the more virtuous idea of *resilience*. This ability to grow and absorb information is resilience, the problem however is that epistemological systems can become maladaptive and resistant to accommodating new pertinent information. This development makes the epistemological system *recalcitrant*; it silences and reflects any attempts to change its governing body of information. For this reason, I would like to posit that epistemological resilience is a virtue while epistemological recalcitrance indicates a resistance by maladaptive epistemological systems. Resilient epistemological systems incorporate epistemically relevant information to enhance the 'toolbox' – while simultaneously preventing the permanent inclusion of false or inconsistent information. The latter – a recalcitrant epistemological system – would still incorporate and reflect certain snippets of information, but not in a way which is consistent with reality and the diversity of its member's experiences.



### Part III

#### *Epistemic Oppression as the primary consequence of epistemological recalcitrance*

My goal in this section is to present an account of epistemological systems that clarifies what I mean when I say that systems can be *recalcitrant*. To begin, I will turn to some of Dotson's work on forms of epistemic oppression. I will demonstrate that epistemic recalcitrance can, and often does, result in epistemic oppression. After discussing case-specific examples of various epistemic oppressions and how they relate to recalcitrance, I will draw from Toole's paper to discuss the remaining features of recalcitrant systems.

Dotson's *Conceptualizing Epistemic Oppression* examines the relationships between epistemological systems and how they harm an agent in their capacity as a knower. Dotson categorizes these particular relations into different orders of epistemic oppression. More generally, epistemic oppression refers to the persistent and unwarranted infringements on an agent's ability to gain and share knowledge.

The mechanisms of each type of epistemic oppression and their subsequent consequences differ significantly. While some harms are reducible to social and political oppression, others are a direct result of the epistemological systems themselves, and cannot be reduced. I will discuss cases of first, second, and third order epistemic oppressions as they exist within medical knowledge. This discussion will reaffirm how critical understanding medical knowledge as an epistemological system is – we are reminded that when we lack this understanding, we miss the actual cause of these oppressions.

I will begin by discussing the presentation of first and second-order epistemic oppression in healthcare settings. These forms of epistemic oppression are easier to digest given their social and political underpinnings. What I mean by this is that when people are presented with

scenarios involving first and second order oppressions, they are often able to point to social, economic, or political factors as the primary cause. Consider the cases of not receiving necessary pain medication because you are black or having a common but unknown condition and never receiving appropriate treatments for it.

*First-Order Epistemic Oppression: disparate pain diagnosis and treatment*

One example of first order epistemic oppression is the disparate quantity of pain medications which black versus white patients receive in the U.S. Hoffman et al.'s paper reports on disparate rates of pain medication across race groups and across multiple ages (Hoffman, 2016). The study specifically looks at differences in pain assessment and treatment recommendations between black and white patients across all ages. Let us consider this particular case from the paper:

*“A young man goes to the doctor complaining of severe pain in his back. He expects and trusts that a medical expert, his physician, will assess his pain and prescribe the appropriate treatment to reduce his suffering. After all, a primary goal of health care is to reduce pain and suffering... However, following meeting his physician and undergoing the typical evaluation, his pain is underestimated and then undertreated. “*

This outcome is a shared experience by many black patients – Hoffman et al. reports that data consistently shows that black patients are less likely to receive pain medications, and if they are, it is always in lower quantities. Another study by Todd et al. found that black patients were significantly less likely to receive analgesics for extremity fractures in the ER, compared to

white patients – despite having similar reports of pain (57% vs 74%). These trends remain constant even when researched among black and white pediatric patients (Hoffman, 2016).

Physicians like the one in this example are clearly able to correctly diagnose and treat pain disorders, hence the higher statistic for white patients. This affirms that they have the epistemic tools to appropriately treat patients in pain, but are ineffectively using these tools in when the patient is black. This is an illustration of first-order epistemic oppression because while the needed epistemic tools are available, they are not always utilized. This is reducible to social oppression because the doctor's behavior is rooted in socially-derived biases about black individuals. One way Dotson draws distinctions between the forms of epistemic oppression is through the types of changes they require in order to address them. For instance, with this example of first-order epistemic oppression, Dotson asserts that it can be addressed by a revision of how available epistemic resources are utilized.

Consider the above example, involving a particular form of epistemic oppression involving treatments for pain. The individual has the inability to communicate their pain and have it taken seriously – a result of social biases that categorize black people as: (1) fundamentally untrustworthy, (2) having a higher pain tolerance, and (3) being more likely to exploit the medical system for drugs. So, if we eliminate these biases, via education about their inaccuracy of black individuals, then that is sufficient to stop this particular form of epistemic oppression.

*Second-Order Epistemic Oppression: Endometriosis & a failure to diagnose it*

Sexual harassment in the workplace is a commonly understood example which illustrates second-order epistemic oppression. Until the 1970s, the word 'sexual harassment' did not exist,

meaning that women *literally* did not have the words to describe their experience. The consequences of this were that they likely couldn't understand their experience, seek help for it, or share it with others. Thus, not only did women not know this was a shared experience between them, many of them never had the discourse required to make them realize this was not something they should put up with. This is second order EO because, rather than inefficiently using resources, the resources themselves just did not exist for these women.

Another instance of second-order EO is when U.S medicine failed to diagnose and treat thousands of women suffering from Endometriosis. Endometriosis a painful disorder in which endometrium tissue grows outside the uterus, often involving mood fluctuations, chronic stomach pain, loss of appetite, and hormonal imbalances. Imagine experiencing all of those symptoms for 7-8 years before the medical field investing enough research in the condition to actually treat you and alleviate some of your pain. Failing to receive treatment for multiple years is a common experience among adult women today, as about 1 in 10 women suffer from this and it only recently became a better-understood disorder. Just like the example of sexual assault, this is an illustration of second-order epistemic oppression in healthcare because there are lacking epistemic resources to understand some aspect of their experience.

Second order epistemic oppression must be addressed via an inside-out approach. An inside-out approach aims to create concepts and words to represent the experiences of the previously socially marginalized group – in the case above, this group is women with Endometriosis. This creation of epistemic resources re-inflates these individuals' epistemic agency by providing them with new resources to equally engage with the epistemological system. The inflated epistemic agency of women with Endometriosis raised awareness about

how common this disorder is, and led to the creation of online forums, support groups, and increased research in academia on the disorder.

#### **Part IV**

##### *Third-Order Epistemic Oppression: Race-based eGFR calculations prevent black patients from receiving kidney transplants*

Because first and second order oppressions are less convoluted compared to third-order epistemic oppression, I chose to spend less time on them. However, understanding them will help familiarize the types of cases and language used to discuss third-order EO and its relation to epistemic recalcitrance. Having now familiarized these two preliminary concepts, I will begin my discussion of third-order epistemic oppression and its relation to the system's recalcitrance.

