**Challenging Anti-Fatness Amid the Climate Crisis**

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**Abstract:**

This paper critically interrogates the anti-fat beliefs that are employed in environmental bioethics, particularly in response to climate change. Fat bodies have been associated with climate change because they are presumed to consume more resources and produce more greenhouse gas emissions. In this paper, we argue that such interpretations employ mistaken assumptions to justify placing disproportionate blame on already oppressed individuals, reinforcing weight stigma, which increases the vulnerability of fat people to a range of harms and disproportionately affects communities of color. For these reasons, conceiving fat bodies as harmful to the environment is both misguided and unjust.

**Keywords:** weight stigma, climate justice, vulnerability, race

1. **Reconciling the Aims of Climate Justice and Feminist Bioethics**

A critically important development in bioethics is the emergence of environmental bioethics, or “green bioethics” (Richie 2019). Environmental bioethics is an approach or subfield in bioethics that acknowledges the ways in which health, healthcare, and the environment are inextricably linked. It seeks to articulate, analyze, and address bioethical questions from an ecological lens. Given these relationships, there has been increased calls for bioethics to be more attentive and considerate to the environment, both as a profoundly impactful determinant of health and as an important end in itself (Ray 2023; MacPherson 2014; Richie 2014; Dwyer 2009).

Yet an ecologically sensitive approach to healthcare has led a number of bioethicists to identify bodies that are not environmentally sustainable (Smith 2021; Span 2019). For example, a leading narrative connects climate change to bodies that are commonly described as *fat*.*i* Their moral logic is straightforward: body size and weight are linked to people’s levels of consumption, levels of consumption are linked to levels of greenhouse gas (GHG) emission that contribute to climate change, and therefore, anyone deemed fat pose a bigger burden on the environment and on human communities that depend on it. This narrative then drives the urgency for society, with the collusion of its medical institutions, to reduce the prevalence of fat bodies for the sake of preserving the environment.

This paper challenges the anti-fat narrative that is justified by appeals to environment sustainability. What is deeply troubling about this account is the ways in which the integration of environmental values and considerations in bioethics, especially more responsiveness to the impending threat of climate change, is used to reinforce a view of fat bodies as problematic. It reinforces weight stigma that causes serious, widespread, and predicable harms on fat people and which disproportionately affect communities of color, and it undermines the political struggles to combat size- and weight-based discrimination and inequality. We argue that this narrative (1) places undue emphasis on individual bodies and individual responsibility, as opposed to structural analyses, in the face of complex environmental challenges, (2) fortifies unjust body norms that facilitate a social order that marginalizes particular groups, and (3) lacks evidential support. Our critique is approached from a feminist lens, which recognizes the ways in which weight stigma and discrimination renders certain individuals more vulnerable to intersecting and mutually reinforcing structural injustices (Crenshaw 1989; Collins 2000).

Following the work of other feminist bioethicists who have made space in the literature to discuss the harms of weight stigma (Reiheld 2015; MacKay 2017; Ward 2022), we aim to contribute to this discourse by unraveling the link between body weight and global ecological issues. Our paper will proceed as follows. In section 2, we will present two major linkages that are often made between fatness and climate change and environmental degradation, both of which assume that fat people consume more than their fair share of resources. We will then criticize these linkages on account of them being both erroneous and unjust. In section 3, we will criticize the presumptions made about fat bodies that are thought to justify its link to climate change. In section 4, we argue that fat people experience various kinds of vulnerability – psychological, social, and physical – which become exacerbated by associating fat bodies with climate change. In section 5, we argue that reinforcing weight stigma for the sake of environmental sustainability also disproportionately affects communities of color, especially Black women. For this reason, the consequence of anti-fat norms structuring our interpersonal and institutional responses towards fat people is also an objectionable expression of anti-Black bias. We conclude in section 6 by taking stock of the discussion in this paper and urging that any bioethical and political projects responding to climate change be accountable to other justice projects and that they contend with the testimonies of marginalized communities.

1. **Conceiving fat bodies as instigators of climate change**

The moral status of fat bodies has been a subject of concern in bioethics, but increased sensitivity to the sustainability of the environment has supplied further reasons to question fat bodies as an acceptable way of being in the world. Although associating fatness to climate change and environmental degradation may be relatively novel, it follows a persistent, established lineage of representing fat bodies and other nonnormative bodies as broadly harmful. Examples of this pattern can be seen in arguments about the economy (Singer 2012), national security (CDC 2023b), and the environment (Singer 2012; Richie 2019). Fatness is not simply a medicalized condition that only harms those who are deemed “obese” or “overweight.” It is also regarded as a social harm that imposes undeserved costs on other people. Thus, there is an assumed moral responsibility, especially in our medical institutions, to discourage or mitigate the incidences of fat bodies. Fat people are pervasively read as a social burden, adduced from purported facts that they are drains to the economy and public health systems. For example, the Center for Disease Control estimated that the medical costs of obesity-related health needs are approximately $173 billion (CDC 2022). The adverse social effects of fat bodies have led numerous bioethicists to frame fatness as an ethical and social issue, not simply a personal or clinical one. Being fat, based on this interpretation, is a moral offense, whether it is intentional or not, because it brings about significant harm to society (Singer 2012; Callahan 2013). For this reason, certain bioethicists, such as Peter Singer and Daniel Callahan, urge society to reduce the prevalence of fat bodies through the application of various social and medical interventions for the sake of promoting community well-being (Mayes 2015).

In response to the dominant contemporary understanding in bioethics that fatness is a categorically bad or harmful state, it is worth noting the valuable contributions of a growing coalition of philosophers and bioethicists who theorize about the injustice of weight stigma and discrimination and how these harms are enacted in society (Freeman 2020; Reiheld 2015). They inform bioethics discourses by bringing attention to the lived experiences and insights represented in the fat acceptance movement. This includes illuminating the structural stigma that demeans and subordinates fat people by misrepresenting and vilifying fat bodies (Nath 2019). This is especially problematic in the realm of medicine where fatness is conventionally viewed as a pathology, which sets the foundation for broader social and cultural expressions of discrimination against fat people, given that the medical establishment is conferred the power to shape the social meaning of fatness (Mehl 2023; Manne 2024).

But the emergence of environmental bioethics has provided additional ethical resources for anti-fat bioethicists to reinforce conventional body norms that valorize thin bodies and derogate fat bodies. The importance of environmental sustainability has been employed to justify this ethical hierarchy of body types, ranking their moral desirability by their purported effects on the environment and the degrees to which they worsen the climate crisis. From an ecological lens, bioethicists have essentialized fat bodies as naturally high emitters of greenhouse emissions in comparison to thin bodies, all else being equal. Based on this understanding, fat bodies pose a comparatively greater threat to the biosphere and to the wellbeing of human communities that rely on it. This gives an environmental-based reason for the continued pathology and moral derogation of fatness and the responsibility of society to enforce anti-fat body norms through social and public health interventions.

