

The Logic of Resilience as Neoliberal Governmentality Informing Hurricane Katrina and Hurricane Harvey – is Cuban Resilience Strategy (CRS) an Alternative?

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Abstract

Despite the ascendancy of the concept of resilience in political sociology, its criticism has also expanded. In both theory and practice, this paper seeks to unpack and critically explore how resilience as embedded neoliberal governmentality permeates U.S. research in issues relating to natural environmental disasters. By highlighting the neoliberal (resilient) politics of recovery situated in two environmental disasters – Hurricane Katrina and Hurricane Harvey – this paper highlights that both pre-disaster and post-disaster recovery realities contrast starkly with the “high-minded” claims of resilience being a form of “emancipatory” resistance. Rather than being identified as natural disasters, both hurricanes are identified as *voluntary failures* revealing how resilience discourse was used to masquerade opportunity, subjugation, exploitation, and capital accumulation by private-public/state-nonstate actors. Both hurricane responses highlight that resilience embedded with a *laissez-faire* logic privileged types of solutions that directly hindered affected communities “bouncing back”. The third and final sections analyze an alternative conceptualization of resilience pioneered in Cuba which the United Nations International Strategy for Disaster Reduction (UNISDR) and the United Nations Development Program (UNDP) encouraged risk-reduction experts to emulate as a way forward in responding to natural environmental disasters.

Introduction

Since the 1990s, Bretton Woods institutions such as the International Monetary Fund (IMF) and the World Bank (WB), along with the Bank for International Settlements (BIS) and the United Nations (UN) have increasingly injected the taxonomy and strategies of “resilience” into their logistics of crisis management, financial (de)regulations, and economic/political development (Walker and Cooper, 2011; Neocleous, 2013). Although the discourse of resilience was echoed by political and economic speech actors in the last decade of the 20th century, the terrorist attacks of 9/11, understood as a “catalysing event” (Buzan and Hansen, 2009; Al-Kassimi, 2017) further transformed U.S. national security strategy by furnishing politicians and academics an opportunity that validated “relatively unpopular ideas and schemes for a radical foreign policy shift to gain an attentive public hearing” (Parmar, 2005, p.2; see also, Buzan and Hansen, 2009; Al-Kassimi, 2019). From then on, resilience gained public hearing and has during the last decade become a catchall phrase and a “motherhood statement” (Tierney, 2015, p. 1330), or ubiquitous as an operational strategy of emergency preparedness, crisis response, and national security among agencies charged with coordinating responses to “climate change, critical infrastructure protection, natural disasters, pandemics, and terrorism” (Walker and Cooper, 2011, p.144).

Resilience’s expanded (definitional) boundary reorients these once distinct policy arenas towards a horizon of critical future events which we cannot predict or prevent but can solely adapt to by being resilient subjects. Across various policy fields, resilience has gained

momentum as a policy concept focused on a highly diverse set of issues seeking to make sense of a “world of rapid change, complexity and unexpected events” (Cavelty et al., 2015, p. 4). As a universal mode of thinking concerned with the relations between unpredictable subjects and their complex environments, resilience expresses a “governmental philosophy of nature and society” (Cavelty et al., 2015, p. 4). The underlying assumption of resilience, for these scholars, is that it assumes that the (in)security of a subject is not only contingent on the character and severity of the threat it is exposed to, but rather is also dependent on the subject’s innate (resilient) capacity of “bouncing back” from disaster events.

Over a decade ago, Klein et al (2003, p. 42) observed that “after thirty years of academic analysis and debate, the definition of resilience has become so broad as to render it almost meaningless, resilience has become an umbrella concept for a range of system attributes that are deemed desirable”. With similar ontology, Walker and Cooper (2011, p. 144) observe that resilience is “abstract and malleable enough to encompass the worlds of high finance, defense and urban infrastructure within a single analytic. The concept of resilience is becoming a pervasive idiom of global governance”. Resilience is thus conceptualized as a boundary object – an idea or term that is elusive, vague and abstract enough that it allows disciplined academics from different fields to work together without having to settle disagreements about the concepts precise meaning (Tierney, 2015, p. 1331). Notwithstanding the apparent need to operationalize such a concept, resilience has evolved to aspire and describe various mechanisms for maintaining stability, survival, and safety and has in most cases been used to integrate *both* the capacity to resist, absorb disturbances, and the ability to adapt and “bounce back” from threatening disaster events.

