Civil Remedies for Racial Trauma

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ABSTRACT

Legal advocates have long had difficulty bringing claims for the traumatic harms caused by racial animus. Litigators have struggled to show the causal links that create racial trauma. However, emerging genetic and epidemiological evidence suggests that this challenge may now be surmountable. Not only does the new evidence show that racial trauma has lasting biological impact, but also that this trauma can be transferred to future generations. This white paper synthesizes emerging innovations in scientific research with legal concepts of causation in tort law to suggest possibilities for new civil legal remedies for racial trauma.

Introduction

Advocates and scholars have long known that racism causes trauma. However, the nomenclature of "racial trauma" *is* relatively new, particularly to legal discourse.[1] This is true for several reasons. For one, while trauma from explicit acts of racialized violence has long been acknowledged, trauma from implicit or unconscious acts such as microaggressions has only recently become more widely recognized.[2] Second, the specific idea of racial trauma is an emerging concept in legal discourse, with sub-sets like intergenerational trauma even less commonly discussed. And third, trauma in general can be difficult to prove in the legal setting. However, social and health science methods are beginning to catch up and fill the gap. Psychological models now show the link between racial traumatic stress and the impairment of a person's functioning (Carter 2007: 83), epidemiology demonstrates the link between racism and health disparities (Mansor 2020), and epigenetic models suggest the transfer of trauma to future generations through fetoplacental and germline transmission pathways (Lehrner and Yehuda 2018). Accordingly, we now have a much better understanding of the mechanisms whereby injury results from racism.

It is now clear that racial trauma stems from both explicit and implicit acts of racism and that the injuries are both severe and long lasting. The injuries result from egregious acts like extrajudicial police killings – which affect both the victim and immediate family – as well as more commonplace acts which are often equally as damaging. The symptoms of traumatic injury can be severe and include flashbacks, loss of memory and concentration, depression, irritability, and substance abuse (Mansoor 2020). In addition, racist incidents also produce feelings of powerlessness and betrayal in a way that closely parallels the experience of victims of childhood sexual abuse and sexual assault (Mansoor 2020: 894).

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[1] As of June 20, 2021, there were only 43 instances of the phrase "racial trauma" in the Westlaw database of Law Reviews and Journals. Over half of these date from the past three years. There are only 16 instances of the phrase prior to 2018. The concept is related to the broader idea of "cultural trauma" which has a somewhat longer (although still rather limited) history of in legal discourse. Some legal scholars, especially Angela Onwuachi-Willig, have recently used the terminology of cultural trauma in the same way that this paper uses racial trauma. See, e.g., Onwuachi-Willing (2016); Onwuachi-Willing (2020). Other legal scholars have at times drawn on cultural trauma research within the field of sociology by Eyerman (2002) and Alexander et. al (2004) and have applied the concept to a broad range of topics, including "victim's rights" in sentencing, in ways which are not particularly similar to the idea of racial trauma set out in this paper. Other than Onwuachi-Willig's recent work, legal discourse does not have a very well-developed literature about cultural trauma in ways related to this paper's discussion of racial trauma. And even though the terminology has a slightly longer history, it is still very sparse. There are total of 77 uses in the Law Reviews and Journals database as of September 3, 2021; 20 of them are in the last four years, mostly citing to Onwuachi-Willig's recent work.

[2] Sue *et al*. (2007: 271) define microaggressions as "brief and commonplace daily verbal, behavioral, or environmental indignities, whether intentional or unintentional, that communicate hostile, derogatory, or negative racial slights and insults toward people of color." Mansoor (2020: 892) outlines evidence suggesting microaggressions may be more distressing than ordinary racial stressors because of their numerosity and tendency to be chronic, as well as carrying more symbolic damage because of the history which they weaponize.

Importantly, institutions perpetuate these feelings of powerlessness in law discourse through their own complicity and entrenched anti-Blackness. The emergence of post-racial rhetoric, particularly in the U.S. Supreme Court's Affirmative Action jurisprudence, shows a societal attitude which exacerbates the injuries that result from other acts of racism. Post-racialism provides cover for institutional inequality, while it also contradicts the lived experiences of people of color by denying their validity (Chin 2012). These institutional acts of racism not only convey institutional indifference but also compound other injuries from racism by deepening, prolonging, and extending the severity of racism-created injuries. In short, institutions intended to address injury not only fail to address the harm but also exacerbate them, considerably worsening the trauma.

As we will see, the institution of medicine has also failed to acknowledge these injuries and, in turn, recreates racial trauma. As in law, medical responses to injuries are meant to assist healing those injured. Yet, for the most part, people with injuries from racism fail to obtain equitable access to care, which creates further harm (Bridges 2011). In this way, both law and medicine institutionally exacerbate the racialized trauma that is produced by particular injurious acts, re-traumatizing or independently traumatizing them.

In addition to these institutional problems, it is difficult to prove injury from racial trauma as a legal matter. One of the initial difficulties is showing causation under existing legal rules (Matsuda 1987; Wenger 2006). Proving injuries stemming from racism and racial trauma requires a showing of proximate cause. This is difficult when many acts of racism are hidden or exist embedded within institutional practice, while the injuries may affect entire communities. This creates difficulty for causation, as we will see, because courts have failed to conceptualize group harm. And courts have shown an over-reliance on proof of physical harm, making it difficult to prove traumatic injury.

Indeed, courts have rarely accepted emotional injury unless corroborated by evidenced physical harm (Chamallas and Wriggins 2010). More widely, courts have also failed to understand the relationship between injuries to the mind and the body, under-compensating injuries most likely to afflict minorities (Chamallas and Wriggins 2010: 160; Chamallas 2005) and have also failed to effectively address minority injuries resulting in injury inequality (Frank 2018).

Courts do, however, often respond to emerging research (Johnson *et al.* 2009).

New epigenetic and genetic research shows the concrete physical evidence of traumatic injuries. This type of research may help overcome the barriers to proving injuries from racial trauma. More so, new research demonstrates that these injuries do not just affect the individual who experienced the trauma. Trauma can be transferred at the level of gene methylation and, if the environment causing these risk factors is not changed, this transfer can span multiple generations (Metzl and Roberts 2014). In sum, the new epidemiological evidence

connects emotional trauma to physiological changes in the body. Showing this connection may make this aspect of a would-be plaintiffs' case easier.[3]

Even when causation is clear, plaintiffs may face other challenges when attempting to pursue legal recovery for racial trauma. When the law engages in litigating race it often perpetuates problematic assumptions about Blackness, and in turn, can exacerbate the harm. Claims for racial trauma have to fit within a challenging legal environment that is increasingly opposed to private recovery (Burbank and Farhang 2014).

For all these reasons, tort law is currently ill equipped to deal with racial trauma (Wenger 2010). However, recent developments in epidemiology, as well as new understandings of causation, suggest that it may be time to revisit the possibility of recovery in tort claims for trauma stemming from racial violence. Drawing on these new findings, innovative legal practitioners might challenge traditional tort law concepts of injury and causation and open up new channels for pursuing civil redress.

This paper begins with an introduction to some of the underlying issues contributing to traumatic injuries stemming from racism. This includes an overview of some of the institutional problems exacerbating traumatic injuries from racism, as evidenced by the relevant public health indicators; a discussion of the issues posed by racism in law enforcement; and an introduction to the problem of structural violence with racial implications in medicine. We then turn to the genetic and scientific evidence of trauma from racism; physiological responses to trauma; the transmission of trauma intergenerationally, culturally, and otherwise; and a short overview of the literature on resilience to trauma.

With this introduction to the public health context in which injuries from racial trauma take place, we turn to the inherent problems with litigating racial injuries. We begin by acknowledging the historical and structural barriers in the law that make litigating racial trauma challenging. This includes both problems with causation in tort law, and problems inherent in a litigation model which can reify a racial binary in potentially problematic ways. We discuss how lawsuits compensating for injuries are thus burdened with a Catch-22 scenario. We use a case study – recent litigation that used disability law to litigate racial injuries – to illustrate these

[3] This research is not without some controversy; and its application to human beings is also potentially contested. At present, the generational trauma research consists mostly of animal studies. Because of obvious ethical limitations, researchers cannot perform the same experiments on human beings. It seems reasonable that many of the same mechanisms would exist in humans, but there is not the same body of direct evidence from research. Some researchers have explored how mechanisms such as telomere length may affect epigenetic transfer. (Epel & Blackburn 2004; 2012; 2017). Continuing research can further develop our knowledge of those processes. Finally, the authors of this white paper do not wish to imply that racial trauma only exists if it can be demonstrated in epigenetic studies. Trauma is traumatic in and of itself, and people who are traumatized should not need to show epigenetic effects before the law will address their claims. However, we do believe, given the existing backdrop of tort law's often ineffective responses to harms of racial trauma, that the epigenetic evidence discussed in this paper may be useful in improving the ways that law addresses such harms.

issues. We note that lawsuits can provide vital compensation and justice for those who have experienced racialized injuries, but they can also cause harm by engaging in the same conceptual mechanisms that caused the harm. We end with suggestions on how to address these issues.

The Public Health Context of Racial Trauma

Public health literature firmly establishes a connection between racism and disparate health outcomes.[4] For example, life expectancy is 5.9 years lower for Black compared to white Americans; Black infant mortality is twice as high as white infant mortality; tuberculosis rates are 8 times higher, diabetes is twice as prevalent and hypertension is 1.5 times higher in Black Americans than in whites; and, Blacks have a homicide rate that is 650% higher than whites (Obasogie *et al*. 2017: 317-18). This firmly suggests that being Black in America is an indicator of disparate health outcomes.

As we shall see, these disparities are caused by structural inequalities and racism. They relate directly to the uneven access to healthcare which is a legacy of the history of chattel slavery in the United States. This structural inequality also extends to areas such as law enforcement which cause racial harm both directly through racial violence, and also less directly through neglect of Black communities. This institutional racism exacerbates experiences of trauma and worsens injury.

In this section, we explore the public health implications of racist law enforcement as an example of how structural inequality influences both public health practices and public health outcomes. We then turn to a discussion of how structural racism within public health exacerbates the injuries from these practices.

I. The Public Health Implications of Racist Law Enforcement

Law enforcement is often not considered a public health issue. However, the health implications for Black Americans who interact with law enforcement present such egregious injuries and affect so many Black Americans that scholars have recently argued it should be considered a public health crisis (Krieger *et al*. 2015) and a pandemic (Obasogie 2020). In causing a public health crisis, institutional racism in law enforcement both causes and exacerbates racial injury.

[4] Given the breadth of Public Health discourse, this is merely a short review. See, for example Bor *et al*. 2018; Clark and Adams 2004; Everson-Rose and Lewis 2005; Guyll *et al*. 2001; Harrell *et al*. 2003; Lewis *et* al. 2015; Massey 2004; Obasogie *et al*. 2017; Paradies *et al.* 2015; Williams and Mohammed 2009; Williams and Williams-Morris 2000.