What are reasons for thinking that fat bodies produce greater GHG emissions that would then exacerbate the predicament of climate change? There has been a proliferation of research that explores the connection between fatness and climate change (Franco et al 2022; Squalli 2014; Koch et al 2021; Roberts and Edwards 2010). In bioethics discourses, two major linkages are often made between fatness and climate change and environmental degradation. First, fat people are assumed to consume more resources and energy simply by virtue of their body size. In many ways, this reading is shaped by pervasive social scripts that connect fatness to gluttonous human behavior and hyper-consumerist cultures, like overeating (Cargill 2015). Also, fat bodies seem to require the use of more resources to simply exist and navigate through our physical and social world, like needing bigger clothes or needing to replace shoes or furniture more frequently or needing to expend more fuel for transportation. These are the connections made by S. Matthew Liao and colleagues when they write:

The basal metabolic rate (which determines the amount of energy needed per day) scales linearly with body mass and length. As well as needing to eat more, larger people also consume more energy in less obvious ways. For example, a car uses more fuel per mile to carry a heavier person than a lighter person; more fabric is needed to clothe larger than smaller people; heavier people wear out shoes, carpets, and furniture more quickly than lighter people, and so on. (Liao et al 2012, 208-209)

For Liao and colleagues, there is an inextricable link between body size and weight and its carbon footprint, and they argue that the ethical imperative to shrink our negative impacts on the environment may require reducing people’s body size and weight. In light of this, they boldly propose using medical technologies to ensure that people have smaller and thinner bodies (Liao et al 2012).

Peter Singer also associates fatness with greater output of GHG emissions on the basis that being fat intrinsically requires the use of more resources. After stating in his controversial article, “Weigh More, Pay More,” that fat people should be charged more to fly on airplanes, he explains that the accruing moral costs of being fat is also environmental since accommodating fat modes of being in the world require the use of more resources:

An increase in the use of jet fuel is not just a matter of financial cost; it also implies an environmental cost, as higher greenhouse-gas emissions exacerbate global warming. It is a minor example of how the size of our fellow-citizens affects us all. When people get larger and heavier, few of them fit onto a bus or train, which increases the costs of public transport. Hospitals now must order stronger beds and operating tables, build extra-large toilets, and even install extra-large refrigerators in their morgues—all adding to their costs. (Singer 2012)

Liao, Singer, and others present fat bodies as unavoidably resource intensive in that simply existing and living as a fat person require extensive use of resources and energy. Given the dangers of global warming threatening humanity, fat bodies are interpreted as environmentally unsustainable and bold solutions may be required, such as resorting to medical interventions to shape people’s bodies in ways that are deemed environmentally friendly (Liao et al 2012).

Second, fatness is linked to climate change in terms of the level of healthcare resources required to sustain the health of fat people. This connection rests on the prevalent medicalized understanding of fatness as pathogenic. Since fat people tend to be sicker on account of their fat bodies, maintaining their physical well-being requires higher utilization of healthcare services, which are themselves energy intensive and taxing to the environment. Practices of healthcare delivery are also polluting activities. In a report from the nongovernmental organization Health Care Without Harm, the healthcare sector contributes approximately 4.4% of global net emissions, with hospitals the most energy-intensive and wasteful (Health Care Without Harm 2019). Not only is human health compromised by environmental degradation, our medical practices to improve health also contribute to this environmental degradation. This raises the dilemma of how to balance the ethical imperatives of promoting health and protecting the environment when they are, in many ways, in tension with one another (Macpherson, Smith, and Rieder 2020). For bioethicists, like Christina Richie, one way to reduce the disease burden and thereby the high usage of healthcare services, we need to reduce the prevalence of fat bodies, preferably through measures of prevention and lifestyle changes. She urges:

[I]t is important to note that there are very few, if any, environmental externalities in preventing obesity or taking responsibility for weight. With added pressure on the medical system to address what could be avoided, the carbon impacts of obesity-related conditions proliferate. Utilizing first-level, simple approaches to treatment instead of depending on medical intervention are, in contrast, sustainable. (Richie 2019)

Richie invokes the common presumptions of fatness, including fatness as resulting from personal choice. But her main point is that fat bodies put unnecessary pressures on the environment due to its predisposition to create avoidable health adversities that require medical interventions that negatively impact the environment.

These two ways of linking fatness to the climate crisis provide a robust account of fat bodies as deviant bodies that are antithetical to *environmental sustainability*, or what we understand as the responsible use and management of natural resources to maintain ecological integrity over time. Although these bioethicists take different approaches on the topic of making people smaller and thinner for environmental sustainability, they all seem to advocate for distributing benefits and burdens in a way that maximizes the health and well-being of the population as a whole at the expense of unfairly stigmatizing, harming, and overburdening certain groups of individuals – e.g., fat people. For instance, Singer, a notorious utilitarian, believes that public policies discouraging weight gain are justified given the presumed harms and costs that fat people impose on the collective. Callahan similarly believes that the prevalence of fat people, the cost it imposes on society, and the ineffectiveness of current obesity prevention/treatment methods warrant more extreme measures. Though Richie claims to employ a distributive justice framework, she makes a similar argument to Singer and Callahan, arguing that because the “obesity epidemic” burdens health-care systems and is “generally a personal choice,” fat people have a personal responsibility to lose weight (81). Likewise, Liao and colleagues believe that “while human engineering involves risks, it can also carry benefits over and above the contribution it makes to tackling climate change” (213). These risks include not simply health risks to individuals being made smaller but also raise social justice concerns about how human engineering may unfairly burden the most disadvantaged members of a society (216). Liao and colleagues believe that given the gravity of climate change and the lack of better solutions, human engineering is one of the better alternatives. According to Singer, Callahan, and Richie, placing blame and added burdens on fat people is justified due to the harms and costs that fat people supposedly impose on society. We argue that these approaches raise concerns from the perspective of *climate justice*.

Most of the views we discussed here – except Richie (2019) who employs a distributive justice framework to appropriately allocate health care resources and promote environmental sustainability – do not claim to promote “climate justice.” However, justice, as a foundational principle in bioethics and a central concern in the context of climate change, is of major significance in this discussion about supporting the health and well-being of fat people and the environment. Climate justice emphasizes the need for equitable solutions to climate change, which includes prioritizing the needs of marginalized and vulnerable communities that often bear the brunt of its effects and ensuring those that are least responsible for climate change are protected and supported (Gardiner 2011; Shue 2014). Climate justice and bioethics converge in their shared commitment to address environmental challenges while promoting fairness, equity, and responsibility. Together, these two disciplines/ideologies support one another by advocating for inclusive and equitable approaches to environmental governance, fostering resilience to climate impacts, and promoting sustainable development pathways that prioritize environmental and population health as well as social justice.

In the next sections, we challenge this thesis that interprets fat bodies as an impediment to environmental sustainability. We will argue that this approach lacks both empirical and ethical justification. To do this, we will first articulate and challenge the various presuppositions that motivate the framing of fat bodies as environmental harms. We will then employ the concept of vulnerability to demonstrate why it is unethical to place blame on fat individuals for climate change. In light of recent events that have disproportionately harmed the Black community, we also want to highlight how anti-fatness is also anti-Black (Strings 2019, 2020; Harrison 2021; Mollow 2017) and demonstrate the importance of race when discussing the topic of fatness, including its relation to climate change.

