"CAN'T NOBODY EVEN SPREAD THEIR WINGS HERE": THINKING
DISABILITY ALONGSIDE ENVIRONMENTAL RACISM, COLLECTIVELY
ACQUIRED IMPAIRMENTS, AND INJUSTICE IN FLINT, MICHIGAN
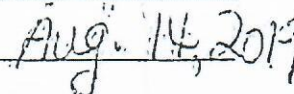
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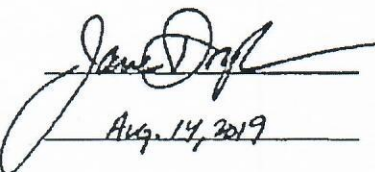
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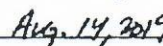
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Abstract

The unjust production of impairments has historically posed a theoretical and political problem for a Disability Studies committed to normalizing and de-stigmatizing disability. This discursive schism serves to reinforce the discipline's tendency towards "epistemic whiteness" (Puar, 2017, p.xix). However, it is imperative that the field consider situated experiences of disability inextricably linked to contexts such as environmental racism currently invisibilized and/or overlooked in the field. The following paper attempts to address some of these gaps by studying the water crisis in Flint, Michigan that began in 2014 - and resulted in 30 000 children being exposed to lead poisoning, along with a Legionnaire's Disease outbreak that killed twelve people - as a case study on collectively acquired impairments. How does the Flint water crisis challenge Disability Studies theory to better account for impairments acquired – or more accurately, imposed - through environmental racism? I pay particular attention to the phenomenology of living with collectively acquired impairments, and utilize the concepts of disorientation, disposability, and debility in my analysis to foreground the varied implications involved when already marginalized and racialized populations acquire impairments. Experiences of Flint residents call on the discipline of Disability Studies to pay greater attention to how situations of injustice affect embodiment in ways that may not neatly fit into the rubric of impairment.

Acknowledgements

Before anyone else, I must first acknowledge the residents of Flint, Michigan. The injustice you have endured is egregious. It is beyond words. Your activism, which should never have been necessary in the first place, is exemplary. I will do my best hereon to engage in activism against environmental racism both at home and abroad.

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Introduction

In 2017, I happened upon a provocative essay entitled "Trauma & Disability walk into a bar, no one ever says anything" (Cokley, 2017). In her piece about the then-recent Unite the Right rally in Charlottesville, author Rebecca Cokley criticizes the disabled community for distancing themselves from victims of acts of terrorism who acquire impairments through this violence. Doing so, she argues, is tantamount to "abandoning" survivors when their politics diverge from more traditional disability rights agendas. In response, Cokley asks:

> How can and should the disability community reach out to engage with those whose disability has been caused by trauma? And what do you say when bringing someone into a community that they never expected to join [and] may see acceptance of as acknowledging defeat or loss? *How do we further ensure that we elevate and center the voices of leaders of color with disabilities so that we really are living the mantra of 'Nothing about us without us'* (emphasis added, 2017).

Cokley's questions resonated strongly with ones I had been wondering about as well but had not yet been able to articulate. Expanding on hers, I now ask: 1) How does the process of acquiring an impairment from situations of injustice and trauma impact how it is subsequently experienced? And 2) Can Disability Studies[1] account for these embodied

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[1] Throughout this paper I will be referring to my discipline as Disability Studies, which I understand as including Critical Disability Studies, or one strain of Disability Studies that attempts to better account for intersectionality. Critical Disability Studies recognizes that "we are living in a time of complex identity politics, of huge debates around the ethics of care, political and theoretical appeals to the significance of the body, [and] in a climate of economic downturn that is leading yet again to reformulations of what counts as disabled" (Goodley, 2013, p.632).

experiences - particularly in the contexts of race, racialization, and racism - with the theoretical resources available within the discipline at present?

Calling in Disability Studies

Despite Disability Studies' embrace of the mantra "nothing about us without us," as noted by Cokley, it seems as though many disabled people, along with their standpoints, have indeed been left behind, excluded by the at times hegemonic ideology of the field (Bell, 2006; Moore, 2015; Puar, 2017b, p.xix). Ironically, the tendency in Disability Studies to "problematically transport[t] theories and methodologies developed within the Western academy to other global locations[2], paying only nominal attention to local formations and understandings of disability" (Barker & Murray, 2010, p.219) reproduces the very kinds of normativity the discipline seeks to critique. For example, discussing the discipline's problem with "epistemic whiteness," Puar writes,

> part of how white centrality is maintained is through the policing of disability
>
> itself: what it is, who or what is responsible for it, how one lives it, whether it
>
> melds into an overarching condition of precarity of a population or is significant
>
> as an exceptional attribute of an otherwise fortunate life (2017b, p.xix).

Puar references the tendency to naturalize disability among racialized populations "expected to endure pain, suffering, and injury" (p.xiv). In order to avoid perpetuating this historic bias, Disability Studies must account for experiences of disability situated in

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[2] While many Disability Studies scholars have critiqued the discipline for excluding perspectives from the Global South, there remains a tendency to assume that existing theory speaks to universal experiences of privilege in the Global North, thus excluding many experiences of marginalized populations living in wealthy Western countries (see Erevelles, 2011b, p.122). The following project marks one attempt to address this gap.

contexts currently invisibilized and/or overlooked in the field. This is imperative both for the integrity of the discipline, and to ensure that it remains efficacious in the world outside of academia, responsive to disabled people's diverse and ever-evolving needs and priorities. As explained by Liz Crow,

> If our movement excludes many disabled people or refuses to discuss certain issues then our understanding is partial: our collective ability to conceive of, and achieve, a world which does not disable is diminished. What we risk is a world which includes an 'elite' of people with impairments, but which for many more of us contains no real promise of civil rights, equality or belonging (1996).

Historically, Disability Studies has been deeply apprehensive about considering impairment as a manifestation of injustice due to the political advances the social model has helped facilitate for disabled people[3]. Indeed, the field has devoted much attention to accepting – if not celebrating - diverse embodiments, and to refuting engrained views of disability as undesirable and tragic (Kudlick, 2009; Swain & French, 2008; Titchkosky, 2009). However, as noted by Erevelles, there are "borders that limit the conditions of endless possibility" that disability is seen to proffer in Western Disability Studies (2014b) that also demand consideration.

While the social model tends to treat impairment as an "objective, transhistorical and transcultural entity" (Tremain, 2002, p.34), impairments are also artificially and

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[3] The social model of disability (Oliver, 1990) defines impairment as a "functional limitation" of the body (and/or mind) that *is made* disabling by "social, environmental, and attitudinal barriers" (Crow, 1996). This contrasts with the more commonly known medical, or individual, model of disability which "locates the 'problem' of disability within the individual" (Oliver, 2009, p.20).

materially produced – and/or involuntarily acquired[4] - through means like "violence, conflict, malnutrition, accidents, natural disasters, [and] environmental degradation" (Grech, 2015, p.2), which are themselves often connected to structures of colonialism, white supremacy, and global capitalism (Berghs, 2015; Meekosha, 2011). Many such impairments are also acquired collectively, or *en masse*, through unjust situations which disproportionately "appear"[5] in the Global South and serve to reify and re-entrench inequalities at a population level (Bullard, 1993; Clare, 2017; Grech, 2015; Meekosha, 2011; Meekosha & Soldatic, 2011). Such "hybridized forms of oppression and discrimination… often do not speak singularly of disability" (Goodley, 2013, p.641).

Often overlooked in Disability Studies, and typically only brought up in relation to the Global South in the contexts of poverty and war, I employ the term "collectively acquired impairment" to point to conditions that beget a multiplicity of impairments among a group or population *that is exposed to a shared situation in a particular time and place*. Here disablement can be more accurately conceived as "an assemblage of political-cultural-economic processes" (Gorman, 2016, p.258) that is "produced within the actual material violence of transnational capitalism" (Erevelles, 2011a, p.38). Impairments acquired in such contexts are apt to "complicate oppositional/transgressive theorizations of disabled subjectivity" (Erevelles, 2011a, p.38), as they "embody the

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[4] Here I include impairments acquired through what are conventionally considered natural and unnatural means (e.g. someone who is born with Cerebral Palsy versus someone who acquires a brain injury through a car accident). For more on this topic, see "Nuances of Cure" in Clare (2017).

[5] Such conditions are not random but instead are actively produced by a variety of actors, including nation-states and multi-national corporations.

injustices of the bio-politics of geopolitical power" (Soldatic, 2013, p.747). Despite the prevalence of impairments acquired through such situations of injustice, as noted by Rachel Gorman, Disability Studies "continues to resist a broader analysis of disability that seriously engages the concerns, identities, and lived realities of racialised, Indigenous, and majority world disabled people" that could better account for such nuances in body politics, experience, and subjectivity (2016, p.250).

In order to produce "theories that are in concert with contemporary lives, the complexities of alienation and rich hopes of resistance" (Goodley, 2013, p.641), Disability Studies must come to terms with major gaps in its scope. Scholars have repeatedly called on the field to acknowledge and reckon with intersections of disability and trauma (Berger, 2004; Morrison, 2012); environmental crises and the "embodied experience of gradual environmental harm" (Davies, 2018, p.1540; Clare, 2017; Johnson, 2017; Kafer, 2013); and postcolonial studies (Barker & Murray, 2010; Erevelles, 2011b) - particularly in the Global South (Gorman, 2013; Grech, 2015; Meekosha & Soldatic, 2011; Soldatic, 2013). Addressing these gaps will require Disability Studies to move away from its normative tendencies (Gorman, 2013, p.255) and accept that "seeing impairments as acceptable forms of human diversity is not the same as seeing them as neutral or insignificant" (Vehmas & Watson, 2014, p.641).[6]

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[6] While I agree with Vehmas and Watson's point above about Disability Studies being at times overly concerned with making normative judgements, I feel their (2014) article mischaracterizes Critical Disability Studies as a whole and I do not endorse other messages within it.

Introducing Flint, Michigan and the Flint Water Crisis

Long before the words "Flint, Michigan" became synonymous with "water crisis," the city was known as the booming birthplace of General Motors (Jackson, 2017, p.15; Hanna-Attisha, 2018, p.119). But like other cities in the American region known as the "Rust Belt," Flint has been dealing with the devastating fallout effects of deindustrialization for the past several decades (Anderson, 2017, p.109). A combination of white flight and general state abandonment (Pulido, 2016b, p.2) halved the city's population following its peak in 1960 (Hanna-Attisha, 2018, p.128; Morckel, 2017), leaving the city highly segregated and impoverished (Ranganathan, 2016)[7]. As of 2018, 54% of Flint's population is black – though according to Pulido, "the entire city is racialized as Black" (2016b, p.2) - 41.2% live in poverty, and only 51.2% of residents over the age of 16 are part of the "civilian labor force" (United States Census Bureau, 2019). In 2017, Flint was named the sixth most violent city in the United States (Adams, 2018).

On April 25, 2014, state-appointed, and so unelected, Emergency Managers in Flint, Michigan made the now notorious decision to cease sharing water drawn from Lake Huron with Detroit. While awaiting the construction of a new pipeline (also to Lake Huron) (Anderson, 2017, p.123), they decided to draw water from the Flint River instead in the interim – a river so polluted by previous industrial activity that it had never before been considered for municipal use. For nearly a year following the change in water

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[7] According to Anderson, "From 1970 to 1990, Flint's white population declined from 138,065 to 69,788.19. By 1990, the rate of segregation in Flint was over 75%, the second highest in the state at that time" (2017, p.110).

sources, Flint residents persistently tried to raise the alarm about water that had suddenly

turned brown, smelled like the sewer, and caused hair loss and rashes (Lynch &

Livengood, 2015), but mainstream media took notice only after learning that thousands of

children were being exposed to lead through their drinking water (Jackson, 2017; Lee et

al., 2016). Though government officials were provided with water filters and bottled

water in local state office buildings (Logan, 2018), residents continued to be assured that

their water was safe to drink for a stunning total of 18 months before the city finally

conceded to return to water sharing with Detroit (Lee et al., 2016). During this time, at

least 30 000 children were exposed to lead (Higgins, 2018) – causing their blood lead

levels to double and even triple (Hanna-Attisha, LaChance, Sadler, & Schnepp, 2016) -

and a Legionnaire's Disease outbreak left twelve people dead (Gable & Buehler, 2017).

Trauma and mental health effects of the crisis have yet to be carefully assessed, though to

some extent they will always remain unquantifiable and unknown (Cuthbertson et al.,

2016).

Although the state of Michigan now claims Flint's water is safe to drink, residents

continue to rely on bottled water (Fonger, 2018), 2500 lead service lines have yet to be

replaced (Ahmad, 2019), and pending criminal charges against eight high-ranking

officials were recently dropped as a new prosecution team begins their investigation into

the water crisis (Smith, 2019). Given this context, I consider the Flint water crisis to be

ongoing, though in mainstream media and scholarship the term typically refers to the

time period between the water switch in April of 2014 and the federal declaration of a

State of Emergency in the city in January of 2016 (Athey, Ferebee, & Hesford, 2016, p.4).

Major Research Paper Overview

While Disability Studies has typically struggled to condemn impairments acquired from situations of injustice (Chandler, 2012; Clare, 2014; Clare 2017; Fritsch, 2017; Jampel, 2018; Johnson, 2017; Kafer, 2013), environmental justice scholars have had similarly little to say about disability, often only bringing up the subject of impairment to mobilize "the cultural fear and hatred of disability to make the case against environmental degradation" (Clare, 2014, p.210). As such, one of the major goals guiding my project reflects the following intention articulated by Jasbir Puar in her recent book *The Right to Maim: Debility, Capacity, Disability* (2017b). Puar states:

> Rather than assuming a corrective stance, I am interested in contributing to and expanding the critical lexicon, vocabulary, and conceptual apparatuses of biopolitical inquiry on disability, especially for bodies and populations that may fall into neither disability nor ability, but challenge and upturn these distinctions altogether" (2017b, p.xx).

However while Puar specifically states that her work in *The Right to Maim* is focused on more macro-level biopolitics (2017b, p.xix), I attempt to pay greater attention to the lived experiences of residents in Flint. This expands upon Nirmala Erevelles' claim that "'becoming disabled'…is an historical event with different implications for different bodies" (2014a, p.81). While I do not have the authority to claim that people or bodies in Flint have "become disabled," I attempt to understand what "becoming disabled" *might*

resemble in such areas by employing a "materialist disability studies framework" (Erevelles, 2011b, p.123).