Third-order epistemic oppression differs from first and second order oppressions because it is not reducible to social or political oppression; instead it is a direct result of the epistemological system itself. What this means is that third-order epistemic oppressions cannot be explained by merely pointing to associated political or social oppressions, but instead must be understood by dissecting features of the system itself. As an illustration, consider the use of race-correction factors in U.S Nephrology. Our discussion of third-order epistemic oppressions within the epistemological system of medical knowledge reminds us that when we fail to think about medical knowledge as an epistemological system, we miss the origins of these oppressions.

In order to understand how these 'race-correction' values harm black CKD patients needing transplants, it is helpful to first look at how the kidney transplant qualification process works in general. I will outline a brief history of this calculation, and how it is used today.

Throughout the years much research on different calculations to measure kidney function have been evaluated. One equation, used in the 80s, was the Cockcroft-Gault calculation which was based on age, sex, and weight and ultimately deemed a very poor measure of actual kidney function. A later study, the MDRD trial occurring from 1989-1993, used another calculation which included blood pressure as a variable but was quickly overshadowed by the improved version of itself: the CKD-EPI calculation. This calculation standardized race, age and sex and was based on clearance of exogenous filtration markers, which was most accurate measure at that point in U.S Nephrology.

Currently, a value called the estimated glomerular filtration rate (eGFR) is what is used to determine an individual's kidney function. Each value indicates how well the organ is functioning, or failing to function and is indicative of a certain treatment – whether that be simply a lifestyle change or in the later scenario, organ transplantation. Below is a graph showing each stage of CKD and its associated eGFR value ranges. What the race correction value does is essentially add to the calculated eGFR value – so, if initially a black CKD patient would've qualified for a transplant due to a low eGFR value, the correction factor may push their eGFR value above the threshold to qualify for the transplant on the basis of their race alone.

**Table 1**

Results of eGFR formulas in the populations of healthy and CKD individuals

	GFR measures (ml/min/1.73 m <sup>2</sup> )					
	n	mean	median	min.	max.	SD
Iohexol clearance	244	61.31	57.00	8.00	135.00	33.58
CG <sup>a</sup>	244	74.39	67.35	4.80	231.30	44.15
Obesity adjusted CG <sup>a</sup>	244	69.57	64.49	4.27	204.56	40.34
Mayo Clinic	244	74.61	79.05	5.30	150.10	41.43
MDRD (Afro-descendant-adjusted)	230	60.40	53.50	2.00	201.00	37.09
MDRD1 (without race adjustment)	230	64.87	59.00	3.00	244.00	40.41
CKD-EPI	230	64.64	58.50	2.00	149.00	37.55
CKD-EPI1	230	68.08	63.00	3.00	172.00	39.53
BreGFR	244	61.54	58.05	7.33	160.07	28.67

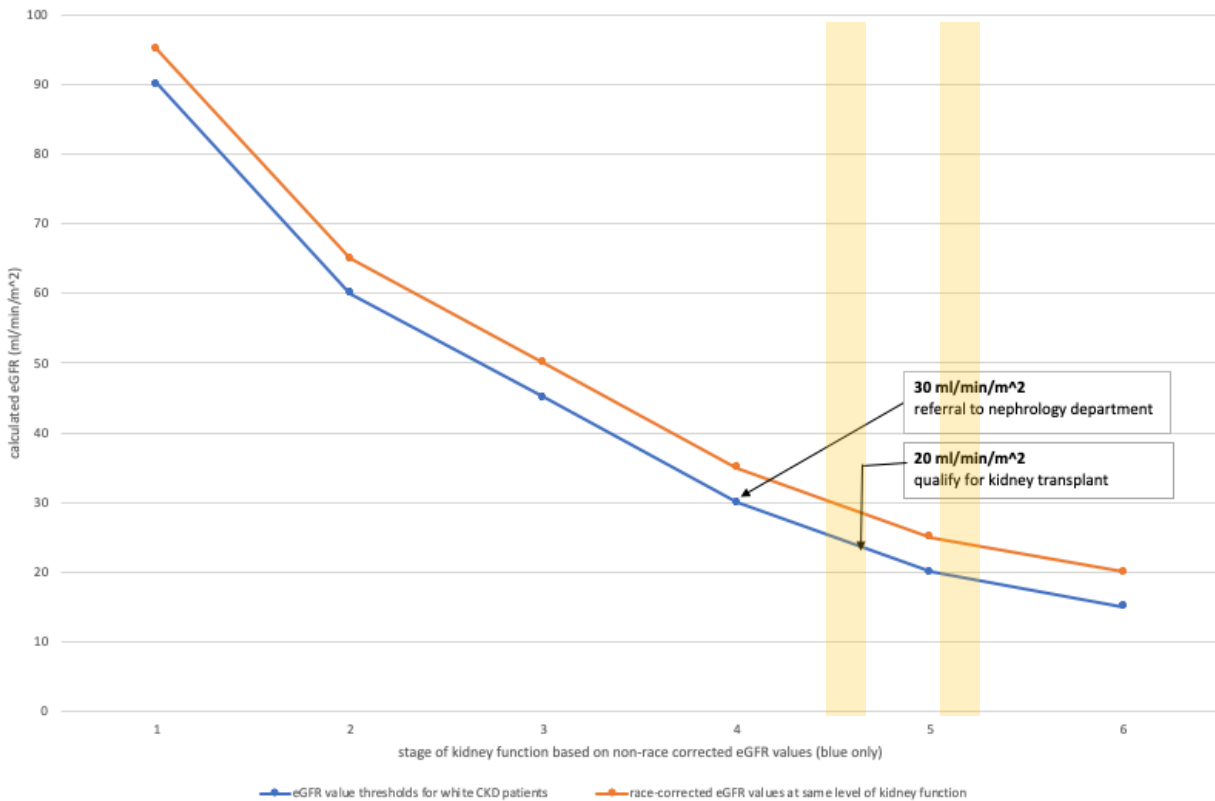
<sup>a</sup> CG formula estimates creatinine clearance (not GFR).

