

Thinking vulnerability infrastructurally: Interdependence and possibility in Lebanon's overlapping crises

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Abstract

The notion of ‘vulnerability’ has gained growing traction in a range of different fields, from disaster risk reduction to feminist theory. This increased academic use has been paralleled by a rise in the use of the term as an operational concept in humanitarian and development policy. Using the incongruent deployments of the term as a starting point, this article examines the assumptions underpinning definitions of vulnerability in humanitarian programming in Lebanon, with a particular focus on the links between Lebanon’s crisis of public services and the mass displacement from neighbouring Syria since 2011. We show that, in the international response to Lebanon’s overlapping crises, ‘vulnerability’ is operationalised in ways that fail to address underlying causes, and thus resist meaningful transformation while even bearing the potential of additional harm. Based on the finding that vulnerabilities emanating from Lebanon’s public service crisis and from mass displacement are deeply entangled, the article proposes that an ‘infrastructural’ approach to vulnerability may better be able to address precariousness and precarity linked to basic service provision. An infrastructural approach, we posit, foregrounds dynamic interdependency and relationality with the human and non-human environment. Such a view allows us to acknowledge the power relations at work in both the production and alleviation of vulnerability and ultimately may better enable us to ‘think otherwise’ in situations of seemingly perpetual crisis and disruption.

Keywords

Vulnerability, resilience, infrastructure, displacement, Lebanon

Introduction

In the aftermath of the devastating explosion at the Beirut port in August 2020, a young Lebanese writer (Ayoub, 2020) articulated a widely-held sentiment: ‘We are not resilient, we are broken.’ This reaction, denoting an inability to absorb shock after shock, was echoed by many residents of

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Lebanon in the months that followed. And yet, the concepts of ‘vulnerability’ – susceptibility to future harm – and ‘resilience’ – the ability to recover from such future disruption – continue to frame both scholarly and humanitarian discussions in Lebanon, as elsewhere. This raises the question: Can vulnerability, and its ‘companion concept’ resilience, still be useful in a situation where people and communities are not merely susceptible to potential harm but already wounded by protracted and overlapping crises?

The notion of vulnerability has become central to scholarly debates on climate change, risk mitigation, social inequality, and the ethics of care. Perhaps this increased interest in the concept derives from a historic moment in which crisis is perceived as constant, rather than a momentary aberration. The way the term is deployed in different fields is, however, incongruent. Much of the literature on vulnerability takes either a human or an environmentally-focused approach. Yet these two arenas are in fact difficult to separate: thinking the climate emergency as part of the Anthropocene has highlighted the mutual entanglement of environmental risk and human activity. It appears urgent, then, to reconsider vulnerability with regard to the links between the human and social as well as spatial and natural realms.

This paper seeks to do so by building on arguments on relationality put forward by feminist scholars of vulnerability, who have argued for a ‘generative’ understanding of the term, one that foregrounds interdependence and receptiveness. It does so using Lebanon’s current situation as a case study. Although considered a middle-income country according to conventional measures, Lebanon has experienced a severe crisis of infrastructural provision since the end of its Civil War in 1990. In addition to hosting Palestinian refugees for over 70 years, it has seen an influx of 1.5 million refugees from neighbouring Syria since 2011, and has struggled to ensure liveable conditions for them, even with significant international support. More recently, a monetary crisis has seen many people’s savings and livelihoods diminished, as long-term policy failures and corruption came to a head. Protests calling for systemic change since October 2019 were disrupted by the Covid-19 pandemic and resulting lockdown. In August 2020, the explosion at Beirut’s port, one of the largest non-nuclear blasts in history, killed over two hundred, injured thousands, and displaced hundreds of thousands, while destroying wide swathes of urban fabric. This appears, then, a paradigmatic situation of overlapping crises, punctuated by moments of extreme disaster.

We examine the role of ‘vulnerability’ in this situation of perpetual exception by focusing specifically on the links between Lebanon’s crisis of public services and the mass displacement from Syria. While the Lebanese population’s ‘resilience’ has been frequently hailed, humanitarian and development organisations also widely deploy the notion of ‘vulnerability’ on a range of scales, from the individual to the household and community levels. As there is a tension between the two, it is worth examining the political work that discourses of vulnerability and resilience are doing, and how the two terms relate to each other. To this end, we examine the assumptions underpinning different humanitarian definitions and measures of vulnerability. The empirical component of the research is based on interviews with 38 individuals from, as well as participant observation among, UN agencies as well as international and local NGOs working on the Syrian refugee crisis response, carried out between May 2018 and May 2019 in Beirut and the Beqaa Valley. Its argument is further informed by the findings of wider research carried out under the umbrella of the RELIEF Centre in conjunction with local communities in Beirut, Bar Elias, and Tripoli between 2018 and 2021.

In the following, we argue that the infrastructural and refugee crises in Lebanon are not only interdependent but exacerbated by a failure to understand their relational nature. The way vulnerability is deployed in humanitarian and development projects is underpinned by the assumption that it is an exceptional state, which stands in opposition to a natural state of wholeness, independence, and stability. It assumes a zero-sum view of competition over limited resources. If individual vulnerabilities were addressed, or additional resources provided, according to this logic, a return to normality could ensue. This focus on reverting to an assumed prior state of equilibrium,

which unites thinking on both vulnerability and resilience, is confounding in a country where crisis has been the norm for decades. More importantly, we argue, such thinking avoids meaningful change because its goal is restoration of the status quo ante, or adaptation to perpetual crisis.