Using the Flint water crisis as a case study, I ask how Disability Studies theory can better account for impairments "imposed" (Tremain, 2002, p.42) collectively through environmental racism, while also exploring where and why this theory becomes unable to adequately address the phenomenology[8] and implications of such impairments. I have divided my data into three chapters based on themes I found prevalent in the narratives I studied: disorientation, disposability, and debility. Each chapter provides empirical evidence for a theme and explores how it might act as a potential theoretical frame of reference, or entry point, for Disability Studies scholars to begin to reflect on the particularities of living through the Flint water crisis (and perhaps other situations of protracted environmental racism as well). These are followed by my analysis, which examines how using the Flint water crisis as a case study has revealed existing Disability Studies theory to be irrelevant or inadequate. I conclude with a renewed call to others studying and working in the field to pay greater attention to collective situations of injustice that affect embodiment in ways that may not neatly fit the rubric of impairment.

In attempting to bear witness to the everyday realities of people directly impacted by the Flint water crisis, I hope to begin to elucidate how the sources of collectively acquired impairments can subsequently affect experiences of embodiment. Like Puar, "my goal here is to examine how disability is *produced*, how certain bodies and

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[8] Phenomenology refers to "the lived experience of inhabiting a body," paying particular attention to "the significance of nearness or what is ready-to-hand, and the role of repeated and habitual actions in shaping bodies and worlds" (Ahmed, 2006, p.2).

populations come into biopolitical being through having greater risk to become disabled than others" (2017b, p.xix) - which should not to be confused with denigrating disability as a necessarily undesirable way of being in the world. While I am wary of the dangers of reproducing essentializing "damage-centered research" about place (Tuck, 2009), the following work should be understood as a case study on collectively acquired impairments in Flint, rather than as an ethnography of Flint and its residents.

The work presented in this Major Research Paper is consistent with two fundamental themes in Disability Studies: 1) embodiment and 2) social causes of disability. Examining the phenomenology of collectively acquired impairments involves taking seriously experiences of the body[9] as important objects of study and problematizing normative, naturalized, and/or deterministic explanations for them. However, I state unequivocally that while I strongly believe Disability Studies scholars must urgently study cases like the water crisis in Flint, I do not necessarily believe the discipline's theory proves particularly helpful in either conceptualizing these experiences or advocating for those subjected to them at present. But if "the very legitimacy of disability studies depends on our commitment to trouble its limits" (Erevelles, 2014b), then just because Disability Studies theory cannot yet account for the water crisis in Flint does not mean it should not be pursued in earnest.

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[9] When I use the words "body" or "corporeal" I take them to include the mental and affective dimensions of corporeality as well, as Clare indicates in his use of the phrase "body-mind" (2017).

Methodology

I chose the Flint water crisis for my case study because it is a situation undeniably beget by systems of gross injustice *that also* definitely impacted experiences of embodiment for those living in the area[10]. In order to better understand residents' personal experiences of the water crisis, I focused primarily on two sources: the website "Flint Rising" and the "100 Faces of Flint" project, both published in 2016 once the water crisis was relatively well-known both in and outside of Flint.

Flint Rising describes itself as "a coalition of community organizations and allies working to ensure that directly impacted people are building the organizing infrastructure and leadership necessary for this long-haul fight for justice and creating the future that Flint families need and deserve" ("About," n.d.). The group's website includes twelve video interviews with a diverse group of Flint residents and workers published on YouTube during May of 2016. I transcribed each interview verbatim, which collectively amounted to 53 minutes. The purpose of this transcription was two-fold: to make my coding more systematic, and to later pass this transcription on to Flint Rising in the spirit of reciprocity[11] to help improve the accessibility of their online videos.

Compiled by Flint resident and multimedia specialist Jake May with the help of data specialist Scott Levin, the "100 Faces of Flint" or "Still Standing" project published

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[10] I have often been asked while working on this project why I did not write about environmental racism in Canada that has created and sustained similar water issues on Indigenous reserves. I did not feel I could perform such work responsibly as a white settler within the short time frame allotted for writing a Major Research Paper, as the environment holds a unique significance in different Indigenous languages, cultures, and communities.

[11] See Appendix C (p.74) for a list of places to donate to support residents in Flint.

on MLive.com consists of 100 photographs of Flint residents "tell[ing] their stories about living with poisoned water" (May 2016b). May describes the project as an effort to nuance representation of the water crisis and to humanize his neighbours, demonstrating that "we are more than a sound bite" (May, 2016b). While each photograph of an individual, couple, or family has at least a one short quote attached to it, 35 of them also included links to more in-depth interviews conducted by other journalists - each of which I analyzed in detail (May, 2016a).

I complemented the sources above with others I felt also gave primacy to residents' voices, such as documentaries and in-depth news reports (501CThree, 2019; ACLU, 2016; Dimmock, Canepari, & Cooper, 2018; Llewellyn & Thomson, 2017; NowThis News, 2017; Takruri, 2018; Today, 2019; Weinstein, & Ebbs, 2019), interviews with Flint residents, musicians, and activists (Iadarola, 2019; TheRealStreetz.com, 2016; Weaver & Pugh, 2017a; Weaver & Pugh, 2017b), the song "City of Lead" (Bootleg, 2018) by established Flint rapper Ira Dorsey, and Dr. Mona Hanna-Attisha's (2018) book about her role in, and firsthand experiences of, the water crisis.

I coded the amalgamation of this data by hand according to emerging themes (see Appendix A on p.72). Ultimately, I chose to focus on the concepts of disorientation, disposability, and debility because of their prevalence throughout the discourses I reviewed. Each of these interdisciplinary concepts could also be connected to a particular body of theory to draw on for further analysis, and was broad enough to encompass a variety of experiences while still remaining distinct from one another.

My literature review covered documentation of first-hand experiences of impairments acquired collectively from situations of injustice. Despite significant effort, I was unable to find much work in Disability Studies on this topic, and so drew on whatever other accounts I could find. These included narratives and information about the Chernobyl explosion (Petryna, 2002); the Bhopal disaster (Kim, 2014); the American Bracero program in the mid 1900s (Mendoza, 2017); the use of Agent Orange in Vietnam (Martini, 2012); forced amputations during the Sierra Leone civil war (Cole, 2014), impairments caused by thalidomide (Abrams, 2014; W5 Official, 2017), and other situations of environmental racism in Canada and the United States (Hoover, 2017; NowThis News, 2017; Scott, 2009; Waldron, 2018a; Waldron, 2018b). I have chosen to integrate this literature throughout my paper rather than designate a full chapter to it, both because I found the contexts of these cases were too specific for generalizations, and also because many of the themes I uncovered overlapped with those I later highlight in Flint residents' narratives. It was important to me for the reasons elaborated upon below to devote as much attention as possible to the experiences of Flint residents, which merit this (and ever more) careful consideration on their own terms.

I am highly cognizant of my distance from this sensitive research, and the ethical relations and responsibilities this entails. As a white person coming from an upper-class family, I have never experienced the kinds of poverty or racism pervasive in Flint in any form. My positionality mirrors that of many of the officials who made the devastating decisions that led to the Flint water crisis. Further, I have never visited the state of Michigan, and have no personal connections to Flint. My work is extremely unlikely to

be read by, let alone directly benefit, anyone in Flint, and its theoretical nature likely

makes it inaccessible to most of the general public as well. However, while I consistently

struggled with the ethics of this research, I ultimately decided that it was important to

complete. Earlier in my degree I found a dearth of literature on intersections of disability

and environmental justice[12], and felt that at the very least, this project would help

consolidate relevant sources in the area. It also provided an opportunity to demonstrate

how the themes explored below are urgently topical to Disability Studies. As such, this

research paper is intentionally directed at an audience of Disability Studies scholars.

    The themes I derive from Flint residents' narratives are conditional, subjective,

and oftentimes, reflections of my own biases, ignorance, and exposure to theory to date. I

do not claim to truly know or understand Flint residents' experiences of the water crisis,

and never can. Nor do I believe that the theory I engage with in the following sections

necessarily resonates with all Flint residents. However, I have done my best to accurately

represent the narratives I witnessed, albeit secondarily, and to choose themes that

surfaced repeatedly within these. I offer my analysis as one extremely preliminary

attempt at wading into the murky "waters" of complex intersections of disability,

embodiment, race, and class, and offer the theoretical concepts below as examples of the

kinds of tools we might look to as entry or (re)orienting[13] points for this kind of work.

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[12] Notable exceptions include: (Clare, 2017; Fritsch, 2017; Jampel, 2018; Johnson, 2017; Kafer, 2013; Kafer, 2017; Shotwell, 2016; Waldron, 2018a; Waldron, 2018b).

[13] Sara Ahmed writes, "Orientations are about how we begin; how we proceed from 'here,' which affects how what is 'there' appears, how it presents itself" (2006, p.8).

Disorientation
Defining Disorientation

While all forms of disorientation involve some degree of "shock or surprise, unease, and discomfort" (Harbin, 2012, p.266), the term is better characterized by more jarring phenomenological experiences of precarity, uncertainty, and unsteadiness. The feeling of disorientation is viscerally captured by Jacques Rolland who writes,

> We have seasickness, because we are at sea, that is, off the coast, *of which we have lost sight*. That is, again, because *the earth has gone*, *the same earth into which, ordinarily, we sink our feet* in order for this position or stance to exist (emphasis added, as cited in Ahmed, 2006, p.160).

Here objects like the coastline or the feeling of the ground no longer function as what Ahmed calls "homing devices" (2006, p.9), such that the person at sea can no longer depend on these "signposts" to navigate through the world. This loss of familiarity and the general sense of "feeling at home in the world" (Ahmed, 2006; Harbin, 2012; Parrey, 2016), is a key component of disorientation. When we are disoriented, while we may recognize objects that were previously familiar, their utility as reference points is compromised. As explained by Charles Taylor, "we lose the thread of the world, and our perceptual field is no longer our access to the world, but rather the confused debris into which our normal grasp on things crumbles" (as cited in Harbin, 2012, p.262).

This loss of reference points often bears directly on our agency as we move through what is now experienced as an unpredictable world, making us feel as though we are "positioned such that relevant goals are not evident or reachable, and such that relevant actions are ones we struggle to enact or envision ourselves enacting" (Harbin,

2012, p.262). In other words, disorientation can reveal a seemingly immutable disconnect between "who I want to be…and who I am allowed to be" (Harbin, 2012, p.269).

Cases of prolonged disorientation are often caused by, and consequently reflect, systemic injustices that make the subsequent compromising of personal agency particularly egregious. Given the ubiquity of white supremacy, colonialism, ableism, and racism in a "world…[that] takes [particular] bodies as the contours of ordinary experience" (Ahmed, 2006, p.159)[14], marginalized populations are more susceptible to disorientation, or to having their sense of belonging and agency violently suspended or displaced. Thus, as Ahmed argues, "disorientation is unevenly distributed: some bodies more than others have their involvement in the world called into crisis" (2006, p.111).

The following chapter discusses the experiences and ramifications of disorientation stemming from a loss of the ability to trust; protracted disruption to everyday routines; and living with a variety of forms of uncertainty.

Disorientation and Flint
i) Trust

The trust is gone. The trust is gone for everybody.
 - Activist and Flint resident, April Cook-Hawkins (Iadarola, 2019)

Exploring the connection between disorientation and agency, Ahmed describes how "disorientation as a bodily feeling…can shatter one's sense of confidence in the ground or one's belief that the ground on which we reside can support the actions that make a life feel liveable" (2006, p.157). Residents' narratives repeatedly evidenced the

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[14] The bodies Ahmed is describing (more closely) adhere to what Garland-Thomson calls the "normate," or "the corporeal incarnation of culture's collective, unmarked, normative characteristics" (1997, p.8).

shattering of their ability to trust, and subsequently, to make decisions based on assumptions of trustworthiness (Cuthbertson et al., 2016, p.904). They described an inability to trust: the safety of tap water in general; government officials; the validity of information disseminated to them; and/or the efficacy of suggested health protections and interventions (Morckel & Terzano, 2019). While for some this mistrust swayed more towards the intellectual, for example, admitting they would no longer trust any information from the government – "Do you really think we're that stupid?" (Counts, 2016e) – for others this mistrust further manifested as concrete actions. Some residents forwent installing free water filters, as "they just don't see the point in hooking it up…if there's still going to be lead in the water" (Young, 2016a). Others shared that although installed, they do not trust their water filters, and continue to rely exclusively on bottled water (Ahmad, 2018; Fonger, 2018), even after Governor Snyder and the State of Michigan declared Flint's water officially safe to drink (Office of Governor Rick Snyder, 2018) and terminated their free water distribution program in April of 2018 (Shapiro & Gringlas, 2018).

Writing about one family's decision to ignore warnings from fellow citizens at the time of the Chernobyl explosion because they believed the whole debacle to be yet another orchestrated Soviet ploy, Petryna recounts how the family saw "themselves – their bodies, their sense of reason and known survival tactics – rendered obsolete" (2002, p.75). Though in the past adhering to their own convictions and refusing to buy into state propaganda had "insulated them from political machinations," following Chernobyl, "the same mode of reasoning was exposed for its insufficiency; it could not protect them from

further assaults" (Petryna, 2002, p.75). A similar logic of disorientation appears to be at play in some residents' responses to the water crisis in Flint. Having found their bodies assaulted, trust betrayed, and right to basic tenets of living denied, Flint residents have also been left with few ways of protecting themselves in a "fatally unpredictable world" (Brison, 1997, p.16), and so may find it safer to operate on the assumption of distrust.

In other words, some Flint residents seem to find they can no longer orient themselves according to formerly taken-for-granted bearings (such as the assumption that governments follow the rule of law and will act according to their constituents' best interests). In the face of the lethal consequences of their past "naivety,"[15] some Flint residents seem to have resorted to a self-preservation strategy of not trusting any such bearings at all. For example, despite having moved away from Flint to a township with safe drinking water, Gabrielle Holmes-Scott and her family continue to use bottled water for drinking and cooking. Gabrielle explained, "I know the water is supposed to be safe…I had it tested…But we never really know. I don't think I will ever trust the water again" (Johnson, 2016). Similar sentiments were shared by 16-year-old William Wiggins who stated that "while he is glad that the government is trying to make it safe again, he just doesn't think he will ever be able to drink water from the tap again – filtered or not" (Young, 2016c), and Jill Groves, who expressed,

> And the whole time I'm wondering is this still okay to bathe in? Yes the CBC
>
> says it's okay to wash and bathe [in] but at some point you have to start

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[15] It should never be considered naïve to trust that a government will not knowingly poison its citizens. See the following chapter on disposability for more in this vein.

wondering…I have a three-year-old and a six-month-old and it's concerning.

Especially when my daughter's bath water is brown. It's really hard to trust the

information that's coming down ("Flint Rising," 2016d).

These quotes align with a culture of anxiety observed by those working in Flint (Morckel

& Terzano, 2019, p.596), where "the skepticism goes far and wide" (Dimmock, Canepari,

Cooper, 2018) and "residents…can't do basic, everyday water-related tasks without

feeling paranoid" (Counts, 2016a).