1. **Anti-fatness and the (mis)representation of fat bodies**

The approaches outlined above interpret fat bodies as an obstacle to environmental sustainability because they consume more than their fair share. Fat bodies consume more food (Callahan 2013; Liao et al. 2012), more medical resources (Richie 2019; Singer 2012), more technological and structural innovations (Richie 2019; Singer 2012), more fuel (Singer 2012; Liao et al. 2012), and therefore, produce more carbon emissions. Environmental sustainability thus requires reducing the prevalence of fat bodies. Going forward, we will refer to this view of fat bodies and their relationship to climate change as the *harmful consumption view*.

Although the harmful consumption view may strike many as intuitive, we argue that it is unethical and misguided. In this section, we raise three criticisms of it – the harmful consumption view (1) places an unwarranted amount of responsibility on fat people for the climate crisis, (2) arbitrarily singles out fat people as being uniquely high GHG emitters, and (3) lacks evidential support to back up claims that fat bodies are necessarily unhealthy and the result of personal choice.

Our first criticism is that the analytical focus of these arguments on fat people as drivers of climate change commits to a methodological individualism that reduces a sociopolitical problem to the anatomy or behaviors of individual actors. According to this approach, the continued exacerbation of the climate crisis is the result of individuals’ wasteful actions, with fat people supposedly the most egregious culprits. Yet this individualist approach to explaining climate change is seriously deficient since it neglects the structural forces that shape our personal choices and patterns of living (Boda et al 2022). Like any other social phenomena, we must take account of structural factors that drive climate change and substantially influence individual choices, like industrialization, urbanization, factory farming, and reliance on fossil fuels. Accordingly, while individual actions can contribute to reducing emissions, the most significant impact comes from systemic changes in industries (e.g., by incorporating energy-efficient technologies), energy production (e.g., by transitioning to renewable energy sources), and national policies (e.g., by implementing carbon taxes on GHG emissions) (IPCC 2021; Climate Accountability Institute 2017). To understand and address climate change, a structural analysis is essential. Isolating fat people from the social machinery and portraying them as major contributors to this environmental issue is incorrect.

Second, singling out fat people as distinctive from other embodied beings as uniquely high GHG emitters seems unduly discriminatory. Making this distinction not only perpetuates the stereotype of fat people as being exceptionally gluttonous, among other things, but it also fails to recognize other people with different body types who consume more food, medical resources, technological and structural innovations, and fuel. For example, professional football players in the National Football League (NFL) and other professional athletes probably consume more food than the average person to sustain their bodies as they endure vigorous activities. NFL players also put their bodies through dangerous activities, thereby requiring more medical attention than the average person.*ii* Also, if we should be genuinely concerned about the health care resources that are being used on fat people, we should also be concerned about those being used on the elder and disabled populations. The point here is not to broaden the range of bodily properties for moral disapprobation. Rather, it is to point out the apparent arbitrariness of demarcating fatness as a morally unacceptable bodily trait when there are other bodily traits that can be reasonably interpreted as intensive to the environment, such as being tall*iii* or having an athletic build, yet are conventionally framed as neutral or even laudatory. Additionally, it is strange and inappropriate to categorically classify fat people as a problem for climate change when wealthier families and individuals (both in the U.S. and worldwide) tend to have a significant carbon footprint due mainly to their high-level consumption of resources, such as transportation and housing (Song et al. 2019). Without further argumentation, the ideal of environmental sustainability serves as a moral cover for anti-fat bias.

Finally, we want to hone on and dispel three foundational assumptions that undergird the harmful consumption view. A dominant reading of fat people is that they are unhealthy and should be held personally responsible for the outcomes of their bodies. If the foundational assumptions that support this narrative are dispelled, then it is empirically wrong to characterize fatness as a marker of ill health and to hold fat people responsible for their body size and level of health. It would also be wrong to install practices (e.g., shaming practices, the over-prescribing of weight-loss, dieting) that rest on the idea that fat bodies are easily preventable and reversible with enough willpower. This would undermine the rationale that fat bodies are uniquely harmful to the environment and are blameworthy, to a greater extent than other non-fat individuals, for the climate crisis.

* 1. ***Fat people are unhealthy.***

Despite popular belief, fat people can be, and often are, healthy. They can have normal markers of health – for example, they can have healthy blood pressure, cholesterol and glucose levels, and healthy insulin sensitivity (e.g., see Shea et al. 2011; Klöting et al. 2010). Though fat bodies have been viewed as a medical condition for many years, the justifications for doing so are inconsistent and have been politically motivated (Mehl 2023). For example, in deciding whether obesity should even be considered a disease, in 2012, the American Medical Academy’s (AMA’s) expert committee determined that there are no “characteristic symptoms” of “obesity,” suggesting that it should not be considered a disease (AMA, Council of Scientific Affairs Report, 2012). This is because (1) not all fat people have the same symptoms (e.g., not all fat people are diabetic) and (2) some of the symptoms that are associated with fat bodies (e.g., metabolic abnormalities) are also present in “normal weight” bodies. The AMA nonetheless classified obesity as a disease, contrary to the advice of their expert committee.

There has even been research suggesting that fat people are not as unhealthy as we often presume. Epidemiologist Katherine Flegal and colleagues found that people in the “overweight” BMI category have the lowest mortality risk, and the risk of mortality among those who are slightly to moderately “obese” mirrors that of people who are “normal weight” (Flegal et al. 2005; see also Wildman et al. 2008 and McAuley and Blair 2011). Other research has shown that fatness can even be protective against mortality among people with various diseases and in older populations – this phenomenon has been referred to as the “obesity paradox” (Lavie 2014; Bender et al. 1999; Heiat et al. 2001).

Without having other information about an individual beyond their BMI – e.g., cardiometabolic health (through measuring blood pressure, cholesterol, glucose, insulin resistance), personal history of weight cycling (if any), mental health, family history of disease – we can’t *know* how one’s level of health compares to others who weigh more or less. Thus, it is not accurate to assume that *fat* bodies, due to their presumed ill health, are excessively burdening healthcare systems (Richie 2019; Singer 2012; Callahan 2013). That is a gross oversimplification that reinforces the pathologization of fat bodies.

* 1. ***Fat people are unhealthy because they are fat.***

One reason why that fat people can be healthy is because, as current research has shown, that it’s not necessarily the amount of adipose tissue, or body fat, that’s on one’s body that matters for health, but rather, the kind (e.g., white adipose tissue, brown adipose tissue) and location of the adipose tissue on the body and whether the tissue cells are functioning properly – all of which are influenced by genetics and one’s sex (Cypess 2022). Exercise and muscle building also improves the metabolic function of adipose tissue, even in people who are “obese” (Goossens 2017; Stanford & Goodyear 2018).*iv* For this reason, it is also the case that “normal weight” people can have poor cardiometabolic health, though they are not presumed to be unhealthy. People of “normal weight” can (and sometimes do) have a high percentage of body fat and very little muscle (also called “skinny fat”) due to a lack of exercise and/or resistance training (“Skinny Fat: Definition, Causes & More” 2021).