Law enforcement violence against Black people is one of the salient ways that race is experienced in America. It exists against the backdrop of societal racism in general, meaning that those who may bring a lawsuit to address racial trauma must do so while continuing to experience ongoing institutional racism at the same time. In these cases, racial trauma is both episodic and chronic – that is, it happens both in individual discrete episodes, and also in one continuous unbroken act.

In Minneapolis, where George Floyd was killed by a police officer, law enforcement used force against Black people seven times more than white people since 2015 (Oppel Jr. and Gamio 2020). Law enforcement kill Black men nationally at a rate 3.5 times higher than white men (Edwards et al. 2018) and kill over 300 Black Americans – a quarter of whom are unarmed – each year (Bor *et al.* 2018). Eight of the 100 biggest city police departments kill Black men at a higher rate than the US murder rate (Mapping Police Violence 2020). And in every state, Black people are more likely to be arrested for marijuana possession despite similar levels of use. In some states Black people are six, eight, or even ten times more likely to be arrested (American Civil Liberties Union 2020: 8). These studies suggest that law enforcement violence against Black Americans is not merely incidental to crime, but rather is motivated by racial animus and systemic bias.

These statistics suggest an entrenched anti-Blackness in law enforcement. This is also evident in individual cases of law enforcement violence and white supremacy. For instance, in one high-profile incident, an officer killed an unarmed Black motorist while wearing a Confederate flag as an undershirt.[5] Similarly, the Federal Bureau of Investigation (FBI) warned of the significant threat of white supremacist infiltration in law enforcement as late as 2006 (Ward 2018: 173). Acts of racial violence committed by law enforcement are distinct from those of private citizens. They represent state endorsed violence (Mills 2003) and an abridgement of Constitutional rights (Ward 2018). Likely this adds to the feelings of helplessness and distress that victims of police violence feel. Many acts of police violence are extrajudicial. In other words, these acts are often not within the remit of police legality and are instead motivated by racial prejudice and systemic biases.

This racial animus is also reflected by the failure to pursue Black homicides. A recent report on the Oakland Police Department (PD) revealed that in the last decade officers made arrests in 80% of homicides involving white victims but only 40% with Black victims. Further, Oakland PD has over 2,000 cold homicide cases, despite 40% of Oaklands general budget going to its police department – a rate which is disproportionately high in comparison to other cities (Altholz 2020). This suggests institutional disinterest in Black violence and consequently distances law enforcement from the families of homicide victims; similar disparities exist across other crimes (Lee 1998).

[5] This event took place in Cincinnati in 2016. See Cleve R. Wootson Jr., “Mistrial for officer who killed a black man while wearing Confederate flag shirt,” Wash. Post, Nov. 12, 2016.

This failure of law enforcement to investigate Black homicides produces more wide-ranging systemic distrust of law enforcement. Perhaps not surprisingly, many do not seek legal representation following police violence. Institutional distrust becomes entrenched and, more concerningly, seeking legal representation may put an individual at risk of further violence by police. Further, this failure by police to pursue Black homicides can cause trauma in itself. One study found that a majority of family members of homicide victims develop a mental health disorder (Williams and Rheingold 2015); another found half of the family members show signs of Post-Traumatic Stress Disorder (PTSD), and a quarter developed full-blown PTSD (Hertz et al. 2005). Access to support mechanisms can often mitigate these effects, but if access to these support structures is rooted in the same racial prejudice, this produces a vicious cycle. This reminds us that police violence has more far-reaching implications than is initially obvious.

Indeed, Bor *et al*. (2018: 310) corroborates this finding by showing that racial trauma can be experienced vicariously. Family members of Black people who experience racial trauma are affected. Interestingly, no "spillover effect" was found among white respondents to police killings of unarmed whites or of armed Black Americans. The authors suggest that it was the systemic nature of these extrajudicial acts of violence that was the cause of the adverse mental health effects in Black Americans. That is, it was likely only because of institutional racism that Black Americans experienced trauma by witnessing police violence. Meanwhile, the trauma is further increased by the attitudes of white Americans who have historically paid little attention to Black injustice, a form of harmful complicity. Where efforts have occurred to redress police violence, they have often been met with structural obstacles or active resistance.

Another high-profile example is the failure to prosecute killer cops who murder Black people. Studies show that fewer than 2 percent of killer cops are prosecuted for murder or manslaughter for the shootings of Black people (Stinson 2019).

Accountability has accordingly been difficult. Police departments have actively resisted the collection of police violence data (Krige *et al*. 2015), the Trump administration refused to use federal accountability statutes, and the U.S. Supreme Court has refused to overturn qualified immunity, essentially "gutting" accountability mechanisms (Chemerinsky 2020). System-wide anti-Blackness and the disregard for Black bodies – personified in the image of Tamir Rice's body in the street (Yancy and Butler 2015) – establishes discrimination as the status quo. Law enforcement treatment of Black people presents many channels for causing trauma. Only two are mentioned here – explicit police violence and failure to pursue Black homicides – but many others exist. The institutional element of these instances of trauma amplifies their traumatic effects.

II. Structural Violence in Medicine

Medicine is also a site of institutional racial prejudice and anti-Blackness, resulting in health disparities for racial minorities. This is evident in history as well as today. For example, medical

students are taught that the medical spirometer – a tool used to measure pulmonary function – must be applied with a race correction of 20% based on "the deficiency of the Negro"; this race correction is still taught to medical students as fact (Villarosa 2019, Braun 2014). The structural inequities and violence in public health in turn lead to disparate health outcomes (Farmer *et al*. 2006). We present a few examples of how disparate treatment and access to medicine can cause racialized injuries.

- A 1994 study exposed that Black patients were less likely to receive antiretroviral therapy or pneumocystis pneumonia prophylaxis when first referred to an HIV clinic, regardless of disease stage (Moore *et al.* 1994).

- The infamous Tuskegee experiments involved researchers who failed to treat syphilis in Black male patients in a crude effort to discover divergent biological responses to the disease based on race (Cunningham 2006).

- Black men were found to be five to seven times more likely to be diagnosed with schizophrenia than white men (Metzl and Roberts 2014). This was based on the fallacious attribution of "aggression" and "hostility" to Black men, which was added to the diagnostic criteria in the second iteration of the politically charged Diagnostic and Statistical Manual of Mental Disorders (DSM-2).

- A study by Khiara Bridges (2011) documented ways in which pregnant women at a major public hospital were treated differently based on racial stereotypes, resulting in negative outcomes for Black women.

The severe and extensive nature of these racially motivated injuries, as well as their institutional nature, should be addressed by civil legal remedies. These examples are but a few that reveal explicit racial animus in medicine.

Similar to police violence, structural racism can also be covert in medicine. Covert examples of racism in medicine ignore the role that structural racism can play in causing injury. For example:

- Dieticians warned of the "African American diet" as a risk factor, without acknowledging that the diet was itself an artifact of structural racism, as low-income minority neighborhoods disproportionately contain fewer accessible grocery stores, sidewalks, or public transport, and are also specifically targeted by junk-food and cigarette advertising (Metzl and Roberts 2014; Obasogie *et al*. 2017)

- In 1989, the Medical University of South Carolina (MUSC) began collaborating with the Charleston police department to unconstitutionally drug test pregnant patients out of fear of the racialized and scientifically fallible "crack babies" epidemic (Metzl and Roberts 2014). Out of 40 patients arrested, all but one was Black, and most of these women were arrested within days or hours of giving birth – sometimes being shackled during delivery (Metzl and Roberts 2014).

- Several studies demonstrate a widespread social belief in the U.S. that Black mothers are not qualified or caring (Roberts 2007: 494). These social beliefs are now part of the fabric of the institutional practice of medicine. For example, a 1990 study in Florida found doctors were ten times more likely to report pregnant Black women for substance abuse than pregnant white women (Chasnoff *et al*. 1990).

- A 2016 study found that medical personnel often believe Black patients are less susceptible to pain. They are therefore less likely to give pain medicine to those patients. One study found that 40% of first and second-year medical students believe that Black patients are less susceptible to pain.

This research shows that while racial acts often occur individualistically, the systemic production of racism has serious consequences for how we understand injury. This can be through explicit acts like shackling pregnant mothers, or more covertly, through an increased likelihood of doctors reporting pregnant Black women for substance abuse. The medical institution's embrace of beliefs of inferior Black parenting occurs despite studies showing that such beliefs are socially produced (Dowd 2020; Farmer et al. 2006; Metzl and Roberts 2014).

In short, research suggests a strong link between racism and the provision of healthcare in the United States. This structural racism in public health, in turn, influences the ability of plaintiffs to successfully pursue claims of legal injury. Moreover, structural violence in medicine, like structural violence in law, has tangible effects that also cause and exacerbate injuries. Below we discuss how epigenetics is beginning to illuminate the causal mechanisms by which structural racism contributes to long term and even transgenerational trauma. And it is these mechanisms – in conjunction with the epidemiological evidence – which help us understand racial trauma in new ways.

Genetic Evidence of Racial Trauma

While public health research illuminates systemic racial inequality in medicine, scientific evidence demonstrates that injuries from racial trauma can occur in at least two stages. First, there is the initial traumatic act, where genetic and epidemiological evidence can show serious physical injury. Second, there are epigenetic mechanisms which can then transfer this trauma to future generations.

These mechanisms help us to understand injuries in ways that have not been previously understood, because previous conceptions of trauma were based on incomplete understanding of the biological process. Epigenetic studies provide new understandings of the chronology and transfer of injuries, showing how the effect of injury is not limited to just the proximate victim but can cause biological changes in the children of a victim of trauma.[6] And conversely, biological traumas could have been passed down by a person's parents who experienced trauma.

Accordingly, we start with exploring our understanding of the biological impacts of experiencing trauma. We then outline the epigenetic mechanisms that transfer these experiences biologically to future generations. Finally, we turn to how trauma can be transferred culturally at a group level and how institutional complicity and narratives affect resilience and the capacity to cope with traumatic injury.

I. Expanding our understanding and the impacts of trauma

Various factors have been shown to contribute to racial differences in health outcomes, including socioeconomic status, environmental factors, neighborhood, access to quality healthcare, and exposure to psychological stress (Levine and Crimmins 2014; World Health Organization 2008). These exposures and their corresponding stressors, with the experience of racism, contribute over time to various types of biological "weathering". And over the lifespan, this weathering can result in premature health deterioration (Geronimus *et al*. 2006). Racialized social experiences – often due to institutional anti-Blackness – can produce chronic health impacts (Dressler *et al*. 2005). For example, evidence shows that at specific ages, Black people are approximately three biological years older than white people (Levine and Crimmins 2014: 27). That is, their bodies have been aged due to stress and racism. And these exposures to stress factors create chronic trauma.

