Opinion paper

Queer vulnerability and disaster situations

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Abstract: The appropriateness of branding certain disaster events as a natural disaster continues to be academically debated, given that few disasters are solely the result of uncontrollable forces of nature, and are instead anthropogenic in their creation, or exacerbated by the relationship humans have with actual and potential hazards. Therefore, this socially constructed nature of disasters also makes groups that are marginalized within society, such as queer people, more vulnerable to these disasters. Utilizing a Bourdieusian framework, the field of disaster preparedness, management, and recovery is examined for queer vulnerability, which is deconstructed here as a product of global and local cultures, in their distribution of economic, social, cultural, and symbolic capital away from queer people. The concepts of habitus and subsidiary concepts of ethos and doxa are deployed to understand the ingrained ways of doing and being that perpetuate discrimination against queer individuals through said inequitable distributions of capital. It is argued that the field is privileged for heteronormative lives, thus leading to heteronormative assumptions and actions that further marginalize queer experiences before, during, and after disasters during disasters. In light of this, we call for a more social justice informed approach to disaster risk reduction and relief, in which heteronormativity is consciously decentered to ensure all groups are kept safe from disasters, which can arguably never be natural.

Keywords: natural disasters; LGBT+; queer vulnerability; Bourdieu; disaster risk reduction

1. Introduction

According to the World Meteorological Organization (WMO), "the number of weather, climate, and water extremes are increasing and will become more frequent and severe in many parts of the world as a result of climate change" [1]. Though it may seem an obvious statement that queer people will be and are affected by these extremes and their related disasters, there are numerous reports of a lack of provisions, both including and specifically needed by queer people before, during, and after disaster events such as flooding, earthquakes, flooding, forest fires, and droughts [2–5]. At some times and in some places, queer people find it disproportionately difficult to access services and resources, which is perhaps not altogether surprising when one considers the risks related to being queer in so many countries, particularly when there are laws and/or prevailing societal attitudes against being queer and living (openly and visible) queer lives. Additionally, given the common use of the term natural disasters, the context of disaster situations is more complex than might be thought. The scholarly focus on the concept of disaster vulnerability grew from the 1990s, when social scientists began focusing on the structural and historical factors believed to be the "root causes" of the consequences of so-called "natural" disasters [6]. By placing disasters within the context of the political and economic structures of society, this body of literature frames disaster vulnerability as a "cultural, economic, political, and social construct" ([7], p.8). This view has become a mainstay of climate change discussions [8], with the Intergovernmental Panel on Climate Change defining climate vulnerability as the "propensity or predisposition to be adversely affected" ([9], p.2927). Scholars have long argued that "recognizing difference in disaster is part of the solution, not the problem" ([10], p.15) and this shift in emphasis towards disaster vulnerability meant that scholars began to explore how differences in groups and inequalities determine how people are impacted by a disaster [11]. For example, over the past couple of decades, gender has moved into the center of scholarly thinking on disasters and vulnerability [12–14]. However, less attention has been paid to the vulnerability of the queer community.

In approaching this paper, we explore what makes a climate event a "natural disaster". Is the disaster situated in the natural event or is there something more socially constructed in this? How might that social construct be built and are there groups within that social construct that are at a disadvantage? These questions led us to a starting position of asking whether the way societies are developed creates conditions for a significant climate event to become what is termed a "natural disaster". In terms of the way societies are constructed, we have information from previous studies about urban poor, elderly, women, and children; however, there is very little about queer experiences. Might this explain why similar events in different areas of the world are labelled differently, in one instance using a terms like "great flood" and in another "natural disaster"? How natural is a natural disaster situation? In exploring this group of questions, we examine the social construction of disaster, with a particular focus on the work of the United Nations Office for Disaster Risk Recovery (UNDRR), which, until 2019, has been known as the United Nations International Strategy for Disaster Reduction (UNISDR). By reviewing extant literature on the impact of natural disasters on the global queer community and analyzing the findings through a Bordieusian lens applied to the dimensions of queer vulnerability, this article aims to highlight the experiences of queer communities and propel climate justice conversations. By highlighting the queer dimensions of vulnerability, we hope to stress the need for disaster response practice and practice changes. Indeed, the field of gender-focused disaster research is highly practical,

with multiple training resources now available [12]. The aim of this article is to promote the same for queer-focused climate justice and disaster research.

