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Reproductive Justice

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Minority Stress Theory and the Allostatic Load: The Role of Chronic Stress as a Structural Reproductive Injustice

In 1992, Arline Geronimus proposed the weathering hypothesis, which theorizes that exposure to racism creates premature aging and physiological degradation in the bodies of Black people. The allostatic load, the idea that prolonged exposure to stress and increased presence of stress hormones physically damage the body, ties the weathering hypothesis to its QLGB-focused counterpart, the minority stress model. The minority stress model is a “model of disease causality” explaining that QLGB individuals experience unique, chronic stressors that increase their risk of mental and physical illness (Meyer 2015, 210). Analyzed through a reproductive justice lens, these frameworks reveal a system of stratified reproduction in which people of color and QLGB individuals have less access to equitable reproduction than privileged groups. Reproductive justice encompasses an individuals’ right to have children, not have children, and live in an environment that promotes their and their children’s health. Exposure to bias-motivated stressors that solely deteriorate the mental and physical health of members of a minority group – like heterosexism degrades the health of QLGB individuals – is a reproductive injustice because it revokes their human right to live and raise children in a health-promoting environment. As explained through the frameworks of the allostatic load and minority stress theory, the mental and physical health of QLGB individuals is degraded by unique, bias-related stressors including structural heterosexism, discrimination, and harassment – the effect of which can be mediated by resilience, as well as short-term harm reduction strategies.

Negative physical health outcomes for QLGB individuals, exemplified by poor birth outcomes, reflect those for other minority groups, suggesting that bias-related stress – rather than biological or behavioral differences – produces such outcomes. Geronimus developed the weathering hypothesis to describe the phenomenon of poorer birth outcomes for Black women in their twenties than for Black teenaged mothers. Infant mortality increased and baby birth weight decreased for Black mothers as they aged, prompting the hypothesis that older Black mothers were less physically fit for pregnancy because “stress had more time to affect their bodies” (Villarosa 2018). Additionally, babies born to Black women in the United States (where racism serves as a bias-related stressor for Black individuals) had significantly lower birth weights than babies born to Black women in Africa, proving that bias rather than genetics created this phenomenon (Villarosa 2018). Sexual minority women also have poorer pregnancy and birth outcomes than heterosexual women. One study, controlling for disparities in healthcare access and other potentially confounding variables, found that 30% of pregnancies in lesbian and bisexual women ended in miscarriage while 19% did in heterosexual women and that 34% of births to lesbian women were preterm (before 37 weeks gestational age) while 12% were to heterosexual women (Everett et al. 2019). The study also considered self-identified heterosexual women who reported sexual activity with other women; these women reported rates of “preconception risk factors” for miscarriage and preterm birth (including “smoking, hazardous drinking and obesity”) similar to those of lesbian and bisexual women but had pregnancy/birth outcomes similar to those of heterosexual women who only reported sexual activity with men (Everett et al. 2019, 7-8). This supports bias-related stress as the cause of poorer pregnancy/birth outcomes for sexual minority women and establishes exposure to bias as a reproductive injustice because it impairs the reproductive ability of queer women. Queer women’s health and birth

outcomes would benefit from efforts to destigmatize their pregnant status, which serves as a stressor because they do not fit the social expectation of someone who carries a pregnancy: a cisgender woman in a committed heterosexual relationship.

Exposure to bias produces negative health effects via stress and the allostatic load. In response to a stimulus it perceives as a stressor, the body releases hormones intended to “return the body to equilibrium or homeostasis” in a process known as allostasis (Serpas and García 2021, 42). These hormones can be secreted from the hypothalamic-pituitary-adrenal (HPA) axis or from the non-HPA axis, and high presence of hormones from each has different physical effects on the body. Such physical effects – including heightened cortisol levels, BMI, and cholesterol – can be measured to estimate HPA axis activity and therefore amount of stress hormones released (Serpas and García 2021). Prolonged exposure to stressors and subsequent prolonged secretion of stress hormones, which creates the allostatic load, leads to physiological degradation because the hormones “interfere with the gene transcription process and decrease the number of neuroreceptors in the brain” (Serpas and García 2021, 43). Physiological degradation from the allostatic load increases an individual’s risk of chronic illnesses, including cardiovascular diseases and cancer, because the damaged body is more susceptible to disease. Exposure to heterosexism has been shown to increase stress hormone levels in QLGB individuals, as measured through increased cortisol, BMI, and cholesterol levels in sexual minority men and women (Serpas and García 2021). Exposure to heterosexism thus operates as a reproductive injustice, disproportionately degrading the health of QLGB individuals through a heightened allostatic load and removing their right to live in an environment that promotes and protects their health.