Expanding our understanding of the impacts of chronic trauma has only emerged in recent history. Studies from Holocaust survivors, whose trauma experiences are similar, found that the severity of posttraumatic stress disorder (PTSD) is dependent on both cumulative and recent stress exposure (Yehuda *et al*. 1995). Importantly however, psychological responses to trauma vary significantly (Yehuda *et al*. 1995). In particular, some people show resilience to extreme stress (van IJzendoorn *et al.* 2003). Holocaust survivors were found to have "heightened sensitivity of the neuroendocrine stress response, including low urinary cortisol excretion…and increased glucocorticoid receptor responsiveness" (Lehrner and Yehuda 2018: 1765). The age of exposure to psychological trauma has also been shown to change the biological impact (Lehrner and Yehuda 2018). Early age exposure to trauma has been found to

[6] We keep in mind the potential limits of applying animal studies to human beings. See supra note 3.

affect the total glucocorticoid production rate (Yehuda *et al.* 2009), mental health outcomes, and the hypothalamic–pituitary–adrenal (HPA) axis (Walters *et al*. 2011). Even the earliest studies of those who experienced trauma suggests strong biological ramifications.

Emerging research now shows that the experience of trauma extends to acts of racism. And these acts of racial violence have strong biological implications that are closely aligned with environmental conditions. For example, Kuzawa and Sweet (2009: 2) identified that racism in combination with environmental exposures explains cardiovascular disparities between Black and white American populations. Indeed, exposure to chronic racism often explains severe injuries at the individual level, as well as disparate health outcomes at the structural level. The epigenetic pathways that transfer these injuries and experiences of trauma are outlined below.

II. The transgenerational transfer of trauma

Epigenetics research shows us how biological changes from traumatic injury can be transferred to future generations. Transfer of trauma can occur culturally (see e.g., Eyerman 2001; DeGruy 2017; Walters *et al*. 2011) as well as biologically such as through gametic and intrauterine pathways (Lehrner and Yehuda 2018). In simple terms, epigenetics can be described as "the means by which the environment 'turns genes on or off'" (Lehrner and Yehuda: 1768). Epigenetic research expands the demonstration of injuries stemming from racial trauma, by showing that they can be passed onto future generations.[7]

However, epigenetic processes also involve a great deal of plasticity – that is, epigenetic processes are in flux, and the reliability of transmission is dictated significantly by environmental conditions (Jablonka and Raz 2009). Epigenetic pathways suggest that environmental conditions not only produce effects in the individual exposed, but may be transmitted, potentially unmodified, to their offspring over multiple generations (Hanson and Skinner 2016: 6). Epigenetic explanations show how social and economic change are fundamental to addressing poor health outcomes for Black and other minority populations (Kuzawa and Sweet 2009: 10).

Epigenetic changes, despite their name, do not affect DNA sequencing (Bonasio *et al.* 2010). They involve changes that can be inherited, induced by environmental exposures, that affect the "function of genomic DNA, its associated histone proteins, and non-coding RNAs, collectively referred to as chromatin" (Yehuda and Lehrner 2018: 246). Epigenetics offers environmentally induced explanations for "learning and memory, age-related neurodegeneration and effects of early-experiences, repeated drug exposure, chronic stress, nutrition and environmental toxins" (Meaney and Ferguson-Smith 2010: 1313). The specific

[7] At this point, we want to mention again some of the limitations of this work. We also want to mention that it is not our intent to suggest that courts should only give legal remedies where epigenetic evidence exists. Trauma is traumatic in itself, and those harmed by racial trauma should have access to legal remedies. See supra note 3.

biological mechanisms for the transfer of trauma induced symptoms are incredibly complex, but many of the mechanisms are well studied. We outline some of this emerging research below.

Lehrner and Yehuda (2018) outline the pathways of trauma transmission and relevant stages as follows (See Figure 1). These can be broken down into three potential stages of exposure:

a. Preconception trauma exposure (F0);
b. Fetal exposure (F1); and
c. Transgenerational (F3).

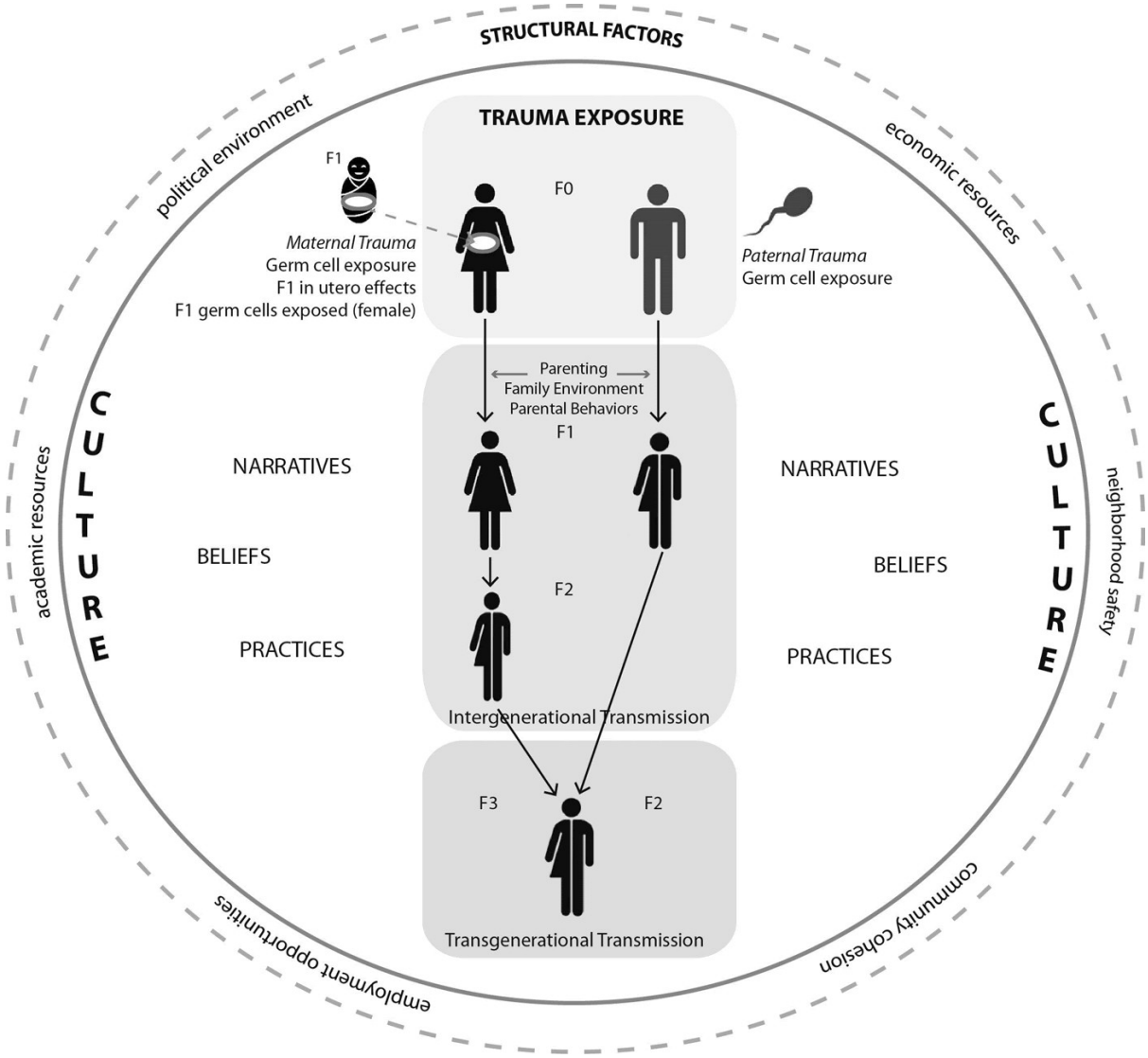

Figure 1 - the "multiple potential pathways for the biological transmission of trauma effects across generations" (Lehrner and Yehuda 2018: 1769). Source: Lehrner and Yehuda 2018: 1769.

a. Preconception trauma exposure

Preconception exposure to trauma can involve transmission through maternal oocytes or paternal sperm and would manifest during embryogenesis (Lehrner and Yehuda 2018).

Maternal transmission of trauma is challenging to isolate, but some studies from Holocaust survivors suggest that the maternal age of exposure to trauma may be significant (Yehuda and Lehrner 2018: 249).

Sperm, however, can transmit trauma across generations. And its effects can be more easily isolated because sperm, unlike maternal oocytes which are formed in females prior to birth, is formed in spermatogenesis during puberty in males (Yehuda and Lehrner 2018: 249-50). The mechanisms of DNA methylation and genomic imprinting leave a window for environmental influence to transfer experience of stressors (Guerrero-Bosagna *et al*. 2014). Various of these paternal (sperm) transgenerational transmission mechanisms have been identified in rodents (Gapp *et al*. 2014; Rodgers et al. 2015; Maamar *et al.* 2018). The exact mechanism has not been demonstrated in humans, but epidemiological studies that show correlation strongly suggest that this also occurs in human males.

For example, epidemiological evidence concerned with nutrition at specific ages in males suggests a transferable experience. Cardiovascular and diabetes mortality was found to be related to nutrition, and its transgenerational impact particularly moderated by paternal age. Males exposed to nutritional deprivation just before puberty were found to pass on health and disease risks to their children and grandchildren (Kaati *et al*. 2002). There are numerous other studies that correlate paternal environmental conditions and age with outcomes that can be heritable.

b. Fetal and in utero exposure

Maternal stress during pregnancy can transfer trauma. This stress can impact the fetus and the germline in utero (Lehrner and Yehuda 2018). There is an array of emerging literature supporting the effects of maternal trauma on fetoplacental interactions, supported by clinical, neuroendocrine, and epigenetic research (Yehuda and Lehrner 2018: 247).

Exposure to maternal stress and prenatal undernutrition can modify the development of offspring; these stressors explain prematurity and low birth weight among African Americans, and provide evidence of disparate rates of diabetes, hypertension, and cardiovascular disease as adults (Kuzawa and Sweet 2009; Gluckman *et al*. 2008). Epidemiological studies suggest environmental stressors present during this gestational period are strongly associated with attention deficit disorder (ADHD), schizophrenia, autism spectrum disorders and depression (Bale 2014).

Studies show that exposure to trauma predicts the increased prevalence of chronic mood and anxiety disorders, and less commonly, substance abuse disorders (Yehuda *et al*. 2008). Specifically *maternal* PTSD was associated with a higher chance of adult offspring developing PTSD (Yehuda *et al*. 2008). Studies have also found that those exposed to violence have significantly elevated levels of IgE (a type of antibody), Epstein-Barr virus and viral capsid antigen (Jackson *et al*. 2018). IgE levels, which have been linked to increases in allergy and asthma, can be transmitted from stressed mothers to their children (Jackson *et al*. 2018).

c. Transgenerational exposure

Exposure during pregnancy means that the offspring of the fetus (F2) is exposed to the direct grandmaternal (F0) stress, and as such, only F3 represents transgenerational transmission of maternal stress, whereas transgenerational transmission of paternal stress is considered at the offspring of the fetus stage (F2) (Lehrner and Yehuda 2018).