Also, it’s very difficult to say that fatness itself is negatively affecting people’s health because there are so many factors that can influence weight. It has been observed that it is often not fatness *itself* that negatively affects a person’s health but its combination with social factors – e.g., poverty, race, stress, stigma, history of abuse, mental health. For instance, the effects of weight stigma on people’s health have been a topic of recent interest (Puhl and Heuer 2009). Weight stigma is associated with negative physiological and psychosocial effects that contribute to a decline in health and to weight gain (Wu and Berry 2018). The psychological effects of shame and the fear of being stigmatized cause people to eat more and feel less motivated to exercise (Tomiyama et al. 2018; Hunger & Major 2015). The physiological effects on the body include higher levels of oxidative stress (Tomiyama et al. 2014), which contributes to adipose tissue dysfunction and cardiometabolic diseases (Furukawa et al. 2004).

These psychological and physiological effects of weight stigma are further exacerbated in healthcare (Major et al. 2017; Phelan et al. 2015). Even physicians who specialize in obesity hold implicit and explicit weight biases (Tomiyama et al. 2015). This is harmful in two ways: (1) doctors misdiagnose their fat patients, and (2) the stigma fat patients experience discourages them from visiting their doctor (Tomiyama et al. 2018). Fatness becomes hypervisible in the medical setting (Gailey 2014), and as a result, fat patients with problems unrelated to their weight often leave their doctor’s office with a prescription for weight loss, and their condition fails to get diagnosed or treated (see, e.g., Wann [1998]; Dionne [2022]; Manne [2024]; Cottom [2019]; Gay [2017]; Harrop [2019] for first-person testimonies). This should come as no surprise given that doctors often feel frustrated, and some even disgusted, by their fat patients (Alberga et al. 2019). These experiences do not encourage patients to lose weight but rather discourage them from visiting their doctor. In cases like this, it becomes even less clear if it is fatness itself that is causing poor health or if weight stigma is the culprit.

If supporters of the harmful consumption view are genuinely concerned about fat people’s health and its impact on health care systems and climate change, then they would not single out fat people as being personally responsible for these problems. There are other factors, as will be made clearer shortly, that affect a person’s weight, and anti-fat biases and stigma may only worsen people’s health.

* 1. ***Diet and exercise prevent and cure “obesity.”***

It is commonly believed that a balanced, nutritious, and lower-calorie diet, along with regular exercise, is the obvious way to both (a) prevent and (b) reverse fatness. Starting with (a), the question we should ask is whether fatness really is that easy to prevent. The simple answer is it depends. The truth is that the “principle contributing causes [of increasing rates of obesity] and their individual influence remain unknown” (Cypess 2022). Despite widespread belief, preventing fatness is not as simple as eating less calories than one expends (Ludwig et al. 2021). This view overlooks the complexity of human metabolism, which varies significantly between individuals due to genetic, hormonal, and metabolic differences. Factors such as age, sex, genetics, hormone levels, gut microbiota composition, medications, and medical conditions can all influence how calories are metabolized and stored in the body. Research and personal testimonies have also demonstrated that childhood trauma (e.g., bullying, emotional or physical abuse, sexual assault, intergenerational trauma) impacts a person’s weight and the development of eating disorders (e.g., see Mahmood, Li, & Hynes 2023; Gay 2017). It is also well-documented in public health literature that socioeconomic factors, food availability, cultural influences, food marketing, and food industry-funded studies also play significant roles in shaping dietary behaviors and food choices (Faden, Bernstein, and Shebaya 2022).

There is growing research demonstrating that genetics play a key role in one’s weight. For instance, research involving populations of primarily European ancestry has shown that “70 percent of the variation in people’s weights may be accounted for by inheritance” (see Kolata [2008, 123], who cites Stunkard et al. [1986] and Stunkard et al. [1990]; see also Elks et al. [2012]). These researchers believe that “childhood family environment alone has little or no effect” on one’s weight. As mentioned previously, genetics does seem to influence the distribution and function of adipose tissue, features that influence metabolic health (Shungin et al. 2015). However, the extent to which genetics play a role in obesity is still unclear, particularly with growing research in epigenetics showing that we can modify gene expression for better or worse (Cypess 2022; Schafte and Bruna 2023).

Now, moving on to (b) – once people are fat, is there a way to treat it? It is generally believed that if people just eat healthier and/or fewer calories and exercise more, they will lose weight. Though calories play some role in weight gain and weight loss, researchers have noticed that a broad range of factors influence weight, including, for example, hormonal influences and genetic markers, which may prevent people from being able to lose weight. Even for those lucky few who are able to lose a substantial amount of weight, maintaining that weight-loss is rare (Mann et al. 2007). In fact, “[d]ieters who gain back more weight than they lost may very well be the norm, rather than an unlucky minority” (Ibid., 230). Dieting in general has been shown to have adverse health effects and may cause weight gain rather than weight loss for adults (Sares-Jäske et al. 2019; see also Mann et al. 2007), adolescents (Neumark-Sztainer et al. 2012), and children (Field et al. 2003).

One theory explaining why it is so challenging to maintain weight-loss is called set point theory. Set point theory is the idea that everyone’s body has a natural weight range, determined by our genes, at which it is most comfortable (Harris 1990). Research has found that people who deviate from their set weight (whether by gaining weight or losing it), have difficulty maintaining that new weight because the body is trying to get back to its set weight.*vi* Participants in these studies experienced psychological symptoms of starvation and their body endured physiological changes that made it difficult for them to maintain their weight-loss. Even for participants that were nowhere close to being “underweight,” substantial weight-loss elicits symptoms that are found in people who are starving (Glucksman and Hirsch 1968; Kolata 2008; Kalm and Semba 2005). Additionally, the metabolism of fat people who go on to lose a lot of weight slows down significantly (Glucksman and Hirsch 1968; Kolata 2008; Fothergill et al. 2016). It is normal for the metabolism of someone who weighs less to have a slower metabolism than someone who weighs more, however, the metabolism of people who have lost a substantial amount of weight slows down significantly more than researchers had predicted (Ibid.). For example, a 200-pound individual who had just lost 100 pounds will have a slower metabolism than a 200-pound individual who had not lost any weight.

Given this information, the personal responsibility narrative that underpins the harmful consumption view is not appropriate. There are many factors (e.g., medications, genetic differences, mental illnesses, stigma, and other social factors) outside of our control that influence weight. Additionally, losing weight and *maintaining* that weight loss long-term is very often a failed endeavor, and it is not because people lack willpower. Scholars suggesting that people “take responsibility for their own weight through attention to caloric consumption and physical activity” are making unhelpful and harmful suggestions (Richie 2019, 83).