While one's trust can be betrayed in innumerable ways, there appears to be

something specific about the violation of one's body, as is often evidenced in the

narratives of trauma survivors. Varied forms of trust betrayed during the Flint water crisis

all ultimately manifested through corporeal effects. Disability Studies has successfully

deconstructed normative Western beliefs about invulnerability to expose objective

control over one's body as illusory, linking such beliefs to a cultural fear of disability

(Wendell, 1989). However, assuming that fear of the loss of control over one's body is

necessarily rooted in ableism may be overly deterministic. For example, Holocaust

survivor Jean Améry notes that for many, our bodies represent more than their mere

physicality; "the boundaries of my body are also the boundaries of myself" (as cited in

Brison, 1997, p.18). Cole (2014) notes a similar cultural assumption in Sierra Leone:

Sierra Leoneans inquire about the well-being of a fellow countryman in images of

the body. Thus, when a fellow countryman is asked 'How de body,' it is much

more than an address or phrase used in greeting one another. It is a situation

where *the body is the medium to understanding the state of being of the person*

addressed. Thus, the body becomes the marker of the physical, psychological and spiritual state of the individual (emphasis added, p.42).

An orientation to the world that assumes that others will respect my "metaphysical being" involves an implicit trust that others "will spare me" and "respect my physical…being" (as cited in Brison, 1997, p.18), based on a shared "awareness of our own contingency" (Merlau-Ponty as cited in Ahmed, 2006, p.157). If our worldview is fundamentally dependent on what we might call corporeal trust, or that which represents our trust that others will not intentionally breach or harm our bodies *and thus our selves*, then the violation of this trust represents a uniquely disruptive form of disorientation. In other words, if orientation is grounded in trusting the familiar, which includes both the familiarity of our bodies and their immediate environment, then events that initiate disorientation through the body will be particularly disorienting, perhaps resulting in a more global distrust than other forms of disorientation might engender. This logic can be distilled to the question: if we cannot trust our (albeit illusory) control over our own bodies, how can we trust other entities even further from our selves?

ii) Change of routine

That's one of the main problems is everyday activity.
-Arnett Rison III ("Flint Rising," 2016a)

Many residents' narratives demonstrate how the experience of having to operate in a state of constant crisis – with no certain end or reprieve in sight – is particularly disorienting. Many expounded on the exceptionally consuming and cumbersome burdens

of living in Flint "post"[16] water crisis. For example, Anthony Lyons describes the "daily

setup of different tasks using…water" necessary to care for his family, including 18

grandchildren as well as his parents, as a "second job" (Devereaux, 2016a). Other

common themes included challenges related to buying and hauling water, particularly

when many residents are reliant on public transit; the tremendous amount of time

required to safely use water ("and if you don't have that time you have to use that tap

water") (Johnson, 2016a); and the constant limitations these placed on everyday activities

as the most basic decisions – for example, whether to brush your teeth or cook - revolve

around accommodating the ongoing crisis.

As described by Davies, "living with pollution [is] invasive, yet also mundane,

entangled in the minutiae of day-to-day existence" (2018, p.1545). For example, in Flint,

mother Lomalinda Morrison can't let her 22-month-old daughter play in the bath (Emery,

2016b), and former Marine Marcus Butler II now cuts his showers down to two or three

minutes, noting, "I used to be singing in the shower, you know, tak[ing] my time"

(Devereaux, 2016c). These testaments evidence how even basic actions can cause

disorientation that makes us feel "out of step with practiced life-rhythms of

communities…in ways that can feel like serious displacement" (Harbin, 2012, p.266).

Affirming this statement, resident Teresa Teal shared, "It's not just not water - there's no

hot water heater, there's no shower…it doesn't feel very human. It feels like camping all

the time or something ("Flint Rising," 2016e).

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[16] The water crisis remains ongoing. I use the word "post" here to indicate the general
time after which Flint residents were made aware of the crisis and the city returned to
sourcing water from Lake Huron via Detroit.

Apart from the innumerable material inconveniences, or "hassles" (Devereaux, 2016b) these changes to routine entail, the mental aspect of "havin[g] to change our mindsets day-to-day that we're not used to" (May, 2016b) was described as equally trying. Summarized by resident Mark Baldwin,

> You go into a building and see a drinking fountain, you're thirsty. Your automatic reaction is to get water, and then you remember. So you got this mental anguish that is…you're always on the defensive. It's not like you can just live life; you have to be wary of so many things which we took for granted before we had this water problem ("Flint Rising," 2016g).

Residents must constantly reckon with "ontological disorientation" (Parrey, 2016) - both an active *reminder* of the injustice that already befell them (and will likely continue to impact them in the future as well), alongside the more *immediate inability* to "sink [their] feet" into the ground (Ahmed, 2006 p.160). Similar to experiences of distrust mentioned above, cognitive aspects of disorientation related to changes in daily routine can also translate into material effects that multiply an initial injustice. For example, a senior in Flint described how her son gets angry when she forgets to boil her water or use bottled water because she's "used to being able to use the water out of [her] tap…it's [her] home" (May, 2016b). Each such lapse in memory places her at greater risk of illness.

Ironically, while disorientation is often described metaphorically as no longer feeling at home in the world, Flint residents are frequently disoriented in and by their actual homes. As summarized by couple James Duckworth and Samantha Boatwright who now have to perform all water-related tasks at a parent's house, "literally, it barely

feels like we live at home" (May, 2016b). If "the familiar," or a world in which one feels

oriented, "is an effect of inhabitance" (Ahmed, 2006, p.7), then the violence of inhabiting

a space that is no longer familiar and is, in fact, disruptive to this very "work of

inhabitance" (Ahmed, 2006, p.11) is clear. While routine activities like bathing and

washing dishes may seem mundane, these are the actions that orient us daily - actions we

take for granted we will be able to complete which enable the freedom to choose where

and how to expend our energy elsewhere.[17] As explained by resident Teresa Teal, "What

an ease that is, you know to be able to do that [i.e. turn on your faucet]. And I would like

to know when we're going to be able to do that, you know?" ("Flint Rising," 2016e).

Compounding the injustice and discomfort of disorientation in Flint is the massive

uncertainty permeating the water crisis – particularly given many residents' inability to

trust whatever 'certainties' have since been promised.

iii) Uncertainty

A lot of people tell me, "You've gotta be so happy that the water crisis is over now." And
my response is always that blank stare of: "It's not over."- Lyndsay Carey, site director
of the Cummings Great Expectations School (Takruri, 2018)

Discussing what he sees as possible solutions to the water crisis, Arnett Rison III

states, "the only thing that can be solved right now is getting Flint clean drinking water.

As far as all the health concerns and everything that's going, that's something that's

going to last forever" ("Flint Rising," 2016a). The Flint water crisis is permeated by

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[17] Disabled activists have also called attention to how what non-disabled people consider
"simple" tasks can be experienced as cumbersome and require greater time, energy, and
expenses to complete (e.g. Miserandino, 2003). They remind us that everyday activities
should not be dismissed as superfluous and apolitical.

myriad forms of uncertainty: uncertainty around past, current, and future health effects of using the city's water; uncertainty surrounding which water practices are considered safe; uncertainty about how best to mitigate the effects of lead exposure, and perhaps most poignantly; uncertainty about when the water crisis might finally be over (Cuthbertson et al., 2016). While a common by-product of disorientation, uncertainty itself can also be an intensely disorienting and painful experience, particularly when it is chronic. For example, a resident living in Lucasville, Nova Scotia, describes disproportionate uncertainty surrounding health in the community as a result of environmental racism as "mental harassment." They explain,

> You know, every time we breathe that [air] in, we're breathing something into our body that's going to manifest into a cancer five years down the road. And you keep remembering all these uncles and cousins and grandfathers and people that died from cancer over the years…All of these things have a health impact on us. It's stress, it's mental, it's mental harassment (as cited in Waldron, 2018a, p.105).

This quote illustrates well how "the spatiotemporal ambiguities created by toxic pollution…produce cases of widespread 'toxic uncertainty'" (Davies, 2018, p.1539).

> Writing on the potential for reorientation, Ahmed describes how,
>
> The body might be reoriented if the hand that reaches out finds something to steady an action. Or the hand might reach out and find nothing, and might grasp instead the indeterminacy of air. The body in losing its support might then be lost, undone, thrown (2006, p.157).

Unable to latch onto trusted, or 'certain' objects to help guide decision-making processes,

people can be disoriented when they are unable to mentally project themselves into the

future. How do you address health problems whose exact causes remain elusive; that

have yet to be revealed; or whose treatment remains un(der)researched? Here the "hand"

reaching out to determine what action to take has instead grasped "the indeterminacy of

air" (Ahmed, 2006, p.157). Even sources claiming to possess authoritative knowledge

offer no certainties. For example, a curated website of resources for Flint residents openly

states that "there are differing opinions on filter safety for these [i.e. people who are

pregnant or nursing, young children, and the elderly] populations" ("Water Smarts,"

2019).

Parents in Flint appear to experience particular distress when they have no way of

knowing whether their child's illnesses or so-called "abnormal" behaviours are related to

water exposure. This uncertainty makes it difficult for parents to interpret these or

determine how best to treat or mitigate them, if treatment is desired. For example, the

father of a 23-month-old describes the "emotional distress" he experienced following her

two-week-long hospitalization on an intensive care unit. He shares, now "every time she

sneezes or feels a little warm you think, you know, is it something else? Is it related to

that [i.e. RSV] again? So you just don't know" ("Flint Rising," 2016h). Parents of babies

born with lead in them also won't know how this will manifest or impact their children's

lives and trajectories for several years (Counts, 2016d).

Ahmed argues, "disorientation involves failed orientations…At this moment of

failure, such objects 'point' somewhere else or they make what is 'here' become strange"

(2006, p.160). Without the (potentially) orienting function of a diagnosis[18], the body becomes constantly suspect, and simple decisions are made with unknown, and thus possibly high, stakes, which can foster significant anxiety. For example, at the Great Expectations Early Childhood Program at the Cummings Community School (sponsored by the University of Michigan), 142 children aged 0-4 are watched through double mirrors in their classrooms and monitored for signs of "developmental delays, whether it becomes speech and language, the cognitive, [or] taking a little bit longer to talk" (Takruri, 2018). Older Flint residents also questioned whether they were correct in attributing a wide variety of ailments and illnesses to their water. Without conclusive evidence to the contrary, it appears that for many in Flint - and especially among children - bodies, behaviours, and mannerisms[19] are treated as universally suspect.

Disposability
Introducing Disposability

If violence is done against those who are unreal, then, from the perspective of violence, it fails to injure or negate those lives since those lives are already negated (Butler, 2004, p.33)

Before exploring the unequal preservation of different bodies and lives, it is important to recall that all humans share an inherent condition of vulnerability. Society is obligated to attend to the "primary helplessness and need" (Butler, 2004, p.32) that arises from bodies' vulnerability to the "ever-present possibility of harm, injury, and

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[18] It is worth noting that a diagnosis of lead poisoning is essentially a diagnosis of future risk, as its effects are diffuse and emerge over time. As explained by Davies, "toxic materials are able to defer their harmful consequences across time and space, putting distance and uncertainty between a toxic hazard and the people it affects" (2018, p.1538).
[19] Such suspicions are based on normative (and normalizing) Western ideas about what bodies, behaviours, and mannerisms "should" look like.

misfortune" (Fineman, 2008, p.9). But in a stratified governance system where "each of us is constituted politically in part by the social vulnerability of our bodies" (Butler, 2004, p.20), varied forms of social vulnerability give rise to varied levels of entitlements to state protections against our universal vulnerability.

On the extreme end of this vulnerability lies death. Summarizing Foucault, Mbembe writes, "in the economy of biopower, the function of racism is to regulate the distribution of death" (2003, p.17). This provides a useful starting point for understanding the material reification of perceived disposability. I understand disposability as a condition of being devalued – and often dehumanized as well (Butler, 2004, p.34). A "disposable" life is one considered not worth protecting, preserving, and/or, in Puar's words, capacitating, in states governed by liberalism, where "all individuals are free so long as they are [considered] 'individuals' in the first place" (Ranganathan, 2016, p.22).

Racial capitalism refers to the ways in which race is instrumentalized as "a central ideological and material mechanism of capital accumulation" (Richter, 2017, p.107). Under racial capitalism, liberalism accrues a particular set of standards for determining the "differential value" (Pulido, 2016a, p.4) attributed to various groups of people. Such difference is necessarily constructed relationally; for example, "whiteness derives its meanings and value from various forms of nonwhiteness" (Pulido, 2016b, p.4). In the contexts of neoliberalism and racial capitalism, racialization becomes a key factor in determining the "distribution of death" – which can be enacted through means like environmental racism (Mbembe, 2003, p.17). Under the reasoning of racial capitalism,

the imperative to "care" and take precautions intended to preserve life do not extend to those deemed disposable (see Appendix B on p.73).

Environmental Racism

We got rid of a semi [i.e. a truck] and a half of water in less than three hours. People were crying. They could not believe that we were filling their cars full of water...I mean when you are reduced to crying because you're getting water given to you - what does that say? - Cindy Cromwell, United Way ("Flint Rising," 2016i)

Environmental racism refers to the disproportionate environmental pollution and harms borne by communities that are racialized and typically low income and politically disenfranchised as well, resulting in their ill-health (Bullard, 1993; Cole & Foster, 2001; Commission for Racial Justice, 1987; Waldron, 2018a). Environmental racism can be enacted through personal, institutional, and structural means (Bullard, 1993; Cole & Foster, 2001; Ranganathan, 2016; Waldron, 2018b), and can occur at a variety of scales ranging from municipal to global. Examples of environmental racism include the disproportionate siting of landfills and hazardous waste treatment facilities in racialized communities (Bullard, 1993); differential exposure to pesticides and noise pollution (Cole & Foster, 2001, p.54), lack of access to garbage removal services (Waldron, 2018b, p.38), and the dumping of Western countries' toxic wastes in countries in the Global South (Gbadegesin, 2001). It is important to note that the subjection of certain communities to environmental racism enables the "environmental privilege," or better health, of majority white communities, evidencing an underlying logic of a "racial state of expendability" in such decisions (as cited in Pulido, 2016b, p.6; Pulido, 2000).

The Flint water crisis is a paradigmatic example of the insidious nature of environmental racism. Here water, a resource equally essential to all, was blatantly

denied to a particular community. This injustice is captured well by a young father

describing his 23-month-old daughter's latest hospitalization:

> It was a tremendous experience seeing her hooked to all these different tubes and
> IVs. And she was on ICU – the floor with kids that were dying, that they weren't
> expecting to make it, hooked up to ventilation, and third-degree burns, and just
> some of the most horrible things I've ever seen happen to kids were there. *And my*
> *daughter was one of them and it was because of the water* (emphasis added, "Flint
> Rising," 2016h).