2. Disasters, hazards, and the problem of defining natural disasters

Weather, climate, and water extremes have had a significant impact on societies and communities across the world, and such events are most commonly referred to as natural disasters. The UNDRR defines disaster as "a serious disruption of the functioning of a community or a society at any scale due to hazardous events interacting with conditions of exposure, vulnerability, and capacity, leading to one or more of the following: human, material, economic and environmental losses and impacts" [15]. Scholars suggest that natural disasters are triggered by "natural hazards" [16]. Within the UNDRR, the definition of disaster includes a focus on the capacity of a society or community to cope with a hazardous event. In other words, a disaster is a result of both the hazard (trigger event) and the response from society. Thus, in order to come to an understanding of how a disaster is constructed through the experiences of and impacts on a society or community, it is necessary to look at these component parts. This section considers the classification of hazards. In the Sendai Framework Terminology on Disaster Risk Reduction, a hazard is defined as "a process, phenomenon or human activity that may cause loss of life, injury or other health impacts, property damage, social and economic disruption or environmental degradation." This is a definition adopted by the UN General Assembly in 2017. In this terminology, hazards include biological, environmental, geological, hydrometeorological, and technological processes and phenomena [17]. Definitions for these hazards can be found in Table 1.

A review of hazard classification [18] notes that the list of hazards was limited to hazards that fulfilled each of the following three criteria: has the potential to impact a community; has measurable spatial and temporal components; and proactive and reactive measures are available. Thus, the hazard list currently excludes complex human activities and processes where it was difficult to identify a single or limited set of hazards, compound and cascading hazards, and underlying disaster risk drivers (such as climate change). As a hazardous event is foundational to the UNDDR statement of what a disaster is, a problem is posed by there being no all-encompassing definition of hazards. The UNDDR ([18], p.9) recognizes the need for a more systematic approach and standardized characterization of hazards', which has been highlighted by both the policy and scientific communities. Definitions and reports are internationally agreed and provide us with a framework that reflects ongoing discussions about what constitutes disasters and hazardous events. This means a significant element in our understanding of disaster situations, hazards in this case, is socially constructed through agreements. Hence, some extreme events are labelled as disasters, while others are not. Moreover, the hazardous events themselves may have an element of human creation, which we discuss next in looking at problems related to the term natural disaster. The term natural disaster is in a common parlance. For example, Oxfam urges discussion on the "5 natural disasters that beg for climate action." [19]. However, this term is not without a problem. The problem is long recognized; for example, back in 1756, in a letter to Voltaire, Rousseau questioned the "naturalness" of an earthquake and a tsunami, thus suggesting that the high population density in Lisbon may have had something to do with it [20]. As human activities exacerbate the intensity and frequency of such events [1], the debate surrounding the terminology of a "natural disaster" has increased. For example, Smith [21] states "there is no such thing as a natural disaster. In every phase and aspect of a disaster—causes, vulnerability,

preparedness, results and response, and reconstruction—the contours of disaster and the difference between who lives and who dies is to a greater or lesser extent a social calculus".

Kelman [22] suggests that a "natural disaster" is a misnomer because it does not represent disaster experiences and argues that "disasters are caused by people who have power, resources and choices creating vulnerability for others", and "all disasters are slow onset because they come from vulnerability". Thus, in terms of a "disaster", it is important to consider what infrastructure societies have for coping with hazards and what the situation is within societies for different groups, as this affects the risk of hazards becoming disasters. In short, the literature suggests that each stage of a disaster is socially constructed: society decides what constitutes a hazard, the existence of a disaster (by level of preparedness), and the extent to which societal groups experience the disaster (by availability of resources). Thus, as events such as hurricanes, flooding, and heatwaves become more frequent and intense, it is essential we re-evaluate the term "natural disaster" and the conditions of exposure, vulnerability, and capacity. In exploring why a group or society experiences a hazard as a disaster, this focus must include looking at the pre-existing access to resources, the experience of hazards/disasters, and what happens during the process of disaster recovery. In the following three sections, we look at how vulnerability is socially constructed, particularly as it relates to queer people, in theory and in practice. Additionally, we draw out some queer experiences of vulnerability in disaster situations.

Table 1. Definitions of Hazards [18].