Grandmaternal exposure (F0) to psychosocial stress and toxins during pregnancy was found in one study to significantly affect 22 gene expressions transgenerationally (F3) (Serpeloni *et al*. 2017: 5). The regulation of just three of these gene expressions can result in the following biological changes: (1) *CFTR*: modulate the release of vitamin D (which can affect depression symptoms); (2) *CORIN*: blood pressure regulation, preeclampsia and pregnancy associated diseases; and, (3) BARX1: embryonic development and its associated implications (Serpeloni *et al*. 2017: 5). Though the direct health impact of these gene expression changes could not be explicitly determined, this study nonetheless suggests that “grandmaternal psychosocial stress can be translated into DNA methylation changes in the grandchild” (Serpeloni *et al*. 2017: 6).

III. Cultural Transmission of Trauma

The abovementioned epigenetic mechanisms show us that trauma is supported by a wealth of biological research. On the other hand, mapping of the human genome suggests that there is no genetic variation responsible for the characteristics we describe as race (Grave 2018). Indeed, the very idea of race as we perceive it has “untenable biological foundations” (Suzuki and von Vacano 2018: 3) and is mostly assumed to be a sociopolitical construct (Obasogie *et al*. 2017). Yet, race is still used systematically in the law, throughout socio-political structures, and is used routinely in medical treatment. And in the context of trauma, is still used as a marker of animus which can determine violence and injury. This means that racism is experienced at a group level and has cultural implications. Trauma can thus be experienced culturally (Alexander *at al*. 2004).

DeGruy (2017) conceptualizes cultural trauma from slavery as “Post Traumatic Slave Syndrome”. This encapsulates the legacy of Jim Crow, redlining, white capping, systemic bias,

lack of access to loans, lack of property assets, and the vicious cycle that ensues. Exposure to these traumatic experiences can lead to what were once effective coping mechanisms for trauma being passed down generations.

Though some of these coping mechanisms still have vital utility – for example, in environments with increased police violence such mechanisms represent a necessary ecological response – many of these practices are now dysfunctional. Where coping mechanisms are dysfunctional, they can result in adverse health effects including higher incidences of depression, anxiety, and other mental health disorders compared to other populations who did not experience multigenerational slavery and systemic racism; this includes recent African immigrants (Jackson *et al*. 2018: 18).

Yet, despite the widespread and cultural effects of historic racism, modern psychology, and psychiatry – much like law – conceptualizes trauma individualistically (Lehner and Yehuda 2018: 1763). The concept of individualized trauma does not reflect the experience of culturally experienced trauma and the injuries that stem from harming a group.

IV. Posttraumatic Growth and Resilience

Whilst this brief review may seem to suggest environmental exposures only produce permanent deleterious effects, it should be remembered that environmental effects also suggest malleability (Lehrner and Yehuda 2018). Emerging research shows exposure to trauma is not immutable and can in fact be prevented by "environmental enrichment" which can reverse DNA methylation (Gapp *et al*. 2016). Thus, the onus falls on society to combat race-based health disparities by changing the conditions which reinforce them.

Indeed, how we treat those who have experienced trauma is incredibly important. We should combat the narrative that trauma survivors are irreversibly damaged, and in so doing, we can avoid reducing their agency. Calhoun and Tedeschi (2006) remind us that encounters with trauma, though involving suffering and loss, can also lead to positive outcomes. They outline how responses to trauma can involve "posttraumatic growth" and that some who are exposed to trauma show resilience, or "capacity to cope" (Jackson *et al*. 2018; Seery *et al*. 2010). This growth can involve, for example, evidence that links traumatic experience with increased empathy and a better comprehension of emotion in others (Greenberg *et al*. 2018).

This posttraumatic growth can be explained by cognitive mechanisms like the "psychological immune system" that can help resolve and process negative experiences (Gilbert *et al*. 1998). Though initial reactions to trauma remain unsurprisingly negative, when the psychological immune system kicks in, a "toughening" effect ensues which allows some individuals to perceive events more positively (Jackson *et al*. 2018). A significant determinant of the success of trauma recovery is the narration of the experience by both the individual as a self-narrative, and social productions of trauma and resilience-building (Meichenbaum 2006). For example, in

the group context, access to social support has been found in some cases to reduce the prevalence of low birth weight among Black Americans (Kuzawa and Sweet 2009: 10). Thus, one key take-away is that society needs to take steps to stop re-traumatizing people who have been affected by racial trauma. But in the current environment, that is not likely – which returns us to how structural and institutional obstacles can exacerbate trauma injuries.

Further, it should also not be ignored that trauma often results in negative psychological impacts (Calhoun and Tedeschi 2006) and that for those that lack this resilience, trauma can result in on-going psychological distress and depressive symptoms (Jackson *et al*. 2018: 17). How a victim's trauma is narrated and how they respond therefore strongly affects their health. And acknowledging that it is often institutional structures that exacerbate or assist in recovery can help give agency back to trauma survivors. How we narrate trauma therefore also matters when we approach tort remedies.

Using Scientific Mechanisms to Evidence Injuries from Racial Trauma in Cases Involving Wrongdoing and Racial Animus

New epigenetic evidence suggests that harms from racial trauma and injury can be transferred to future generations. Crucially, the amalgam of this evidence suggests that it is now possible to prove legal injury in cases where wrongdoing has led to trauma. This includes, of course, cases where trauma is caused by racial violence, which is our focus in this paper.

Such lawsuits for injuries caused by racial animus can take many forms, including Section 1983 claims, civil rights claims (especially through Title VII of the Civil Rights Act), tort claims and even claims for breach of contract. There are challenges in placing these injuries within the reach of traditional torts (see e.g., Chamallas and Wriggins 2010). The new types of medical evidence examined in this paper can support such traditional tort claims, as well as supporting proposals such as Richard Delgado's (1982) for a tort action for racial harms.

Courts addressing tort claims typically require a showing of harm and causation – that is, evidence of physical injury which is closely tethered to a causal act. This has proved challenging in many types of cases, even though the injuries themselves are often well-known. Toxic tort litigation exemplifies how innovative litigators have used alternative ways of demonstrating causation. For example, in the *In re Agent Orange* litigation Judge Weinstein allowed statistical probability to address causal underdetermination, where otherwise the evidence simply did not exist to demonstrate the causal mechanisms (Wenger 2010: 203). The same issues have previously haunted attorneys in litigating trauma cases.

Our contribution is to examine the link between scientific innovations and injury, by showing there are biological implications to the immediate victim of trauma as well as those who

experience the trauma vicariously (and with new epigenetic evidence, potentially even the children of the immediate victim). This can support tort actions, which in turn have particular advantages in recovery and which give choice back to the plaintiff.

In this section we begin by acknowledging the historical and structural issues present in the law that often preclude understanding racial harm – including ways that lawsuits can reify problematic assumptions about race. We then move to the issue of causation in lawsuits, which currently struggles to address racial harms, and how the scientific evidence outlined here might address these issues. Finally, we turn to how lawsuits compensating for injuries stemming from trauma are burdened with a Catch-22 scenario. While these lawsuits can compensate for injuries caused by racial animus, advocates must be careful that lawsuits do not inadvertently reinforce the effects of this inequality themselves.

I. How Structural Inequality in Law Impacts Lawsuits for Injury Stemming from Racial Trauma

While in this paper we advocate for using the law to provide remedies for injury caused by racial trauma, it would be remiss not to acknowledge the inherent conceptual problems in litigating race. Actions involving race in the law necessarily work within what Cunningham (2006) calls the "race paradigm." That is, race is a socially produced binary that produces a literal Black and white separation in society. In so doing, it also imbues this relationship with a power asymmetry. This asymmetry has resulted in the unequal distribution of resources. It also led to medical abuses (as discussed above), sometimes in the context of attempts to justify these inequities by "finding" Black biological inferiority.

Any pursuit of justice that involves race, including anti-racist work, necessary exists within this dialectic: By litigating a racial injury as racial injury, advocates are *using* race as a foundation to their legal strategy. A follow up question is whether the law is the appropriate remedial tool, given how it often reinforces structural inequality? We will address these issues briefly.

Crucial to starting to answer these questions is acknowledging that law began its existence, and largely continues to exist, as a tool of elite power. Because of this, the U.S. legal system has never been good at addressing structural inequality, as that was not originally seen as an injury needing remedy under law (Wenger 2018).

Meanwhile, the concept of race has long been tied to subordination. This history extends back to the 17th century. At the turn of that century race was not generally used as an identity (Cunningham 2006). But in the middle of the 17th century, when chattel slavery was introduced, Black and white became identifying features (Cunningham 2006). It is as a result of slavery that it became necessary to turn Blackness into an *a priori* inferiority (Paul-Emile 2018: 334). This

was so because a justification was necessary to excuse the exploitation of Black bodies, and to condition Blackness into a hierarchical relationship.

Societal complicity – including by those who didn't own slaves – institutionalized this hierarchy into the systems of law and medicine. This hierarchy established whiteness as a beneficial attribute. It simultaneously denied Black access to loans and property and, in so doing, constructed whiteness as propertied interest (Harris 1993; Onwuachi-Willig 2017; Baradaran 2019). In other words, being white became a valuable asset, protected as a property interest. The law created an entrenched interest in preserving the racial binary.

While race itself is a problematic concept in many ways (especially in historical context), ignoring race is worse. For example, the U.S. Supreme Court uses a colorblind approach in its Affirmative Action jurisprudence (López 2007), what is called a "post-racial" approach. That is, that some of the Court justices analyze race with an approach that is ahistorical and ignores the legacy of chattel slavery that produced structural inequality and violence. This was seen in *Regents of California v. Bakke*, where Justice Powell's opinion found a moral equivalence between the "harm" suffered by white students potentially excluded through affirmative action, compared with the decades of segregation and Jim Crow suffered by Black students (Chin 2012). This approach was also present in *Richmond v. Croson* where Justice Scalia focused on words in the abstract, in contrast to Justice Thurgood Marshall who examined the history of racism in Richmond (Ross 1989).

More famously, this post-racial approach was evident when Chief Justice Roberts proclaimed that "the way to stop discrimination on the basis of race, is to stop discriminating on the basis of race" (*Parents Involved*, 2007, 551 US 701: 748). This statement is telling, because it too equates the white experience with the Black experience in America without acknowledging structural inequities. And *stare decisis* – the doctrine through which the Court defers to its own precedent – ensures that this status quo is given longevity (Wenger 2018: 263).