1. **Vulnerability and Anti-Fatness**

We have demonstrated that the harmful consumption view is both misguided and unethical. Proponents of this view tend to oversimplify a complex, systemic issue by reducing it to individual choices. They unjustly target fat bodies as primary contributors to the climate crisis and rely on faulty assumptions about fat people, their health, and the connection between the two. These assumptions—such as the belief that all fat people are unhealthy, that their health issues are caused by their weight, and that their weight is solely a result of overeating and lack of exercise—reinforce harmful stereotypes, portraying fat people as incompetent, lazy, and irresponsible. Not only are these assumptions empirically inaccurate, but they also raise significant ethical concerns.

The harmful consumption view is also deeply offensive from the standpoint of *justice*, and its propagation is, in many ways, irresponsible. What many people fail to recognize about fatness is that it is an oppressed social identity (Nath 2019; Eller 2014; Stoll 2019; Eaton 2016; Manne 2024). As such, fat people, like other oppressed social groups, are being systemically and unfairly constrained and burdened by the unquestioned norms, habits, and meanings that undergird accepted rules, policies, and “the normal processes of everyday life” (Young 1990, 41; see also Cudd 2004; Frye 1983). It is these unquestioned yet oppressive norms, rules, and values that render people vulnerable, or susceptible to harm, and often get overlooked. For this reason, our analysis of vulnerability will incorporate the testimonies of fat activists who are advocating for a more inclusive and just understanding of their bodies.

Vulnerability is a state that is not unique to fat people. Being vulnerable is, in many ways, inherent to the human condition. All human lives are susceptible to experiencing terrible things, like death, injuries, illness, disadvantages, and suffering. But the degree to which we are prone to experiencing these harms differs from person to person and is, in critically important ways, socially produced. Weight stigma, for instance, makes fat people more liable to injury when this social prejudice orients the ways in which fat people are perceived and treated in society. And the social anxieties around fat bodies are only intensified when they are attributed to climate change, adding to the negative biases already associated with their bodies and fomenting a moral panic about fat bodies that calls for intervention. In this sense, the harmful consumption view makes them even more vulnerable to further harms that are stoked by interpersonal and structural stigma that hold them as threats to the safety of the global community. Despite some concerns about deploying the word “vulnerability” to characterize certain publics—for example, its stigmatizing effects—the concept is helpful in recognizing that the likelihood and degree of being harmed or wronged “does not fall equally on all individuals” due to pre-existing background structures (Rogers 2021, 25).

Here, we want to map out three categories of vulnerability that would be unjustly exacerbated by employing a harmful consumption view: vulnerability to psychological harm, vulnerability to social harm, and vulnerability to physical harm. As a deeply relational, dynamic, and context-dependent feature of one’s lived experience, not all fat people are rendered vulnerable for the same reasons, in the same ways, or to the same degrees (Luna 2009). The layers of vulnerability that fat people experience will depend on other features of their social identity, like their gender, sexuality, race, ethnicity, and culture. Of course, these categories of vulnerability may overlap with and influence one another, but we distinguish them analytically to demonstrate the complex ways in which fat people are unjustly harmed.

1. ***Vulnerability to psychological harm***

As previously discussed, one of the more well-researched harms of weight stigma is the psychological harm it inflicts. The point of weight stigma is to mark fat bodies as socially unacceptable and associate them with negative characteristics, like gluttony, selfishness, and laziness. Many anti-fat stereotypes are linked to the belief that being fat is a personal and moral failing–namely, a lack of self-discipline. The stigmatizing language and images are often psychologically injurious to fat people. Many studies bear this out, showing that fat people experiencing the brunt of weight stigma are more likely to suffer depression, low self-esteem, anxiety, eating disorders, and suicidality (Sutin and Terracciano 2013; Sutin et al 2015; Puhl and Heuer 2010).

The harmful consumption view would worsen the psychological harms of weight stigma by promoting the erroneous belief that people are personally responsible for their weight and its supposed climate-related effects. For example, Daniel Callahan’s “edgy” proposal to institute shaming practices directed at fat people to motivate them to become thinner is deeply troubling for multiple reasons. It would not only be practically ineffective as researchers have already pointed out (e.g., Puhl et al. 2008), but it’s cruel in his advocacy for what Lindsay Abrams aptly calls “socially motivated self-hatred” (Abrams 2013). Instead of dismantling weight stigmatization, Callahan argues that its presence could be a resource to empower fat people to take control over their weight by encouraging them to avoid being a target of weight stigma.

That last question in effect aims to make people acutely aware of pervasive stigmatization, but then to invoke it as a danger to be avoided: don’t let this happen to you! If you don’t do something about yourself, that’s what you are in for. Many of the other questions invoke vanity as a value, or the good opinion of one’s neighbors, friends, or fellow employees, or the risk of illness. Use all of them together, carrots and sticks. (Callahan 2013)

Deploying weight stigmatization to shape patterns of behavior of fat people in ways that sustain the environment, even if effective (a big if), is an unjust means of promoting a worthwhile social end because it puts unreasonable burdens on the psychological well-being of fat people and is deeply offensive to their sense of dignity.

This kind of stigma, again, is often thought to be justified because it promotes an important social end, but it leads to objectionable forms of gaslighting. Gaslighting, or the practice of manipulating people into distrusting their own experiences, is a common occurrence in the lives of fat people. Despite knowing there are “real cultural problems—like sexism, body shame, fatphobia, and [the] myriad injustices many of us are dealing with all of the time,” fat people are convinced that “the problem is that we aren’t trying hard enough” (Tovar 2018). They are made to believe things like: “when I become smaller literally everything will get better… My life can begin! I will get the clothes I want, the job that I want, the love that I want. It will be great!” (West 2016, 98). And when they fail to lose the weight, they blame themselves and come to believe they are not deserving of dignity, respect, or love (Gay 2017).

Gaslighting also occurs when anti-fat messaging gets advertised as a concern for health or as an interest to promote “better, healthier lives” (Richie 2019). Recent public health initiatives and medical recommendations have become more nuanced about their intentions. Weight loss is being less frequently advertised as the goal of obesity interventions – rather, they are advertised as an attempt to improve health. Though this is a respectable goal, fat activists have argued that fat people’s health is often not the ultimate objective (West 2016). For example, First Lady Michelle Obama’s Let’s Move! Campaign, which was advertised as a program that wanted to “raise a healthier generation of kids,” was actually a program designed to help children lose weight. “This subtle but definite shift in language continued to prop up the thinking that conflated weight with health…Weight loss became not about ‘slimming down’ but about ‘getting healthy’” (Gordon 2020, 37). Thus, despite how healthily they eat, how regularly they exercise, or what their other markers of health say, fat people are considered unhealthy. This concern for health narrative, which gets used in the harmful consumption view (Callahan 2013; Richie 2019), encourages people to distrust their own judgement about how healthy they are and how well they take care of themselves simply because of a number on the scale.