Tierney (2015, p. 1331) further highlights that newer formulations stress that resilient systems and/or subjects do not so much “bounce back as bounce forward toward higher levels of resilience” since the institutionalized definition of resilience has supplanted terms formerly used to describe disaster risk management cycles such as “mitigation”, “preparedness”, “response”, and “recovery”. For instance, the National Strategy for Homeland Security in its 2007 memo identifies resilience as a “culture of preparedness” that entails a strategic and psychological imperative in the face of unpredictable terrorist threats, financial crises, and environmental disaster (Walker and Cooper, 2011). The memo further elucidates an obsessive focus on the necessity of preparedness in tandem with the “disarming recognition that anticipation and prevention of all future contingencies is a logical impossibility”, resulting in the culture of preparedness instigated by resilience seeming to demand the generic ability to adapt to unknowable contingencies rather than actual prevention or indeed adaptation to future events of (un)known probability (Walker and Cooper, 2011, p.153; Neocleous, 2013).

The U.S. strategic memo of 2007 is explicit in bringing together the structural resilience of critical infrastructures, and the operational resilience of emergency response organizations, governments institutions, and private enterprise in the face of crisis by insisting that none of the threats facing these organizations are entirely preventable; instead of crisis prevention, the document proposes the culture of resilience as an *a priori* condition of reaction to emergency response (US DHS, 2007, .31; Walker and Cooper, 2011, p. 153). Since the resilience culture of preparedness espoused by the DHS sees no endpoint to the state of emergency because war has become the norm and peace the exception (Hardt and Negri, 2004), the strategy of resilience seeks permanent adaptability in and through crisis,

thereby turning crisis response into a policy of permanent open-ended responsiveness by integrating emergency preparedness into the infrastructures of everyday life and the psychology of citizens (Walker and Cooper, 2011, p. 154). Resilience is thus identified as the acceptance of disequilibrium itself as a principle of organization by blurring the boundaries between crisis-response, post-catastrophe reconstruction, and urban planning.

Motivated thus, it is the imagined threatening event of the future which determines the unstable present, thereby making resilience discourse a narrative of “futuraity” which promotes a vision of uncertain and traumatic futures, in tandem with the possibility of overcoming past adverse events and experiences (Schott, 2013, p. 213; Cavelty et al., 2015, p. 7). It should be noted that the focus on resilience informing the contours of policy-making strategies is not merely burgeoning in American political taxonomy, but also in other Western policy-making circles¹. A pamphlet from the British think tank *Demos* highlights that resilience is not simply the ability of a society or community to “bounce-back”, but a process of learning and adaptation (Joseph, 2013). The pamphlet goes as far as to define resilience as the capacity to thrive in the face of challenges by possessing a resilient culture of preparedness, thus making salient the discursive similarity between Washington and London conceptualizing resilience as focusing on individual (*laissez-faire*) mitigated risk-management, rather than state (*dirigisme*) mitigated risk-management.

The obsession both spaces of knowledge possess about resilience is noticed not merely in their new national (security) (resilience) strategies mentioned earlier, but also with individuals possessing political capital (speech actors) such as politicians, state department officials, and defense strategists *speaking resilience*. This highlights the impact the discourse of resilience has on the concept of security (Neocleous, 2013). The U.S. and U.K. strategy documents reveal the extent to which resilience has impacted the field of International Relations (IR) and Security Studies (SS) by subsuming, surpassing, and replacing the logic of security (Neocleous, 2013). A process of “resilienization” rather than “securitization” is identified in which “the demand of security and for security is somehow no longer enough” (Fjader, 2014). Whenever we hear the call for “security”, we now also find the demand for resilience. It is as if the (Hobbesian) state is fast becoming exhausted by its “logic of security and wants a newer concept, something better, and bolder” (Neocleous, 2013, p. 3-4). The point to note here about natural disasters is that since the 1980s “environmental degradation and resource scarcity” became incorporated into a traditionalist lens of security thereby “securitizing” the environment as a national “security” issue (Peoples and Williams, 2014, p. 110). The discourse on the environment shifting from securitization to resilienization, I argue, risks (re)inscribing the limits of traditionalist approaches of SS onto a concept that while being dominated by hegemonic discourses of neoliberal governmentality, has the potential of highlighting the knowledge lost in securitizing and/or resilienizing the environment using a socio-economic modality that *a priori* identifies the environment as a “negative externality”. Injecting resilience as a discourse to address the environment risks aggravating efforts towards reaching solutions to *real* environmental problems because it is conceptually “confusing and misleading” (Peoples and Williams, 2014, p. 116) to treat environmental issues as a security threat since the “focus of national security – interstate

¹ A London Cabinet discussion highlighted that since 2001 – in comparison to the era of the Cold War – that there has been an increase in vulnerability to external shock. The discussion suggested resilience as a “model” to replace the purpose and organisation of civil protection in the UK (Joseph, 2013, p.7)

violence – has little in common with either environmental problems or solutions” (Deudney, 1999, p. 189).