However, as inherently future-oriented terms, vulnerability and resilience can also be used to imagine alternatives. This is especially relevant in Lebanon's current political moment of entrenched crisis and the repeated popular calls for systemic political change, which require a new language for both crisis and possibility. We argue that thinking vulnerability infrastructurally allows us to reclaim the term from resiliency thinking: when interdependency between humans and non-humans is viewed as a dynamic political process, this allows for transformation. Because addressing vulnerability is the basic requirement for enabling people to flourish, such an attempt to bridge disparate definitions of vulnerability can feed into novel understandings of prosperity. Thus, in a broader sense, the proposed notion of 'infrastructural vulnerability' aims to contribute to thinking on how we might envision the 'good life' in continually difficult circumstances.

Conceptual incongruence

In academic discourse, vulnerability is invoked as a key concept in both human-focused disciplines, where it is seen as a characteristic of particular individuals or groups of people (e.g., psychology, crime, development studies, poverty, bioethics – Norris et al., 2008; ten Have, 2016; Watts and Bohle, 1993), and in fields examining hazards emanating from the environment, which take a systems approach (e.g., ecology, climate change, disaster risk reduction – Birkman et al., 2013; Cordona, 2004; Wisner et al., 2004). However, linking the two, it has been recognised that disasters have an unequal impact on different groups, based on socio-political factors – even vulnerability to 'natural' disaster is therefore 'produced' rather than inherent (Collins, 2009). Still, different disciplinary uses of the term cause a 'Babylonian confusion' in its application (cited in Wolf et al., 2013). In humanitarian and development contexts, including with regard to the Syrian refugee crisis, the concept has experienced a 'phenomenal rise in prominence' (Turner, 2021) over the past decade. Yet here too, the elasticity of vulnerability as a term has been noted; often, it is simply conflated with poverty (Chambers, 1989; Verme et al., 2016).

Over a similar time period, vulnerability has also become a central ethical issue in debates on social inequality, structural violence and the ethics of care, especially among feminist scholars. By contrast to its use in humanitarian contexts, where it is necessarily seen as a condition to be overcome, here, vulnerability is re-framed as a 'generative' condition of interdependency which can become the basis of solidarity, community, and resistance (see Cole, 2016 for a review). We take this somewhat confounding parallel, yet incongruent, rise in the term's usage as a starting point, and put the two approaches to vulnerability into conversation. Further, rather than viewing environmental and social vulnerability as separate, this paper takes the interconnectedness of human and non-human realms in shaping vulnerability as a given (cf. Adger, 2006). We examine this connection through the entanglement of the refugee and infrastructural crises in Lebanon. While vulnerability's 'companion concept' (Fineman, 2012:139), resilience, has ecological origins, suggesting it may lend itself to more systemic and interdependent approaches, we examine why it has been rejected by Lebanese scholars as a useful term in a situation of perpetual crisis. Thus, we arrive at the question of how we might adjust our understanding of vulnerability itself to account for the disjunction between the definition of lack and that of possibility.

Humanitarian notions of vulnerability

Recent work has noted increased use of 'vulnerability' as an operational concept in the humanitarian field, and particularly in the context of the Syrian refugee crisis (Sözer, 2020, 2021; Turner, 2019, 2021).

According to Sözer (2020), the upsurge in vulnerability discourse is linked to humanitarian organisations prioritising the ‘most vulnerable’, limiting the scope of their responsibility. Thus, scholars express concern that ‘vulnerability’ is frequently deployed to ‘justify restricting access to certain rights’ by framing ‘non-vulnerable’ refugees as ineligible for asylum or assistance (Hruschka and Leboeuf, 2019).

Vulnerability thus becomes a shorthand for eligibility, as one INGO representative in Lebanon acknowledged,¹ and those who are not included can become more vulnerable as a result. As elsewhere, vulnerability is a key element of Refugee Status Determination, eligibility for resettlement to a third country, and for humanitarian aid more generally (Janmyr and Mourad, 2018). The ‘vulnerability criteria’ encompass categories of people with specific characteristics: unaccompanied minors, female heads of household, the elderly, disabled or chronically ill. This rather generic list, which is reiterated in various organisations’ vulnerability assessment tools, is often said to be derived from ‘global standards’,² although agencies note they test the relevance to the particular context in Lebanon.³ Yet, these criteria can fail to recognise, and even perpetuate, the vulnerability of groups seemingly less deserving of assistance, such as young men at risk of violence and forced recruitment (IRC, 2016; Turner, 2021). The attempt to alleviate the vulnerability of those seemingly most in need can thus exert a violence of its own (cf. Ramalho, 2019). The exclusionary nature of the vulnerability label poses the question whether the utility of the concept can be salvaged if it is applied beyond paternalistic forms of care.