Aaron Dunigan contrasts the severity of his daughter's illness and its quotidian cause to

the more "extreme" or uncommon situations that landed others on the same intensive care

unit. Dunigan highlights the cognitive dissonance of having to re-conceptualize a

typically life-sustaining resource instead as life-threatening. The same injustice is also

noted by local Cindy Cromwell: "Now the most basic of basic needs in the City of Flint,

which is water, has become the most lethal thing that they could…besides a bullet, these

kids, and families, and seniors [could be] subjected to ("Flint Rising," 2016i)[20].

Necropolitics

But you guys are on tv saying that our water is fine? And when you call 211, they're
saying the water is fine. And when you call the Flint Water Plant, they're saying the
water is fine. But I go into the State of Michigan building right here in downtown Flint
…[and] the state employees have water dispensers. Well why do they have water
dispensers if the water is fine? - Gina Luster ("Flint Rising," 2016c).

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[20] A similar comparison is also made by Flint musician Bootleg: "We've got lead inside
the water, we got lead in our guns. These politicians poisoning our sons and daughters for
fun" (2018, track 4).

Necropolitics, or "contemporary forms of subjugation of life to the power of death" (Mbembe, 2003, p.39), offers another useful conceptual term for understanding politics of disposability and state complicity in the fundamental injustices underlying environmental racism. Necropolitics elucidates how a variety of powerful entities and institutions[21]- as opposed to a single sovereign power – can "expose people to the possibility of death; in other words, not to make someone die but to *let* them" (emphasis added, Davies, 2018, p.1540). Here bodies are "wounded" (Mbembe, 2003, p.12) but not outright killed, instead "kept alive but in a *state of injury*" (p.21). Necropolitics can be enacted in a variety of ways, including by deliberately targeting a region's vital infrastructure, such as "power stations and water treatment plants," during armed conflict in order to "[shut] down the enemy's life support system" (Mbembe, 2003, p.31).

In the case of the Flint water crisis, the "life support system" mentioned above can be interpreted as the city's actual water treatment plant and/or residents' vital organs[22] (Carrigan, 2010, p.260). The following anecdote by Barbie Biggs illustrates clearly how the state allowed the city of Flint to transform into what Mbembe calls a "death-world," where life is wielded, or weaponized, to turn inhabitants of a space into the "living dead" (2003, p.40). When Biggs attempted to bring her sister home from a three-month hospital stay in Atlanta for a diabetes-related amputation, she recalls, "The

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[21] Davies writes, "In an era of 'high globalization'…the sources of environmental harm are often dispersed and entangled in a complex assemblage of corporate power, state authority, local regulations, and capitalist structures of accumulation" (2018, p.1539).
[22] Lead is a uniquely pervasive toxin once it enters the body. As explained by Dr. Hanna-Attisha, "in terms of health, it impacts almost all systems of the body, the hematologic, cardiovascular, immunologic, and endocrine" (2018, p.226).

doctor said that he would have me arrested and then I would have to go to court to take

my sister out and bring her to Flint because of the water" ("Flint Rising," 2016b). In other

words, bringing her recovering sister home would be tantamount to complicity in murder

due to the dangers inherent to living in Flint at the time.

      I use the term 'disposability' to point to the workings of necropolitics, where

certain groups are treated as disposable by those with the power and means to reify this

perception, such as through environmental racism[23]. In Mbembe's words, I am discussing

the politics surrounding "the capacity to define who matters and who does not, who is

disposable and who is not" (2003, p.27). In the words of Flint pastor Ezra Tillman, I am

discussing the politics surrounding "Who doesn't deserve water? Who deserves a better

quality of water than others?" (501CThree, 2019). The following sections demonstrate

how Flint residents were treated as disposable; how perceptions of their disposability

were solidified; and how experiences of collective disposability diverge from the ways

discourses of disposability are critiqued or problematized in Disability Studies.

i) Evidence of Disposability – The Facts

They let us down. The EPA stood by and left us all here to die. And that's the way we feel.
- Ira Dorsey (Takruri, 2018)

      The events of the Flint water crisis reveal a wanton disregard for the lives of Flint

residents. Ample evidence has exposed egregious complicity in the water crisis at

numerous levels of government[24]. Layers of this complicity and negligence include "the

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[23] For a visual representation of my understanding of this term, see Appendix B (p.73).
[24] For more extensive details about this complicity, see *The Flint Water Advisory Task Force Final Report* (2016).

scope and gravity of the poisoning, its deliberate nature, and the cover-up on the part of local and state officials" (Pulido, 2016b, p.5). While this paper does not allow space to enumerate these in much detail, a few facts and events are particularly demonstrative of the perception (and subsequent reification) of Flint residents as disposable.

Ultimately, Flint residents drank veritable poison from their taps for 18 months before the state of Michigan finally declared a State of Emergency in Genesee County (Jackson, 2017, p.7). During this time, tens of thousands[25] of children (Higgins, 2018), among roughly 140 000 residents[26] (Ruckart et al., 2019, p.1), were exposed to exceptionally dangerous levels of lead in their tap and bath water. While the effects of lead poisoning among adults remains under-researched, there is "no known safe level of lead in children" (Ruckart et al., 2019, p.3). Exposure to the toxin at a young age "can result in damage to the brain and nervous system; slowed growth and development; learning and behavior problems; and hearing and speech problems"[27] (Ruckart et al., 2019, p.3). Blood samples of 1700 Flint children collected by pediatrician Dr. Mona Hanna-Attisha revealed "a doubling of elevated blood lead levels citywide and tripling in particularly disadvantaged neighborhoods" during the water crisis (Hanna-Attisha,

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[25] Almost 9000 children under the age of six are assumed to have been exposed to lead (Ranganthan, 2016, p.18).

[26] The Flint Registry has already pre-enrolled 6400 individuals (of various ages) among a potential 140 000 who were "exposed to lead-contaminated water in the City of Flint because they lived, worked, attended school or daycare between April 25, 2014, and October 15, 2015, at any address serviced by the Flint water system" See (https://www.flintregistry.org/).

[27] Many of these effects mirror patterns found among people who grow up in poverty.

LaChance, Sadler, & Schnepp, 2016)[28]. The Environmental Protection Agency (EPA)'s

cut-off for "acceptable" lead levels is 15ppb (or parts per billion) (EPA, n.d). Shockingly,

the lowest reading of thirty water samples taken from one Flint household was 200 ppb,

while the highest was 13 000ppb; comparatively, the EPA considers water containing

5000ppb toxic waste (Ingraham, 2016; Mantha & Roy, 2015).

But health effects of the water crisis are not limited to lead exposure. Following

the change in water sources, "the odds of a Flint resident presenting with Legionnaires'

Disease increased 6.3-fold" (Zahran et al., 2018, p.E1730), resulting in one of the largest

outbreaks of Legionnaires' Disease in American history[29] (Edwards & Pruden, 2016).

Fertility rates decreased by 12% and incidences of miscarriages increased by 58% after

the water switch (Grossman & Slusky, 2017; Winowiecki & Smith, 2017). The number

of water crisis-related deaths continues to rise (Ruble, Ellis, Carah & Childress, 2019),

while the unknown health effects of the crisis continue their invisible invasion[30] into, and

degradation of, residents' bodies.

Flint residents' lives were treated as less valuable than those of government

officials, engine motor parts, and the cost of implementing federal laws, evidencing how

"the people of Flint are so devalued that their lives are subordinated to the goals of

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[28] These results were later reaffirmed by the Centers for Disease Control and Prevention.
See https://www.cdc.gov/mmwr/volumes/65/wr/mm6525e1.htm?s_cid=mm6525e1_w)
[29] According to Gable and Buehler, "state public health officials allegedly knew about the
outbreak as early as January 2015…but they did not inform the public of the outbreak or
take steps to avoid further infections until early 2016" (2017, p.676).
[30] For relevant commentary on the discourse of "invasion" in relation to lead and
racialized versus white bodies, see the chapter "Lead's Racial Matters" in *Animacies:
Biopolitics, Racial Mattering, and Queer Affect* (Chen, 2012).

municipal fiscal solvency" (Pulido, 2016b, p.1). On October 13, 2014, General Motors was granted permission by the city of Flint to return to water sharing with Detroit as the Flint River water supply was found to be corroding their engine parts (Jackson, 2017, p.9). In other words, while "Flint's water quality [was] not good enough to be used in an industrial process [it was] good enough to be used and consumed by humans" - for another year (as cited in Jackson, 2017, p.10; Fonger, 2014; Logan, 2018). Moreover, throughout this year (and prior to it), the Michigan Department of Environmental Quality (MDEQ) failed to apply a federally-mandated anti-corrosion agent to the water that would have prevented lead from leaching out of the pipes – a measure that would have cost only $100-200 per day (Jackson, 2017, p.18; Monahan, Rappleye, Gosk, & Sandler, 2016; Pulido, 2016b, p.5) – and when questioned, lied about it as well (Flint Water Advisory Task Force, 2016, p.19). While Flint residents were "fed high dosages of lead, *Escherichia coli*, and a cocktail of carcinogens…via their public water supply" (Athey, Ferebee, & Hesford, 2016, p.1), government officials working in Flint were provided with bottled water beginning on January 12, 2015 – nearly nine months earlier than the rest of the city (Flint Water Advisory Task Force, 2016, p.18). Flint exemplifies how "communities who have been 'designated expendable' (Nixon 2011, 151) are allowed to suffer the attritional violence of environmental pollution, often through the 'violent inaction' of regulating authorities" (Davies, 2018, p.1540).

ii) Evidence of Disposability – A Lack of Information

Knowledge and information sharing practices during the water crisis also belie a total lack of concern for Flint residents' wellbeing. In a flagrant display of willful

ignorance (Tuana, 2006), when city officials were warned by the MDEQ in 2015 that the

city's water samples might violate a federal lead and copper law[31] (ACLU, 2016), they

intentionally biased subsequent data gathered by interfering with sampling techniques in

order to mask the potential crisis (ACLU, 2016; Flint Water Advisory Task Force, 2016;

Hanna-Attisha, 2018, p.285). Officials also refused to take seriously and investigate

residents' repeated concerns about their water, or follow up when these were reiterated by

professional experts like EPA whistleblower Miguel Del Toral (Flint Water Advisory

Task Force, 2016, p.19; Hanna-Attisha, 2018, p.59).

The passive necropolitical governing mentality of "let die" is evident in the lack of

communication established between public health officials and the "public" they were

supposedly protecting. In late 2015, while viewers across the country consumed news

about the lead poisoning of Flint's children – the catalyst for finally attracting national

attention to Flint - many Flint residents remained unaware of the crisis unfolding in their

city[32]. In multiple videos and interviews reviewed for this research, residents share that

they did not know about the water crisis until a State of Emergency was declared in

December of 2015 (Emery, 2016a; May, 2016b; Young, 2016c) - or even later

(Devereaux, 2016d). Furthermore, information about the crisis was often received

second-hand through third parties like doctors and even dentists who recognized signs of

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[31] An e-mail from an official at MDEQ read: "We hope you have 61 more lead/copper
samples collected and sent to the lab…and that they will be below the action level for
lead…As of now, with 39 results, Flint's over the AL [i.e. action level]" (ACLU, 2016).
[32] For example, in video clips of a rally that occurred in May of 2015, resident LeeAnne
Walters is shown educating others about the risk that discoloured water contains lead, and
encouraging them to get their water tested. Another (presumed resident) informs the
crowd bluntly: "You are literally in a fight for your life right now" (ACLU, 2016).

lead exposure (Counts, 2016b; Counts, 2016d; Emery, 2016a; Young, 2016c). Sixteen-year-old William Wiggins recounts his response to learning that the discolouration of his skin was caused by contact with lead-contaminated water:

> I started looking up things, reading blogs and articles about how the water had been bad for so many years, and we were still taking showers in this water and drinking this water for so long…*Then it started to hit me, like why haven't I heard of this until I looked it up* (emphasis added, as cited in Young, 2016c).

As highlighted by Wiggins, residents were not only carelessly exposed to lead and other dangerous bacteria and toxins, but were not even warned[33] about the potential dangers they were facing. While scholars in Disability Studies and feminist philosophy remind us that any kind of "self mastery" over our bodies is illusory (Gilson, 2011, p.312; Wendell, 1996), there is a violence unique to denying people information[34] about their bodies vital to enable them to make informed decisions. In Flint, this denial resulted in entirely preventable health consequences, which for some families traversed generations. For example, Tiantha Williams' and Eric Wilsons' baby was born prematurely and with lead already inside of him[35] after Tiantha contracted listeria from bathing in Flint's water during the crisis (Counts, 2016d). Unaware of the crisis, other residents intentionally consumed more water (as opposed to beverages like juice or sodas) than usual in an

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[33] In fact, the very existence of such dangers was repeatedly and blatantly denied when residents questioned the safety of their water (Jackson, 2017, p.8).

[34] I believe this holds true despite the social construction of much medical knowledge, as detailed in Disability Studies.

[35] While exposure to toxicity in utero is ubiquitous in this day and age, it is unevenly concentrated in certain populations.

attempt to be "healthier" (Hanna-Attisha, 2018, p.96; May, 2016b), while still others chose to boil their water in response to water advisories issued due to E. coli contaminations in August and September of 2014 (Flint Water Advisory Task Force, 2016, Appendix p.7), which had the unintended effect of concentrating lead in their water (Centers for Disease Control and Prevention, 2015; Smith, 2016). The injustice of intentionally bounding the bodily agency of others[36] is articulated clearly in the following quote by resident Gina Luster:

> You have all these supposedly smart people, you know, all these people that worked the water plant, all these people that work for the EPA, and they kinda knew something was going on but they didn't come out to the public and say, "Hey!" Even if they weren't positively sure, I think there should have been some kind of announcement like, "Look we're checking into this water. The tests are coming back funny," whatever. *I think there should have been a flag to the community…and then it would have been our choice to continue using the water or not.* (emphasis added, "Flint Rising," 2016c)

"The people that worked the water plant" and "all these people that work for the EPA" did not simply forget to warn residents about the potential danger of continuing to use their water. Rather, in the words of EPA official Debbie Baltazar, Flint was perhaps not "the community we want to go out on a limb for" (as cited in Llewellyn & Thomson,

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[36] The consequences of such bounded agency are also well documented in the context of the Chernobyl catastrophe. For example, Petryna describes the advocacy work of a group of mothers who learned that widespread childhood thyroid cancers could have been largely prevented had their children been provided with potassium iodide tablets following radiation exposure (2002, p.77).