Heightened cortisol levels – which signals increased exposure to chronic stressors – in sexual minority individuals creates physiological conditions for illness, further degrading their health. Cortisol levels follow a circadian pattern: they are typically highest upon waking up and decrease throughout the day to be lowest upon going to sleep. Continued exposure to stressors creates higher cortisol levels and irregular cortisol patterns, which can “disrupt cellular and neuronal functioning” and “lead to harmful psychological side effects, including depression” (Parra et al. 2016, 366). The Parra et al. study compared depressive symptoms and cortisol slopes – the rate at which cortisol decreases throughout the day – in lesbian, gay, and bisexual individuals with the level of “chronic sexual prejudice (i.e., LGB-related stress)” each participant experienced in the previous three months (Parra et al. 2016, 365). Participants who experienced higher levels of LGB-related stress had flatter cortisol slopes, indicating less change in cortisol levels throughout the day, and more depressive symptoms (Parra et al. 2016). Another study on identity disclosure (or outness) of gay and bisexual men in the workplace found that ‘out’ participants had higher cortisol levels during the workday than ‘closeted’ participants, likely because identity disclosure is correlated with increased harassment and discrimination, which are stressors. Although other research concludes that identity nondisclosure is itself a stressor producing negative health effects, these findings suggest that in certain contexts, nondisclosure can be psychologically beneficial because it reduces direct exposure to heterosexism (Huebner and Davis 2005). These studies reveal increased allostatic loads among QLGB individuals in response to heterosexism. Such chronic stress results from the devaluing of QLGB identities in an environment that damages their mental and physical health and could be remedied in the workplace by ‘sensitivity training’ intended to reduce prejudice among employees of different social groups.

Public policy shapes public opinion, and living in communities with heterosexist laws produces poor health outcomes for QLGB individuals via an increased allostatic load. The legalization of same-sex marriage improves public perception of QLGB individuals, thus decreasing LGB-related stressors and lessening the allostatic load. In Massachusetts, gay and bisexual men reported a “14% reduction in depression, an 18% reduction in hypertension, and a 15% reduction in health care utilization/cost” in the year following same-sex marriage legalization (Geronimus et al. 2016, 109). Anti-QLGB policies often intersect with patriarchal policies because American society operates under structural heteropatriarchy (“the system of regulation that privileges cisgender men and heterosexuality”), so the physical health of women is often degraded alongside that of QLGB individuals (Everett et al. 2022, 91). This is evident in birth outcomes: infant mortality (a marker of physiological degradation in the mother, as proved by Geronimus’ weathering hypothesis) decreases under liberal administrations, which produce fewer – and often reverse – anti-QLGB policies. The Everett et al. study, measuring heteropatriarchy through the level of anti-QLGB or patriarchal policies in a community, identified that as heteropatriarchy increases, so does the risk of preterm birth and low birth weight for all mothers, regardless of sexual identity. Study participants in areas with high levels of heteropatriarchy were twice as likely to report a preterm birth as those in areas with low levels of heteropatriarchy. Participants who moved from a low-heteropatriarchy area to a high-heteropatriarchy area had birth outcomes similar to those who remained in low-heteropatriarchy areas, which implies that early exposure to heteropatriarchy affects health later in life (Everett et al. 2022). This is corroborated by findings of flatter cortisol slopes in QLGB individuals raised in highly heterosexist communities (Parra et al. 2016). Such research indicates policy reform, including stronger protections for queer individuals against institutional discrimination, as a

solution to the reproductive injustice of heterosexism damaging the health of QLGB individuals, as articulated by minority stress theory.