Similarly, others have noted that, by linking vulnerability to an inherent characteristic, humanitarian ‘vulnerability assessments’ mark members of ‘vulnerable groups’ as the locus of the problem – and thus the required intervention. In this way, such criteria obfuscate the social structures that enable some people and disable others (Clark, 2007; Fiddian-Qasmiyeh, 2017; Marino and Faas, 2020). Disability studies scholars have long shown (e.g., Butler and Bowlby, 1997) that it is physical structures that disable particular types of bodies, rather than those bodies being inherently lacking. The built environment, in this way, can be seen as an enabling support infrastructure for some and an impediment to others. This raises the issue whether we can think vulnerability spatially, and in a manner that enables, rather than impedes, meaningful changes to the *material* structures that make us vulnerable. The links between the spatial and social dimensions of vulnerability in Lebanon have so far been left underexplored (cf. Issa et al., 2014; Stel and Van der Molen, 2015).

Feminist re-framing of vulnerability

The propensity to denote some – especially ‘womenandchildren’ (Enloe, 1993 cited in Turner, 2021) – as ‘particularly vulnerable’ is based on enlightenment notions of the invulnerable ‘man’. Feminist theorists have long argued for a relational and interdependent understanding of subjecthood, rejecting the liberal (and masculinist) notion of the autonomous, individual subject (e.g., Campbell et al., 2009). This entails the acceptance of vulnerability as a shared human condition (Cavarero, 2007; Fineman, 2008; Gilson, 2014; Mackenzie et al., 2014). These feminist engagements with vulnerability have sought to foreground issues of structural inequality and injustice, while also seeking to imbue vulnerability with positive meaning.

Judith Butler, whose work has been formative to these debates, grounds her understanding of vulnerability in the fact that, as she puts it, ‘[t]he body is constitutively social and inter-dependent’ (Butler, 2009:31). The always-vulnerable human body is thus fundamentally characterised by what she calls ‘dependency on infrastructure’ – including both human and non-human support systems (Butler, 2016:19). Butler views vulnerability as both an ontological condition – everyone is vulnerable through their embodied exposure to the world and others in it – and a political issue – some are (made) more vulnerable than others. She refers to the universal condition as ‘precariousness’ and the politically-induced one as ‘precarity’ (Butler, 2009:3,31), echoing debates on the uneven distribution of risk in other disciplines.

It is from this socio-ontological understanding that vulnerability scholars make ethical arguments with regard to human rights (Turner, 2006), legal responsibility (Fineman, 2008), and moral and political theory more broadly (Mackenzie et al., 2014). Butler (2006, 2009) focuses on the politics of recognition of the vulnerability of the Other, through ‘reimagining the possibility of community on the basis of vulnerability and loss’ (Butler, 2006:20). In this line of thought, the ethical imperative that emerges from universal vulnerability is a responsibility towards others (Butler and Athanasiou, 2013). Out of these ethical obligations, based on our receptiveness to others, arises a positive re-framing of vulnerability. Rebranding vulnerability as an agentic quality rather than passive victimhood, Butler et al. (2016) further argue that vulnerability’s radical openness can be drawn upon as a way of challenging power: when people put their bodies on the line during nonviolent protests, ‘bodily vulnerability’ is ‘mobilized for the purposes of resistance’ (Butler, 2016:22).

In this generative potential of vulnerability, this group of scholars also note how ‘resilience’ acts as the ‘political opponent’ of vulnerability – which they view as a denial of interdependence, an attempt to overcome harm that avoids transformation (Bracke, 2016). Indeed, in its ecological origins, resilience refers to a system’s continuing ability to function despite disturbance, whether through recovery to a prior state or adaptation (Holling, 1996). Used as a political metaphor this entails managing crisis rather than transforming the conditions that created it (Halpern, 2017). Thus numerous scholars in the social and planning realm critique resilience thinking for its emphasis ‘on the return to “normal” without questioning what normality entails’ (Davoudi, 2012).

A number of critiques of vulnerability scholarship, and Butler’s approach in particular, are relevant to our discussion. If vulnerability is *both* universal *and* especially applicable to some, its double meaning runs the ‘risk of conflating’ the two and thereby diverting attention away from those vulnerabilities that must be most urgently attended to (Cole, 2016). Critics further question how a recognition of shared vulnerability can lead to concrete redistribution of unevenly distributed vulnerability, while also noting a slippage of scales, particularly between the subject and the population (Watson, 2012). These points raise the following questions for this article: First, how the relationship between precariousness and precarity can be more productively theorised. Second, how exactly a sense of shared vulnerabilities can become a basis for community-building. And third, how vulnerability, which by definition is located in the intersections between subjects and the structures they depend on, operates at various spatial scales.

Lebanon’s infrastructural refugee crisis

This section provides an overview of the Syrian refugee crisis⁴ in Lebanon and shows how it is linked to the longer-standing infrastructural and ecological crises affecting the country. We note that in governmental discourses and responses to these crises, Syrian refugees are frequently blamed for the dire infrastructural situations within which they live. The situation is framed as one of limited resources depleted and polluted by new arrivals. Examining a number of humanitarian/development tools, programmes and frameworks at the community level which focus on the link between mass displacement and public services, we show how these identify the refugee presence as a source of vulnerability, framing it as the source of the hosts’ infrastructural crisis, and adopt a ‘resilience’ approach to vulnerability, which focuses on the stabilisation of systems, rather than their transformation.