Gotanda (1991) has pointed out the problems with the "colorblind" approach. Race remains a huge part of lived identity. Remedies in the law that do not mention race ignore the trauma which exists because of the violence which follows the racial dichotomy. Cunningham (2006: 804) notes that identities are constructed by and within the system of the racial paradigm. Crenshaw (1989) adds the element of intersectionality – people who exist at the intersection of multiple marginalized categories may suffer special intersectional harms. Critical race theory provides tools for understanding this issue, and addressing race without perpetuating harmful stereotypes (Delgado 2009; Onwuachi-Willig 2009).

The problems of colorblindness are also evident in other areas of law. For example, the concept of duty in common law is seen through the concepts of the "reasonable person" (and in law enforcement, the "reasonable officer"). This notion of reasonableness is highly problematic, and often includes stereotypes and assumptions which perpetuate racial

hierarchies. Lawyers themselves are also complicit as prosecutors, shielded by prosecutorial immunity, in aiding police impunity (Trivedi and Van Cleve 2020). Ahistorical approaches to legal remedies therefore fail to confront systemic inequality, and they are not reflective of the lived experience of many victims of racism.

In sum, we recognize that law is an imperfect tool; and we recognize that race itself is a social construct intended to subordinate. However, the problems of *not* recognizing race, given the backdrop, are worse. Therefore, we use law to push for remedies for racial trauma, while recognizing and acknowledging the problems with both of those concepts.

II. Causation Problems

One of the most pressing challenges for litigators using tort law to remedy racial injury is showing legal causation. Very often the injury is well known but actually proving the causal links in law underlying racial trauma is difficult. In this section we to address some of the challenges in proving causation. In particular, we suggest that litigators use epigenetic and biological research to establish causal links. We do this by first reviewing some of the historical views in constructing the doctrine of causation. We then examine challenges raised by causation, along with alternative conceptualizations for addressing these challenges. Finally, we discuss how advocates can use the science discussed in this paper as a tool to show causation.

Fundamental to establishing liability in tort law is the demonstration of proximate cause (Wright 1985). However, proximate cause is itself a constructed idea, with its history tied to legal objectives such as limiting business exposure. (Horowitz 1998); the choice of which theoretical causes to give legal weight is thus subjective and relies on somewhat arbitrary distinctions such as “convenience”, “public policy” (Horowitz 1998: 493; Wright 1985) and “practical politics” (Nelson 2003: 98). That is, the determination of what is a *responsible* cause under tort law is often based on policy consideration (Wright 1985: 1744), and courts may try to balance economic goals such as limiting liability whilst also advancing other policy outcomes.

Torts claims for racial trauma must work within this doctrinal system. A plaintiff must prove with a “preponderance of the evidence” (more than fifty percent chance) that a tortious action caused the harm. In doing so attorneys must overcome attenuation – that is, a court finding that causation is too remote for legal claims (Wenger 2006). Proving that a specific action resulted in an alleged injury, particularly where the claim involves emotional injury or trauma, has been challenging. As mentioned above, some types of claims like toxic torts have successfully used statistical probability to demonstrate their causal explanation (Wright and Puppe 2016). Nonetheless, for most types of claims courts have required clearer demonstration of causal links than just statistical probability.

The scientific evidence reviewed above strongly suggests that racial animus and racism can cause serious physical injury. More so, that these injuries can impact future generations. This

scientific evidence is growing, and advocates can use this evidence and statistical analysis to overcome issues with linking injuries to a defendant. Thus, one important take-home point for advocates is this – new science and epigenetic evidence can help show the sorts of causal links necessary to establish tort liability. (They can do so within a framework of policy arguments about racial harm.)

This evidence also goes to other aspects of tort law. For instance, it can shape our understanding of foreseeability. Courts such as *Palsgraf* have ruled that some kinds of unexpected harms do not give rise to tort liability, due to lack of foreseeability. However, the recent studies provide a basis for showing that racial trauma is indeed foreseeable. An injury motivated by racial animus – for example, a racial slur – would likely in itself demonstrate that the tortfeasor's action was motivated by racial animus. A defendant cannot claim not to have foreseen injury where the defendant has acted with racial animus and caused traumatic injury *because* of racial prejudice.

Another element in litigating racial injury in tort law is the element of damages. As scholars have noted (e.g. Chamallas 2020), tort law has not historically been receptive to emotional or dignity harms – Chamallas characterizes tort law as "a flawed system that tends to reproduce rather than ameliorate racialized harms."

Even as tort law adapted to cover some emotional harms, racial trauma remains under-compensated. The damages element requires a showing that the emotional impact is injurious. Indeed, some scholars have contended that "thick skin" plaintiffs – those who develop resilience or "thick skin" because of exposure to chronic racism – may subvert their own claims to emotional injury (Mansoor 2020). This is similar to the way that some doctors believe that Black patients need less pain medication.

Proof of emotional stress on an individual basis may be strengthened with the scientific demonstrations of traumatic injury we have outlined. And the idea of possessing a psychological "capacity to cope" with trauma should not negate the injury itself. A physician who can suture their own wounds would still have been injured to the same extent regardless of a greater ability to cope with their injury. The same is likely true of the thick skin plaintiff. This also speaks to the fact that a group understanding of racial trauma would better conceptualize racial injury.

Still better would be for tort law to recognize group harm as a valid claim. However, modern tort law conceptualizes harm as affecting the autonomous individual (Matsuda 1987). Indeed, tort law is *defined* by its connection to the loss or detriment that an individual suffers. This is problematic as tort law fails to appreciate interconnected bodily harm within a community (Scott 2010). However structural racism and institutionalized anti-Blackness affect entire groups and cultures. As such, though some thick skin plaintiffs may not show explicit traumatic injuries, situating such injuries within a group understanding of institutional racism, and

corroborating these injuries with scientific explanations of such injuries, may help overcome these barriers.

In response to these barriers to proving injuries from racial animus some scholars have suggested expanding tort liability to include less proximate actors where their inclusion is more likely to reduce the chance of the harm reoccurring (see e.g., Matsuda 2000). Courts have not utilized this approach unilaterally but have, in some cases, responded to wider policy ambitions by shifting liability onto those best situated to prevent future harm.

For example, in the early 1960s automobile drivers were entirely responsible for crash injuries. After prolonged activism, courts decided that manufacturers were best positioned to understand and avert crash induced injuries (Jain 2010: 241). The same is true of tobacco litigation. Importantly, both of the shifts represent a policy move by the courts to advance social good (Jain 2010). A similar argument could be made for racial trauma: shift the burden from victims of racial trauma onto its perpetrators and, in so doing, advance a wider public policy goal to extirpate racial injuries.

Other scholars have argued that an independent tort could overcome these barriers to bringing claims for racial injury. For example, Delgado (1982) suggests an independent tort of racial slurs to combat the issues with causation. The idea is powerful, although any attempts to regulate speech encounter potential First Amendment hurdles. However, Delgado's proposal fits nicely with the scientific evidence of racial trauma we have reviewed. Delgado notes that injuries resulting from racial animus are an affront to the dignity of a plaintiff. Invoking the concept of dignity is interesting because the violation of dignity is a widely used prerequisite in intentional torts such as intentional infliction of emotional distress, malicious prosecution, and invasion of privacy. (Delgado 1982: 144). And the invocation of dignity also has social benefits because it legitimizes a plaintiff's claim to justice.

This acknowledgement that racial injuries can often be a violation of dignity also aligns with a "multiple perspectives" approach that may well increase the likelihood of courts deeming actions outrageous (Chamallas and Wriggins 2010: 86). The multiple perspectives approach tries to show all parties that the meaning of an action differs depending on perspective. This can often help to highlight a salient characteristic of a plaintiff – such as race – and outline how this characteristic is relevant in the damage's calculation. This can assist factfinders in assessing the social identities of the actors involved in a case, the power dynamics that may be present, and their effects.

However, as we have mentioned, we need to do this without pathologizing race or relying on negative assumptions about parties. Torts involving race can therefore be open to embracing competing narratives (Bloom 2010). That is, they can interrogate the inherent contradiction of litigating racial animus even as they simultaneously rely on the construct of race – saying, "yes, this is a construct, but it is a construct that harms people and so we must examine it." And

attorneys can bolster plaintiff's agency to narrate their story on their own terms. Individual tort actions therefore should acknowledge the social implications of the racial framing but can also use this to benefit the plaintiff.

In sum, the biological mechanisms outlined demonstrate new ways of proving causation as well as demonstrating injuries. The epidemiological evidence suggests that racial acts both individually and institutionally can cause severe physical injuries. The scientific mechanisms help to connect how physical injury can be connected to a tortfeasor, and the epigenetic mechanisms show that these injuries not only affect the individual but can also be passed down to future generations. We next turn to how suits litigating racial injury can simultaneously benefit from new legal constructions.

III. Comparison: Recent Advocacy in Disability Law as a Framework for Examining Racial Injuries

Recent innovative discussions about addressing racial trauma[8] through civil law have explored the possibility of using disability law to provide redress. This is because disability law, exemplified in the *Peter P. v. Compton Unified School Distric*t litigation, allows for broader conceptualizations of harm which can overcome the issue of causation and group injuries. Because of this, some scholars argue that disability law can be an effective tool to ameliorate socially produced racial harms. However, using disability law has the obvious issue that it equates Blackness with disability.

In *Peter P. v. Compton Unified School District* the plaintiffs argued that children growing up in low-income neighborhoods are disproportionately likely to experience trauma because of structural inequity. In this way, they argued socially produced poverty created an aggregate disadvantage that affected the plaintiffs in similar ways. The *Compton* plaintiffs demonstrated injury by arguing they experienced Adverse Childhood Events (ACEs) which led to complex trauma and educational disability.

Although the court denied the motion for class certification and preliminary injunction, it also denied the defendants motion to dismiss. The court's "denial of the motion to dismiss the substantive claim of group-based harm" is instructive because it "implies the appropriateness of certifying a class based on that group status" (McGinley and Cooper 2020: 339). In other words, the *Compton* litigation suggests that there is a willingness of some courts to understand group harms, and such claims could be successful if they learn from this legal approach.

a. Addressing Potential Concerns

[8] See generally, Dowd 2020; Paul-Emile 2018; McGinley and Cooper 2020.

There are potential concerns with this approach. Most obviously, there are significant potential concerns with associating Blackness with disability, which seems to suggest a pathology of Blackness. In some ways, the scientific evidence could even have negative consequences here. That is, by continually litigating racial injuries we could produce a connection between being Black and being damaged. This is then compounded by the notion that the injuries experienced by one individual can impact future generations. There is a very real danger therefore that in illuminating scientific mechanisms that demonstrate injuries from race, and that they can be transferred, that we create a heritable Black pathology. The disability framing threatens to bring these issues to the fore.

However, disability scholars may help to address this. Disability scholars who advocate for a social model of disability argue that many disabilities are socially produced. For example, being in a wheelchair is only disabling in a world where most buildings use stairs. Social models of disability firmly suggest that disability is a product of institutional structures which produce the disabling affect.