**Table 1.** Results of eGFR formulas in healthy individuals and CKD patients (Zanocco et al., 2012)

Based on the table from Zanocco et al.'s paper, it is clear that the race-correction on average changes the value by ~4ml/min/1.73m<sup>2</sup> when using the MDRD1 calculation, which is similarly accurate to the more commonly used CKD-EPI calculation.<sup>2</sup> Using this value, we can

<sup>2</sup> Statistics from Zanocco, J. A., Nishida, S. K., Passos, M. T., Pereira, A. R., Silva, M. S., Pereira, A. B., & Kirsztajn, G. M. (2012). Race adjustment for estimating glomerular filtration rate is not always necessary. *Nephron extra*, 2(1), 293–302. <https://doi.org/10.1159/000343899>

look at the differences in eGFR threshold requirements for black versus white patients in the figure I have developed below. (Fig. 2)



**Figure 2.** eGFR thresholds in U.S Nephrology, with and without race-correction variable

The blue line represents the non-race corrected eGFR values for non-black patients, and their associated stage of CKD. For reference, an eGFR above 90 ml/min/m<sup>2</sup> is stage 1 and indication of normal kidney function; stage 2 (89-60 ml/min/m<sup>2</sup>) means a mild loss of function; stage 3 (59-45 ml/min/m<sup>2</sup>) is mild to moderate loss of kidney function; stage 4 (29-15 ml/min/m<sup>2</sup>) is severe loss of function and stage 5 (below 15 ml/min/m<sup>2</sup>) is kidney failure. There is no stage 6 but it appears in the graph in order to show the level of kidney function a black CKD patient must have in order to qualify for a transplant. The addition of the fake ‘sixth stage’



illustrates that in order for a black CKD patient to qualify for a transplant ( $20 \text{ ml/min/m}^2$ ), they must have a non-corrected eGFR value ( $\sim 15 \text{ ml/min/m}^2$ ) which indicates complete kidney failure and likely death.

Hsu et al.'s paper reaffirms what we see in Figure 2, and reports that this 'race correction' is harmful and leads to disparities between black and white chronic kidney disease (CKD) patients in need of kidney transplants (Hsu et al., 2008). The historical origins of this correction factor arose from racial bias in researchers alongside very poor statistical significance within the small pool of black subjects participating in a study to determine the correct calculation for reporting kidney function. Although the origins are problematic, the true problem is the persistence of this value in clinical medicine – which has continued from the time of its creation until now. There is no reason that a value such as this one, with such detrimental effects for black CKD patients, should have continued – especially in light of current movements bringing awareness to the experiences of marginalized communities.

This case of medical oppression is not first-order because it cannot be reduced to only social or political oppressions. In the case of the disparate pain treatment, a bias about black people was the sole contributor to the oppressing behavior on the doctor's part. In the case of transplant qualifications in Nephrology departments, it is not only a bias about black individuals, but also something more which maintains the use of this calculation – even in lieu of factual counter-evidence against it.

This is also not second order because it is not a product of an epistemic resource insufficiency – meaning this oppression is not a result of a lack of research within nephrology about eGFR calculations. Increasing the information on eGFR calculations and the use of the

race-correction would not address the problem. This is supported by the clear plethora of knowledge on either side of this race-correction argument.

This disparity then must be third-order epistemic oppression. The issue here is the system itself, which is why cases of oppression like this one have been unaffected by social or political movements. In order to understand why this is a distinctive result of a recalcitrant epistemic system, we need to look at the features comprising the system. Toole suggests that there are five features which most recalcitrant systems share in her paper, *What Lies Beneath: The epistemic roots of white supremacy* (Toole WLB, forthcoming). Toole identifies *recalcitrant* epistemological systems as:

1. consist[ing] of a core set of foundational governing beliefs, values, epistemic norms and resources that
2. play a central role in structuring our understanding of and engagement with the world;
3. are self-masking;
4. are self-replicating;
5. and silence contrary or dissenting views.

*Core governing beliefs (1) which structure understanding (2)*

Within epistemological systems, core beliefs function in two primary ways. First, they determine which views are permissible versus abnormal. Second, they direct our attention in a way that reinforces the veracity of medical information which specifically supports the governing belief. As both Pohlhaus (2011) and Fricker (1999) point out that the conceptual tools and language we use to understand and communicate our experiences are heavily shaped by the socially-dominant. Subsequently, the epistemic resources available are tailored to a white world,

thus hindering one's understanding of themselves and their world if they deviate at all from a 'white' (and male) profile. Thus, the conceptual repertoire from which we draw when attempting to address third-order oppressions is inadequate, due to the fact that the resources were originally created for a different function.

### *Self-Masking (3)*

Self-masking is a feature of recalcitrant systems which creates a superficial appearance that reform has occurred when really, the system's presentation has just been redesigned. In Toole's paper, she points to the advocacy of 'color-blindness' as a means of masking the recalcitrant system of white supremacy. All that the advocacy for 'color-blindness' does is simply change the language we use. So, while "it is no longer permissible to use race, explicitly as a justification of discrimination" (Alexander, 2010), using the term 'criminality' doesn't hold the same social repercussions and thus falls into the old place of race. Consequently, instead of moving away from race-driven discrimination, this self-masking feature has created an association between criminality and race, and ingrained it in the cognitive structure of Americans.

### *Self-Replication (4)*

The ability to self-replication supports the self-masking feature of epistemological recalcitrance in that it ensures that the specific frameworks and ways of thinking supported by the system are recreated. A large part of this feature comes from the intertwined nature of schemas – which are individuals' cognitive architectures – with harmful ancillary-belief systems, which are often *recalcitrant* in nature. Because these belief-systems are entangled in individuals'

cognitive structures, they are readily passed down to younger generations and thus normalized from an early age. Continuing the example of white supremacy, this Toole posits that self-replication “naturalizes white supremacy, ultimately rendering white supremacy both essential and fundamental, thus not susceptible to challenge.” (Toole WLB, 2021)

*Silencing Contrary Views or Evidence (5)*

The fifth feature of recalcitrant epistemological systems at work here is the system’s ability to silence dissenting views or counter-evidence. Toole posits that “a [recalcitrant] epistemological system cannot survive merely by self-masking and self-replicating -- it must also ‘put down’ any threats” (Toole WLB, forthcoming). Silencing both makes opposing view illegible while simultaneously alienating participating agents from becoming informed of those opposing views. Toole presents Dotson’s definition of silencing as a form of epistemic violence, in which “a given group’s ability to speak and be heard is damaged” (Dotson, 2011).

In the case of our kidney transplant disparity as an example of third-order epistemic oppression, the most obvious features of recalcitrance are one, two, and five. The other two features (2, 3) are additionally present in medical knowledge, however are less apparent in this particular example.

