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# Witnessing Modern America: Violence and Racial Trauma

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> Southern trees… bear a strange fruit…
>
> –Billie Holiday

On February 26th, 2012, a 17-year-old African American teenager walked down a quiet street in Sanford, Florida, after leaving a convenience store. A neighborhood resident perceived the teenager to be "suspicious" and approached the boy with a firearm in hand. A scuffle ensued in which the teenager was shot and killed by the resident. In the aftermath, it quickly became clear that the shooting would have broader ramifications.

Such an event can't be understood in a vacuum. It struck a visceral chord in black communities because of America's dark history: from 2 centuries of chattel slavery, to public lynchings, through segregationist violence in the early 20th century, to present-day mass incarceration and police brutality. It resonated with many other experiences of racism in modern America—from workplace discrimination, to financial systems and structures, to disparate healthcare outcomes (1). This is why the killing of Trayvon Martin—and subsequently of Eric Garner, Michael Brown, Freddie Gray, and countless others—sparked marches and protests in over 100 American cities and awakened a new generation of activism named "Black Lives Matter."

Events like these have a broad and immediate impact. When a member of a minority group is killed, their whole community is forced to witness—not only through personal narratives of the victims, but through the imagery of the endless media (and social media) frenzy. The disproportionate display of minority victims in the news has been compared to lynchings, where slain African Americans are put on display for public consumption (2). These events convey the omnipresent threat of violence—that merely walking down the street or driving a car can be life-threatening.

Some researchers have introduced the term *racial trauma* (or race-based traumatic stress) to describe "a traumatic response to race-related experiences that are collectively characterized as *racism*, including acts of prejudice, discrimination, or violence against a subordinate racial group based on attitudes of superiority held by the dominant group" (3). Racial trauma may be caused by either overt or covert actions, carried out by either individuals or society.

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An extensive literature has demonstrated, prospectively, that individuals reporting higher levels of discrimination are more likely to experience a range of adverse health outcomes, including hypertension, incident asthma, incident breast cancer, and all-cause mortality. They also find associations with early indicators of clinical disease, including inflammation, coronary artery disease, and cortisol dysregulation (1).

Not surprisingly, racial trauma has also been associated with a range of adverse mental health outcomes—most notably, posttraumatic stress disorder (PTSD) (3). Critically, triggers of racial trauma may include not only direct personal experiences but also witnessing what occurs to others. For example, one study demonstrated that police killings of unarmed black Americans have adverse effects on the mental health of black but not white American adults (4). These findings are consistent with an emerging theme in how researchers and clinicians think about trauma, in general. The DSM-5 criteria now acknowledge that an indirect exposure may cause PTSD (e.g., witnessing an event or learning of an event occurring to a loved one). And, of note, separate research has suggested that media coverage itself may constitute "vicarious trauma." For example, one study found that individuals exposed to greater television coverage of the terrorist attacks of September 11th were more than twice as likely to develop symptoms of PTSD (5).

While these clinical and epidemiological data are striking, we still know little about the underlying biology—does racial trauma have a pathophysiology that is comparable to depression or PTSD? This lack of biological understanding may be one of the reasons why racial trauma is not yet widely accepted as a legitimate clinical diagnosis.

For a host of reasons, it would be challenging to study the underlying neurobiology of racial trauma in a rigorous, prospective way in humans—this is a problem shared across many areas of psychiatric neuroscience. In such cases, researchers often turn to animal models as a means of exploring core neurobiological processes that may be conserved across species (or, even if they're not conserved, that may still offer conceptual insights). Admittedly, animal models will inevitability fall short in approximating the complexity of human experience. Nevertheless, one theoretical approach might be to consider exposure to racism as a form of chronic and unpredictable stress.

Perhaps the most classic animal model of stress and depression is that of *learned helplessness*. The paradigm was first described by Maier and Seligman, who were studying how dogs learned to avoid electric shocks (something they do quickly and effectively) (6). The researchers then asked what would happen if the animals were prevented from being able to escape. Under these circumstances, they found that the dogs quickly became "helpless": they stopped trying to avoid the shocks, even when it became possible; and they demonstrated a range of depression-like behaviors, including reduced movement, lack of motivation, and avoidance of social interactions (6). In the 50 years since it was first described, this model has been replicated in a wide range of species. Fascinatingly, subsequent research (in both animals and humans) has clarified that it is not the experience of inescapable shock, per se, that leads to the depressive phenotype so much as the belief that it is futile to resist: when animals or humans are given a *perceived* sense of control (even if the outcomes are identical), they do not develop learned helplessness (7). This model may

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reflect the experience of marginalized populations who may, over time, come to believe that the biases embedded into institutional and governmental structures may be insurmountable.

Another classic paradigm for studying stress and depression is the social defeat model (8). As the name suggests, the paradigm is based on the idea that being directly victimized (or *defeated*) by another individual is intensely stressful. Researchers create this situation by placing an animal in a confined space with a larger, more dominant animal that is physically aggressive toward them. The losing animal is then housed in a cage either alone or under threat of another defeat (i.e., within sight of the same competitor). Defeated animals show high levels of stress markers (e.g., cortisol and epinephrine) and display social avoidance behavior, reduced movement, and loss of motivation. Interestingly, severe and persistent symptoms can emerge from only a single defeat; victims do not become acclimated to repeated defeats; and animals may continue to experience symptoms from only the *threat* of a future defeat (8). These findings may reflect many aspects of racial trauma—including the idea that even small cues to previous traumas may be potent risk factors or even precipitants of symptoms.

More recently, Bolaños-Guzmán's lab demonstrated an astonishing extension to this model. The researchers studied what would happen if a rodent was placed behind a glass wall in the same cage where a social defeat was occurring. Despite being protected from any physical threat, the researchers found that merely *witnessing* social defeat induced a "robust behavioral syndrome reminiscent of PTSD" (9). These data demonstrate a clear neurobiological basis for the concept of vicarious trauma.

While these models seem to possess construct validity, it is critical to expand the work to confirm whether similar biological processes occur in the context of racial trauma. Doing so will allow clinicians to adopt a more sophisticated approach to treatment and, ultimately, may lead to new interventions. Conducting this type of research will be difficult—but perhaps it may be possible to leverage other paradigms that have been used to prospectively study the impact of stress (10). Regardless, the best treatment will always be prevention—as the overwhelming epidemiological data already demonstrate the urgency for implementing comprehensive structural and public policy interventions.

The media today is saturated with images of violence against minorities: from the killing of unarmed black men, to mass shootings that deliberately target minority groups—the Emanuel African Methodist Episcopal church in Charleston, the Tree of Life synagogue shooting in Pittsburgh, the Pulse nightclub in Miami, the Walmart shooting in El Paso. The impact of these events is not restricted to the direct victims of domestic terrorists. In each case, the trauma emanates outwards like ripples of water through the members of their communities. As Billie Holiday sorrowfully continues: "…Black bodies swinging in the southern breeze…." These acts are more than mere murder—they are designed to intimidate; to perpetuate the omnipresent threat of violence to those who violate the perceived social hierarchy.

Beyond each instance of racially motivated violence, exponentially more individuals may experience the toll of racial trauma. As these acts of violence tear the country apart, it is time

for us to come together as a community and move from witnessing to action: for researchers to conduct the studies that will further legitimize the diagnosis, thereby allowing it to be incorporated into formal treatment protocols; and for clinicians to be sensitive to the many types of trauma that extend beyond the DSM-5 and to attend to this crucial domain of patient care.

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