Minority stress theory is two-pronged, and stress is not the only factor affecting health: “the impact of stress on health is determined by the countervailing effects of pathogenic [health-damaging] stress processes and salutogenic [health-improving] coping processes,” or resilience (Meyer 2015, 209). Resilience is “a process of stress buffering” that successfully reduces the impact of stress on mental and physical health (Meyer 2015, 210). Resilience is typically based in both individual-mastery, the personality traits or cognitive frameworks that make adapting to stress easier, and community-mastery, the availability of tangible or intangible communal resources that make adapting to stress easier (Meyer 2015). Individual-mastery can be subdivided into mindsets that one can cope with stressors, which minimize the appraisal of stressors, and skills to cope with identified stressors (Meyer 2013). Support systems offered through community-mastery “have mental (and physical) health benefits regardless of stress exposure” (Meyer 2013, 449). Coping with stress does not necessarily imply resilience; the use of avoidant, emotion-based coping strategies in response to LGB-related stressors is correlated with a heightened allostatic load. A study analyzing the health effects of various coping strategies found that avoidant coping strategies significantly increased both the allostatic load and the perception of stress, while seeking social support to cope significantly decreased the perception of stress. Stressed individuals most commonly use avoidant coping strategies when they perceive the stressor as unchangeable; many QLGB individuals view heterosexism in their community as unchangeable (at least by an individual) and thus employ avoidant coping strategies (Juster 2016). A balance of individual-mastery and community-mastery maximizes health outcomes, so the introduction of social supports like QLGB community centers and

Gender and Sexuality Alliances in schools would complement individual logic-based coping strategies to prevent the allostatic load from unjustly damaging the health of queer individuals.

Participation in activism is an effective strategy to achieve resilience, as revealed by a study exploring the relationships among minority stress, engagement in activism, and health outcomes for QLGB, transgender, and gender-nonconforming youth. Researchers measured minority stress by asking participants about instances of “discrimination, being called a homophobic name, being made fun of for gender expression/identity, and bullying” and measured health effects through “psychological distress, suicidal ideation, and self-rated health” (Frost et al. 2019, 517). Engagement in activism was significantly associated with improvements in health outcomes for study participants. Exposure to minority stress created worse health outcomes for participants of color, suggesting that individuals with multiple minority identities experience more minority stress and therefore a higher allostatic load and worse health. However, exposure to minority stress also increased activism for participants of color, mediating some of the negative health effects of the stress (Frost et al. 2019). Activism therefore holds a salutogenic role for QLGB youth of color to oppose the pathogenic role of minority stress, illustrating the interaction of stressors and resilience to determine health outcomes and supporting activism as a resiliency method to combat the reproductive injustice of minority stress. Greater presence of and accessibility to QLGB-rights advocacy organizations, perhaps through online formats for queer individuals without local groups, would provide salutogenic activism opportunities that reduce the effect of minority stress.

For QLGB people of color, minority stress theory and the weathering hypothesis should logically combine to produce a higher allostatic load, but exposure to previous stressors – like racism – can improve resilience to new stressors – like heterosexism. This is supported by a

study comparing these ‘double jeopardy’ and resilience hypotheses for queer Black people. The double jeopardy hypothesis stipulates that exposure to both homophobia and racism and a lack of support from both the QLGB and Black communities produces a higher allostatic load for queer Black people (Meyer 2010). The contrasting resilience hypothesis posits that exposure to racism before ‘coming out’ and experiencing direct heterosexism through harassment or discrimination produces individuals who are “inoculated against the effects of stress related to homophobia” (Meyer 2010, 447). Although the study discovered that queer Black participants were “exposed to greater stressors and have less support and resources” than queer white participants, they did not have more mental disorders, which endorses the resilience hypothesis and directly contradicts the double jeopardy hypothesis, based in minority stress theory (Meyer 2010, 448). Exposure to heterosexism can itself build resiliency, as explained by older QLGB adults, who believe that their experience coping with heterosexist discrimination prepared them for coping with ageism later in life (Orel 2014). Experiencing minority stress provoked QLGB individuals to develop “greater self-reliance, increased attention to legal/financial matters, and the ability to create strong support systems,” strategies that increase both individual-mastery and community-mastery and improved their quality of life in old age (Orel 2014, 70). This creates tension within minority stress theory, implying that stress can mitigate its own pathogenic role by adopting a corresponding salutogenic role. Higher-quality social supports for people of color would thus also improve the resiliency of queer people of color.