*Features one & two: The core belief that race is a biological factor*

The first two features identified by Toole are: that the system has a core set of governing beliefs (1), and that those beliefs play a central role in structuring one’s understanding of and engagement with the world (2). The core belief at work here is that race is a biological factor and ought to be medically treated as such. In the case of the race-correction value in nephrology, the

core belief at work prevents individuals from questioning the use of a race-correction value and provides scaffolding for why the race-correction value is intuitively appropriate.

By emphasizing that race is biological the system can systematically shed light on pieces of information and knowledge which only scaffold this idea. This means that even when counter evidence is presented, the system has already dispersed so many pieces of supporting evidence for race-being a biological factor, that the counter evidence cannot even begin to be considered.

In today's healthcare, this idea can have become so pervasive that the phenomenon of doctors treating patients differently on the basis of race is no longer surprising. Understanding this core belief within medical knowledge explains why the perpetuation of a variable imposed only on black CKD patients would seem logical to those functioning under the epistemological system of medical knowledge. If this idea is always pushed to the forefront of people's minds, and is key in structuring individuals' understanding, no one will stop to question this value and its consequences.

*Feature five: Silencing pushback from Nephrology eGFR research*

Just as I mentioned in the preceding section, the majority dissenting views regarding the race-correction factor in eGFR calculations have been uninfluential and relatively unheard. This is where Toole's fifth feature of recalcitrant systems comes in: ability to silence or reflect contrary views and evidence. Many researchers have published papers on why the race-correction value is harmful and ineffective, such as in the Hsu et al. (2008) paper I mention at the beginning of this section. Yet, despite this clear evidence, the value continues to be used today.

One researcher, Levey, in an attempt to show recognition of this counterevidence, published in response to the pushback on the race-correction variable, saying "yes, this value is

in fact problematic; but what if we were to change it and then accidentally overtreat black patients with CKD” (Levey, 2009). Vyas responds to Levey’s publication noting that if these were white CKD patients we were talking about, over-treatment would never be a concern. Vyas also confirms that no significant change in the use of this variable for eGFR calculations have occurred, despite numerous publications questioning its purpose and consequences (Vyas, 2020).

### *Wrapping up*

In this chapter, I have argued that medical knowledge is clearly a recalcitrant epistemological system, and has five key features associated with epistemological recalcitrance. First, medical knowledge consists of a core set of foundational beliefs, values and epistemic norms and resources which play a primary role in structuring healthcare professionals’ understanding of and engagement with the medical world. Second, medical knowledge is self-masking, which creates the illusion that reform has occurred when really the system has just been re-organized. We can see this in the transition from raw discrimination in healthcare, to the imposition of discriminatory calculations, which favors white patients, for determining qualification for organ transplants. Third, medical knowledge as a recalcitrant system silences contrary or dissenting views, which we see in the disregarded publications which present the research indicating that the race adjustment for estimating glomerular filtration rates are not always necessary. Lastly, medical knowledge is self-replicating. The ability to self-replicate is very closely related to the functioning of individuals’ schemas under recalcitrant systems, which I will explore further in chapter four.

Given its recalcitrant nature, we have seen how medical knowledge can produce three major forms of epistemic oppressions. Remember that as a recalcitrant system, medical

knowledge is essentially, a deeply flawed, ‘shared toolbox,’ utilized by doctors. Throughout chapter three, I have shown: (1) that the ‘toolbox’ can be utilized correctly when treating some individuals and incorrectly when treating other, marginalized individuals (*first-order epistemic oppression*); or, that the ‘toolbox’ can contain insufficient tools to solve a previously undiscovered medical problem (*second-order epistemic oppression*); and lastly, I’ve shown that the ‘toolbox’ can become so tailored to the socially dominant classes, that when social minorities of the same professional prestige, try to tailor the ‘toolbox’ to the needs of a larger diversity of patients, the ‘toolbox’ itself resists these changes (*third-order epistemic oppression, epistemological recalcitrance*)

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## CHAPTER FOUR

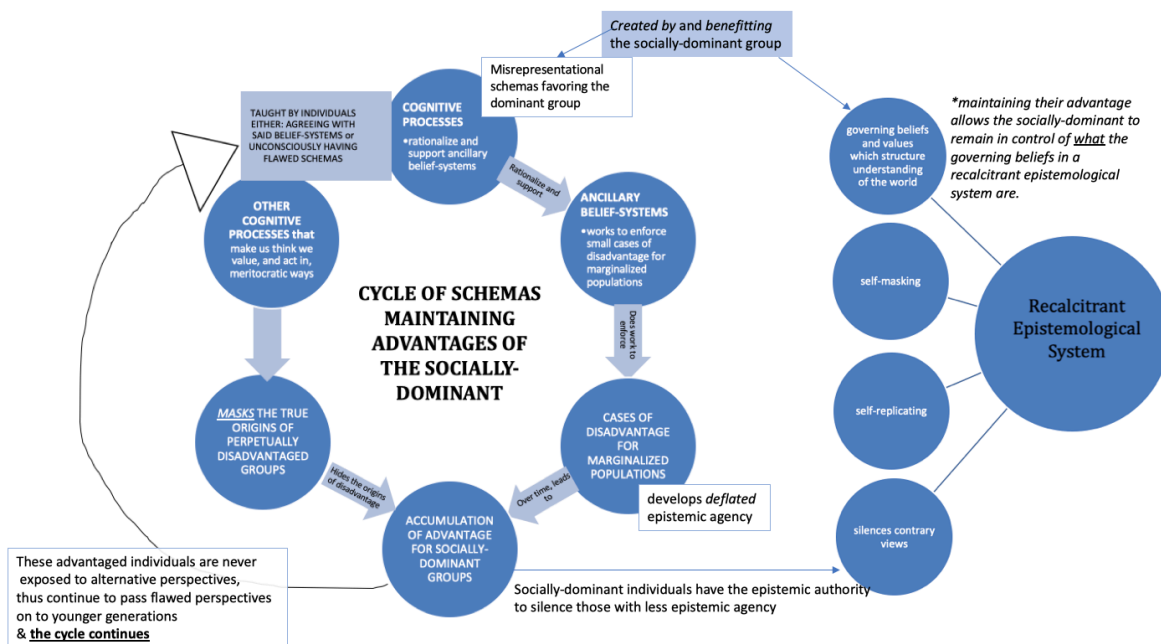
*Integration of Schemas, Epistemological Recalcitrance in Maintaining Epistemic Oppressions: A Diagnosis of medical knowledge & presentation of Standpoint Epistemology as a saving grace*

In this final chapter, I aim to do two things. First, I show how the individual ‘toolboxes’ (*schemas*) are related to and work together with flawed, collective ‘toolboxes’ (*recalcitrant epistemological system, medical knowledge*), to maintain the systemic oppression of marginalized groups in U.S healthcare systems. Finally, I will highlight how and why the only saving grace to this systemic issue must be to develop a medical epistemology that looks more like standpoint, rather than traditional, epistemology.