It is only because of social prejudice that association with disability is problematic at all. In other words, disability is only a negative association because society narrates disability that way. As such, advocates in disability law frequently seek to challenge those narratives. Some scholars argue the same should be done for race issues.[9] And not surprisingly, Blackness is also sometimes presented as an institutional disadvantage (Paul-Emile 2018).

Advocates can frame the case such that plaintiffs are agents of their own decision, not merely passive victims of harm. The presentation may vary depending on the context. In court, portraying a plaintiff as victim may be more likely to result in damages – and without these recoveries lawyers may stop taking cases (Bloom 2011). However, if a lawyer allows the plaintiff to be the arbiter of their fate, this can empower a plaintiff rather than diminish their agency (Perry 2009). Indeed, if the narrative is shifted from victimization to accountability – especially in instances of racial trauma where the injury is precedential (Perry 2009) – tort law can act to validate a plaintiff's sense of injustice and can empower on a societal level (Solomon 2009). Therefore, the way we construct a plaintiff's story can greatly impact the success of the litigation as well as the agency of the plaintiff.

The disability approach has led some scholars to advocate for using Blackness as a disability; it has also created staunch opponents. Some scholars believe that while there are certainly some problems with using disability law to combat racial trauma, the benefits outweigh them. McGinley and Cooper (2020: 296) argue that their "intersectional cohort" analysis – which establishes a "discrete and cohesive" class – may outweigh the problematic association of race and disability and would overcome the class certification issue.

[9] Intersex rights advocates have faced the same questions when discussing whether to use a disability framework to address harms suffered by intersex individuals (Greenberg 2012).

ADA analysis also better balances redress for injury with social outcomes than existing race law (Paul-Emile 2018: 293). This is because ADA law places the burden of proof and accommodation on the disabling institution, rather than on the individual. And, unlike current race law, ADA approaches are more open to examining socially produced harms. In this sense the Compton litigation is informative in that it shows that courts can be receptive to group-based injuries and that alternative frameworks exist that do not need to exacerbate social harms.

In this sense disability law and the *Peter P.* litigation exemplify how advocates can litigate racial injuries, although they also must be mindful of potential harms. There are significant potential benefits to this approach; but if used incautiously it could reify social assumptions about race and entrench a pathology that may cause further harms. This litigation has sparked useful debate into how to best frame social harms in a way that legal decisionmakers understand, hopefully creating new tools to address the social harm of racial injuries. We next turn to the benefits of litigation for racial injuries.

b. The Advantages of Damages to Plaintiffs

There are also significant benefits from obtaining redress. These advantages are both in the sense that successful litigation results in damages which help in recovering some of the costs of injury, but also that making an injury justiciable can have powerful social advantages.

By illuminating racial trauma as a justiciable event, litigation can empower a victim of trauma. It can do this by showing that an injury is worthy of justice and that the defendant who caused the injury should be held accountable (Perry 2009; Solomon 2009). Indeed, torts in particular can also represent a more democratic process (Weinstein 2001). They give power and choice back to a plaintiff. Giving power back to a plaintiff, especially given that being exposed to trauma is likely not within their control, gives a plaintiff choice in whether and how to narrate their own legal justice.

Showing that these plaintiffs have access to justice and are not expected to simply “lump it” – absorb the cost of injury themselves – sends an important social signal (Engel 2010).

The monetary value of damages presents a further compelling reason to litigate racial injuries. As noted above, racial disparities are often experienced as resource inequity, and damages can help address that. Damages also place a social value on the injury and the plaintiff. This presents both an advantage in that a large award may help a plaintiff financially and may provide some level of resolution.

Damages perform a vital function by making the defendant or tortfeasor liable for the damage and injury they have caused. Compensatory damage awards can help cover medical expenses

and any other loss incurred. In this sense, the monetary aspect of damages cannot be stressed enough. Especially for low-income plaintiffs, damage awards may be a vital lifeline.

That is not to say, however, that damages can substitute for the impact of an injury. Indeed, the transgenerational and cultural impact of racial trauma outlined reflects the inability of money to achieve wholeness. Tort law can help provide justice and empowerment rather than repair a "damaged" plaintiff. Yet the monetary aspect of damages remains integral. Unlike with some civil rights statute, tort claims often have relatively high caps (Chamallas and Wriggins 2010: 76). Higher awards have the obvious benefit that the plaintiff gets more financial recovery. These higher awards also have pragmatic importance as they inform attorneys whether cases are worth taking under the contingency fee model, where attorneys typically take a third of a plaintiff's recovery (Chamallas and Wriggins 2010: 156).

Damages are social in nature. While offering significant potential benefits, they are also affected by the same racial biases that exist everywhere.

By measuring injuries and awarding damages, courts assign a social value to a plaintiff's injuries (Chamallas and Wriggins 2010: 156). This may be especially the case with punitive damages, where courts examine the nature of a perceived wrong in assessing how much to punish a bad actor. Both compensatory and punitive damages can reflect racial biases. Chamallas (2020) notes that courts could take into account how racial creates "recurring, cumulative" harms.

Many courts use actuarial tables in calculating damages. However, Chamallas and Wriggins (2010: 150) show that race- and gender-based data tables result in considerably lower awards for minorities and can perpetuate systemic biases. As Chamallas notes (2020), these tables "bake in the discriminatory practices of the past." For that reason, Chamallas and Wriggins suggest that courts follow in the footsteps of a minority of courts who have imported Title VII concepts to calculate recovery (Chamallas and Wriggins 2010: 188). Using Title VII concepts here means applying Equal Protection arguments to recovery calculations and therefore disregarding the gendered and racialized bias present in many statistical tables.[10]

Noneconomic damages can also be a site which is affected by racial biases. Because racial minorities typically earn less, their total award is likely to be more constituted by noneconomic damages (Chamallas and Wriggins 2010: 177). And this in turn may deter attorneys from taking claims from racial minorities when contingency fees are the only funding source. Bloom (2011) posits that by using a more forward-looking focus in calculating recovery, and by centering a plaintiff's narrative, attorneys can attempt to highlight the loss incurred in the future life of a plaintiff, rather than fixating on prejudicial tabulations.

[10] Chamallas and Wriggins (2010) note that data tables are one of the last examples of courts using race and gender to openly discriminate, even though this directly contradicts the racially neutral dictate of the U.S. Supreme Court.

Using a forward-looking approach to damages may allow the focus to be on the cost of living within a system that structurally disadvantages a plaintiff. Disability law provides examples of how this has already been achieved in some litigation strategies. And these legal strategies should use forward-looking narratives to maximize recovery to the plaintiff's advantage in litigating injuries stemming from racial animus, especially because of the impact that damage awards can have.

Conclusion

Advocates seeking civil remedies for injuries stemming from racial animus have to contend with many issues.[11] These range from the difficulty in showing causal links between the injury and the tortfeasor, through to the conceptual problem with creating a Black pathology and reifying the production of race in the law. The scientific evidence we have put forth suggests that there are new ways of demonstrating injury and linking this injury to a defendant. And epigenetic evidence further suggests that these injuries can transferred to future generations. Law is an imperfect tool in these kinds of cases, but it can both empower a plaintiff and provide meaningful recovery. Much hinges on how the "master's tools"[12] are utilized.

[11] Though the majority of our focus has been on Black violence and Black racial trauma, we hope that this paper may open up new channels to litigate other racial traumas. Many other minority populations in the United States also experience injuries caused by racial animus.

[12] See Onwuachi-Willig (2009) – using Audre Lorde's analogy of "the master's tools" – she illustrates how critical race theory can work politically to combat the innate structural injustices of the law by using the very tools that oppress; see also Wenger (2018).

Bibliography

Alexander, J. C., R. Eyerman, B. Giesen, N. J. Smelser and P. Sztompka (2004) Toward a Theory of Cultural Trauma, California: California University Press.

Altholz, R. (2020) "Living with impunity: unsolved murders in g and the human rights impact on victims' family members," (WWW) International Human Rights Law Clinic, University of California, Berkeley, School of Law (https://www.law.berkeley.edu/wp-content/uploads/2020/01/Living-with- Impunity.pdf; 6/16/2020).

American Civil Liberties Union (2020) "A tale of two countries: racially targeted arrests in the era of marijuana reform," (WWW) American Civil Liberties Union (ACLU) [report] (https://www.aclu.org/sites/default/files/field_document/042020-marijuanareport.pdf; 06/30/2020).

American Psychiatric Association (2013) Diagnostic and Statistical Manual of Mental Disorders (5th ed.), Washington, DC: American Psychiatric Association.

Antecol, H. and K. Bedard (2006) "Unhealthy assimilation: why do immigrants converge to American health status levels?" Demography, Vol.43 (2), pp.337-360.

Bale, T. L. (2014) "Lifetime stress experience: transgenerational epigenetics and germ cell programming," Dialogues in Clinical Neuroscience, Vol.16 (3), pp.297-305.

Bloom, A. (2010) "To be real: sexual identity politics in tort litigation," North Carolina Law Review, Vol.88 (2), pp.357-426.

Bloom, A. (2011) "Blindsight: how we see disabilities in tort litigation," Washington Law Review, Vol.86 (4), pp.709-753.

Bonasio, R., S. J. Tu and D. Reinberg (2010) "Molecular signals of epigenetic states," Science, Vol.330 (6004), pp.612-616.

Bor, J., A. S. Venkataramani, D. R. Williams and A. C. Tsai (2018) "Police killings and their spillover effects on the mental health of black Americans: a population-based, quasi-experimental study," The Lancet, Vol.392 (10144), pp.302-310.

Brody, G, H., M. Lei, E. Chen and G. E. Miller (2014) "Neighborhood poverty and allostatic load in African American youth," Pediatrics, Vol.134 (5), pp.e1362-1368.

Calhoun, L. G. and R. G. Tedeschi (2006) "The foundations of posttraumatic growth: an expanded framework," in L. G. Calhoun and R. G. Tedeschi (eds.) Handbook of Posttraumatic Growth: Research and Practice, Florence: Taylor & Francis Group.

Calhoun, L. G. and R. G. Tedeschi (eds.) (2014) Handbook of Posttraumatic Growth: Research and Practice, New York: Routledge.

Carter, R. T. (2007) "Racism and psychological and emotional injury: recognizing and assessing race- based traumatic stress," The Counseling Psychologist, Vol.35 (1), pp.13-105.

Chamallas, M. (2005) "Civil rights in ordinary tort cases: race, gender, and the calculation of economic loss," Loyola of Los Angeles Law Review, Vol.38 (3), pp.1435-1468.

Chamallas, M. and J. B. Wriggins (2010) The Measure of Injury Race, Gender, and Tort Law, New York: New York University Press.