Hazard	Definition
Biological	of organic origin or conveyed by biological vectors, including pathogenic microorganisms, toxins, and bioactive substances. Examples are bacteria, viruses, or parasites, as well as venomous wildlife and insects, poisonous plants and mosquitoes carrying disease-causing agents.
Environmental	may include chemical, natural, and biological hazards. They can be created by environmental degradation or physical or chemical pollution in the air, water, and soil. However, many of the processes and phenomena that fall into this category may be termed drivers of hazard and risk rather than hazards in themselves, such as soil degradation, deforestation, loss of biodiversity, salinization, and sea-level rise.
Geological	originate from internal earth processes. Examples are earthquakes, volcanic activity and emissions, and related geophysical processes such as mass movements, landslides, rockslides, surface collapses and debris or mud flows.
Hydrometeorological	are of atmospheric, hydrological, or oceanographic origin. Examples are tropical cyclones (also known as typhoons and hurricanes); floods, including flash floods; drought; heatwaves and cold spells; and coastal storm surges. Hydrometeorological conditions may also be a factor in other hazards such as landslides, wildland fires, locust plagues, epidemics and in the transport and dispersal of toxic substances and volcanic eruption material.
Technological	originate from technological or industrial conditions, dangerous procedures, infrastructure failures or specific human activities. Examples include industrial pollution, nuclear radiation, toxic wastes, dam failures, transport accidents, factory explosions, fires, and chemical spills. Technological hazards also may arise directly as a result of the impacts of a natural hazard event.

3. Deconstructing queer vulnerability

Queer vulnerability has been the subject of many studies covering numerous areas including COVID-19, pregnancy, and teaching [23–25], though it has limited discussion in the academic mainstream, especially in relation to natural disasters. We use a Bourdieusian framework to better understand what we mean by queer vulnerability within the context of disaster situations. In the sections that follow, we further explore queer positions and lives in society, including experiences before, during, and after disaster situations.

Bourdieu identifies a number of concepts which form cultures and what they produce [26]. Here, using his frameworks, we deconstruct queer vulnerability as a production of global and local cultures and their ingrained attitudes and practices towards queer people, which is not something that occurs as naturally inherent to the intersection of queer existence and a disaster event. As the first of his culture-forming concepts, Bourdieu considers the *field* as the temporo-spatial area in which the practices of a culture are laid out, which are, by nature, competitive arenas for those who enter the field [27]. Disaster preparedness, management, and recovery vary in where and when these activities take place, and at what scale, though all can be cast as sites of power struggles, where different actors compete for resources, influence, and legitimacy.

Capital is what we exchange within the field, of which there are many types and combinations, and each actor enters the field with existing and unequally valued capital, thereby naturally contributing to the struggles that occur between them [28]. The availability and distribution of capital within this field is shaped by the definition of natural disasters, which in turn impacts which disasters are prioritized and how relief efforts are directed. The capitals are typologized by Bourdieu as economic, social, cultural, and symbolic [29]. Stych [30] delineated economic capital as financially based goods such as money, property, possessions, social capital as the membership of our social networks and the benefits this confers ("It's not what you know, it's who you know"), cultural capital as the social skills, habits, speech patterns, education, and "tastes" that we have resulting from or defining our relative position in society, and symbolic capital as the means by which a person presents their physical and social reality, such as wearing particular brand names, in order to create an appearance.

The capital queer people have access to, especially those in disaster situations, varies across geographical locations. There is a prevalent notion of "gay affluence"; however, in reality, this usually only applies to educated, white, urban gay men in Western countries, as poverty is ubiquitous amongst queer people, both in the aforementioned demographic and beyond [31]. This makes economic capital incredibly low amongst queer people. Despite lacking economic capital, which can be a driver of other forms of capital [32], queer people are rich in both cultural capital [33] and symbolic capital [34], which is unique to queer people as a whole, yet diverse amongst and within the fluid boundaries of queerness. In their outworking, cultural and symbolic capital can lead to stereotyping, which results in prejudice and discrimination [35]; this, in turn, reduces social capital. The strength of one's social capital increases the likelihood of disaster preparedness [36] and reduces the likelihood that people impacted by a disaster will need to leave their home or immediate area during the disaster event and subsequent recovery, as their social networks can provide practical and intangible support [37]. While the queer community is often able to come together as social networks to support its members during disasters in a way that outshines other social groups [38], this so-called resilience actually disguises the lack of diversity in social capital [37] and perpetuates harmful

narratives that stops society from reflecting on and addressing the underlying reasons as to why capital is scarce amongst the queer community, particularly in disaster situations [38].