2017)[37], so Flint residents were simply *left* "to suffer the indignity of pollution…[in]

necropolitical spaces of contamination" (Davies, 2018, p.1549).

iii) Evidence of Disposability – The "Aftermath"

And they said the Flint water crisis at one point was like number 36 on Governor Snyder's to-do list. 36. People receiving poison water is number 36. What, how can you have 35 other things that's more important than giving kids – over 6000 kids – clean water to drink? Pregnant women? Elderly people? People in general? Clean water to drink. How can you have 35 other things that's more important than that…and still be in office? – Aaron Dunigan ("Flint Rising," 2016h)

On the two-year anniversary of the water switch, resident Tony Palladeno made the

following statement at a rally: "I'm going to say something none of you are going to like

to hear, but it's true. Flint lives don't matter…This is the city of Flint that's dying" (May,

2016b). Residents' feelings of their outwardly perceived disposability during the water

switch have certainly been solidified in the years since. In what resident Aaron Dunigan

calls a "slap in the face" ("Flint Rising, 2016h), as of April 2019, no criminal convictions

have been registered, and all defendants have struck plea deals confessing to lesser

charges like "misdemeanors" as opposed to original charges including "civil rights

violations, fraud…and gross negligence" in relation to the crisis (LeBlanc, 2018; White,

2019). Rick Snyder, the governor who presided over Michigan at the time of the water

switch, was dismissed as a defendant in a class action lawsuit and finished his second full

term in office in 2018 (LeBlanc, 2018). Though the majority of Flint residents continue to

rely on bottled water donations, the state ended its free bottled water distribution program

in April of 2018 (Carmody, 2018; Malewitz, 2019; Witte, 2019). Five years on, despite

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[37] To view a copy of this e-mail, see p.2 of the PDF available at https://republicans-oversight.house.gov/wp-content/uploads/2016/03/Documents-for-the-Record.pdf.

hundreds of millions of dollars in state and federal aid, lead service line replacement has not yet been completed in the city (Ahmad, 2019).

Intersections of Disposability and Disability

Disposability becomes legible as a form of body-based devaluation vis-à-vis the concept of disability. Mitchell and Snyder identify disability as "the master trope of human disqualification" (2003, p.860), asserting that any prejudice reducible to deterministic biology ultimately relies on ableist beliefs about disability. This undercurrent of ableism in disposability discourses is important to recall when connections between disposability, racism, and disability are not readily apparent.

Disability Studies has engaged extensively with the topic of disposability in relation to ableism, typically conceptualizing it as a logic that emerges as a structural pattern when disability politics are examined at a macro level (Clare, 2017). For example, many scholars have problematized the devaluation of disabled bodies and lives by bringing to light the ableism underlying policies such as right to die legislation, genetic testing, forced sterilization, and a plethora of other eugenic imperatives (Asch, 2001; LeFrancois, Menzies, & Reaume, 2013; Malacrida, 2015; Rinaldi, 2009; Smith, 2007; Taylor, 2013; Withers, 2012). Such policies invoke disposability insofar as they reveal the undesirability of disability when they attempt to prevent the birth and (subsequent living) of disabled lives. However, while the logic of disposability in these policies is implied, it is apparent only when examined through a critical lens.

I argue the affective dimensions of being exposed to material manifestations of a logic of disposability differ depending on whether they are experienced immediately as a

collective, or whether they are experienced individually as particular instances of a

broader systemic logic[38]. While residents in Flint, connected to a shared municipal water

system in a set geographic space, can undeniably be considered a collective, disabled

people cannot be understood as a collective in quite the same way. Unlike the specificity

of city boundaries[39], there remains no universal definition of disability to which all

people who have impairments agree (Ghai, 2012; Puar, 2017b, p.111; Meekosha, 2011).

To conceive of disabled people as a collective requires the theoretical amalgamation of

all people who have impairments, many of whom do not consider themselves disabled

(Ghai, 2012; Grech, 2015; Hollinsworth, 2013, p.609; Meekosha, 2011; Puar, 2017b).

Further, disabled people may experience the politics of disposability, and what is

subsequently understood as oppressive or liberating, in contradictory ways[40]. While

Disability Studies scholars may be tempted to attribute this diversity in opinion to the

internalization of an individualizing, colonial, medical model approach to disability, in

reality, the Western disability politics this assumption is predicated upon are exclusive,

relevant only to those who subscribe to them. One might argue that the disabled

community is a found community, inclusive only to those who identify with it.

   While effects of the water crisis are, of course, experienced individually, residents

in Flint also articulated an affective experience tied to the collective aspect of the crisis.

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[38] While these two types of experiences are often mutually constitutive, such as in cases environmental racism, they do not necessarily occur simultaneously.

[39] Also highlighting the unique implications of people sharing a particular space, Davies argues that in what is known as "Cancer Alley" in the United States, "the existence of such high levels of pollution *in such a concentrated and racially compartmentalized geography* can be read as an act of 'letting die'" (emphasis added, 2018, p.1542).

[40] For example, see various debates in (Campbell, 2009).

Both the water crisis and its indication of residents' perceived disposability are

omnipresent in the city; "On any given Sunday you can ask who's been affected by the

water crisis and just about all of the church raises their hand" ("Flint Rising," 2016h).

However, residents also expressed a perhaps newfound solidarity tied to their shared

embodied experiences of the crisis. The same resident quoted above also described how

the crisis has been "bringing white and blacks back together like never before in my

eyes…[because] there's a cause that needs to be addressed" ("Flint Rising," 2016h).

While reminiscent perhaps of affective experiences of crip community (McRuer, 2006), it

would be overly simplistic to equate the latter with the kinds of shared experiences being

expressed in Flint[41] for reasons related to varied understandings of a "collective." Thus

new theory is needed to articulate the particular experience of the embodied sequalae of a

collective being treated, in real time and together, as disposable[42].

Debility
Introducing Debility

     An emerging concept in Disability Studies, debility has been theorized by

scholars in the field in a variety of ways (Baril, 2015; Chandler, 2012; Fritsch, 2015;

Kolářová, 2015; Livingston, 2005; Shildrick, 2015a; Shildrick 2015b). However for the

purpose of this paper, I will be following the definition most recently developed in Jasbir

Puar's (2017b) book *The Right to Maim*. For Puar, debility isn't necessarily distinct from

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[41] Eliza Chandler's work on crip community as something unknowable that can emerge
through "unstructured communal enactments" (2012, p.60) challenges my argument.
[42] We might look to Doan's (2017) work on "epistemic redlining" as an example of
theory that successfully merges affect, embodiment, and geography with disposability.
Doan defines epistemic redlining as the systemic process of denying a group knowledge
credibility based on the municipality in which they reside (p.182).

disability. Instead, debility refers to a more macro structure which overlays (and represents) both individuals' and populations' gradations of capacity[43] (for example, the capacity to access rights, capital, and/or rehabilitative or adaptative resources and technologies). Puar's definition of debility foregrounds the ongoingness of structural ideological, economic, and material conditions of inequality and precarity that slowly "wear down" (2017b, p.xiv) populations through what Berlant terms "slow death" (p.149). Such conditions include neoliberalism, global capitalism, colonialism, imperialism, armed conflict and militarization, poverty, police brutality, and other forms of (typically racialized) exploitation that constrict access to various capacitating resources (p.65). This "wearing down" of bodies does not necessarily produce "discernible," or medicalized, impairments (p.xix), but rather is revealed through "a gradual decay of bodies that are both overworked and under resourced" (Puar, 2017b, p.139).

Puar describes debility as "a process rather than an identity or attribute, a verb and a doing rather than a happening or happening to or done to" (2017b, p.73). Here, the chronic and endemic temporal registers of debility, which can be difficult to "capture by a consciousness organized by archives of memorable impact" (Berlant as cited in Puar, 2017b, p.11),[44] contrast with what Puar calls the "event" of becoming disabled which has

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[43] Specifically, Puar writes, "I am arguing that the three vectors, capacity, debility, and disability, exist in a mutually reinforcing constellation, are often overlapping or coexistent, and that debilitation is a necessary component that both exposes and sutures the non-disabled/disabled binary" (2017a).

[44] While not writing on debility per se, Carrigan's description of disabling environments resonates strongly with the concept. Carrigan describes widespread conditions like radiation sickness in the Pacific as "non-spectacular" such that they must "be considered a collective aspect of social life" or "constitutive feature of community life" (2010, p.265).

an identifiable "before and after" (2017b, p.xiii). Puar associates the label, or "exceptional status," of disability with privilege and a certain degree of capacity that allows disabled people to aspire towards "wellness, empowerment, and pride" (p.xvi). However, disability appears "exceptional" only in the "shadow" (p.89) or "obfuscation" (p.xvi) of debility whose inevitability (p.65) and "massification" (p.xvii) elide this label. In other words, in spaces where disability is so common so as to be "endemic," or normalized and expected, it does not stand out as exceptional.

Justifying the need for a concept like debility, distinct from disability, Puar asks, "Is a young black man without a diagnosed disability living in the United States who is statistically much more likely than most to be imprisoned, shot at by police, or killed by the time of adulthood actually a referent for what it means to be able-bodied?" (2017b, p.74). The same might be asked of Flint residents, whose bodies, though for the most part unidentifiable through the lens of impairment, are battered by poverty, gun violence, and most recently, lead exposure. The following section examines how different aspects of debility, including indiscernible impairments, its endemic nature, the challenges it creates for daily living, debt, and the scale on which debility occurs (i.e. massification) appeared in residents' narratives about the water crisis.

Breaking Down Debility in the Context of Flint
i) Indiscernible Impairment

Debility is a particularly useful concept for making sense of the Flint water crisis as it foregoes the challenge of extricating discernible impairments from other conditions that may also have tangible effects on embodiment. For example, known symptoms of lead poisoning among children – such as "headaches, lethargy, anemia, dizziness,

muscular paralysis, sleeplessness, loss of appetite…[and/or] abdominal pain" (Hanna-Attisha, 2018, p.42) – as well as long term effects - such as "developmental delays, cognitive impairment…memory issues, attention and mood disorders, and aggressive behaviour" (p.42) – are often indistinguishable from effects of other social determinants of health, like poverty, stress, and poor nutrition. Local pediatrician Dr. Mona Hanna-Attisha's (2018) book supports this assertion: she recalls not noticing any differences in the predominant symptoms of her patients until she knew to interpret these through the lens of lead poisoning (p.60)[45]. While the social model of disability recognizes that aspects of an environment can be disabling, it continues to rely on the assumption that biological impairment exists a priori and *becomes* disability through dynamic interactions with and/or within the environment (Tremain, 2002, p.34). Conversely, debility recognizes compounding effects of various inequalities that together can become debilitating. For example, resident Gina Luster describes cascading effects from what began as minor health changes following the switch in water sources, that, when left untreated, severely impacted her life:

> And so, you know for me it really took a toll. I lost my job. My FMLA? [i.e.
> Family and Medical Leave Act] ran out because…they were unable to figure out
> what was wrong with me. My daughter had to be taken out of Catholic school

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[45] She writes, "But even when lead exposure is demonstrated across a population, it is almost impossible to prove causation. Did lead in the water cause Brandon's ADHD? We will never know for sure. Did the water cause Jasmine's rash? Maybe. *Exposure to environmental toxins usually doesn't come with glaring symptoms, like purple spots or even a rash. The symptoms are things like learning disabilities that have a time lag. Sometimes they don't show themselves for years or even decades*" (emphasis added, 2018, p.98).

because I could no longer afford it. It was just so many, you know domino effect

things that people wouldn't even think about that your water would cause, you

know? ("Flint Rising," 2016c).

Gina's experiences resonate with the ways in which "the quotidian modalities" (Puar,

2017a) of multiple "layers of precarity and vulnerability" (Puar, 2017b, p.xxiii) have

ramifications that incubate, or "develop," over time as opposed to "happen" all at once

(xvi; p.73).

ii) Debility as Endemic

Among the 100+ people included in MLive's "Still Standing" (2016b) project is

nine-year-old Rayacon Gardner. The caption accompanying his picture is simple:

Rayacon runs laps at Berston Field House, as he plays basketball and trains to be

a boxer with his friends…He is living through the Flint water crisis (May, 2016b).

Despite the horrifying statistics related to lead poisoning and Legionnaire's

Disease, along with the actual *state of emergency* eventually declared in response, for

those in Flint, the water crisis is ultimately an *everyday* reality protracted now for over

five years. Debility, like slow death, "occurs not within the time scale of the crisis, not of

the event of the suicide or the epidemic, but in 'a zone of temporality…ongoingness,

getting by, and living on'" (Berlant as cited in Puar, 2017b, p.11).

Summarizing work in *The Shock Doctrine* (2007), Puar writes, "what disaster

capitalism does, and Klein unearths this, is assert disaster as the temporality of crisis to

avert attention from the normalization of crisis, *such that crisis is everywhere and yet*

unnoticed, or only noticed through the event of disaster" (emphasis added, 2017b, p.87).

In other words, when everyday crises are invisibilized through their normalization, disasters become recognizable only against this backdrop of an accepted state of permanent crisis. For example, arguably the only aspect of the Flint water crisis actually treated as a disaster – albeit briefly – by external actors was the lead poisoning of children (Hanna-Attisha, 2018; Jackson, 2017, p.20). While the Flint water crisis overall is undoubtedly a disaster, some residents seemed to experience it as the latest culmination of injustice and inequality in the area. Resident Darnell Ishmell explains,

> It seems like we're perpetually in a crisis, and have been. You know a crisis of gun violence; a crisis of homelessness; a crisis of joblessness; a crisis on top of a crisis on top of a crisis. And now this water crisis is just *chuckles* one of the latest ones. And now it's so protracted ("Flint Rising," 2016f).

Resident Gabrielle Davis similarly catalogued the Flint water crisis in the register of the endemic, noting, "To live here you have to have tough skin. You have to know how to adapt to change and just kind of roll with the punches" (501CThree, 2019), thus subsuming the water crisis among such "punches."

However the affective toll of living with debility should not be underestimated. The many negative factors that contribute to debility must be coped with all at once, as they unfold simultaneously. Describing life in Flint, resident Kush Rogers shares,

> *It's a lot of stuff that goes through Flint people heads…Like come on man, you see what we going through?* Just look there's abandoned houses everywhere. You know what I'm saying, like? They turned my elementary into a church. Like it ain't nothing like, I probably got…one school left (emphasis added, TheRealStreetz.com, 2016).