Chasnoff, I. J, H. J. Landress and M. E. Barrett (1990) "The Prevalence of illicit-drug or alcohol use during pregnancy and discrepancies in mandatory reporting in Pinellas County, Florida," The New England Journal of Medicine, Vol.322 (17), pp.1202-1206.

Chemerinsky, E. (2020) "Trump and the Supreme Court have gutted the legal tools for fighting police abuse," (WWW) The Washington Post (https://www.latimes.com/opinion/story/2020-06-05/op-ed-trump-and-the-supreme-court-have-gutted-the-legal-tools-for-fighting-police-abuse; 06/30/2020).

Chin, J. (2012) "What a load of hope: the post-racial mixtape," California Western Law, Vol.48 (2), pp.369-397.

Clark, R. and J. H. Adams (2004) "Moderating effects of perceived racism on John Henryism and blood pressure reactivity in black female college students," Annals of Behavioral Medicine, Vol.28 (2), pp.126-131.

Crenshaw, K. (1989) "Demarginalizing the intersection of race and sex: a black feminist critique of antidiscrimination doctrine, feminist theory and antiracist politics," University of Chicago Legal Forum, Vol. 1989: Iss. 1, Article 8.

Calhoun, L. G. and R. G. Tedeschi (eds.) (2014) Handbook of Posttraumatic Growth: Research and Practice, New York: Routledge.

Carter, R. T. (2007) "Racism and psychological and emotional injury: recognizing and assessing race- based traumatic stress," The Counseling Psychologist, Vol.35 (1), pp.13-105.

Chamallas, M. (2005) "Civil rights in ordinary tort cases: race, gender, and the calculation of economic loss," Loyola of Los Angeles Law Review, Vol.38 (3), pp.1435-1468.

Chamallas, M. and J. B. Wriggins (2010) The Measure of Injury Race, Gender, and Tort Law, New York: New York University Press.

Chasnoff, I. J, H. J. Landress and M. E. Barrett (1990) "The Prevalence of illicit-drug or alcohol use during pregnancy and discrepancies in mandatory reporting in Pinellas County, Florida," The New England Journal of Medicine, Vol.322 (17), pp.1202-1206.

Chemerinsky, E. (2020) "Trump and the Supreme Court have gutted the legal tools for fighting police abuse," (WWW) The Washington Post (https://www.latimes.com/opinion/story/2020-06-05/op-ed-trump-and-the-supreme-court-have-gutted-the-legal-tools-for-fighting-police-abuse; 06/30/2020).

Chin, J. (2012) "What a load of hope: the post-racial mixtape," California Western Law, Vol.48 (2), pp.369-397.

Clark, R. and J. H. Adams (2004) "Moderating effects of perceived racism on John Henryism and blood pressure reactivity in black female college students," Annals of Behavioral Medicine, Vol.28 (2), pp.126-131.

Crenshaw, K. (1989) "Demarginalizing the intersection of race and sex: a black feminist critique of antidiscrimination doctrine, feminist theory and antiracist politics," University of Chicago Legal Forum, Vol. 1989: Iss. 1, Article 8.

Cunningham, E. C. (2006-2007) "Exit strategy for the race paradigm," Howard Law Journal, Vol.50, pp.755-826.

DeGruy, J. (2017) Post Traumatic Slave Syndrome: America's Legacy of Enduring Injury and Healing, Milwaukee, WI: Uptone Press.

Delgado, R. (1982) "Words that wound: a tort action for racial insults, epithets, and name-calling," Harvard Civil Rights-Civil Liberties Law Review, Vol.17 (1), pp.133-182.

Delgado, R. (2009) "Liberal McCarthyism and the origins of Critical Race Theory," Iowa Law Review, Vol.94, pp.1505-1545.

Dowd, N. E. (2020) "Response: children's equality: strategizing a new deal for children," Fordham Urban Law Journal, Vol. XL VII (2), pp.377-391.

Dressler, W. W., K. S. Oths and C. C. Gravlee (2005) "Race and ethnicity in public health research: models to explain health disparities," Annual Review of Anthropology, Vol.34, pp. 231-252.

Edwards, F., M. H. Esposito, and H. Lee (2018) "Risk of police-involved death by race/ethnicity and place, United States, 2012-2018," American Journal of Public Health, Vol.108 (9), pp.1241-1248.

Everson-Rose, S. A and T. T. Lewis (2005) "Psychosocial factors and cardiovascular disease," Annual Review of Public Health, Vol.26, pp.469–500.

Eyerman, R. (2001) Cultural Trauma: Slavery and the Formation of African American Identity Cambridge: Cambridge University Press.

Farmer, P. (2004) "An anthropology of structural violence," Current Anthropology, Vol.45 (3), pp.305-325.

Farmer, P. E., B. Nizeye, S. Stulac and S. Keshavjee (2006) "Structural violence and clinical medicine," PLoS Medicine, Vol.3 (10), pp.1686-1691.

Franks, M. A. (2018) "Injury inequality," in A. Bloom, D. M. Engel and M. W. McCann (eds.) Injury and Injustice: the cultural politics of harm and redress, Cambridge: Cambridge University Press.

Gapp, K., A. Jawaid, P. Sarkies, J. Bohacek, P. Pelczar, J. Prados, L. Farinelli, E. Miska and I. M. Mansuy (2014) "Implication of sperm RNAs in transgenerational inheritance of the effects of early trauma in mice," Nature Neuroscience, Vol.17 (5), p.667-671.

Gapp, K., J. Bohacek, J. Grossmann, A. B. Brunner, F. Manuella, P. Nanni and I. M. Mansuy (2016) "Potential of environmental enrichment to prevent transgenerational effects of paternal trauma," Neuropsychopharmacology, Vol.41 (11), pp.2749-58.

Geronimus, A.T., M. Hicken, D. Keene, and J. Bound (2006) "'Weathering' and age patterns of allostatic load scores among blacks and whites in the United States," American Journal of Public Health, Vol.96 (5), pp.826-833.

Gilbert, D. T., E. C. Pinel, T. D. Wilson, S. J. Blumberg and T. P. Wheatley (1998) "Immune neglect: a source of durability bias in affective forecasting," Journal of Personality and Social Psychology, Vol.75 (3), pp.617-638.

Gluckman, P. D., M. A. Hanson, C. Cooper, C and K. L. Thornburg (2008) "Effect of in utero and early- life conditions on adult health and disease," New England Journal of Medicine, Vol.359 (1), pp.61-73.

Dressler, W. W., K. S. Oths and C. C. Gravlee (2005) "Race and ethnicity in public health research: models to explain health disparities," Annual Review of Anthropology, Vol.34, pp. 231-252.

Edwards, F., M. H. Esposito, and H. Lee (2018) "Risk of police-involved death by race/ethnicity and place, United States, 2012-2018," American Journal of Public Health, Vol.108 (9), pp.1241-1248.

Everson-Rose, S. A and T. T. Lewis (2005) "Psychosocial factors and cardiovascular disease," Annual Review of Public Health, Vol.26, pp.469–500.

Eyerman, R. (2001) Cultural Trauma: Slavery and the Formation of African American Identity Cambridge: Cambridge University Press.

Farmer, P. (2004) "An anthropology of structural violence," Current Anthropology, Vol.45 (3), pp.305-325.

Farmer, P. E., B. Nizeye, S. Stulac and S. Keshavjee (2006) "Structural violence and clinical medicine," PLoS Medicine, Vol.3 (10), pp.1686-1691.

Franks, M. A. (2018) "Injury inequality," in A. Bloom, D. M. Engel and M. W. McCann (eds.) Injury and Injustice: the cultural politics of harm and redress, Cambridge: Cambridge University Press.

Gapp, K., A. Jawaid, P. Sarkies, J. Bohacek, P. Pelczar, J. Prados, L. Farinelli, E. Miska and I. M. Mansuy (2014) "Implication of sperm RNAs in transgenerational inheritance of the effects of early trauma in mice," Nature Neuroscience, Vol.17 (5), p.667-671.

Gapp, K., J. Bohacek, J. Grossmann, A. B. Brunner, F. Manuella, P. Nanni and I. M. Mansuy (2016) "Potential of environmental enrichment to prevent transgenerational effects of paternal trauma," Neuropsychopharmacology, Vol.41 (11), pp.2749-58.

Geronimus, A.T., M. Hicken, D. Keene, and J. Bound (2006) "'Weathering' and age patterns of allostatic load scores among blacks and whites in the United States," American Journal of Public Health, Vol.96 (5), pp.826-833.

Gilbert, D. T., E. C. Pinel, T. D. Wilson, S. J. Blumberg and T. P. Wheatley (1998) "Immune neglect: a source of durability bias in affective forecasting," Journal of Personality and Social Psychology, Vol.75 (3), pp.617-638.

Gluckman, P. D., M. A. Hanson, C. Cooper, C and K. L. Thornburg (2008) "Effect of in utero and early- life conditions on adult health and disease," New England Journal of Medicine, Vol.359 (1), pp.61-73.

Grave, J. L. (2018) "Biological theories of race beyond the millennium," in K. Suzuki and D. A. Von Vacano (eds.) Reconsidering Race: Social Science Perspectives on Racial Categories in the Age of Genomics, New York, NY: Oxford University Press.

Greenberg, D.M., S. Baron-Cohen, S; N. Rosenberg, P. Fonagy and P. J. Rentfrow (2018) Elevated empathy in adults following childhood trauma," PLoS ONE, Vol.13 (10), p. e0203886.

Grutter v. Bollinger (2003) 539 US 306.

Guerrero-Bosagna, C., S. Weeks and M, K. Skinner (2014) "Identification of genomic features in environmentally induced epigenetic transgenerational inherited sperm epimutations," PloS one, Vol.9 (6), p.e100194.

Guyll, M., K. A. Matthews and J. T. Bromberger (2001) "Discrimination and unfair treatment: relationship to cardiovascular reactivity among African American and European American women," Health Psychology, Vol.20 (5), pp.315-325.

Hanson, M. A. and M. K. Skinner (2016) "Developmental origins of epigenetic transgenerational inheritance," Environmental Epigenetics, Vol.2(1), pp.1-9.

Harrell, J.P., S. Halls and J. Taliaferro (2003) "Physiological responses to racism and discrimination: an assessment of the evidence," American Journal of Public Health, Vol.93 (2), pp.243-248.

Harris, C. (1993) "Whiteness as property," Harvard Law Review, Vol.106 (8), pp.1707-1791.

Herbert, B. (2005) "Impossible, ridiculous, repugnant," (WWW) The New York Times (https://www.nytimes.com/2005/10/06/opinion/impossible-ridiculous-repugnant.html; 30/06/2020).

Hertz, M. F., D. Prothrow-Stith and C. Chery (2005) "Homicide survivors: research and practice implications," American Journal of Preventive Medicine, Vol.29 (5), pp.288-95.