Overlapping crises

Since 2011, over 1.5 million Syrian refugees have been displaced from war-torn Syria to Lebanon.⁵ They joined Palestinians, Iraqis, Armenians, as well as internally displaced Lebanese, and a range of migrant workers. Thus, many spaces in Lebanon – as in the wider region (Chatty, 2010, 2018) –

exist in a patchwork of relational displacement and hosting. Fiddian-Qasmiyeh (2020) uses the term ‘overlapping displacement’ to denote both the repeated rounds of displacement many refugees experience – such as Palestinians who long lived in Syria, only to be displaced to Lebanon by the ongoing war – and the sharing of spaces with people otherwise displaced – like those displaced from Syria finding shelter in Armenian areas such as Burj Hammoud (Kikano et al., 2021) or established Palestinian refugee camps (Fiddian-Qasmiyeh and Qasmiyeh, 2020).

The dire economic and precarious legal situation Syrian refugees face in Lebanon (UNHCR et al., 2020) is exacerbated by the infrastructural crisis facing all residents. The lack of reconstruction after the Lebanese civil war in 1990 continues to have an impact both on the supply of basic services and the environment. Lebanon’s ‘garbage crisis’, with origins in post-war clientelist patronage politics, made this internationally visible in 2015 (Abu-Rish, 2015; Arsan, 2018). Similarly, since the civil war, electrical supply has never met demand (Verdeil, 2016). Only 30% of households receive water every day during the summer months. Because the quality of piped water is so poor, half of all households never drink from the tap (Verdeil, 2008:5), but use trucked and bottled water (Issam Fares Institute, 2017). As there is no integrated water treatment system, rivers and coastal waters are contaminated by sewage, industrial effluents, and solid waste. Numerous authors note the links between Lebanon’s post-war sectarian system and the dysfunctional infrastructural system (e.g., Nucho, 2016; see Baumann and Kanafani, 2020 for a wider overview). Thus, Lebanon’s dire infrastructural situation has created urgent ecological and health emergencies, but it is a ‘crisis with a long history’, as Verdeil (2018:98) puts it.

The infrastructural and ecological decline is aggravated by ad hoc solutions. Wealthier residents are able to purchase ‘privatised alternatives’ (International Crisis Group, 2015) which have a detrimental impact on the system as a whole. A major obstacle to better electricity supply is that some people profit from the current impasse – the suppliers who offer private generators to cover gaps in the public provision are referred to as ‘mafias’ due to their political clout and heavy-handed methods (Verdeil, 2016). The generators use unsustainable fuel (Issam Fares Institute, 2017) and emit carcinogenic pollution (Shihadeh et al., 2013; Abi Ghanem, 2018). Illegal connections, a common means of mitigating the electricity crisis, create the constant danger of electrocution (Abi Ghanem, 2020). Trucked water depletes groundwater through illegal wells (Baylouny and Klingseis, 2018), while bottled drinking water contributes to the country’s still-unsolved waste crisis. Similarly, the short-term ‘solution’ of waste incineration has significant adverse health effects (Human Rights Watch, 2017; Morsi et al., 2017). Thus, coping mechanisms that enable people to live entrenched fragmentation, and deplete the common ecological resources all residents depend on.

Although Lebanon’s infrastructural crisis precedes the arrival of Syrian refugees, the latter are often blamed for overstretched public services and the resulting environmental degradation. There is a strong perception among the Lebanese population that the presence of Syrians has strained Lebanon’s resources and services, including water and electricity (ARK, 2017:30). This rhetoric of blame is perpetuated by the media as well as government officials (Baylouny, 2020). For instance, one Ministry of Energy and Water representative stated: ‘[b]ecause of the Syrians, a water balance that should have been negative in 2030 is negative now’ (cited in Baylouny and Klingseis, 2018). Similarly, the Ministry of Environment (2014) allocates responsibility for pollution to the Syrian crisis, highlighting the presence of Syrians in the country as a contributor to the dysfunctional waste sector, as well as the increase in airborne pollution from traffic, the burning of waste, and electricity generation.

Informal Tented Settlements (ITS), housing 18% of all Syrian refugees, are specifically blamed for polluting the Lebanese environment (UNHCR et al., 2018). Formal refugee camps are not permitted (Sanyal, 2017); as with the Palestinian camps, the government refuses to connect Syrian settlements to public grids because this might lead to permanent settlement (*tawteen*, see Fakhoury, 2017), a concern often shared by locals (Oxfam, 2016). Most of these settlements are in peri-urban areas,

located on riverbanks, and have no connection to the sewage system, drinking water or garbage collection. Over half of refugees do not have access to toilets connected to the wastewater system and must use pits or open air defecation (REACH, 2015). They thus pollute the water, which, when used for agricultural purposes, further spreads disease (El Amine, 2019). At the same time, the government is ‘adamant’ that it will not connect ITS to national water and wastewater networks.⁶ Some humanitarian observers describe this policy as one of creating living conditions so unsustainable that they encourage a swift return to Syria.⁷ The blaming of ITS for the effects of their disconnection on the surrounding ecosystems often has very real consequences for residents. In the spring of 2019, the Litani River Authority evicted over 1500 Syrians from the riverbank for the pollution their informal settlements caused (Vohra, 2019) and sued NGOs for the pollution of the river (Anderson and Alsharif, 2019). However, the organisations supplying services to ITS say their inability to create more permanent infrastructures left them only with ad hoc solutions, such as latrines directing sewage into the river.⁸ In this way, infrastructural and refugee crises are entangled, and exacerbate each other. The attempt to keep refugees disconnected from the ‘national’ infrastructural network affects the systems shared by all, while putting displaced people in a more precarious situation.