## Part I

*Schemas & Recalcitrant systems work together to maintain an oppressive form of medical knowledge*

To begin, I would like to review the two systems of interest at this point in my project: *the cycle of schema reproduction among socially-dominant and epistemically powerful individuals, and the five features supporting recalcitrant epistemological systems.*



**Figure 3.** *The integration of the cycle of schema reproduction and features of recalcitrance*

### *Discussion of Figure 3 on the integration of schemas & recalcitrance*

I like to think of this in terms of what I am going to call the ‘*schema cycle*’ which I developed by drawing on aspects of developmental psychology, Valian’s ideas on the accumulation of advantage, and schema theory. I am introducing this concept as a way of explaining how recalcitrant systems maintain themselves at the level of the individual. This is



key for understanding the consequential forms of oppression which this project is so concerned with.

This cycle essentially illustrates the work that two sets of cognitive processes do in maintaining individuals' schemas which disproportionately favor the socially-dominant class. The first set of cognitive processes *rationalize* and *support* ancillary belief-systems. For example, a child, Ramon, may have developed the schema of their black classmates that they are fundamentally less driven because they come from lower-income families. Simultaneously, however, a second set of cognitive processes develop, which *hide* the flaws in the '*rationalizing*' and '*supporting*' cognitive processes by making a person think they value, and act in, meritocratic ways. So, continuing with my Ramon example, let's say that he has developed this misrepresentational schema of his black classmates, but simultaneously have learned from his parents that the education system is objectively meritocratic – so he thinks that if his black classmates work hard enough, their efforts and achievements will be a simple solution to this problem. This combination of '*rationalizing*,' '*supporting*,' and '*masking*' sets of cognitive processes creates a 'lacuna' or "knowledge gap" in his understanding. Ramon will fail to ever recognize the systematic oppression which his black classmates will endure, even if they work 10x harder than their white counterparts.

So, what has happened here is that the true origins of perpetually disadvantaged groups have been masked. It is important to understand here that this masking happens at the societal level, but also at the individual level. At the individual level, individuals become unaware of the full breadth of their own cognitive processes. The second thing that is stemming from the development of these two sets of cognitions, is the recruitment of these schemas to justify ancillary belief-systems. We have already seen how this can occur, so it doesn't warrant an

additional example. But from this rationalization of ancillary belief-systems, these systems then do the work to enforce small cases of advantage for the socially-dominant and disadvantage for the marginalized populations over time. The masking of the origins of disadvantage in tandem with the accumulation of the socially-dominant's advantage, allows this cycle to continue, which continues produce misrepresentational schemas indefinitely.

The five features on the right side of Figure 3 require less explanation given that they are pulled directly from Toole's explanation of epistemological recalcitrance (comparable to Toole's idea of *resilience*). The right side of the figure simply lays out the five features of recalcitrant epistemological systems: having governing beliefs and values which structure our understanding of the world, being self-masking, self-replicating, and having the ability to silence contrary or opposing views.

My goal in this section is to highlight the three main points of integration between medical knowledge as a recalcitrant system, and the schema reproduction cycle. The first point will be to understand how socially-dominant groups are the only ones capable of creating the 'governing beliefs' found in the medical knowledge. Secondly, I will discuss the mechanism behind the self-replication feature, which is incomplete without the schema cycle. The third point will illustrate how the accumulation of advantage and disadvantage aids in the medical knowledge's ability to silence contrary views.

*Only the socially-dominant create the governing beliefs of a recalcitrant system*

By maintaining their advantage, which entails epistemic authority, the socially-dominant groups can maintain in control of what the governing beliefs in a recalcitrant epistemological system are. Many people may object here, and say "okay, theoretically that makes sense, but

there is no way in light of all this political movement that this can be happening when so many people seem to be pushing for equality.” I would respond to this by saying because explicit discrimination may seem less apparent, the implicit and subconscious maintenance of this social dominance is the primary mechanism at work here, even if it is functioning under the radar of most people’s attention. This maintenance of deflated epistemic agency and underrepresentation within healthcare can occur ‘under the surface’ in two ways: through a lack of medical information or incorrect medical information about a marginalized group.

A lack of medical information about a marginalized group hurts marginalized individuals by squandering their potential to receive simply appropriate, let alone successful, healthcare. An example of this is the historical lack of medical knowledge within the field of dermatology for Black patients. Significant research and individual testimonies have reported that even procedural and diagnostic information for identifying certain dermatological conditions on black skin is lacking. A couple weeks ago, Ginette Okoye, the Chair of Dermatology at Howard University School of Medicine did an interview on NPR to discuss the lack of representation of black and brown skin in both the field of Dermatology as well as in literature, more generally. This interview came a couple months after her and another dermatologist, Dr. Jenna Lester both had begun to identify unknown rashes associated with coronavirus predominantly in their patients of color. They wanted to treat these patients, but because of the lack of research and resources, they could not help until more research had been done on the presentation of coronavirus in black and brown patients. This is a key example of how a lack of medical knowledge about marginalized individuals can be detrimental to those individuals’ quality of care. Had this been a case where Ginette and Jenna had the *wrong* information about the presentation of the virus in their black and brown patients, they may had been able to treat them,

but still insufficiently – given that the information they had was incorrect for their patients needing the treatment.

We have now seen how insufficient or incorrect resources leave marginalized groups vulnerable to poor healthcare. This flaw in resources occurs because medical knowledge's governing beliefs are tailored to a white, male patient. Further, the fact that the majority of doctors are white males, often with professional seniority, makes them capable of passing down their schemas to incoming doctors. Altogether, this allows this skew in knowledge, favoring the 'standard patient' (white cis-, straight, male), to be maintained.

*The self-replicating feature of recalcitrance is incomplete without the 'schema cycle'*

The self-replication feature of recalcitrance essentially ensures the replication of the system's framework as well as its justificatory schemas. Although self-replication does occur within medical school education between superiors and their students, what is more influential on an individual and their perspective, is the schemas they develop in their early childhood. These schemas introduced by child-raisers are much staid and more lasting, therefore playing a larger role in schema reproduction and recalcitrant systems self-replication overall.