Here Rogers connects residents' mental health to the implications of living in poverty in a deteriorating city[46], evidenced by the sheer number of local abandoned homes and school closures. Resident Devlon Young Work similarly links the lack of capacitating resources in Flint to material – and subsequently, affective – impacts:

> People on our side looking bad like you know, all these murder rates, all this crime went up. That's because it ain't no jobs here, man. You know what I'm saying? People ain't got nothing to do, man. They closing all our parks down. The college is buying up the town and pushing all the ghetto people all together in one spot, you know what I'm saying? *Like can't nobody even spread their wings here, man*" (emphasis added, TheRealStreetz.com, 2016).

Debility is unrelenting in its presence in people's lives. The description of constant uncertainty as "mental harassment" given in an earlier chapter on disorientation (p.29) resonates here as well, particularly since debility promises no endpoint after which time its challenges will abate. Remarking on "the psychological impact" of the Israeli occupation on Palestinian children, Puar notes that it "has been deemed a form of 'continuous ptsd'" (2017b, p.150). Here the catalyzing traumatic "event" never ends, hence its effects cannot be subsumed by the prefix "post."

The mental, or affective, taxation of debility is also exacerbated by its omnipresence, highlighting "durational debilitations of chronicity" (Puar, 2017b, p.138). In other words, like the injustice of "ontological disorientation" (Parrey, 2016), living

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[46] This deterioration can be seen as another effect of the city and its residents being perceived as disposable. For more on state abandonment, see (Pulido, 2016b, p.2).

with debility is made more difficult when it is impossible to forget. This is particularly

evident in the following quote by Flint resident Darnell Ishmell:

> I need to be able to do the work. *And not think about the things that I've seen*. I
>
> need to be able to do the work *and not think about the stuff that I've experienced,*
>
> *the stuff that my mother has experienced*. I need to be able to do the work and not
>
> have to think about how my brother at the church, he has to stand his two-year-old
>
> in front of a fire place and pour water on her for her to have a shower (emphasis
>
> added, "Flint Rising," 2016f).

iii) Maintenance of Living and Debt

As mentioned in an earlier section on the disorienting effects of major changes to

everyday routine, residents' narratives consistently highlighted the exhausting and never-

ending work involved in "the maintenance of living" (Puar, 2017b, p.12) or of "getting

by" (p.11) during the water crisis. On a material level, the Flint water crisis intensifies the

time and labour involved in the most basic of everyday tasks. As summarized by Devlon

Young Work,

> We still keeping our heads up here man, you know what I'm saying? We gotta wash
>
> our bodies with bottled waters, we gotta cook with bottled waters, we gotta do
>
> everything with a bottle of water, man (TheRealStreetz.com, 2016).

Such time and labour-intensive changes to daily living in Flint have also brought

significant financial costs (Heard-Garris et al., 2017; Mayfield et al., 2017; Singer et al.,

2017). Such costs include accessing (e.g. driving to) and purchasing bottled water[47] (Heard-Garris et al., 2017; Mayfield et al., 2017; Weaver & Pugh, 2017a), waiting hours for bottled water distributions (time that could otherwise be spent working), and paying for creams and lotions to address skin problems caused by the water (Adams, 2016a; Adams, 2016b; Young, 2016a) - all of which can take away from money left over for other everyday necessities like groceries (Mayfield et al., 2017, p.522).

Flint residents also have astronomically high water bills – in 2015, they were the highest in the United States (Food & Water Watch, 2016, p.10) – as residents unable to leave the city are forced to recuperate the costs of a decaying infrastructure[48] built to support a substantially larger population (Goodin-Smith, 2017; Hanna-Attisha, 2018, p.80), and, more recently, the costs of replacing lead pipes (Frostenson, 2017). Plummeting property values combined with these massive water bills have also led to numerous abandoned homes (Bosman, 2017; Stebbins, 2019), which impact both the health of those leaving the city as well as the health of those who live in neighbourhoods left with high levels of urban blight.

Puar notes that "poverty itself may well be thought of as a form of debilitation," particularly in light of "historical and structural relationships between poverty and disability" (2017b, p.73), alluding here to the challenges disabled people face in

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[47] To give the reader a sense of the amount of bottled water required for daily living in Flint, residents variously stated they used up to 14 gallons of bottled water per week (May, 2016b), 96 bottles of water per week for a single family (Johnson, 2016b), and 60 cases of water per week for a couple (May, 2016b).

[48] According to Hanna-Attisha, "in 2014 city pipes were leaking 20 and 40 percent of their load" – meaning residents were paying for water not even reaching their homes (2018, p.80; Fonger, 2015).

accessing (potentially capacitating) healthcare. While "all residents of the city of Flint are going through something because of the water issues…it is having a devastating effect on lower income people" (Cuthbertson, 2016, p.903), who "happen" to make up the majority of the city's current population[49]. In the words of resident Leasia Johnson, "It makes everything harder when you're trying to survive on bottled water when you don't already have money for the things you need" (501CThree, 2019).

iv) Massification

Debility calls attention to how structural inequities converge and coalesce on particular bodies. Thus also significant to the concept is a focus on the collective, or what Puar terms "massification" (2017a). Massification encompasses both the population-level scale at which the debilitation occurs, as well as other related factors, such as the particular experience of collective debilitation. Explained by Puar,

> The difference between disability and debility that I schematize is not derived
> from expounding upon and contrasting phenomenological experiences of
> corporeality, but from evaluating the violences of biopolitical risk and metrics of
> health, fertility, longevity, education, and geography [among populations] (2017b,
> p.xix).

For example, when a respondent from Akwesasne, an Indigenous community straddling the Ontario/New York border subject to widespread contamination as a result of industrial development, was asked to rate the health of their community, they answered,

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[49] Debility, like environmental racism, accounts for the ways in which racism, classism, and political disenfranchisement work in tandem.

"There's something wrong with everybody that I know" (Hoover, 2017, p.221). What is important here is not the particular ailment, health problem, or impairment individuals in Akwesasne have[50], but rather the fact that the population as a whole can be characterized as feeling that something is "wrong" with them and their health.

The "massification" implicated in debility has particular import when considering the intergenerational health effects of environmental racism. Puar asserts, "The embryo is the site where the biopolitics of debilitation come together to weaponize genetics: environmental toxicity, generational trauma, the structural and psychic impacts of racism, imperialism, and capitalism" (2017b, p.64). Davies similarly notes that "the violence of environmental pollution…has this drawn-out temporal reach, which can penetrate the biological fabric of the blood, tissue, and bones (2018, p.1540). Both allude to phenomena like epigenetics, wherein changes to gene expression caused by environmental factors or trauma can be inherited, creating the potential for the continuation of a crisis across generations. In the case of Flint, an entire generation of children and unborn babies were exposed to lead. This exposure is irreversible (Counts, 2016d). As explained by Dr. Hanna-Attisha, "If you were going to put something in a population to keep people down for generations to come, it would be lead" (2018, p.197).

v) Political Implications

Throughout her work, Puar often refers to the "weaponization of debility" (2017b), which points to the trenchant political effects that can follow from (bodily)

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[50] However it should be noted that in the context of environmental racism, populations often do experience similar health problems, which can be especially relevant when these have intergenerational repercussions.

experiences of debility. For example, despite the tremendous activism that continues in Flint, living with debility and in a normalized state of crisis requires prioritizing survival, which for many leaves less time to participate in and challenge bureaucratic "democratic" processes (processes already shown to do little for them). As articulated by one police officer, "How can they [i.e. Flint residents] concentrate or worry about something like that [i.e. a police millage] when they have to worry about making it to a water distribution site by 4:00 o'clock so that they have a case of water?" (Dimmock, Canepari, & Cooper, 2018). Further, as Puar notes, "the conditions that make disability endemic as opposed to exceptional are already ones of entrenched economic, racial, political, and social disenfranchisement" (Puar, 2017b, p.16). In other words, debility both signals existing disenfranchisement as well as serves to re-entrench it, facilitating a self-perpetuating cycle. For example, children in Flint are unlikely to have access to many of the resources that can help mitigate the effects of lead poisoning such as "early education, family support, proper nutrition, school health, and quality childcare" (Hanna-Attisha, 2018, p.271) for reasons related to the multiple forms of disenfranchisement already pervasive in the area.[51] Flint children are then, in effect, "doubly disabled" (Puar, 2017b, p.158) – first by lead exposure, and secondarily by a lack of access to capacitating resources.

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[51] For example, while discussing a general lack of police responsiveness to community members, particularly in relation to rampant drug dealing in her neighbourhood, a frustrated mother in Flint said, "Our kids right now - they have no choice but to sit in the house and play a video game, or watch tv. It makes you feel like your kids are getting robbed" (Dimmock, Canepari, & Cooper, 2018).

Analysis – Materialist Reckonings
Introduction

While the utility of Disability Studies theory for better understanding the crisis in

Flint remains debatable, the same cannot be said of the reverse. Analyzing the Flint water

crisis as a case study on disability and environmental racism, particularly through the

lenses of disorientation, disposability, and debility, calls on Disability Studies to account

for a variety of factors largely absent in its theory at present. Four such factors are

elaborated on below: 1) indiscernible impairments, 2) the phenomenology of debility, 3)

how collectively acquired impairments can re-entrench inequalities, and 4) how the

production of impairment impacts lived experience and implicates injustice.

The Trouble with Indiscernible Impairments

"I heard children say, 'Am I going to die? Am I going to get sick?'…"I told them, 'No,
you're not going to die.' [But] I don't know that they're not going to get sick later."
- Darlene McClendon (Dennis, 2016)

While writing this paper I became aware of the dearth of theory in Disability

Studies that can help conceptualize indiscernible impairments. I understand indiscernible

impairments not as "invisible disabilities" (which are ultimately reducible to distinct

impairments), but rather as experiences of degradation of the body, such as pain or

exhaustion, that cannot be easily located in a single part of the body and are not

necessarily recognized by the medical establishment as impairment. Here power may not

be "ma[de] visible on the body" (Puar, 2017b, p.x) - though it may be acutely felt.

Indiscernible impairments can form a part of what Nixon terms 'slow violence,'

or violence that is "neither spectacular nor instantaneous, but rather incremental and

accretive" (2011, p.2). Such violence is separate from the embodied impacts of aging as

insinuated in the Disability Studies term "temporarily able-bodied," which suggests that

everyone will eventually become disabled (Marks, 1999, p.18). It is also separate from

more critical understandings of disability as being inevitable among certain populations

whose bodies' disablement is assumed "a foregone conclusion" (Kafer, 2013, p.33),

because this suggests that such bodies are *not yet* disabled, and that harm[52] has been

postponed (Davies, 2018, p.1540). Conversely, indiscernible impairments can include

experiences of embodiment and precarity that have already begun to emerge or "patiently

dispense their devastation" (Nixon, 2011, p.6). While such impairments may not yet be

fully fledged (as in the case of the chronic effects of lead poisoning[53]), they are already

unfolding, and already felt. For example, in the words of Dr. Mona Hanna-Attisha, the

remarkably widespread and enduring effects of lead poisoning sound like "science-fiction

comic-book stuff" (2018, p.42). But, unlike the X-Men, "the victims aren't getting any

superpowers. Their powers are being taken away" (p.42).

Slow violence is often largely invisible, camouflaged not only within bodies but also

through time. Flint resident Diane Thornton describes the water crisis as a "blind

disaster," lamenting, "If we would have had a tornado or hurricane, they would have

rushed in to help us" (Counts, 2016c). Thornton's observation dovetails with the

normalization of crisis in disaster capitalism, which can extend to the normalization of

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[52] I use the word "harm" in relation to disability here not to suggest that disability is universally harmful, but because it tends to be experienced as a harm among marginalized populations whose disablement is made inevitable by inequitable conditions of living. For example, see (Grech, 2015).
[53] Hanna-Attisha calls lead poisoning a "silent epidemic because there are no immediate signs of it" (2018, p.41).

indiscernible impairments as well,[54] thereby reinforcing Puar's conception of disability (as opposed to debility) as a kind of privileged legitimation. Martini also affirms the relative privilege of discernible impairments when discussing the difficulties veterans faced in receiving compensation for being exposed to the herbicide/defoliant Agent Orange during the Vietnam War. Veterans "had not been hit by a truck, victimized by a doctor, or injured by a drug or other consumer product. *They didn't know what had happened to them or when. They only knew something had gone wrong*" (emphasis added, as cited in Martini, 2012, p.160). Martini explains that "[this] politics of uncertainty continues to be shaped by power relations within and between nation-states" (p.8). In other words, uncertainty can be strategically dealt with in ways that weaponize, and consequently obviate, liberal rights.

Indiscernible impairments are easily folded into "phenomena not prone to capture by a consciousness organized by archives of memorable impact" (Berlant as cited in Shildrick, 2015a, p.14)[55]. For example, uncertainty about the possibility of harm can be used to construct invisibility, or to make something into a non-issue, thereby preventing injury from activating (supposedly) universal liberal rights. This representational violence of erasure can then be transformed into material violence (Erevelles, 2011b, p.144;

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[54] Davies writes, "'slow death' is not isolated in time-framed acts of obvious brutality but instead is hidden in long-term forms of harm, 'whose contours in time and space are often identified with the presentness of ordinariness itself'" (2018, p.1540).

[55] For example, Flint residents continue to struggle to remain subjects of concern for both the media and state, and to articulate the crisis as more than lead poisoning – its most "memorable" object. Youth activist Mari Copeny has organized a variety of fundraisers with the slogans "Don't Forget Flint" and "4 Years Forgotten" (Copeny, 2018; Copeny, 2019).

Butler, 2004, p.34), or, in necropolitical terms, can be used to "let" material violence

occur. For example, in an interview with AJ+, Flint mother Christina Murphy rhetorically

asks, "What was the governor's words to the mayor the other day? 'Get over it'" (as cited

in Takruri, 2018). She continues,

> 'Well tell my kids that, you know, please, Governor Snyder. Tell my kids that to their
>
> faces to get over the fact that they've been poisoned, and that their legs hurt, and that
>
> they have night sweats, and they shake sometimes. And that their Mommy can't play
>
> with them the way she used to because she's too sick. And we're just supposed to get
>
> over it" (as cited in Takruri, 2018).

It is easy to tell a person, or community[56], to "get over it" when "it" lacks a definitive

label and so cannot be mobilized to exert political pressure. This illustrates how

indiscernible impairments can enable the "bloodless, technocratic, [and] *deviously*

neutral" (emphasis added, Nixon, 2011, p.163) ways in which "environmental harms can

slowly erode the health of marginalized groups" (Davies, 2018, p.1540)[57]. Such harms

cannot easily "[rely] on the specter of disability to motivate public response" (Kafer,

2013, p.159; Clare, 2017, p.210), making them easier to miss (see Hanna-Attisha's

previous quote on p.49), discount, or deliberately ignore. This holds particular import

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[56] We might interpret the state's ending of bottled water distribution in Flint (Carmody, 2018) as a message telling the community to "get over" the water crisis.