Linked understandings of crisis in the humanitarian response

As we have seen, the state frames refugees’ infrastructural needs as detracting from those of long-term residents, a competition over scarce resources that we describe as a ‘zero-sum game’. A number of key tools used by the humanitarian-development complex in Lebanon also espouse such a view of vulnerability.

The Vulnerability Assessment of Syrian Refugees in Lebanon (VASYR) is an annual representative survey of approximately 4500 Syrian households (UNHCR et al., 2020). It provides the basis for the so-called ‘Desk Formula’ determining refugee households’ eligibility for cash assistance. The VASYR does not provide a single definition for vulnerability, but builds up a picture of the situation of Syrians in Lebanon, and its change over time, through a range of indicators. Notably, the assessment foregrounds ‘competition for resources’ as a source of tension between refugees and the host community (UNHCR et al., 2019:38, 2020:36-7).

Another key tool widely used by international aid organisations is the map of 251 ‘most vulnerable localities in Lebanon’. In it, the presence of refugees is defined as a source of vulnerability. The measure of relative ‘vulnerability’ includes the ratio of refugees to Lebanese citizens in order ‘to highlight the potential degree of population pressure on services and resources’ (Inter-Agency Coordination Lebanon, 2015). The assumption embedded here is that refugees are a strain on public services and monetary as well as natural resources.⁹

Improving service provision at the community level is a favoured approach of international organisations to solving social issues¹⁰ such as tensions between refugees and hosts. The Lebanese Host Community Support Programme (LHSP) seeks to address the refugee and infrastructural crises in tandem. Specifically, the programme targets the effects of both crises on ‘vulnerable Lebanese’ – at whom half of the overall humanitarian response is directed (Government of Lebanon and United Nations, 2021:9). The LHSP, led by UNDP, invested over \$200 million between 2013 and 2019, 90% of it towards infrastructural interventions,¹¹ to ‘alleviate the stress resulting from the crisis’ (Government of Lebanon and United Nations, 2021:9). The LHSP ‘targets the poorest communities with a higher risk of tension and conflict based on the number of Syrian refugees per capita’ (UNDP, n.d.). Thus, the programme design assumes it is most urgent to reduce the risk of tension and conflict primarily in areas where there is a high proportion of refugees. Infrastructurally-mediated vulnerability is assumed to be grounded in competition over limited resources: access to and quality of services are assumed to decrease in localities with high numbers of refugees and cause ‘stress’, potentially stoking inter-community tensions. The assumption that scarce resources lead to conflict

contradicts UNDP's own research on social stability issues, which has found that lacking service provision is not the cause of most tensions between Lebanese and Syrians, or violence against refugees – rather, historical factors and sectarian balance play an important role in such potential violence.¹² Yet, while the programme clearly sees the vulnerabilities of Lebanese and Syrians to be entangled, it is based on a zero-sum view: the resources depleted by the presence of refugees must be replaced in a way that benefits hosts to re-establish an equilibrium.

The wider conceptual framework on vulnerability adopted by the UN-led Lebanon Crisis Response Plan (LCRP), which guides all international agencies' and NGOs' interventions, evolved alongside the humanitarian response.¹³ Even when not explicitly using the term 'resilience', it espouses what has been called 'resiliency humanitarianism' (Ilcan and Rygiel, 2015) – the focus on the self-reliance of those affected by crisis. The model adopted by the humanitarian country team in early 2019 is derived from global standards in protection.¹⁴ According to this model, the LCRP response aims to address vulnerability by enhancing the 'capacity to recover and adapt', as well as the 'ability to resist new shocks'. The impacts of vulnerability interventions in this model focus on ensuring stabilisation, using phrases like 'mitigated deterioration', 'social stability strengthened', 'mitigated impact'. Here, vulnerability is presented as a threat to equilibrium, an aberration within a fragile system that must be brought back to a point of stability.¹⁵ As we will show in the next section, such an understanding of vulnerability is increasingly rejected by Lebanese political observers.

Discussion: towards an infrastructural reading of vulnerability

Read against the feminist notion of vulnerability as relational and interdependent, two issues emerge with regard to the Lebanese state's and UN's responses to the refugee and infrastructural crises: First, while interdependence between different groups requiring services is acknowledged, this is conceptualised as a zero-sum equation of competition over scarce resources. In a relational reading, however, taking into account the contributions of refugees, we might instead read vulnerability as a shared feature of a dynamic system where different actors are mutually interdependent and contribute to shared resources. Second, the state's and the UN's approaches to reducing vulnerability are based on resilience thinking, which aims to reduce vulnerability by re-establishing the stability of a system, rather than addressing root causes.

We propose instead an 'infrastructural' approach to vulnerability which considers its relational and interdependent nature, and challenges both the zero-sum and the resilience logic of current efforts. By introducing a dynamic element in which different participants in a complex system both contribute to and benefit from support, infrastructural vulnerability rejects fixed categories of 'vulnerable' or 'precarious'. The ethical imagination such an approach to vulnerability requires also introduces the possibility of a different future. We suggest that an infrastructural reading allows us to reclaim the notion of vulnerability grounded in interdependence, and adapt it in a spatially-oriented manner, enabling us to think through the possibilities of reducing both universal and politically-induced vulnerabilities in situations of ongoing crisis.