Habitus governs why we carry out the exchanges of capital within the field in line with our "cultural trajectory" [39]. It constitutes our ingrained ways of doing and ways of being, historically and socially handed down, or emerging from the forgetting of history [40] and is heavily entwined with the concepts of *ethos* and *doxa* [41]. Ethos is the underlying cultural understanding of habitus, which determines what is acceptable and possible for those within the field and what is not [41], whilst doxa is the taken-for-granted knowledge and assumptions surrounding "natural disasters", mainly in the continuance of prevalent definitions and how they perpetuate existing power hierarchies [42]. Here, the historical systemic discrimination against queer people forms the habitus, underpinned by an ethos that such discrimination is acceptable, which is a tool utilized by the socially dominant (cishet) to maintain things as they are, and maintained by a doxa of disasters that holds them to be natural, unpreventable and, when do they occur, everyone is equally affected.

Considering the field that is constructed from this habitus, ethos and doxa, it is a site of privilege that has been created for heterosexual lives and experiences, whereby assumptions are predicted on the basis of heterosexuality being assumed as the norm (heteronormativity). Heteronormative assumptions are even more likely to be made in societies where LGBT+ existence is not officially recognized and encouraged and where it is actively considered illegal [2]. As highlighted by the Human Rights Watch (2023), "at least 67 countries have national laws criminalizing same-sex relations between consenting adults" and "at least nine countries have national laws criminalizing forms of gender expression that target transgender and gender nonconforming people" [43]. In a situation where one's being is illegal and/or not socially acceptable, access to capital is either significantly restricted or only available at a cost of not being known, thereby distinctly reducing the ability to compete effectively within the field. As this differs across societies, it becomes clear that queer vulnerability, especially within the context of a disaster, is socially created.

4. Queer dimensions of vulnerability within society

The socially constructed vulnerabilities in any given society operate to determine the experience of disasters. As we have identified, there are many societies where queer lives are subject to legal and cultural penalties; as such, the queer community faces significant prior vulnerabilities that are shaped by social and economic circumstances and magnify the harmful effects experienced by the marginalized groups [44]. Factors that influence vulnerability include poverty [31] and an associated tendency for queer people to reside in disaster-prone areas [45]. The lack of resources that are typical in such areas further entrenches vulnerability to disasters (e.g., limited access to insurance and essential safety equipment) [31]. Moreover, homelessness [46] and incarceration [31] are disproportionately experienced by queer people. Both are factors in having social capital and resulting access to resources reduced, thereby exacerbating vulnerability. Additionally, there are disparities in physical and mental health between the queer community and the general population [47]. The World Health Organization (WHO) recognizes how the queer community is more likely to suffer from adverse physical and mental health conditions and are more at risk of violence (including medical violence) while, at the same time, they face stigma, discrimination, and even denial when trying to access healthcare [48]. Indeed, the WHO exemplifies the possibility of taking international action to mitigate against marginalization; the WHO's adoption of the 2030 Agenda for Sustainable Development and its pledge to "leave no one

behind", based on the framework of international human rights law, has reinforced a need to understand and improve the health and well-being of LGBTIQ+ people [48]. In this way, the Agenda 2030 is an international call for inclusion as a way to remedy vulnerability. Finally, queer people whose identities overlap with other marginalized groups such indigenous groups, people of color (especially trans people of color), people who are undocumented, people with HIV, people with disabilities, the socio-economically disadvantaged, and older queer people, in particular those who are Black and Latinx, experience further vulnerabilities [31].

5. Queer experience before, during and after disaster

When informed by normativities within racial and heteropatriarchal societies, habitus, attitude, and values assumed to be "normal" provide privilege to white heterosexual men, thereby establishing their needs as the norm and insulating them to a greater degree from disaster events, while marginalized communities live more precariously. Rice *et al.* [44] used the term "climate apartheid" to conceptualize the uneven impact from climate change, of which natural disasters have been and will continue to be a recurrent component of [5]. Climate apartheid is defined as a "co-produced system of privilege and precarity—a system that, while possessing some unique features, is built upon historical legacies of colonization, racial capitalism, and hetero-patriarchy" ([44], p.626).