[57] Citing Nixon, Davies expands on this in the following evocative observation: "environmental wounding such as chemical or nuclear exposure can be 'driven inward, somatized into cellular dramas of mutation that—particularly in the bodies of the poor— remain largely unobserved, undiagnosed, and untreated'" (2018, p.1540).

given the historic occlusion and naturalization of racialized people's pain and suffering (Gara et al., 2019).

Much of the "trouble" with indiscernible impairments in Disability Studies can be circumvented with the concept of debility. Debility places less stress on untangling specific causes of (discrete) impairments, and more emphasis on examining the interaction of such causes in people's lives. Even if the people of Flint had not been exposed to lead through their drinking water, their bodies and minds would likely be disproportionately "worn down" by all of the other factors that contribute to debility endemic in the region.[58] But bodies being "worn down"[59] may not necessarily register in the normative vernacular of disability or impairment. For example, the process of hauling cases of water via a baby stroller from church to home (Emery, 2016c) cannot itself be characterized as an impairment; and nor can the "stress" of having a single day off of work each week to bus to the few remaining water distribution sites, get groceries, and make medical appointments, all while living in a hotel with a 22-month-old (Emery, 2016b). To label such experiences as mental illness[60] seems inappropriately

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[58] Bootleg alludes to this conundrum when he raps, "Only celebrities keep coming claiming that they support us. But we need money in Flint and not just some cases of water. City of Lead" (2018, track 4).

[59] The concept of bodies "wearing down" is particularly relevant to the operation of lead poisoning, which, as mentioned earlier, "impacts almost all systems of the body" (Hanna-Attisha, 2018, p.226).

[60] However labelling these experiences more broadly as "emotional stress" is similarly invalidating. Health resources offered on the Flint Cares website, like "The Art of Stress Reduction," "10 Family Stress Busters," and "Stress and Emotional Eating" ("Health," 2019), appear to collapse trauma into "stress."

individualizing as well[61]; cure – or whatever recapacitation might resemble after the water switch - is likely to require structural change[62] (Rabaia, Saleh, Giacaman, 2014). Conversely, when such experiences are viewed in a more nuanced context, such as through the lens of debility, embodied injustices become clearer.

Phenomenology of Debility

Studying the Flint water crisis has also demonstrated a need for Disability Studies theory that can better account for the phenomenology of debility - something that remains unarticulated in most personal accounts of disability in the discipline at present[63]. This might mark one way to "attend to widespread experiences of disablement through violence, war, and genocide" elided in the more common political economy approach to disability (Gorman, 2013, p.256). Such work would also heed the calls of environmental justice activists who challenge us to "extend attention to spaces of pollution as important sites of contemporary cruelty and letting die" (Davies, 2018, p.1542). As noted by Ahmed, "phenomenology helps us to show how race is an effect of racialization, and to investigate how the invention of race as it were 'in' bodies shapes what bodies 'can do'" (2006, p.112).

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[61] For example, Cuthbertson et al (2016) note that mental illness diagnoses should be made in relation to what distress can be "reasonably" expected "based on the stressfulness of the particular situation" (p.900). An expectation of distress can naturalize injustices like environmental racism alongside its embodied effects.

[62] This is not to belittle the magnitude of mental effects of living with trauma and/or mental illness concurrently; access to medical care is, of course, imperative as well.

[63] Personal accounts of such situations do exist, but are generally not considered Disability Studies work. As explained by Puar, and confirmed by the challenges I faced in trying to find Disability Studies literature on collectively acquired impairments, "from the vantage of…interdisciplinary fields, disability is everywhere and yet, for all sorts of important reasons, not claimed as such" (2017b, p.xx).

Disability Studies has been understandably loathe to theorizing how having an impairment can negatively impact one's life outside of barriers created and maintained by ableism and sanism. However, as Berger asserts, the discipline "might well try to include a theory of loss specific to disability – that is, the loss of physical, mental, and neurological capacities" (2004, p.572). While brainstorming capacitating factors necessary for building resilience[64] in the face of trauma, Dr. Mona Hanna-Attisha writes,

> And then it hit me. Lead was only one of the many developmental obstacles that our children faced. We had to frame their population-wide lead exposure, the entire trauma of the water crisis, as an additional toxic stress to a community already rattled with toxic stresses (2018, p.271).

Dr. Hanna-Attisha highlights how the exponentially increased risk of having to deal with the effects of lead poisoning occurred in an already impoverished[65] city where factors that might help mitigate these effects - like "early education, family support, proper nutrition, school health, and quality childcare" (Hanna-Attisha, 2018, p.271) - are often gapingly absent and/or unaffordable. While more privileged populations might be able to (re)capacitate children with high lead levels using such resources on their own, the people in Flint will likely have to deal with the full weight of the effects, or "losses" (Berger, 2004) derived from lead poisoning.

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[64] The concept of resilience has been criticized as epitomizing victim-blaming and individualizing neoliberal imperatives by scholars like (Aubrecht, 2012; Cassen, Feinstein, Graham, 2008; Hutcheon & Lashewicz, 2014).

[65] As noted in the section "Debility as Endemic" (p.52), this impoverishment was cultivated by the state and manifested through a general abandonment of the city (Pulido, 2016b, p.2).

Analyzing literature on the disabling effects of radiation caused by nuclear testing in the Marshall Islands, Carrigan (2010) asserts "keeping individuals in a state of continuous disablement…works to deny personal sovereignty" (p.260). This observation has particular significance within the context of debility, given attention the concept pays to contextuality, relationality, and compounding forms of injustice. While the social model locates blame for the challenges of living with impairment in the ableist prejudices and architecture of society, as noted by scholars like Baril (2015), Crow (1996), Goodley and Roets (2008), Quayson (2007), and Wendell (1996), it lacks the nuance to account for the very real challenges living with impairment presents, least of all among those already multiply marginalized.

How will Flint's children come to interpret their experiences as they age? How have Flint's older residents' lives changed as result of embodied experiences of the water crisis? What struggles related to these embodied changes would not be resolved by the eradication of systemic ableism? Resident Aaron Dunigan poignantly states, "It's sickening to me to have to depend on people that's supposed to take care of you, and those are the ones that are ultimately hurting you" ("Flint Rising," 2016h). It appears that part of the phenomenology of living through the water crisis in Flint for Dunigan involves reckoning with the harsh reality that in the context of debility, collectively acquired impairments are likely to reinforce dependency on the very systems that beget them in the first place.

Contextualizing Collectively Acquired Impairments

Erevelles' (2011a) work on the situated act of "becoming" disabled helpfully captures the differing stakes involved in different bodies acquiring disabilities.[66] On a material level, or what Erevelles calls "the actual social and economic conditions that impact (disabled) people's lives…that are concurrently mediated by the politics of race, ethnicity, gender, sexuality, and nation" (2011a, p.26), collectively acquired impairments in Flint, and particularly those with neurological effects, are likely to exacerbate real disadvantages (Hanna-Attisha, 2018, p.226). As noted by Puar, "it is especially cognitive and psychological injuries that have long-range, traumatic effects that potentially debilitate any resistant capacities of future generations" (2017b, p.152).

Collectively acquired impairments often represent the unique injustice of the reification of a politics of disposability. Those living in the kinds of spaces already "damned" (McKittrick, 2013, p.5)[67] and particularly vulnerable to environmental racism, like Flint, are often there due to restricted mobility (Davies, 2018; Dennis, 2016; NowThis, 2017; Pulido, 2016b, p.3) because they cannot afford to leave. When subjected to collectively acquired impairments because their wellbeing is disregarded by the state, existing disenfranchisement and poverty can easily be further entrenched, potentially ensnaring generations in a vicious cycle of debilitation (See Appendix B on p.73). Given

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[66] For an excellent example of how this plays out, see (Erevelles, 2014a).

[67] Racist perceptions of people of colour and Indigenous people tend to assume they are both "disposable, lacking in humanity and value and simultaneously invulnerable, strong, 'superhuman' and, therefore, able to endure inconceivable harms inflicted on their spirits, souls, minds and bodies" (Waldron, 2018a, p.89). See also (McKittrick, 2013; Mendoza, 2017).

the negative influence of disability alone on income, employment, access to education, housing, medical care, and even lifespan, environmental racism that produces collectively acquired impairments can be understood as a kind of "spatial necropolitics" (Gorman, 2013, p.256).

Equally insidiously, collectively acquired impairments can help sustain the kinds of ideologies that enable situations of injustice by reinforcing racist (and often simultaneously ableist) stereotypes. For example, stereotypes about racialized people possessing an "in-built inferiority/deviance" (Erevelles, 2014a, p.88) can be naturalized through collectively acquired impairments by those who view impairment – regardless of its source - as a sign of defectiveness (Clare, 2017, p.23).

Describing her work as a pediatrician, Dr. Mona Hanna-Attisha writes, "We don't just treat children's bodies – we fiercely protect their potential" (2018, p.201). While her statement is based on the problematic assumption that disability undermines potential, this assumption likely holds true for many of the already disadvantaged and disenfranchised patients at her public hospital. Here, lenses of disposability and debility allow us to better understand how careless exposure to toxicity reveals a lack of regard not only for people's health, but for their futures as well, as their "potential" is unevenly safeguarded (Fritsch, 2017, p.369).

Foregrounding Injustice

It's like five years too long. And people say, 'Oh Flint is coming back.' And 'Flint is a comeback city.' I don't wanna be the comeback city. I shouldn't have to be the comeback city. - April Cook-Hawkins (Today, 2019)

The work in this Major Research Paper has reinforced the urgent need for Disability Studies to better account for the diverse ways in which disability is produced and experienced, as well as how intersections of injustice, both historical and current, shape these. As explained by Fritsch, such work "is not so much about abandoning critiques of ableism or denying that disabled people face oppression. Rather, it is about being attentive to the ways in which differential inclusion functions" (2015, p.41), and, I would add, is experienced. While debility offers a particularly helpful conceptual tool for beginning this praxis, I believe the term's macro focus is insufficient to account for lived experiences, or phenomenologies, of embodiment.

The context in which an impairment is acquired can vastly alter the subsequent experience of living with it (Clare, 2017; Puar, 2017b, p.66). For example, Cole (2014) considers how the experience of living with a medical amputation in Sierra Leone differs from the experience of living with a punitive amputation. While a medical amputation is performed with the intent of improving one's quality of life, a punitive amputation reflects the "cruel decision of a victimizer to inflict bodily harm" (p.54) and, as such, "proffers a different psychological reality to the individual and his relationship to his body and his society" (p.55). Such realities not only challenge longstanding normative debates in Disability Studies about disability prevention and cure, but require us to shift these conversations altogether.

Conclusion – Livable Lives For All

Being a Flintstone, born and raised here, we are very resilient people. We love our city, we love our community. It hurts, you know, to think about someone not thinking of us as human enough that we deserve safe water"- Jeneyah McDonald (Today, 2019)

Can't nobody even spread their wings here - Devlon Young Work (TheRealStreetz.com, 2016)

Puar theorizes disability justice as a "way to demand livable lives for all" (2017b, p.xxiv). This imagining usefully circumvents the need to make normative statements about disability – for example, definitively asserting whether or not it should be prevented, what is natural or unnatural about it, or whether or not we should continue to pursue "cure" (Clare, 2017). Rather, Puar's conception of disability justice is beautifully open-ended, flexible enough to accommodate a variety of understandings of embodiment while still condemning processes that weaponize embodiment, like environmental racism. While the purpose of this paper has not been to explore what a more inclusive disability justice might look like, it is helpful to remind readers that carefully bearing witness to situations of gross injustice like the Flint water crisis, where people are made to feel as though they are not "human enough," is not incompatible with using these experiences to move forward and imagine a better world for all. While there may be "a productive tension…between embracing disability as a universal and inevitable condition, and combating the production of disability acquired under duress of oppressive structures of social injustice" (Puar, 2017b, p.70), a world that supports people in determining, for themselves, how they want to "spread their wings" requires wading into the messy contradictions of this tension.

This paper has attempted to delve into such contentious territory. I have explored how Disability Studies theory can and cannot account for lived experiences of the water crisis as articulated by Flint residents, and offered a variety of theoretical concepts, including disorientation, disposability, and debility, that could help the discipline's

"critical lexicon" (2017b, p.xx). Put simply, "How one comes to disability…profoundly shapes what disability is and what it can become" (Puar, 2017b, p.66). For example, while toxicity may have become "an unavoidable and necessary part of everyday life [today]…discriminatory geographies of pollution ensure that certain populations are subjected to the power of death more readily" (Davies, 2018, p.1539) through the sanctioning of their embodied exposure to greater risk (Xu, Zeng, Boezen, & Huo, 2015). The population-level scale on which this occurs has significant implications that require further thought, particularly given its potential to further histories of colonialism, imperialism, and white supremacy. Disability Studies would do well to explore a multiplicity of situated understandings of self-determination, bodily integrity and subjectivity, and the writing of historical inequities onto bodies through disability. Such experiences should be contextualized within both the mundane "work of living on" (as cited in Puar, 2017b, p.152) as well as in terms of collective ramifications in the future.