From zero-sum to interdependence

Both local and international responses to Lebanon's crises are based on a zero-sum view: that host communities need to be 'compensated' for what refugees have taken from them. However, if we understand infrastructures as the links between people and their environments, both built and natural, an infrastructural reading of vulnerability highlights the interdependency and relationality of different forms of vulnerability.

In Lebanon's infrastructural crisis, all residents are impacted by the insufficient state supply of networked services, but some have the ability to buy themselves out of crisis, and thus are less affected than others. While the wealthy may be able to access short-term privatised solutions, these

in effect exacerbate the overall infrastructural and ecological predicament (cf. [Baumann and Kanafani, 2020](#)). This is also reflected in the refusal to establish durable infrastructural connections to Informal Tented Settlements, although many of them have existed for close to a decade. Ad hoc humanitarian solutions, such as latrines with wastewater pipes leading into nearby rivers, exacerbate the overall crisis. Thus, the disconnection of the ITS affects the natural resources that both hosts and refugees depend on – a consequence of the refusal to acknowledge their relationality.

Returning to Butler's twofold notion of vulnerability, we can map this situation onto precariousness (universal vulnerability) and precarity (politically-induced vulnerability): All are affected by polluted air and water, but some are more severely affected due to economic inequality or political exclusion. Despite the widespread rhetoric which claims refugees deplete Lebanese resources or cause pollution, it is refugees who feel the effect of the infrastructural disconnect most immediately: skin diseases and waterborne illnesses are, for instance, common ([Baylouny and Klingseis, 2018](#)). Even in well-off neighbourhoods, refugees frequently experience infrastructural disconnect, which requires additional efforts and expenses to overcome ([Shourbaji, 2020](#)). This infrastructural exclusion of refugees seems to confirm Reid's critique of Butler, that a recognition of vulnerability does not automatically result in solidarity but often 'breeds its own violence' ([Reid, 2011](#)): Rather than recognition of the host community's vulnerability leading to feelings of empathy, it leads to a sense of competition. In a world with limited resources, can a sense of shared vulnerability overcome such a view?

In contrast to the narratives which view refugees as drains on local resources, displaced people not only maintain local infrastructural systems, but also support other refugees and stimulate the Lebanese economy. Syrian migrant workers played a significant role in Lebanon's post-war economy, even prior to the war in Syria ([Chalcraft, 2009](#)). Since 2011, they have become so heavily embedded in service provision that they have become part of the human 'infrastructure' that enables towns and cities to function (cf. [Simone, 2004](#)). Syrian refugees make different kinds of contributions to public services, as workers in construction or waste management ([Saleh, 2016](#); [Saleh and Zakar, 2018](#)), as janitorial staff ([Longuenesse and Tabar, 2014](#)), or as delivery drivers ([Monroe, 2014](#); [Fawaz et al., 2018](#)). Due to their role in facilitating such circulations of goods, capital and labour, refugees have been referred to as 'city makers' ([Fawaz et al., 2018](#)). Furthermore, refugees in Lebanon, as elsewhere, have long supported each other in what has been called 'refugee-refugee humanitarianism' ([Fiddian-Qasmiyeh, 2020](#)): They help facilitate the arrival of other displaced people through networks of kinship and places of origin, creating work opportunities, sharing skills and social networks ([Yassine et al., 2021](#)). Novel 'entrepreneurial systems' emerge when Syrians stimulate the host economy and transform the urban fabric, as [Yassine and Al-Harithy \(2021\)](#) have shown in the case of Ouzaii and [Harb et al. \(2018\)](#) have shown in Hamra. These arrangements support a theorisation of vulnerability based on mutual interdependence, which stands in contrast to the focus on independence and self-reliance in both zero-sum and resilience approaches (for a more in-depth examination of self-reliance in Lebanon's vulnerability programming, see [Baumann and Moore, forthcoming](#)).

Might such a relational understanding of refugees contributing as much to their host communities as they depend upon the existing local structures point us towards a way of addressing the vulnerabilities of those who are most precariously positioned? Is there a way to think vulnerability, and attempts to reduce it, in a manner that is based on mutual interdependence rather than the notion that one group's advantage is to the other's detriment?

From resilience to transformation

Lebanon's resilience in the face of ongoing adversity has long been lauded as a positive quality, one that humanitarian-development interventions seek to foster in order to combat vulnerability. But observers have questioned the utility of the resilience label. Thus, Atrache describes it as a 'trompe-l'oeil', a 'shrewd balancing act of Lebanon's political class that does little to address its people's worries but just enough to

avoid provoking a collective collapse' (Atrache, 2015). Similarly, Mouawad argues that Lebanon's resilience results in a 'fake "stability"': Although extolled by donor states, it is rooted in social arrangements that maintain the privilege of elites and reinforce the weakness of state institutions. In fact, he finds it 'harbours the seeds of conflict and instability' because it deepens dependencies on foreign aid rather than strengthening local responses to the refugee crisis and building institutions (Mouawad, 2017:10). Similarly, Pearlman uses the notion of resilience not to refer to the Lebanese population, but to the 'persistence of political structures' in Lebanon (Pearlman, 2013:198). Sakr-Tierney (2017), too, argues that the resilience for which Lebanon is renowned is at the same time a source of its underlying instability. After the explosion at Beirut port, Yassin stated that the events were 'beyond any concept of resiliency [...] No community would be able to cope with all of this' (cited in Abdelaziz, 2020), suggesting that there is limit to the Lebanese population's supposed ability to absorb shock after shock.