Toole explains two functions which the passing down of white supremacist ideologies to young children serves. First, she shows that it represents white superiority as objectively factual, universal, and natural. Consider how this supports the idea that a 'standard patient' is still seen as being a white male. It should now be clear how passing down/replicating these white supremacist ideas in younger generations can easily maintain this normative judgement of who the primary patient demographic is. Secondly, the white supremacist ideology functions to naturalize white supremacy, "ultimately rendering white supremacy both essential and

fundamental, and thus not susceptible to challenge” (Toole WLB, forthcoming). This leads me into my last section, which discusses how recalcitrant systems and individual schemas can both work to silence contrary views.

### *Schemas involvement in the silencing of contrary views*

The second function of relaying white supremacist ideologies which Toole discusses, renders white supremacy as essential and fundamental, which paints it as unsusceptible to being challenged. This happens because, if a school of thought is so ingrained in one’s understanding of the world, how can one separate it from their understanding of reality, let alone challenge it? In addition to this aspect of schema reproduction, the accumulation of advantage and disadvantages does work to perpetuate unequal distributions of epistemic authority. These unequal epistemic authority distributions then allow those within socially-dominant and epistemically authoritative positions to silence any views coming from marginalized individuals with deflated epistemic agency. It is the disproportionate power dynamic between epistemically authoritative and those lacking epistemic agency which makes this ‘silencing’ features of recalcitrance happen so flawlessly.

## **Part II**

### *Standpoint Epistemology as a saving grace*

In this section I will present standpoint epistemology as the saving grace to the medical oppressions perpetuated by medical knowledge’s recalcitrance. I will first appeal to the perspective of the standpoint epistemologist to evaluate what doctors are in a position to know or

not to know. Second, I will utilize this evaluation of flaws in doctor's knowledge to identify the appropriate ways of addressing these epistemic oppressions.

*Appealing to the perspective of the standpoint epistemologist in evaluating what doctors know*

Current medical – similarly to traditional, epistemology would argue that doctor's all have relatively identical sets of knowledge, with the only sources of exception being additional extensive research experience or the prestige of medical school an individual attended.

Otherwise, medical and traditional epistemology would say that the 'toolbox' used by doctors is standardized and utilized in the same ways across medical professionals. This standardization in some sense provides an objectivity and standard of care which, for some, may be comforting or reassuring. However, the collective knowledge that each doctor holds is not identical, and certainly not objective. As a means to illustrate this, I would like to explore three explanations from the standpoint epistemologist to account for how a healthcare professional's knowledge can be influenced by their social identity. I will argue that differences in the *conceptual resources* available, *hypotheses* entertained, and accessibility of *de se knowledge*, all impact what someone is in a position to know.

*Conceptual resources* among care providers are, to some extent, standardized across individuals with the same professional titles. I say to some extent because the purpose of medical school or nursing school, *is* to develop and provide these conceptual resources for understanding medical problems. However, although curriculums are somewhat standardized – there are many ways in which an individual may have a slightly different set of conceptual resources. First, their own social identity may tailor their perspective to be more aware of certain conditions in people similar to themselves. Additionally, they may have a superior during their education whose

social identity is like this, allowing their superior's knowledge of healthcare for a particular marginalized group can be passed on to their students. In both these scenarios, it is social identity which drives the healthcare professional's knowledge. Let's say that because of his identity, a black nephrologist is aware of the dangers of the race-correction value in eGFR calculations. This doctor hopes to pass his caution of this value onto the next generation of doctors, and begins teaching at a medical school. The doctors under his guise will learn of the consequences of using this form of the calculation to determine a patient's transplant qualification status. Differences in areas of expertise are, too, guided by the individual's social positionality and individual interests.

When one of his past students enters the healthcare profession, they will be more aware of the risks of using race-correction in eGFR calculations for their black patients. This future doctor—who's mentor was the Black nephrologist, will know to double check the effect of using a race-correction value in their particular patient before submitting the calculation to the UNOS. This knowledge can dictate whether or not their patient receives a life-saving transplant. A doctor without this background would have likely implement this race-correction value as it is still the procedural status quo. Not knowing the potential detriment of their decision, a doctor without this exposure to the detriments of race-correction, could make a decision which lead their patient to die from failure to qualify for a transplant.

Next, individual experiences and values can play a strong role in which *hypotheses* a doctor is able to generate and consider. The hypothesis doctors favor or consider when diagnosing and understanding a medical problem are heavily dependent on their own experiences and identity. Let's consider the impact of the schema of black individuals which illustrates them as having thicker skin and a higher pain tolerance. When a black patient walks in presenting with pain, other black doctors are not likely to entertain the beliefs about the higher pain threshold of

black individuals. So their hypothesis will be to think that their patient is actually in pain. In comparison, a white doctor who does entertain those beliefs will form a hypothesis that relies on negative schemas, that this person is faking or attempting to exploit medicine for access to drugs.

More often than not, a medical problem is a result of some individual characteristic (i.e. genetic predisposition for a certain disease) or a result of some response to an individual's environment. Because of this, when considering possible hypothesis for the origins of a patient's problem, the doctor must pull from their knowledge of what could be causing this problem. The scope of hypotheses they consider are developed through a combination of knowledge drawn from their medical curriculum, personal experiences, and the experiences of past patients they've treated. Understanding what comprises the scope of hypothesis should make clear how different professionals will all formulate a different set of hypotheses when considering the origins of a medical problem. Oftentimes these hypotheses will overlap, and the same conclusion will be reached, when approaching familiar or noncontroversial medical ailments – but there are still many exceptions to this. An obscure for example, like a familiar problem presenting in a marginalized individual or an unfamiliar problem, may only be treatable by professionals having specific social identities or past experiences.

The last explanation I would like to discuss as how social identity can account for what a healthcare professional is in a position to know, is the role of *de se* knowledge. *De se* knowledge is a tool which is used to 'imaginatively grasp' the first-personal perspective of another person. This ability to understand another's perspective and subsequently, "know what they know" becomes more difficult the grater the social distance between individuals. Paul Bloom explains that when we are utilizing *de se* knowledge we represent some aspect of another person's experience, and from there can draw on what is learned (Prinz, 2011; Paul, 2016). Let's think



back to the nurses on-call when a victim of Holtzclaw calls the emergency room. Because Myra is a woman, she is going to be able to really think about what she would do if she was sexually-assaulted. Her ability to take on this point of view then leads her to the realization that she would want to shower immediately, and thus Mariyah will also want to shower immediately. Myra can inhabit this perspective but John identity as a man will make it more difficult for him to understand how he would feel if he was sexually-assaulted. This this experience of feeling dirty after being raped is a form of de se knowledge which is less accessible to John.