Analyses of the pathways by which minority stress degrades the health of QLGB individuals indicate potential short-term solutions: destigmatizing queer pregnancy, stronger laws protecting QLGB individuals from discrimination, promoting the formation of Gender and Sexuality Alliances in schools. While the development of resiliency strategies is an effective

short-term method of reducing the impact of minority stress on the health of QLGB individuals, it treats the symptoms of the disease instead of pursuing preventative measures to eradicate it. The final solution is the abolition of the toxic social environment that creates that reproductive injustice. Because policy influences the social atmosphere, endorsing pro-QLGB policy could work to eliminate heterosexism in American society. The passage of the Respect for Marriage Act, codifying same-sex marriage rights in law rather than in Supreme Court precedence, declares social support for queer rights and may lead to reduced heterosexism, but further measures are needed. American ratification of key human rights treaties like the Convention on the Elimination of All Forms of Discrimination against Women, the Convention on the Rights of the Child, and the Convention on the Rights of Persons with Disabilities could produce concrete change because QLGB individuals are also women, children, and people with disabilities and because the rights of all must be valued to achieve social equity. These advances are themselves limited because the American sociopolitical system is founded upon heteropatriarchy, unjustly requiring complete sociopolitical reform to allow QLGB individuals and other minority groups the fundamental human right to health.

Reference List

- Everett, Bethany G., Aubrey Limburg, Patricia Homan, and Morgan M. Philbin. "Structural Heteropatriarchy and Birth Outcomes in the United States." *Demography* 59, no. 1 (2022): 89-110.
- Everett, Bethany G., Michelle A. Kominiarek, Stefanie Mollborn, Daniel E. Adkins, and Tonda L. Hughes. "Sexual Orientation Disparities in Pregnancy and Infant Outcomes." *Maternal and Child Health Journal* 23, no. 1 (2019): 72-81.
- Frost, David M., Michelle Fine, María Elena Torre, and Allison Cabana. "Minority Stress, Activism, and Health in the Context of Economic Precarity: Results from a National Participatory Action Survey of Lesbian, Gay, Bisexual, Transgender, Queer, and Gender Non-Conforming Youth." *American Journal of Community Psychology* 63, no. 3-4 (2019): 511-526.
- Geronimus, Arline T., Sherman A. James, Mesmin Destin, Louis F. Graham, Mark L. Hatzenbuehler, Mary C. Murphy, Jay A. Pearson, Amel Omari, and J. Phillip Thompson. "Jedi Public Health: Co-Creating an Identity-Safe Culture to Promote Health Equity." *SSM - Population Health* 2 (2016): 105-116.
- Huebner, David M. and Mary C. Davis. "Gay and Bisexual Men Who Disclose Their Sexual Orientations in the Workplace Have Higher Workday Levels of Salivary Cortisol and Negative Affect." *Annals of Behavioral Medicine* 30, no. 3 (2005): 260-267.
- Juster, Robert-Paul, Émilie Ouellet, Jean-Philippe Lefebvre-Louis, Shireen Sindi, Philip Jai Johnson, Nathan Grant Smith, and Sonia J. Lupien. "Retrospective Coping Strategies During Sexual Identity Formation and Current Biopsychosocial Stress." *Anxiety, Stress, & Coping* 29, no. 2 (2016): 119-138.
- Meyer, Ilan H. "Identity, Stress, and Resilience in Lesbians, Gay Men, and Bisexuals of Color." *The Counseling Psychologist* 38, no. 3 (2010): 442-454.
- Meyer, Ilan H. "Resilience in the Study of Minority Stress and Health of Sexual and Gender Minorities." *Psychology of Sexual Orientation and Gender Diversity* 2, no. 3 (2015): 209-213.
- Orel, Nancy A. "Investigating the Needs and Concerns of Lesbian, Gay, Bisexual, and Transgender Older Adults: The Use of Qualitative and Quantitative Methodology." *Journal of Homosexuality* 61 (2014): 53-78.
- Parra, Luis A., Michael Benibgui, Jonathan L. Helm, and Paul D. Hastings. "Minority Stress Predicts Depression in Lesbian, Gay, and Bisexual Emerging Adults via Elevated Diurnal Cortisol." *Emerging Adulthood* 4 (2016): 365-372.
- Serpas, Dylan G. and James J. García. "Allostatic Load and the Wear and Tear of the Body for LGBTQ PoC." In *Heart, Brain and Mental Health Disparities for LGBTQ People of Color*, edited by James J. García, 41-52. Cham, Switzerland: Palgrave Macmillan, 2021.

Villarosa, Linda. "Why America's Black Mothers and Babies Are in a Life-or-Death Crisis." *The New York Times Magazine*, April 11, 2018.
<https://www.nytimes.com/2018/04/11/magazine/black-mothers-babies-death-maternal-mortality.html>