Indeed, given Lebanon's tumultuous post-war history, which point of stability prior to the 'crisis' of Syrian refugees arriving in Lebanon these programmes use as a reference for 'bouncing back' to stability is unclear. What is clear is that a notion of vulnerability addressed only by resilience not only resists meaningful transformation but is 'dialectically bound to threat' (Bracke, 2016:69): It assumes the inevitability of the next disaster, and places the onus of responsibility on those who are wounded to adjust to the crisis affecting them. An understanding of vulnerability is needed, then, that holds more transformative potential. Furthermore, the rejection of 'resilience' as a refusal to withstand further exposure to harm stands in contrast to Butler's (2016) notion of vulnerability-as-resistance, in which those who are already marginalised voluntarily put their bodies on the line in opposition to power, taking risks in the hope of effecting political change. Thus a shift away from a zero-sum and resilience view of vulnerability is needed, as is a new perspective on the generative potential of the term. In the following section, we offer an 'infrastructural' approach that aims to address this.

Infrastructural vulnerability

Butler's notion of vulnerability is based on an understanding of the body as 'less an entity than a relation' characterised by a dependency on infrastructure support systems (Butler, 2016:19). She deploys the notion of 'infrastructure' quite broadly to encompass 'environment, social relations, and networks of support and sustenance by which the human itself proves not to be divided from the animal or from the technical world' (Butler, 2016:21). The infrastructural understanding Butler begins to articulate here – a turn towards materiality as essential to subjectivity – resonates with the work of geographers who emphasise our dependency on socio-technical systems and the wider ecologies to which they connect us (e.g., Gandy, 2005; Swyngedouw, 2006). Further, due to their ability to connect and disconnect users, infrastructures function as sites of contestation and negotiation over what is public or held in common, modulating degrees of inclusion in a polity. An infrastructural lens on vulnerability, then, is concerned with the links between the human and the non-human, and connects the embodied everyday with the realm of capital-P Politics.

In the Lebanese case of simultaneous infrastructural and refugee crisis, mutual dependence between humans and their non-human environments has been insufficiently acknowledged in humanitarian responses, often with devastating consequences, both for those excluded from public services and infrastructural circuits, and for the wider system. An infrastructural understanding of vulnerability can thus point towards alternative approaches to addressing it. In the following, we propose four qualities of an infrastructural approach to vulnerability, describing it as dynamic, scalar, ethical, and transformative.

Dynamic. In Butler's argument, vulnerability is both a universal state of dependency and the particular state of those subject to political violence and exclusion. Generic categories, such as those used in resettlement processes that reify particular groups as vulnerable, irrespective of context (such as the humanitarian sector's 'vulnerability criteria'), acknowledge neither this universality nor

the specificity of vulnerability. Thinking of vulnerability as a reliance upon support systems we all hold in common makes visible the (infra)structural nature of privilege: it is in fact those not considered vulnerable who benefit from a scaffolding of support. Moreover, these categories are not fixed (cf. [Castán Broto and Neves Alves, 2018](#)): refugees contribute to these supportive structures as much as they rely on them. As refugees turn into hosts and vice versa, and new arrivals revive faltering economies, relations of dependency shift and reverse. The infrastructural vulnerability that links refugees and host communities is also not a fixed relationship either of universal radical openness to others, as Butler would have it, or of a zero-sum game in which one group's gains detract from another. Instead, it is an interdependent system within which there are dynamic processes of benefiting and contributing. Thinking vulnerability as dynamic in this manner creates an awareness of the power relations involved in both determining and alleviating vulnerability. This may better account for the shifts between precarity and precariousness, as well as the use of vulnerability as weakness and tool of power.

Scalar. An infrastructural approach points to the complex systems in which we are all entangled, which locate vulnerability in the relationships between the human and non-human realms. As a spatialised, dynamic approach, it enables us to think communities as networks that are constantly being produced through the sharing of resources, even as people arrive and depart, rather than fixed entities based on identity. Elsewhere, our work has identified the various scales at which vulnerability is located in both policy and academic discourse in Lebanon – from the individual to the household, the community or the level of the state or region ([Baumann and Kanafani, 2020](#)). Often such discussions lack a sense of how the scales relate to each other. Thinking vulnerability both in a spatialised manner and as shaped by a complex network of human and non-human relations may help foreground the scalar politics at work. Infrastructural systems link the individual, vulnerable body to others at several scales: they structure relationships between people they connect and disconnect ([Graham and Marvin, 2001](#); [Rodgers and O'Neill, 2012](#); [Wilson, 2016](#)), but also between residents and the state (cf. [Anand, 2017](#); [Von Schnitzler, 2016](#)). At the same time, they are relational on a global scale (cf. [Jabary Salamanca and Silver, 2022](#)).