The threat of a resilience register replacing a security register to address natural disasters by proposing policies using neoliberal “environmentalism” policies can be summed up by Deudney’s statement at the turn of the millennium that, “environmental degradation is not a threat to national security. Rather, environmentalism is a threat to the conceptual hegemony of state centred national security discourses and institutions”² (1999, p. 214). Resilience subsumes the ontology of security by informing the “system as a whole” thereby becoming a governmental philosophy that places optimal recovery from a disaster event at the heart of security processes (Neocleous, 2013 p. 3; Cavelty et al., 2015). The core question in establishing a national resilience strategy, according to policy-makers, is to determine how resilience corresponds with the state’s responsibility to manage national security (Fjader, 2014, p. 122). The principal differences between security and resilience are as follows. Security is preventative, proactive, and restorative aimed at protecting the Hobbesian social contract between the state and the citizen against threats identified and assessed through the means of intelligence, law enforcement, and/or risk assessment based on past disasters (Fjader, 2014). This conceptualization infers that security as a preventative and proactive signifier aims to avert threats before they materialize and/or restore conditions of safety to victims of insecurity. In contrast to the concept of security, resilience is a combination of proactive and reactive measures aiming at reducing the impact, rather than attempting to defeat the disruption or source of insecurity.

The underlying logic of a resilient, rather than a secure nation, is to avoid total failure and to accept the possibility that “bouncing back” to pre-disaster conditions will not be achieved, thereby demanding a culture of preparedness of citizens. The state opting to individualize security (neoliberal resilience), instead of assuming responsibility in providing security to citizens – the liberal democratic promise – now assumes that one of its essential tasks is to imagine the coming catastrophe and the emergency that could, might, and probably will, happen (Neocleous, 2013, p. 4). The conventional logic of security in the form of preparation to neutralize an unknown disaster folds into a much broader logic of security in the form of preparation that seeks to diminish or disrupt the effects of an unknown threat.

This introductory section was interested in tracing the emergence and genealogy of resilience as an expanding boundary object. Despite the ascendancy of the concept of resilience in social science, its criticism has also expanded. The following section seeks to unpack and critically explore resilience as an embedded neoliberal governmental structure by providing examples of how *laissez-faire* resilience, in both theory and practice, permeates U.S. research in issues relating to natural environmental disasters. By highlighting the neoliberal (resilient) politics of recovery – or lack thereof – in disasters such as Hurricane Katrina and Hurricane Harvey, I seek to emphasize that both pre-disaster and post-disaster realities contrast starkly with the high-minded claims of resilience being a strategy concerned with aiding victims in returning to a state prior to the disaster taking place (bouncing-back). Instead, both cases highlight resilience as a veneer for opportunity, domination, and capital accumulation by private-public actors. Both hurricane responses

² Deudney continues “for environmentalists to dress their programs in the blood-soaked garments of the war system betrays their core values and creates confusion about the real tasks at hand” (1999, p.214)

highlight that resilience understood as embedded neoliberal governmentality privileged particular types of solutions that directly hindered communities “bouncing back”. In other words, neoliberal resilience as empirically noticed prior to and after both hurricanes, legitimized activities of groups with divergent interests that possessed different interpretations of what resilience should achieve³. The last section of this paper seeks to encourage risk reduction experts to take a look at the consequences of resilience as embedded neoliberal governmentality by highlighting and suggesting the emulation of an *alternative* and successful conceptualization of resilience pioneered in Cuba as empirically noticed during Hurricane Harvey.