When the fat individuals in question are deemed too young to take responsibility for their bodies, their parents – and more specifically, their *mothers* – are to be blamed (Solovay 2000; Boero 2009; Reiheld 2015; Friedman 2015). Concerns about “childhood obesity” has caused parents to question their capacity to be a “good parent.” Even when parents are working hard to ensure that their children are being fed, getting an education, living in a loving and safe home, these efforts may get overlooked if any of their children are “overweight” (and especially if more than one is). Concerns related to unhealthy ethnic foods (Boero 2009) and breastfeeding (Nath 2019) often target Black and Latina mothers who come to distrust their ability to be self-sufficient good mothers (Hand 2021). As a result, fat children have been taken from their parents’ custody “under the guise of child ‘welfare,’” assuming that the children will be better off without their parents (Boero 2009, 118).

Fatness has been scapegoated for numerous global issues, including the climate crisis. This is problematic not only because it takes attention away from the real, underlying structural problems that intersect with and exacerbate climate injustice, but also because the weight stigma being perpetuated by the harmful consumption view is psychologically injurious and leads people to distrust their own knowledge and experience.

1. ***Vulnerability to social harms***

The harmful consumption view also intensifies social harms. Negative stereotypical meanings about fatness contribute to and sustain identity-based social hierarchies, in this case, attitudinal and institutional forms of anti-fat biases. The harm here goes beyond the psychological harm experienced by plus-sized individuals in society. Rather, an inegalitarian social order is reinforced that further limits the lives of fat people and other marginalized identities and what is possible for them. It gives reason to exclude fat people from full consideration and participation in social life. Interpreting fat bodies as irresponsible culprits of the climate crisis only gives people further reason for ignoring, neglecting, and discriminating against fat bodies.

For example, job discrimination against fat people is insidiously practiced around the world, regardless of their health. Even when they are healthy, fat people are nevertheless perceived as ugly, indecent, uneducated, unreliable, and unmotivated. These stereotypes follow fat people into every sphere of their social lives, from their romantic lives to their doctor’s office, to their professional lives, and everywhere in-between, as captured in the following testimony:

I am five-feet four-inches tall, and I weigh 270 pounds. My blood pressure, cholesterol, and blood sugars—the three best health indicators—are all normal. I have no history of serious illness. I don’t smoke. I exercise and eat my vegetables. I brush my teeth and pay my taxes and wear a seat belt, yet from my most personal moments…to my official business... I was shut out because of a number on a scale. (Wann 1998, 10)

The most obvious ways in which fat people are “shut out” or excluded from full participation in their social environments are domains of education and employment.

Unfortunately, the victimization of fat people begins early in life. Children are taught at an incredibly young age, some as young as three years old, to associate their fat peers with negative characteristics (Spiel, Paxton, and Yager 2012). Because of this, fat children often experience victimization, teasing, and bullying from their peers. Teachers also make the education setting particularly challenging for fat students. Anti-fat biases cause teachers to grade the academic performance of fat students more harshly than that of their non-fat students (Zavodny 2013). Studies have shown that teachers judge their fat students as less academically capable (Manne 2024). Parents are even guilty of teasing their children, which can have a particularly damaging and lasting emotional impact (Puhl et al. 2008).

Unlike other social identities, like gender, race, religion, and sexual orientation, employers are allowed to discriminate against applicants, employees, and candidates for promotion simply based on their body size. In the US, weight-based discrimination in the workplace is legal in nearly all states, except for Michigan and scant numbers of US cities that include San Francisco, New York City, and Madison, Wisconsin (Yu 2022; Gordon 2023). Fat people are less likely to be hired than thinner individuals due to the prevailing social imagination that fat people are less conscientious, less agreeable, less emotionally stable, and less extraverted than their thinner counterparts (Roelhing et al 2008). Also, weight stigma manifests other forms of workplace discrimination, such as career progression and overall income. It negatively shapes career projections of fat people, where they are less likely to get promoted (Griel et al. 2012). Furthermore, being fat is also associated with lower income due to factors, like limited job prospects and opportunities for employment advancement (Kim and Knesebeck 2018; Shinall 2014). One study suggests that for every six pounds an average American woman gains, her hourly pay drops 2% (Han, Norton, and Powell 2011). Fat people do not just miss out on that one highly sought after job, they experience “destructive cycle of employment discrimination,” where after being overlooked time and time again, they fall behind their peers in job experience and self-confidence (Solovay 2000, 101). In summary, fat people are hired less, promoted less, and paid less in a social world governed by anti-fat body norms.

Society is already structured in a way that inhibits fat people from full participation in social spheres and the ability to succeed. Advancing the harmful consumption view will only justify and perpetuate these discriminatory practices, and, in turn, these practices will produce harmful effects on fat people’s mental and physical health.

1. ***Vulnerability to physical harms***

A third type of harm that fat people are susceptible to is physical. As we have already discussed in some detail, weight stigma and discrimination play a serious pathogenic role in the lives of fat people, increasing their risks of morbidity and mortality. There are various pathways to which weight stigma produces tangible, negative health effects on fat people. Here, we argue that the propagation of the harmful consumption view will only increase fat people’s susceptibility to these negative health effects.

Adopting policies that are focused on reducing the size (Liao et al. 2012) or reducing the weight (Singer 2013; Richie 2019) of individuals will only heighten the negative physical effects of weight stigma. First, they may exacerbate fat people’s chronic exposure to discrimination and marginalization, making them more susceptible to what Arline Gernoniums calls “weathering,” or the physical consequences of social inequality that produce troubling health disparities among marginalized communities (Genonimus 1992; Villarosa 2022). Weathering could explain the diminished health status of many fat people, where their proclivity to illness and premature death are due to the psychological and social stressors that constitute weight stigma, and not necessarily their fat bodies. Numerous studies have pointed out how interpersonal and institutional exposures to weight stigma produce higher cortisol levels that are then linked to deleterious health outcomes, like type 2 diabetes, hypertension, and heart disease (Schevy, Puhl, and Brownell 2014; Himmelstein, Belsky, and Tomiyama 2014; Puhl and Heuer 2010; Muennig 2008).

Second, the harmful consumption view advances an “acceptable” body standard, which may encourage unhealthy patterns of behavior that impede rather than promote physical well-being of fat people. Fat people are already willing to put themselves through a lot of physical and psychological torment just to lose weight, but this really is not in the best interest of their health. Fat activist Lindy West (2016, 12) makes this point, writing:

So, what do you do when you’re too big, in a world where bigness is cast not only as aesthetically objectionable, but also as a moral failing? You fold yourself up like origami, you make yourself smaller in other ways, you take up less space with your personality, since you can’t with your body. You diet. You starve, you run till you taste blood in your throat, you count out your almonds, you try to buy back your humanity with pounds of flesh.

Many of these harms are due to the “personal responsibility” narrative that body size reflects an agent’s personal choices or strength of will, which supporters of the harmful consumption view tend to believe (Singer 2013; Richie 2019). The social pressures to become thin through individual means can encourage unhealthy behaviors including excessive exercise and/or extreme dieting. Encouraging a standardized view of an “acceptable” body is also more likely to encourage exercise avoidance and binge eating behavior in fat people, both of which are detrimental to health (Tomiyama et al. 2018).