Coming and being out (outness), particularly where it is required to access support, can come at a cost [3,4], where it is against habitus and costs in terms of the social capital. In the case of disaster relief, faith-based organizations often provide services [49] that can be particularly difficult for queer people who have had prior negative experiences, and it may deter them from accessing support despite being in need [4]. Normative definitions of "family" can be particular problems in the provision of disaster services. For example, after Hurricane Katrina, same-sex couples were separated and relocated in different cities [2]. Similarly in Japan after the Great East Japan Disaster of 2011, there was a lack of legal recognition for same-sex couples, which resulted in same-sex couples not being housed together, and even a lack of visitation rights [50]. Other examples of negative experiences include transphobia in shelters, being forced to perform sexual acts to obtain resources, and corrective rape [2]. Provision of services separated by dominant paradigms of sex and gender have resulted in numerous problems, including for members of indigenous groups that traditionally accept non male and female identities such as the Aravani of India, the Waria of Indonesia, and the Bakla of the Philippines [51]. For trans people who are transitioning, hormone replacement therapies can be needed, and these may not be readily available [52]. Disaster events result in a traumatic loss of their trans space and the familial support that accompanies it, thus adding to their distress [49]. Disaster events are highly stressful events for all affected. However, finding themselves on the outside of social capital, queer people can feel isolated, and once again on the margins of society, experiencing heightened mental health issues. Queer people already experience higher levels of suicide, suicidal ideation, anxiety, and depression compared to the general population [53,54], which can be exacerbated in disaster situations. Mainstream media often fails to report on the experiences of the queer community, instead favoring coverage of those within heteronormative family structures. Even queer media quickly moves past the disasters, offering limited participation in discussions or critiques of natural disaster responses [51]. As detailed above, a multitude of pre-existing inequalities converge during a "natural disaster" and renders the queer community intensely more vulnerable to such events. We have argued this

vulnerability is socially constructed. Thus, further research is needed to understand what can be done to decrease vulnerability, particularly queer vulnerability, within disaster situations.

6. Policy, practice, and research implications

As discussed, by deconstructing queer vulnerability and detailing examples of queer experiences before, during, and after disasters, this article hopes to propel current conversations on climate justice and disaster relief to include a greater appreciation for queer vulnerability, and for this to be reflected in policy and practice. While exploring all possible policy and practice implications is beyond the scope of this article, we offer a number of starting points below. In terms of policy, there is a need for more inclusive policies relating to accessing and using shelters and emergency accommodations, the provision of medication and personal goods not typically seen as emergency items, and for queer-affirming mental health services during and after a disaster. Quarantelli reminds us that in the majority of cases, "the major source of problems in disasters is to be found in the organizations responding to the emergency" ([55], p.375). Thus, relating to disaster response practices, disaster relief organizations must become more aware of queer vulnerabilities during and after disasters. This could be achieved through the provision of training on inclusiveness or through dedicated queer-centered services; this is especially salient when the services of faith-based disaster response organizations are offered. Alongside implications for policy and practice, this article highlights the need for a broader strategic research agenda on queer vulnerability. Greater scholarly attention is required to explore the differences queer people experience before, during, and after disasters. In particular, the application of more varied theoretical perspectives to this issue, as well as primary research on successful interventions, would help us best understand how disaster policies and practices could best be informed.

7. Conclusions

To conclude, we have argued that a natural disaster is a socially constructed event and the degree to which a group (i.e., queer people) experience the occurrence of a hazard as a disaster, which is socially constructed and pertains more to the infrastructure of a society than it does the event itself. In the pursuit of climate justice, social justice is an inextricable feature, as the realization of social justice would strengthen the position of various communities/groups within any society against disasters. Using Bourdieusian concepts, we have identified that different policies and societal attitudes in a range of societies operate to marginalize queer people creating vulnerability. Pre-existing vulnerabilities within society is a feature of many understandings of disaster. This understanding should inform relief and disaster risk reduction works at both national and international levels, such as the adoption of the UN 2030 Agenda for Sustainable Development [56]. Therefore, more is done to create situations that support the diverse groups within societies, in which differences, especially queerness, do not become a scapegoat, a disadvantage, or a death sentence.

Use of AI tools declaration

The authors declare they have not used Artificial Intelligence (AI) tools in the creation of this article.

Conflict of interest

The authors declare no conflicts of interest in this paper.

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