Ethical. Critical readings of vulnerability-as-interconnectedness have noted that Butler's account is unclear on how an acknowledgement of shared vulnerability can lead to the redistribution of risk ([Cole, 2016](#); [Reid, 2011](#); [Watson, 2012](#)). In an infrastructural reading, a recognition of interdependency may come to form the basis of a sense of community and mutual responsibility, as the basic services provided by infrastructures are essential to everyone, not only those most in need – they are what binds us all together. This is why political programmes such as the campaign for Universal Basic Services ([Moore and Collins, 2020](#)) are based on, and seek to instil, a sense of solidarity and mutual obligation. Self-organised community governance of shared resources can be an effective way to combat the seemingly inevitable 'tragedy of the commons' ([Ostrom, 1990](#)). Thus, democratic deliberation mechanisms on public services and resources, such as Citizens' Assemblies, are grounded in a recognition of interdependence and a desire to understand the needs of all residents, and may help find collective infrastructural solutions that work better for everyone ([Shehabi et al., 2020](#); [Shehabi and al-Masri, 2022](#)). Infrastructural vulnerability, then, might offer an 'ethical imagination' of community in the sense articulated by [Moore \(2020\)](#): By allowing us to visualise the way we are linked together and vulnerable to each other, it can provide a means for 'experiencing, feeling, thinking and living' our relations to ourselves and others ([Moore, 2020:30](#)), and thus enable us to restructure our political relationships.

Transformative. At the same time, the materiality of infrastructures gives this ethical imagination a physical embodiment, enabling concrete projects to coalesce around them. Recent work has suggested thinking both vulnerability ([Marino and Faas, 2020](#)) and prosperity as an assemblage, rather than a fixed state of being ([Moore and Mintchev, 2021](#)). Such complex systems have emergent properties; thus a sense

of community built on the basis of recognising infrastructural vulnerability can be larger than the sum of its parts. This was the case in a participatory spatial intervention in the refugee-hosting town of Bar Elias, which focused specifically on addressing infrastructurally-mediated vulnerabilities, including access issues faced by marginalised groups, and intercommunal tensions experienced by all residents. Here, in seeking to tackle the needs of the most vulnerable, much broader common spaces and institutions were co-constructed (Dabaj et al., 2020; Mintchev et al., 2019; Rigon et al., 2021). Vulnerability is, in its most basic meaning, a future-oriented concept – it denotes susceptibility to potential future harm. Rather than deploying vulnerability to alleviate harm done and ‘return to normal’, an approach to vulnerability that seeks to overcome the status quo requires thinking about the alternative futures we intend to build, where structural injustices can be addressed to avoid further future harm. At the same time, as we have argued, the fragility of the resources and systems we hold in common is deeply linked to our own vulnerability to one another (cf. Velicu and García-López, 2018). Thus, such collective action also requires acknowledging the wounds of the past, otherwise hope remains a reactionary sentiment, as the writer and artist Walid Sadek (2016) has argued about reconstruction in Lebanon’s post-war period. A transformative notion of vulnerability thus aims to replace the resilience approach’s perpetual *emergency* with a sense of *emergence* and possibility (cf. Halpern, 2017).

Conclusion

In a situation of ongoing, and overlapping, crisis and unhealed wounds, the language of vulnerability as it is currently deployed is no longer sufficient. Calculations of potential future risk and coping capacity suggest that more disaster is inevitable. If we are to salvage any generative meaning from the term, a new understanding is needed, for concepts do not merely exist in a realm of abstract academic debate – they enter the world and shape it. Often, they do so in deeply material ways, as when the humanitarian definition of vulnerability determines who is eligible for resettlement, food aid, or cash assistance, and who must continue to make do without any form of support.

An infrastructural approach has been useful for thinking vulnerability more relationally and dynamically, spatially and across scales. The recognition of shared vulnerability can serve as a means both of acknowledging the needs and concerns of host communities *and* of recognising displaced residents’ potential to contribute to those communities. If we view infrastructures as the manifestations of the way in which refugee–host, as well as human–non-human, relations are entangled and mutually influence one another, we acknowledge the shared nature of vulnerability. Thus, attempts to address vulnerability must also take into account relationality. Recognising vulnerability as ontological and interdependent in this way may allow for contingency and transformation, rather than seeking to overcome it in ways that ultimately do more harm.

In the Lebanese context of mass displacement from Syria, this means that the improvement of ‘Lebanese’ infrastructures and support for refugee communities cannot take place independently of each other. If we recognise their interdependency, we must address vulnerabilities through joint approaches. Only then might vulnerability, as a shared condition, serve as the basis for projects of mutual care, for hosts, refugees and the non-human environments that sustain them.

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Notes

1. Interview, INGO representative, 27 March 2019.
2. Interview, UNHCR official, 25 July 2018.
3. Interview, INGO representative, 26 March 2019.
4. We use this term to refer to both the crisis experienced by refugees and the framing of their presence as causing crisis for long-term residents.
5. This is the generally estimated figure, including both UNHCR-registered refugees and those who arrived after May 2015 and thus have not been formally registered, but nonetheless recorded, by the agency (see also Janmyr, 2018).
6. Interview with UNDP and UNHCR representatives, 3 October 2018.
7. Interview, INGO representative, 26 March 2019.
8. Interview, INGO representative, 26 March 2019.
9. Interviews, UNDP representatives, 16 July 2018, 21 September 2018.
10. Interview, NGO representative, 12 April 2019.
11. Interview, UNDP representative and head of LHSP programme, 9 July 2018.
12. Interviews, UNDP representatives, 11 July 2018 and 20 March 2019.
13. Interview, UN representative, 3 October 2018.
14. Presentation: Humanitarian Country Team, Cross-Sectoral Prioritization of LCRP Response, 21 March 2019.
15. Interview, INGO representative, 27 March 2019.

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