Standpoint epistemology makes salient how our judgements are influenced by non-epistemic features like social identity. These explanations ought to be plausible enough for one to see how it could make a difference in the quality of care a patient receives. In the next section, I'll consider an additional motivation for taking on this perspective. .

An additional motivation for taking on a standpoint epistemologist's view, is that it significantly aids in identifying the type of epistemic flaw occurring within a specific phenomenon in a healthcare setting. Most of the consequences of medical knowledge as a recalcitrant system are forms of epistemic oppression, and these can be identified when we utilize a standpoint epistemologist's perspective. Knowing this, we can return to Dotson's Paper, *Conceptualizing Epistemic Oppression* in which Kristie Dotson presents ways of addressing these now identifiable forms of epistemic oppression. This will a provide an alternative, more suited way of addressing gaps in knowledge, that does not rely on altering medical school curriculums, a change which would fail to see the true origins of the problem.

*Utilizing the standpoint perspective to identify the appropriate epistemic solutions*

Kristie Dotson does a lot of work on epistemic oppressions in her paper *Conceptualizing Epistemic Oppression*. She first identifies the origins and mechanisms of the oppressions themselves, which is discussed thoroughly in chapter three. Dotson additionally explores the type of changes in epistemic resources needed to solve the problem of these specific epistemic oppressions, which include first-order, second-order, and third-order changes. I will return to the cases of the three forms of oppressions in chapter three, and then present the solutions which can be utilized for each oppression.

*First-Order Changes: ‘tacit reinforcements’*

Recall that first-order epistemic oppression arises when the epistemic resources are available but unjustly or inaccurately applied in certain contexts. If we think back to the case of disparate pain treatments among black patients compared to their white counterparts (Hoffman et al., 2016), we should recall that this is a form of *first-order* epistemic oppression. Now, using the standpoint perspective, we can evaluate which, out the doctor’s conceptual resources, formulated hypotheses, and accessibility to de se knowledge, is responsible for his failure to effectively treat his patient. We know that this doctor is able to correctly receive a patient’s reports of pain, evaluate them and provide the appropriate treatment, and yet he is not doing so when his patient is black. The patient in this case is unable to effectively communicate their pain and have it taken seriously – which is a result of a set of social biases that the doctor has, which categorize black people as: (1) fundamentally untrustworthy, (2) having a higher pain tolerance, and (3) being more likely to exploit the medical system for drugs.

The doctor's *hypotheses* – how he understands the patient's intentions behind their reports of pain, as well as his accessibility to *de se* knowledge – his ability to understand the positionality and knowledge of his patient, are the problem here. In order to address this, the doctor needs to become aware of the inaccuracies in his understanding of his patient and their reports of pain. If the doctor's awareness of these inaccuracies can be achieved, then Dotson's first-order change can be implemented. A first-order change is a tacit reinforcement of present understanding (Dotson, 2014), which leaves the original operative schema intact but attempt to solidify patterns in the schema that can lead to more effective functioning. Implemented into this case, the first-order change would leave the doctor's ability to receive information and diagnose a pain condition, alone – but would alter attempt to solidify this ability across all his patients, including his treatment of marginalized individuals. This change only requires a single-loop process, a process aiming to bring one's actions into better alignment with a pre-existing predominant schema, such as this doctor's schema which allows him to trust his patient's reports of pain.

*Second-order changes: 'conscious modification'*

Unlike first order, second-order epistemic oppressions are a result of unavailable epistemic resources, relevant to the medical issue in question. In the case illustrating second-order epistemic oppression, I present the historical issue involving a lack of medical knowledge about endometriosis. Endometriosis is now known as one of the most common abdominal disorders among women in the U.S today. In the past however, very little was known about the causes, presentation, and treatment of endometriosis, leaving thousands of women without a remedy for this often debilitating, disorder. If we explore this past disparity from the perspective

of the standpoint epistemologist, we immediately identify the problem as stemming from insufficient conceptual resources.

What was happening at the level of the doctor-patient interaction, was that a patient would come in, explain their symptoms, and their doctor would understand and empathize with the patient's pain. Understanding the severity of the patient's discomfort, they would then turn to the available conceptual resources to hypothesize about a diagnosis. But because of a lack of medical knowledge about endometriosis, their patient's disorder, they would fail to diagnose and correctly treat the patient.

Implementing a *second-order change* would increase the resources and information on the disorder of Endometriosis, solving this problem of insufficient conceptual resources. A second-order change involves the conscious modification of a present schema in a particular direction. This change is different from *first-order changes* in that it involves a 'double-loop process,' meaning the individual(s) must be willing to alter their views or values in order to create new strategies or ways of thinking, feeling, or acting that improve their effectiveness (Walsh, 2004).

*Third-Order changes*: 'total re-education' & 'herd-awareness'

In my discussion of third-order epistemic oppression, I present the problem in U.S Nephrology in which a 'race-correction value' is imposed on the calculations used to decide if a patient will qualify for a kidney transplant. As a reminder, third-order epistemic oppressions are produced when there are flaws in the epistemological system itself – these forms of oppression cannot be reduced or understood by simply pointing to social or political oppressions. Third-order epistemic oppressions are identified within U.S Nephrology as well as reflective of

recalcitrant epistemological systems such as medical knowledge as a whole. Because of this, the introduction of third-order changes will provide two solutions. First, they will provide a means of addressing this specific Nephrology problem, but they will also reinforce why adopting the view of the standpoint epistemologist is so important in addressing recalcitrant systems.

The first step is to look at the conceptual resources, hypotheses, and de se knowledge of Nephrologists who are still using this ‘race-correction value’ in their eGFR calculations; and doing this illustrates flaws in all three of these features. Because the maintenance of this discriminatory calculation is a third-order epistemic oppression, it requires a more drastic and involved type of change. Third-order changes involve the training of organizational members to be aware of their present schemas and subsequently make them more able to change these schemas as they see fit (Dotson CEO, 118). Similarly to the issue of medical knowledge’s recalcitrance as a whole, this is also a solution to addressing the race-correction issue in eGFR calculations.

Third-order changes require a sort of ongoing ‘uprooting’ of the system itself. This is because it demands individuals recognize the system’s flaws and responsibility for generating and maintaining their primary organization schema and ability to alter one’s entire epistemological system. This recognition is exactly what adopting the standpoint epistemologist’s perspective does. Evaluating the status of medical knowledge, from not only an objective, but also subjective stance which accepts social identity as relevant to what one is in a position to know is crucial. It allows us to better understand what knowledge actually exists among doctors and patients, and what scope and form of knowledge is required for the successful functioning of a healthcare system in which the primary goal is to relieve the pain and suffering of all patients in a fair and appropriate manner.