Third, a heightened focus on weight and its effects on the healthcare system will likely exacerbate inequities in healthcare settings. It will encourage doctors to continue, and more commonly, prescribe diets to fat people, leading to even more mis/un-diagnoses. This will, in turn, encourage fat people to postpone doctor’s appointments and avoid going to their doctor altogether. This could result in fat people depending even more on the healthcare system than they otherwise would have if their doctor had appropriately diagnosed them or if they had gone to see their doctor when they first noticed concerning symptoms.

In this section we laid out some of the potential layers of vulnerability associated with anti-fat bias and discrimination that are reinforced by the harmful consumption view. These layers do not exist for everyone; however, it is worth pointing out fat women are more likely to experience them than fat men. Fat women are more likely to be unemployed, underpaid, and overlooked for promotion, and the disparity is even more severe if the woman is Black (Solovay 2000; Rubino et al. 2020; Vanhove and Gordon 2013). Fat women are also far more likely to experience physical, verbal, and sexual abuse because of their weight (Prohaska & Gailey 2019; Royce 2009; Royce 2020). This abuse comes from strangers, co-workers, family members, and even romantic partners. Sexual harassment and abuse toward fat women are particularly disturbing because the victims are either not believed or told that they should be grateful for the attention, as fat activist Aubrey Gordon explains:

I was fifteen years old and a size 18 when, for the first time, a man told me he’d fantasized about raping me…Over the years, more and more men would disclose their desire to assault me. When I told one to stop, in my mid-twenties, he was taken aback. *I thought you were liberated. You should be grateful*. I was…fat, which meant I’d be grateful for what I got. Even if it was violent. Even if I didn’t consent. (Gordon 2020, 101)

Given the ways in which fat women are disproportionately affected by these economic and physical harms of weight stigma, it makes sense how they are also more susceptible to psychological harms like trauma, eating disorders, low self-esteem, and body dissatisfaction (“Eating Disorders, Trauma, and PTSD” 2017). A harmful consumption view could exacerbate such experiences and increase their occurrence.

We have argued that fat people, particularly fat women, are rendered vulnerable due to intersecting factors related to social identity, relationships, and power dynamics. Their preexisting vulnerabilities to economic, psychosocial, and physical harms are likely to be made worse if we were to adopt a harmful consumption view. Interpreting fat bodies as responsible for exacerbating the effects of climate change could have seriously damaging effects on fat people. In what follows, we will argue that the harmful consumption view has particularly detrimental effects on people of color and by not recognizing this, they are promoting campaigns for environmental sustainability that exacerbate racial health inequities.

1. **Understanding anti-fatness as anti-Blackness**

*[F]atphobia functions as a weapon of antiblack violence: by deflecting attention from the injuries that the state imposes on black people’s bodies (whether through poisoned water or police violence), antifat discourse shifts the focus to the alleged bad dietary choices of African Americans, discursively rendering them unvictimizable.* (Mollow 2017)

Given the disproportionate representation of fatness among Black Americans and the existing racial disparities in health, it is essential to critically examine the harmful consumption view through an anti-racist lens. In light of recent events—such as the devastating string of high-profile police killings of Black individuals and the disproportionate impact of COVID-19 on Black communities—there has been a growing movement within bioethics to prioritize anti-racism (e.g., Danis et al. 2016; Ray 2015, 2020, 2021; Russell 2021; Fletcher et al. 2021, 2022). Although anti-racism should be central to bioethics, the field has insufficiently addressed how Black people's health is uniquely affected by factors such as police violence, mass incarceration, healthcare provider biases, institutional racism, and other social determinants that drive racial health disparities (Ray 2020).

In alignment with this movement, we propose analyzing the relationship between fatness and climate change through an anti-racist lens. This approach must acknowledge the structural injustices that drive racial disparities in both obesity rates and climate vulnerability, which disproportionately harm communities of color. To that end, it is essential to critically evaluate the standard metric for assessing weight and health risks—BMI.

BMI was originally designed as a statistical tool to define the average man, which was equated to the mathematical mean of the white Western European male population (Gordon 2023; Oliver 2005; Strings 2019). The BMI scale, or what was originally called Quetelet’s Index, was eventually used by eugenicists, most notably by Sir Francis Galton (1889), to demonstrate how reproduction within a human population should be arranged to increase the occurrence of what was considered desirable heritable characteristics (Stanford 2022). Even though the Quetelet Index was not designed to measure an individual’s body fat, in the mid-1900s, it was adapted by Ancel Keys (who coined the term BMI) to conclude that “body mass index…proves to be, if not fully satisfactory, at least as good as any other relative weight index as an indicator of relative obesity” (Keys et al. 1972, 339). The Quetelet Index was also not designed to be an indicator of health, but that did not stop the Metropolitan Life Insurance Company from using it to determine which insured populations had the most/least “desirable” body weights in relation to mortality rates (Nuttall 2015). Moreover, the data used by health insurance companies on mortality risk and BMI were – like Quetelet’s sample population – based almost exclusively on wealthy white men. As a result, BMI fails to account for variations in race/ethnicity, age, gender, and variations in body composition (Gard and Wright 2005). Given this history of the BMI, some scholars have taken it be a racist type of pseudoscience that “helped forge oppressive conceptions of fatness as an indicator of ill health and ‘low’ racial quality” (Strings 2023).

Another issue with BMI is that standard thresholds do not accurately capture the health risks specific to different racial and ethnic groups. The observed higher rates of obesity and cardiovascular disease among Black individuals are sometimes mistakenly taken as a reason to believe that obesity is the direct cause of cardiovascular disease (Morris et al. 2021). However, this relationship is not causal, especially not in the case of Black Americans, whose experience of racial stigma and discrimination contributes to their increased risk of cardiometabolic disease (Ray 2023). Studies have shown that Black people are less likely than white people to die from obesity-related health conditions, despite having higher rates of cardiovascular disease and obesity (Okobi et al. 2023; Cohen et al. 2012; Stevens 2000; Strings 2020). This paradox can be partly explained by the fact that Black Americans experience unusually high rates of metabolic abnormalities at “normal weight,” suggesting that standard BMI thresholds may not adequately capture the health risks faced by different racial and ethnic groups. Specifically, Black Americans as well as Chinese Americans have a 50% greater prevalence of metabolic abnormality at a “normal weight,” South Asians have a 100% greater prevalence, and Hispanics an 80% greater prevalence (Gujral et al. 2017). The results of this study led the researchers to believe that “race/ethnicity alone may be a better predictor [than BMI] of cardiometabolic risk in racial/ethnic minority populations” (634). The elevated risk factors present in normal-weight Black individuals highlight a critical area where health assessments based on BMI are unhelpful, especially given the growing evidence that Black people, and Black women in particular, have lower mortality rates at higher BMIs.