Reflecting on the impossibility of purity in today's already irreversibly polluted and deeply interconnected world, Alexis Shotwell (2016) writes,

The narrative we use to explain the world structures what we do in it. So we can ask, what happens if we use *this* narrative to make *these* changes in the world? If…the badness that we're pointing to happens to line up perfectly with the way *we tend to organize power in human life* already, then two things seem to be a problem. One is that this narrative reinforces the way we currently organize power in human life. The other is that if there aren't reasons to do things *for the*

love of [others], we reinforce the ways humans organize power in the world altogether, which is currently ruining our shared world (p.101).
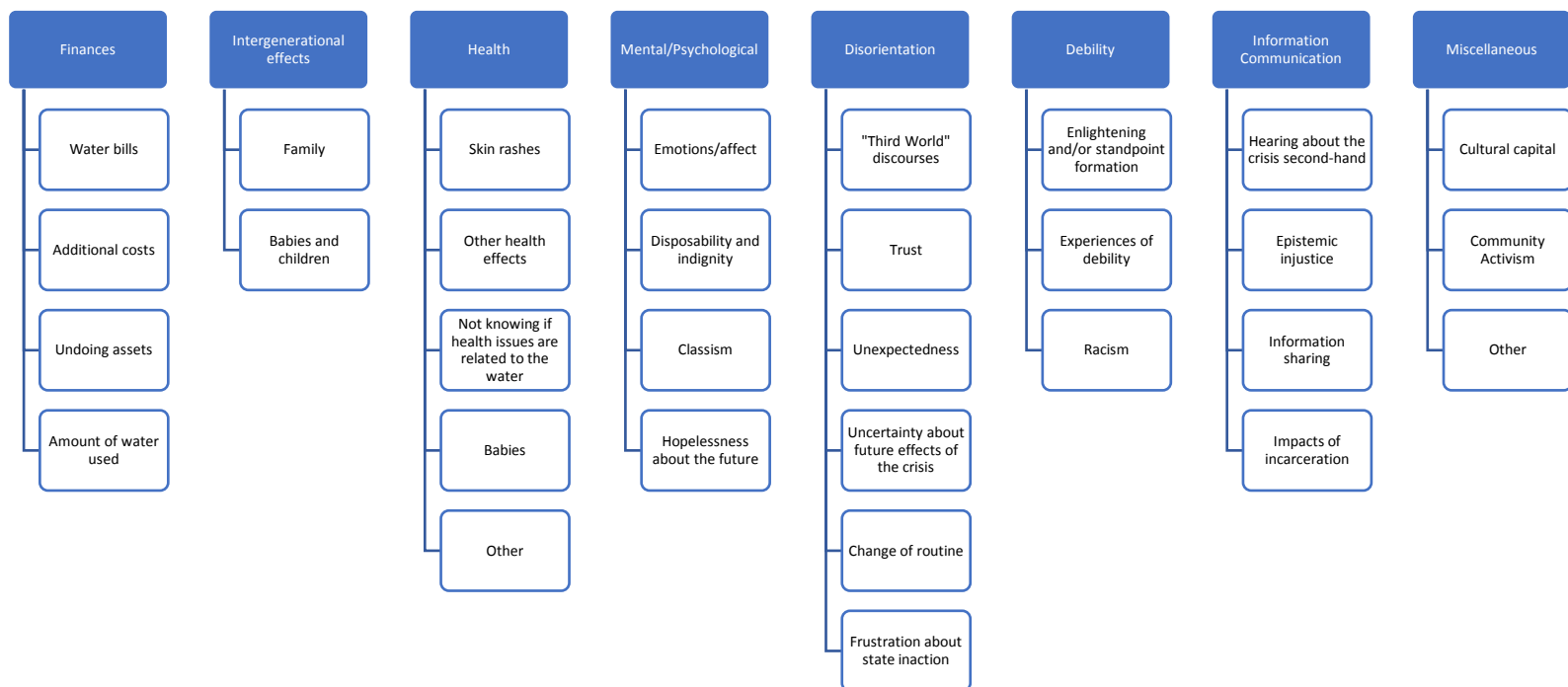
Like Puar, Shotwell points to a more complex notion of well-being that exceeds the boundaries of individual bodies and takes seriously the ethical responsibilities of living in a "shared world."[68] Lead poisoning in Flint is "bad" not because cognitive impairment - a potential effect of it - is "bad," but rather because the negative consequences of having a cognitive impairment multiply in concert with the level to which people are already marginalized. Chronic disorientation is "bad" not because neurodivergence is "bad," but because of its limiting effects on personal agency – limitations that become chronic when this disorientation becomes protracted. Indiscernible impairments are "bad" not because corporeal vulnerability is "bad," but because they too hold radical implications for those unable to make their claims and experiences of embodied injustice legible to others.

As demonstrated throughout this paper, Disability Studies must not shy away from exploring diverse phenomenologies of embodiment for fear of reproducing the way ableism is used to "currently organize power in human life." If the discipline is to continue to be guided by, and truly practice, a mantra of "nothing about us without us," then it must be willing to pay close attention to lived experiences of embodiment that elide the orthodoxies of our discipline at present – orthodoxies in which it is often safer, and easier, for scholars to stay entrapped.

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[68] For further reading on the ethical relations that follow from trans-corporeality, see Alaimo (2008).

Appendix A - Coding Subthemes

Finances
- Water bills
- Additional costs
- Undoing assets
- Amount of water used

Intergenerational effects
- Family
- Babies and children

Health
- Skin rashes
- Other health effects
- Not knowing if health issues are related to the water
- Babies
- Other

Mental/Psychological
- Emotions/affect
- Disposability and indignity
- Classism
- Hopelessness about the future

Disorientation
- "Third World" discourses
- Trust
- Unexpectedness
- Uncertainty about future effects of the crisis
- Change of routine
- Frustration about state inaction

Debility
- Enlightening and/or standpoint formation
- Experiences of debility
- Racism

Information Communication
- Hearing about the crisis second-hand
- Epistemic injustice
- Information sharing
- Impacts of incarceration

Miscellaneous
- Cultural capital
- Community Activism
- Other

Appendix B – Diagram: Relational Effects of Disposability

Perception of/beliefs about certain populations as disposable

Sanctioned exposure to situations of injustice (e.g. environmental racism) that can produce collectively acquired impairments

Impairments negatively impact normative measures of success (particularly in racist/ableist society)

Stereotypes about productivity and worth are reinforced or reified (under racial capitalism)

Appendix C – Places to Donate to Support Flint

Please note the information below has been copied and pasted verbatim from sections of each website. This list was compiled in August of 2019; some fundraisers may no longer be running when readers access this paper.

1. Flint Kids Fund

https://www.cfgf.org/Our-Work-Impact/Current-Initiatives/Flint-Kids-Fund

Background information:
- A 501(c)3 public charity, the Foundation for Flint raises and distributes resources to serve the long-term health and development needs of Flint children and their families through the Flint Kids Fund.
- We are raising resources for what is essential for children:
    - High quality early education
    - Healthy food and nutrition
    - A medical home and child health team
    - Family, social, and emotional support

Donation link:
- https://cfgf.iphiview.com/cfgf/OnlineDonation/tabid/542/dispatch/contribution_id156156_hashd51ea6a0d6fb560f274bcfc25e9054533ac85d4d/Default.aspx

Other relevant links:
- 2018 Impact Report: https://www.cfgf.org/Portals/0/2018_Flint_Kids_Impact_Report.pdf
- 2018 Water Funds Transparency Report: https://www.cfgf.org/Portals/0/2018%20Water%20Funds%20Report.pdf

2. Mari Copeny (aka Little Miss Flint)'s Initiatives

https://www.maricopeny.com/

Background information:
- "I'm 11. My generation will fix this mess of a government. Watch us." – Mari Copeny
- 11-year-old activist, philanthropist, and "future president" Mari Copeny is on the front lines helping kids to embrace their power through equal opportunity. When the Flint Water Crisis began in Flint instead of feeling helpless Mari decided to

use her voice to help out her community and to fight for the kids in Flint and she has not stopped since.

Current fundraisers and donation links:

- **Little Miss Flint Clean Water Fund**
    - I'm partnering with a socially-responsible water filtration company to bring state of the art water filters to communities nationwide that are impacted by poor water quality.
    - **Donation link:** https://www.gofundme.com/f/TeamMariWater
- **Team Mari Back 2 School 2019 (Amazon Wishlist)**
    - Help me send Flint Kids back to school ready to learn.
    - **Donation link:** https://www.amazon.com/hz/wishlist/ls/WP1GDU9AEORO?ref_=wl_share
- **Don't Forget Flint Clothing Campaign**
    - There are so many things I want to do to help Flint kids to continue to succeed and to thrive regardless of a messed up situation with our water. As you know, this shirt is an amazing way to not only help Flint kids but also help raise awareness that the Flint Water Crisis is not over and we need to make sure it doesn't get forgotten.
    - **Donation link:** https://www.bonfire.com/dont-forget-flint/

Other relevant links
- Mari often has multiple fundraisers running. You can keep up to date with them by following her Twitter account.
- https://twitter.com/LittleMissFlint

3. United Way of Genesee County/Flint Water Fund

https://www.unitedwaygenesee.org/

Background information:
- **UWGC:** At the United Way of Genesee County we are the catalyst for producing better results, faster for our community. We work WITH our partners to surround children, individuals and families with the resources they need to succeed at all stages of their lives. We invest in partnerships that create real impact. We use data and evidence to fund over 150 programs that leverage more than $15 million back into the community.
- **Flint Water Fund:** While UWGC encourages the use of filters, it also recognizes many residents rely on bottled water as their clean water source. The United Way of Genesee County will use all funds raised through its Flint Water Fund are for the purchase and distribution of bottled water; filtration devices not supplied by

the State of Michigan; and, health access for children affected by lead. United Way will use 100% of the funds for this purpose with no Administrative Fee assessed…All dollars raised for the Flint Water Fund will be used to purchase water in mass quantities through the Food Bank of Eastern Michigan.

Donation links:
- **Flint Water Fund:**
  https://www.unitedwaygenesee.org/civicrm/contribute/transact?reset=1&id=5
- **United Way of Genesee County:** https://www.unitedwaygenesee.org/give

Other relevant links:
- 2018 Annual Report:
  https://www.unitedwaygenesee.org/sites/unitedwaygenesee.org/files/uw_annual_2018_web.pdf

4. Bridge Over Troubled Water

http://beatsrhymesandrelief.com/the-work/

Background information:
- Wednesday, April 24, 2019, marks the 5 year anniversary of the #FlintWaterCrisis. Help us lif[t] some of the burdens the good people of Flint, Michigan have been forced to bear. 40 gallons of fresh water delivered to EVERY household, EVERY month for a year, starting with the most marginalized UNTIL ALL THE PIPES ARE REPLACED!
- After an intense listening session we decided to create a #blueprint for water delivery during a crisis while empowering those affected! So in partnership with the Urban Renaissance Center and the Flint Grounds Crew we will employ the youth of the community to handle distribution. They will be paid $15/hr to deliver and set up all initial water deliveries as well as all monthly replacements and special needs requests.
- Your donations have already brought 11 families year long water delivery service and we will continue to do at least 10 families per week for the rest of this month as we work out all the logistics and continue build momentum!

Donation links:
- https://www.gofundme.com/f/bridgeovertroubledwater
- https://www.paypal.com/us/fundraiser/charity/1527368

5. Community Foundation of Greater Flint

https://www.cfgf.org/Giving/Ways-to-Give

Background information:
- As a 501(c)3 tax-exempt public charity created by and for the people of Genesee County, the Community Foundation of Greater Flint enables people with philanthropic interests to easily and effectively support the issues they care about – immediately or through their estate plan.
- Each of our fund types grows your initial gift through balanced investment pools managed by financial experts. This allows your dollars to keep on giving. And, the IRS recognizes us as a public charity, so you earn the maximum deduction at the time of your gift.
- Types of funds:
  - *Field of Interest Funds* provide grants within the overall direction of the donor's areas of interest.
  - *A Designated Fund* allows you to support one or more specific charitable organizations for a set period of time or in perpetuity.
  - *Scholarship Funds* benefit students throughout Genesee County. Most frequently, donors establish funds that assist high school seniors seeking post-secondary education.

Donation link:
- https://www.cfgf.org/Giving/Fund-Directory

6. MSU Pediatric Public Health Fund

https://givingto.msu.edu/stories/story.cfm?id=440

Background information:
- The Pediatric Public Health Initiative is a collaboration between Michigan State University and Hurley Children's Hospital. This initiative was established to address lead exposure and help Flint's children grow up healthy, strong and with bright futures. The initiative brings together experts in pediatrics, child development, psychology, epidemiology, nutrition, toxicology, geography, education and community and workforce development.
- Your gift will help provide tools and resources for health assessment, continued research and monitoring, and interventions necessary for improving children's health and development. This effort will address issues resulting from exposure to lead in water.
- Projects may include:
  - Identifying and tracking of exposed children
  - Defining a universal Pre-K program
  - Addressing food insecurity
  - Expanding nutrition education

Donation link:
- https://givingto.msu.edu/gift/?sid=2112

7. Crossing Water

http://crossingwater.org/
https://www.facebook.com/Crossingwater/

Background information:
- Crossing Water is working with multiple community-based stakeholders, local, state, and federal agencies, state-wide nonprofit and advocacy groups, and volunteers from around the state to ensure that ALL residents have access to safe drinking water, information on how to access and utilize resources, and access to medical care. We have designed, developed, and implemented a new model for emergency response and crisis-intervention scenarios in large urban settings. We have created and are currently deploying Rapid Response Service Teams (RRST) to the hardest hit and most underserved neighborhoods and communities in Flint to ensure that the most vulnerable individuals and families get the critical assistance and relief they need within the shortest period of time possible. Our teams are interdisciplinary units comprised of social workers, EMTs, RNs, plumbers, and other technicians who can be activated onsite with a call from our Operations Center.
- To address the broad lack of information sharing, we have created over 22 billboards on display throughout the Flint area in English and Spanish. We've also given PSAs on local radio and TV stations and distributed 15,000 flyers in low-income neighborhoods to educate people about lead contamination and available resources. Based on our interactions with households, we update our mass communication efforts to directly combat the most common informational gaps.

Donation link:
- https://www.gofundme.com/crossingwater

8. Flint Beat

http://flintbeat.com/
https://www.facebook.com/flintbeat/

Background information:
- "I stepped out on journalistic faith to give the Flint community the news and coverage they deserve." – Jiquanda Johnson, Publisher, FlintBeat.com
- FlintBeat.com is a hyper-local digital news publication covering Flint, Mich. being spearheaded by veteran reporter Jiquanda Johnson.

- We have a community journalism approach where we cover all things Flint. The website, FlintBeat.com, features news from city hall, neighborhoods, local news and will serve as a resource for Flint water crisis information.
- We will make public all donors who give $5,000 or more per year. We will avoid accepting donations from anonymous sources, and we will not accept donations from government entities, political parties, elected officials or candidates actively seeking public office. We will not accept donations from sources who present a conflict of interest with our work or compromise our independence.

Donation link:
- https://www.newsmatch.org/organizations/flint-beat

9. Personal Fundraisers

Background information:
- The links below include a variety of fundraisers run by individuals and groups in and for Flint. Examples of current causes include supporting the United Way of Genesee County, Flint's first female football team, families trying to move away from Flint, bottled water donations, neighbourhood canvassing to provide relevant information in Spanish to immigrants and refugees, and raising money for Flint during Ramadan.

Donation links:
- **Go Fund Me campaigns:** https://ca.gofundme.com/search/us/flint-mi-fundraising
- **CrowdRise campaigns:** https://www.crowdrise.com/helpforflint
- **Bonfire campaigns:** https://www.bonfire.com/results/flint/

10. American Red Cross Flint Michigan

https://www.redcross.org/local/michigan.html

Background information:
- When you give to the American Red Cross, you help our community's most vulnerable and most needy. An average of 90 cents of every dollar the Red Cross spends is invested in delivering care and comfort to those in need. Donations are used to provide food shelter, emotional support and other assistance, as well as the vehicles, warehouses and people that make relief possible.

Donation links:
- https://www.redcross.org/donate/donation.html/
- https://www.redcross.org/local/michigan/ways-to-donate.html

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