I have now argued that the standpoint epistemologist's view functions in three important ways. First, it sheds light on how schema reproduction works in tandem with recalcitrance to bolster the both social and epistemic advantage of the dominant class. Second it provides the diagnostic tools to determine the type of epistemic harm, via identifying one of Dotson's three forms of epistemic oppression. Lastly, by aiding in the correct diagnosis of the epistemic problem, allows the appropriate epistemic solution to be implemented— one of either Dotson's first-, second-, or third-order changes. It should be clear here the work which standpoint epistemology is doing involves both being a key contributor to the diagnosis, and resolution, to addressing the problems of epistemic recalcitrance within medical knowledge. So, when approaching medical knowledge as an epistemological system, the benefits of utilizing a standpoint perspective provide both diagnostic and resolute benefits to addressing the problem of medical oppression towards marginalized groups.

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## CHAPTER FIVE

### *Conclusion*

As we have all experienced, the coronavirus pandemic has impacted our lives in multiple ways, but people continue to and will continue to experience these challenges differently. Pandemics themselves can worsen both gender and racial inequities in healthcare, and beyond – and coronavirus certainly has done that. In this conclusion I will discuss a report by Jamille Field Allsbrook, who is the director of the Women's Initiative at American Progress in which she

provides an account of how coronavirus has impacted women, and how this reflects U.S healthcare's continuation to fail women. Although in strong agreement with her concerns, I hope to offer an alternative evaluation of this problem using a standpoint epistemologist's view. Through the adoption of a standpoint epistemologist's take, I hope to explore the epistemological underpinnings of the problem Allsbrook is presenting to us. My exploration aims to highlight how a deeper uprooting of the medical system is required, and will be significantly more effective than simply targeting associated political or social oppressions.

Allsbrook reports that in comparison to the 'standard' white male patient, "there is insufficient data to determine the complete effect of the disease among difference genders, races, and ethnicities." She continues, saying that "initial data suggest[s] that the pandemic could exacerbate existing barriers to care that women experience, particularly for women of color, women with low incomes, women with disabilities, and women living in rural areas." Allsbrook reports a plethora of ways in which coronavirus and its impacts have disproportionately made both access to and quality of care worse for women; and that this is especially true for women of color. She concludes by saying that the current pandemic has revealed at least four ways the U.S healthcare system fails women more broadly. They are as follows:

1. Many health insurance plans are not comprehensive enough to meet women's health needs.
2. Current federal and state policies are not designed to achieve health equity for women of color and their families.
3. Reproductive health services, particularly abortion, are stigmatized and thus not integrated into the health care system.

4. The health care providers whom women rely upon are underfunded or otherwise inaccessible for many.

Allsbrook lays out these four failures and claims that healthcare for women is insufficient and must be addressed by the relevant federal, state, and local policy-makers. Despite the responsibility appropriately falling on policy-makers, I hope to make clear that the perspective Allsbrook has adopted in her analysis of U.S healthcare is more consistent with the traditional standpoint epistemologist's. By using this traditional epistemologist's perspective, she misses the true origins of these oppressions. Taking a second to look back at her concluding points, we see that: in the first and fourth, she points to economic oppressions which prevent financial accessibility and quality of care to marginalized groups of women. In the second point, she reflects on how political oppressions impact women's healthcare; and in the third, she highlights stigmatization, a form of social oppression which is a detriment to the quality of women's reproductive health services.

As I explained in chapter three, third order-epistemic oppressions stemming from the epistemological recalcitrance of medical knowledge, are *not* reducible to mere political and social oppressions. So, despite Allsbrook's account being accurate she is missing where the beginnings of the oppressions are occurring. In order to effectively address these inequities for women, a standpoint epistemologist's perspective must be utilized to identify the true epistemic origins of each of these healthcare disparities. If we failed to utilize this perspective, medical knowledge's recalcitrance would continue even in light of apparent social or political progress – thus, under the guise of reform, these consequential oppressions would continue.

To discuss the implementation of the standpoint epistemologist's view in more detail, let us focus-in on Allsbrook's second point, which is that "current federal and state [healthcare]



policies are not designed to achieve health equity for women of color and their families.” Under traditional epistemology, the solution to this would be some form of policy-reform. But ultimately, due to the persistent nature of the *schema cycle* and *epistemological recalcitrance*, the advantage of those in socially-dominant positions would prevail even if policy-reforms were implemented. Thus, this would not solve this problem or alleviate any of the oppressions this marginalized group is experiencing.

On the other hand, if we adopted the perspective of the standpoint epistemologist, the first piece of information we would look for is how the social identity of these individuals responsible for healthcare policy influence what they are in a position to know. From here, we are able to effectively identify the relevant gaps in knowledge among the current healthcare policy-makers and healthcare providers. Upon identification of these lacunas in medical knowledge, we can then fill those gaps with the appropriate first, second, or third-order changes identified by Dotson. Furthermore, understanding where knowledge gaps exist can motivate the need to increase diversity of social identities associated with these gaps in knowledge. For example, recruiting more women into these policy-making positions would improve the quality of and access to care for women’s health, because women are in a better position to know what women through healthcare than men. Additionally, by extension, we can see that women of color are subsequently also in a better position to know the needs of other women of color.

Diversifying the social identity of individuals responsible for the quality of and access to health care has the potential to create an enhanced collective ‘toolbox,’ representing a potential for an improved medical knowledge. An ‘enhanced toolbox’ in this sense would mean that medical knowledge included representation across all dimensions of diversity – gender, racial, sexual, economic, via the introduction and maintenance of sufficient diversity across the social-

identities of healthcare professionals. By including a more diverse set of professionals, a diversity of tools can be added to the toolbox from which all healthcare professionals could draw. Each individual would bring their own ‘set of tools’ with each tool being more appropriate than some others for some specific contexts within healthcare; i.e. a specific patient demographic – like Dermatology in Black individuals –, or a specific medical condition, like Endometriosis.

Thus, if each healthcare professional brought these slightly different tools to the collective epistemological system of medical knowledge, healthcare could actually become comprehensive in terms of the breadth of individuals it provides care for. Emphasizing the perspective of standpoint epistemology prioritizes the diversity of social identity among healthcare providers and brings into view the possibility that we could have a healthcare system which treats the entirety of the society it ought to serve.

However, in order to reach this possibility, we must first recognize medical knowledge as a recalcitrant epistemological system, and secondly uproot our perspective that medical knowledge is independent from non-epistemic features. Only after doing this, can the U.S healthcare system begin the progress of addressing the systemic oppressions it continues to impose on marginalized individuals.

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