To add insult to injury, Black people’s fatness and poor health are cast off as a result of personal choices, which ignores the fact that they are more susceptible to impacts of systemic racism and climate change. It must be acknowledged that Black, Latinx, and indigenous communities are disproportionately fat (CDC 2023a; Lofton et al. 2023; OMH, n.d.) and yet, these communities are least likely to have health insurance, are more likely to experience poverty and psychological distress, and have higher rates of mortality related to diabetes and heart disease (Bailey et al. 2017). The often assumed causal relationship between fatness and poor health is even less convincing among the Black community given that other factors like, stigma, systemic racism, poverty, and psychological distress are major contributors to their higher mortality and morbidity rates (Ray 2023). The systemic and multifactorial causes of racial health disparities become even more apparent when we consider how communities of color are disproportionately located in areas prone to environmental hazards (Bullard 1990), making them more vulnerable to climate-related disasters such as flooding, heat waves, and rising sea levels, all of which exacerbate health risks, including waterborne diseases, respiratory illnesses, and cardiovascular complications (Cushing et al. 2015).

Black women specifically have been harmed by the personal responsibility narrative espoused by government initiatives as well as the harmful consumption view. For example, in the 1990s and early 2000s public health agencies and initiatives singled out Black women in discussions on breastfeeding and its preventative measures against childhood obesity as being noncompliant. Jennifer Nash (2021) says that Black mothers were viewed as “costly ‘social dead weight’ whose refusal to appropriately mitigate risk” was taken to be “a fiscal threat for the collective” (52; see also Strings 2015). Black women were also being singled out for their increasing rates of “extreme obesity” (Flegal 2002). Since then, public health campaigns surrounding obesity have consistently targeted Black women, including Michelle Obama’s Let’s Move! campaign launched in 2010. There is now a growing number of studies finding that Black women, despite generally having higher BMIs than white women, have lower mortality rates at a given BMI (Strings 2019). This discrepancy suggests that factors beyond BMI, such as systemic stressors and environmental conditions, play a significant role in health outcomes. Rather than assuming that the reason Black women are unhealthy is because they “eat the wrong things,” more attention needs to be given to the fact that “their lives are often stressful and their neighborhoods are often polluted” (Strings and Bacon 2020).

While bioethicists are to varying degrees attentive to the ways in which social factors affect weight and health, they still overemphasize the role of personal responsibility. For example, Richie (2019, 81) writes:

[O]besity-related conditions prevail in low-income areas in the United States, which are associated with race and educational attainment. Low-income areas are also characterized by less access to leisure and recreation. Even so, health disparities, including those related to weight, are present in countries that mitigate social determinants of health through socialized health care. This indicates that obesity is generally *a personal choice, within one’s control, that is erroneously treated as a medical problem*. (emphasis added)

Richie makes two problematic assumptions in this excerpt. First, she assumes that socialized health care will solve the problem of health disparities. However, it is well-known that factors existing outside of medicine have a substantial influence on health and weight (Hancock 2017). Socialized healthcare alone will not address the fact that people of color and low-income populations are disproportionately exposed to environmental hazards such as air pollution, landfills, and toxic waste sites. As Robert Bullard (1990) has shown in his seminal work on *environmental racism*, communities of color are routinely situated near hazardous sites, contributing to higher rates of illness and mortality unrelated to body size. These structural inequalities must be accounted for when analyzing racial health disparities (Ray 2023). Environmental toxins and air pollution, often concentrated in predominantly Black and low-income neighborhoods (Bullard 1990), contribute to oxidative stress, which can lead to adipose tissue dysfunction and cardiometabolic diseases (Brook et al. 2010). This underscores how environmental factors, rather than personal choices, drive many health disparities within these communities. Richie’s view also fails to address the weathering effects of racial or weight stigma and its effects on cardiometabolic health (Geronimus 1992; Ray 2023) as well as the fact that fat people in the U.S. and other countries are legally discriminated against, making it more difficult for them to earn enough money, receive adequate healthcare, and find decent and affordable housing (Solovay 2000). Additionally, Richie’s approach assumes an overly simplistic understanding of the physiology of adipose tissue (Cypess 2022). She writes, “When calories are consumed in excess of daily needs, weight is gained. When fewer calories are taken in than what is needed to sustain vital function and additional activity, weight is lost. Those seeking to reverse the health effects of obesity can benefit from a reduction in calories” (Richie 2019, 82). This understanding fails to account for the complexities and uncertainties regarding the physiology of adipose tissue (as discussed in section 3) and its connections to metabolic abnormalities.

In this section, we argued that the harmful consumption view must also be analyzed from an anti-racist lens. By doing so, we recognize the historically white (and male) standards by which we have come to inappropriately determine the health of Black people and how government initiatives have singled out members of the Black community, particularly women, as being responsible for their community’s presumed poor health given its concerning “obesity rates.” Given this history, the harmful consumption view will wrongly and unjustly characterize communities of color as ecological burdens. Even if communities of color do consume troubling levels of resources, such as healthcare, the problem should not be attributed to their body sizes but their subjugation to various forms of oppression.

1. **Towards climate justice and a world for all bodies**

In this paper, we engage with an argument from environmental bioethics that links fat bodies to climate change, asserting that fat bodies are resource-intensive due to higher energy needs for functioning and participating in society, as well as increased healthcare demands, stemming from an assumed causal relationship between fatness and poor health. This argument, which we call the harmful consumption view, suggests that fat bodies contribute disproportionately to climate change through increased consumption. Consequently, anti-fat environmental bioethicists argue for reducing the prevalence of fat bodies to promote environmental sustainability.

We challenge this harmful consumption view by highlighting its flawed assumptions, its reduction of climate change to individual behaviors rather than structural factors, and its unjust exacerbation of harm to fat individuals, particularly within Black and other communities of color.

To prevent future missteps in environmental bioethics, the field must engage with and respond to the testimonies and concerns of those most vulnerable to harm, including fat people. Their insights challenge stigmatizing narratives and enrich our understanding of health, fostering a more inclusive and just approach to healthcare and environmental ethics. As feminist epistemologists have long argued (Grasswick 2018), knowledge production, even on contentious topics like “obesity” and climate change, should incorporate alternative perspectives, ensure transparency and accountability, and integrate diverse viewpoints to enhance objectivity, fairness, and social relevance. Through dialogue, collaboration, and reflexive analysis, environmental bioethics can become more evidence-based, ethically sound, and attuned to the complexities of social realities, thus improving the reliability and relevance of future ethical guidance.

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**Notes**

We are using the word fat to refer to individuals who are often referred to as “overweight” or “obese” to show our support of the fat acceptance movement and its effort to reclaim the word that has historically been used as a slur. We are not using this term in a derogatory way but rather as a neutral description of a body.

Thanks to Odia Kane for the example.

S. Matthew Liao and colleagues actually focus on creating a shorter population in their paper as a way to respond to climate change but recognize that making a thinner population would be a more palatable intervention.

Such individuals are referred to in the literature as “metabolically healthy obese.” So, even though they are healthy, their bodies are still classified as diseased because of their size.

Some may argue that being “overweight” is not unhealthy, and we agree. However, there was a time that being “overweight” was called “pre-obese,” or in other words, nearly diseased. We think it is fair to think that many Americans (even in the medical community) still think being “overweight” is not as healthy as being “normal weight.”

See Kolata (2008) and Nath (2024) for detailed descriptions of these studies and explanations of their findings.

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