Horowitz, M. J. (1998) "The rise and early progressive critique of objective causation," in D. Kairys (ed.) The Politics of Law: A Progressive Critique [3rd ed.], New York: Basic Books.

Interlandi, J. (2019) "Why doesn't the United States have universal health care? The answer has everything to do with race," (WWW) The New York Times (https://www.nytimes.com/interactive/2019/08/14/magazine/universal-health-care-racism.html; 06/30/2020).

Jablonka, E. and G. Raz (2009) "Transgenerational epigenetic inheritance: prevalence, mechanisms, and implications for the study of heredity and evolution," The Quarterly Review of Biology, Vol.84 (2), pp. 131-176.

Jackson, J. S., T. G. Hamilton, M. A. Ifatunji, K. K. Lacey, H. E. Lee and J. A. Rafferty (2018) "Using analytic domains within the Black population to understand disparities in population health", (WWW) Report to the Robert Wood Johnson Foundation (https://www.policylink.org/sites/default/files/Black- report.pdf; 07/08/2020).

Jackson, L., Z. Jackson and F. Jackson (2018) "Intergenerational resilience in response to the stress and trauma of enslavement and chronic exposure to institutionalized racism," Journal of Clinical Epigenetics, Vol.4 (3), pp.15-22.

Jain, S. L. (2010) "Fear of cancer," Loyola of Los Angeles Law Review, Vol.44 (1), pp.233-252.

Johnson, S. B., R. W. Blum and J. N. Giedd (2009) "Adolescent maturity and the brain: the promise and pitfalls of neuroscience research in adolescent health policy," Journal of Adolescent Health, Vol.45 (3), pp.216-221.

Kaati, G., L. Bygren and S. Edvinsson (2002) "Cardiovascular and diabetes mortality determined by nutrition during parents' and grandparents' slow growth period," European Journal of Human Genetics, Vol.10 (11), pp.682-688.

Katznelson, I. (2005) When Affirmative Action was White: An Untold History of Racial Inequality in Twentieth-Century America, New York: W.W. Norton.

Krieger, N., J. T. Chen, P. D. Waterman, M. V. Kiang and J. Feldman (2015) "Police killings and police deaths are public health data and can be counted," PLoS Medicine, Vol.12 (12), pp.1-7.

Kuzawa, C. W. and E. Sweet (2009) "Epigenetics and the embodiment of race: developmental origins of US racial disparities in cardiovascular health," American Journal of Human Biology, Vol.21 (1), pp.2-15.

Lehrner, A. and R. Yehuda (2018) 'Cultural trauma and epigenetic inheritance,' Development and Psychopathology, Vol.30 (5), pp.1763-1777.

Levine, M.E and M. E. Crimmins (2014) "Evidence of accelerated aging among African Americans and its implications for mortality," Social Science & Medicine, Vol.118, pp.27-32.

Lewis, T. T., C. D. Cogburn, and D. R. Williams (Self-reported experiences of discrimination and health: scientific advances, ongoing controversies, and emerging issues," Annual Review of Clinical Psychology, Vol.11, pp.407-440.

López, I. F. H. (2007) "'A nation of minorities': race, ethnicity, and reactionary colorblindness," Stanford Law Review, Vol.59 (4), pp.985-1063.

Maamar, M. B., I. Sadler-Riggleman, D. Beck and M. K. Skinner (2018) "Epigenetic transgenerational inheritance of altered sperm histone retention sites," Scientific Reports, Vol.8 (1), pp.1-10.

Mansoor, H. (2020) "Modern racism but old-fashioned IIED: how incongruous injury standards deny "thick skin" plaintiffs redress for racism and ethnoviolence," Seton Hall Law Review, Vol.50 (3), pp.881-908.

Mapping Police Violence (2020) "Mapping police violence," (WWW) S. Sinyangwe and D. McKesson, (https://mappingpoliceviolence.org; 06/29/2020).

Massey, D. S. (2004) "Segregation and stratification: a biosocial perspective," Du Bois Review, Vol.1 (1), pp.7-25.

Matsuda, M. (2000) "On causation," Columbia Law Review, Vol. 100 (8), pp.2195-2220.

McGinley, A. C. and F. R. Cooper (2020) "Intersectional cohorts, dis/ability, and class actions," Fordham Urban Law Journal, Vol.47 (2), pp.293-341.

Meaney, M. J. and A. C. Ferguson-Smith (2010) "Epigenetic regulation of the neural transcriptome: the meaning of the marks," Nature Neuroscience, Vol.13 (11), p.1313-1318.

Meichenbaum, D. (2006) "Resilience and posttraumatic growth: a constructive narrative perspective," in L. G. Calhoun and R. G. Tedeschi (eds.) Handbook of Posttraumatic Growth: Research and Practice, Florence: Taylor & Francis Group.

Metzl, J. M. and D. E. Roberts (2014) "Structural competency meets structural racism: Race, politics, and the structure of medical knowledge," AMA Journal of Ethics, Vol.16 (9), pp.674-690.

Mills, C. W. (2003) "White supremacy as sociopolitical system: a philosophical perspective," in A. Doane and E. Bonilla-Silva (eds.) White Out: The Continuing Significance of Racism, New York: Routledge.

Moore, R. D., D. Stanton, R. Gopalan and R. E. Chaisson (1994) "Racial differences in the use of drug therapy for HIV disease in an urban community," The New England Journal of Medicine, Vol.330 (11), pp.763-768.

Nelson, W. E. (2003) The Legalist Reformation: Law, Politics, and Ideology in New York, 1920-1980, North Carolina, USA: University of California Press.

Nickel, J. W. (2008) "Rethinking indivisibility: towards a theory of supporting relations between human rights," Human Rights Quarterly, Vol.30 (4), pp.984-1001.

Obasogie, O. K. (2020) "Police killing black people is a pandemic, too," (WWW) The Washington Post (https://www.washingtonpost.com/outlook/police-violence-pandemic/2020/06/05/e1a2a1b0-a669-11ea-b619-3f9133bbb482_story.html; 06/30/2020).

Obasogie, O. K., I. Headen and M. S. Mujahid (2017) "Race, law, and health disparities: toward a critical race intervention," Annual Review of Law and Social Science, Vol.13, pp.313-329.

Sue, D. W., C. M. Capodilupo, G. C. Torino, J. M. Bucceri, A. M. B. Holder, K. L. Nadal and M. Esquilin (2007) "Racial microaggressions in everyday life," American Psychologist, Vol.62 (4), pp.271-286.

Trivedi, S. and N. Van Cleve (2020) "To serve and protect each other: how police-prosecutor codependence enables police misconduct," Boston University Law Review, Vol.100 (3), pp.895-933.

van IJzendoorn, M., M. Bakermans-Kranenburg and A. Sagi-Schwartz (2003) "Are children of Holocaust survivors less well-adapted? a meta-analytic investigation of secondary traumatization," Journal of Traumatic Stress, Vol.16 (5), pp.459-469.

Villarosa, L. (2019) "Myths about physical racial differences were used to justify slavery — and are still believed by doctors today," (WWW) The New York Times, (https://www.nytimes.com/interactive/2019/08/14/magazine/racial-differences-doctors.html; 07/06/2020).

Walters, K. L., S. A. Mohammed, T. Evans-Campbell, R. E. Beltrán, D. H. Chae, and B. Duran (2011) "Bodies don't just tell stories, they tell histories: embodiment of historical trauma among American Indians and Alaska natives," Du Bois Review: Social Science Research on Race, Vol.8 (1), pp.179-189.

Ward, G. (2018) "Living histories of white supremacist policing," Du Bois Review, Vol.15 (1), pp.167-184.

Weinstein, J. B. (2001) "Compensation for mass private delicts: evolving roles of administrative, criminal, and tort law," University of Illinois Law Review, Vol. [2001] (4), pp.947-982.

Wenger, K. D. (2010) "Too big to remedy - rethinking mass restitution for slavery and Jim Crow," Loyola of Los Angeles Law Review, Vol.44 (1), pp.177-232.

Wenger, K. D. (2018) "The unconscionable impossibility of reparations for slavery;

or, why the master's mules will never dismantle the master's house," in A. Bloom, D. M. Engel and M. W. McCann (eds.) Injury and Injustice: the cultural politics of harm and redress, Cambridge: Cambridge University Press.

Williams, D. R. and R. Williams-Morris (2000) "Racism and mental health: the African American experience," Ethnicity & Health, Vol.5 (3-4), pp.243-268.

Williams, David and S. Mohammed (2009) "Discrimination and racial disparities in health: evidence and needed research," Journal of Behavioral Medicine, Vol.32 (1), pp.20-47.

Williams, J. L. and A. A. Rheingold (2013) "barriers to care and service satisfaction following homicide loss: associations with mental health outcomes," Death Studies, Vol.39 (1), pp.12-18.

Woodhouse, B. B. (2020) "Reimagining equality through the lens of human rights: lessons from the United Nations Convention on the Rights of the Child," Fordham Urban Law Journal, Vol.47 (2), pp.353-378.

World Health Organization (2008) "Closing the gap in a generation : health equity through action on the social determinants of health," (WWW) World Health Organization: Commission on Social Determinants of Health (https://apps.who.int/iris/bitstream/ handle/10665/43943/9789241563703_eng.pdf?sequence=1; 07/01/2020).

Wright, R. W. (1985) "Causation in tort law," California Law Review, Vol.73 (6), pp.1735-1828.

Wright, R. W. and I. Puppe (2016) "Causation: linguistic, philosophical, legal and economic," Chicago- Kent Law Review, Vol.91 (2), pp.461-502.

Yancy, G. and J. Butler (2015) "What's wrong with 'all lives matter'?" (WWW) The New York Times [opinion] (https://opinionator.blogs.nytimes.com/2015/01/12/whats-wrong-with-all-lives-matter/; 07/06/2020).

Yehuda, R. and A. Lehrner (2018) "Intergenerational transmission of trauma effects: putative role of epigenetic mechanisms," World Psychiatry, Vol.17 (3), pp.243-257.

Yehuda, R., B. Kahana, J. Schmeidler, S. M. Southwick, S. Wilson and E. L. Giller (1995) "Impact of cumulative lifetime trauma and recent stress on current posttraumatic stress disorder symptoms in Holocaust survivors," American Journal of Psychiatry, Vol.152 (12), pp.1815-1818.

Yehuda, R., A. Bell, L. M. Bierer and J. Schmeidler (2008) "Maternal, not paternal, PTSD is related to increased risk for PTSD in offspring of Holocaust survivors," Journal of Psychiatric Research, Vol.42 (13), pp.1104-1111.

Yehuda, R., L. M. Bierer, R. Andrew, J. Schmeidler and J. R. Seckl (2009) "Enduring effects of severe developmental adversity, including nutritional deprivation, on cortisol metabolism in aging Holocaust survivors," Journal of Psychiatric Research, Vol.43 (9), pp.877-883.