Resilience as Neoliberal Governmentality⁴

The response to “unpredictable” disaster events such as terrorist attacks and hurricanes following 9/11, cemented a new cultural understanding of security founded upon a neoliberal capitalist ethos of Individualized Risk Management (IRM) that privatized the environment, in conjunction with the adoption of austerity measures (Forte, 2013, p. 3; Joseph, 2013). Individualizing security reinforces not only the liberal economic governing principles of *laissez-faire* but also informs society by being legitimated through the concern that the state should govern from a distance or “not too much” (Joseph, 2013). This is made explicit in the *National Strategy for Homeland Security* published under President George W. Bush in which he states that “the state assumes for itself a *supportive* role in administering security” (Goldstein, 2010, p. 492 *emphases added*) while “making *each of us accountable for and accountants of our own security*, calculating the many forms of risk and exposure” (Hay and Andrejevic, 2006, p.337 *emphases added*). Many critical theorists of the resilience surge have conceptualized resilience discourse as being highly compatible with neoliberal socio-political economy and its associated ideological frames, and even though neoliberalism is conceptualized, similar to resilience, as a boundary object (Tierney, 2015, p. 1334), it is possible to highlight salient aspects of neoliberal social, political, and economic frameworks which improve our understanding of resilience being understood as embedded neoliberal governmentality.

First, neoliberalism stresses capital accumulation adopted by means of free-market ontologies and the rejection of Keynesian economic welfare policies in favor of deregulation; second, and most importantly, as a form of governmentality it distrusts the state administration accompanied by ideological beliefs that the private-sector is superior, more efficient, and effective than the public sector in delivering government services (Tierney, 2015). The neoliberal context holds security to be that of the stability of the market and the guarantee of unobtrusive state structures to capital accumulation (Forte, 2013; Jalbert, 2013). Tickell and Peck (2003) describe this as the “rollout” phase of new ideas and practices that emphasize various types of public-private partnerships and the importance of NGOs, and private corporations in service provision (Joseph, 2013; Tierney, 2015). Resilience as neoliberal embedded governance normalizes the logic of the market through public-private relationships with an individualized conception of civil society based on mobilizing active citizens (Joseph, 2013, p. 42; Chandler, 2014). Neoliberalism then “seeks not so much a free

³ See, e.g., Tierney (2015, p.1331) for a discussion on how terms like sustainability and resilience are used to legitimize the activities of groups with very different interests, hide conflicts, and power relations.

⁴ Bourbeau (2017) states that resilience “is a form of reasoning that participates in a neoliberal rationality of governance”. For similar conceptualization see also e.g., O’Malley (2010, p.506), Joseph (2013, p. 42), and Methmann and Oels (2015, p. 52)

market, but rather a market free for powerful interests” (Al-Kassimi, 2018, p. 3). Therefore, it is not merely the promotion of economic ideas such as free-market but is a specific form of social rule (resilience) that institutionalizes and rationalizes consumption, through the enterprise of individualized responsibility (Joseph, 2013, p. 42).

Although, in theory, neoliberal governmentality entails the state “stepping back” and/or “governing from a distance” (Joseph, 2013, p. 42) by encouraging free conduct of individuals by downloading responsibility of security *onto* them⁵, in reality, and quite ironically, this is achieved through active (state) intervention into civil-society, and the opening up of new areas to the logic of public-private enterprise and individual initiative (Joseph, 2013). Tierney, in theorizing (neoliberal) resilience, highlights the continuous state interference in recovery processes. Far from being a concept that “decentralizes” responsibility, neoliberal resilience is actually the result of “public-private collaboration and policy steering at the state level” (2015, p. 1334). In reality, far from giving power back to civil society as championed by high-minded resilient narratives, the state, by cross-pollinating with other public-private networks, is pushing a particular agenda which it oversees from a distance, through the use of powers and public-private relationships (Joseph, 2013). Hornborg also reveals the danger of resilience being a technique aligned with capital accumulation and dominance by seeing that a significant weakness of resilience is that it is “oblivious not only of power, conflict, and contradiction but also of culture” (2009, p. 255). It creates the illusion that it is a politically neutral signifier, sitting comfortably within “critical” academic circles, yet recommending technocratic solutions that adhere to the same neoliberal-capitalist logic that those disasters resulted from (Welsh, 2012).

As a result, resilience understood through a neoliberal discourse is then defined by a set of consensual socio-scientific power-relations that reduces the political subject to the policing of change (resilience as domination), diverting attention from questions of power and injustice (resilience as resistance) that imagine alternative futures. This is why resilience and not revolution is the rallying cry of the 21st century (Welsh, 2012, p. 21). Resilience conceptualized through the logic of neoliberalism creates vulnerable subjects, incapable of bouncing back to their pre-disaster conditions, by not equipping affected individuals with resources to adapt to post-disaster environments. These practices and subjectifications highlight the diverse (de)politicizing and (dis)empowering effects resilience as embedded neoliberalism has on individuals coping with environmental disasters. Whether resilience is attributed to the logic of neoliberalism or as a pragmatic “buck-passing” by governments, in both cases, resilience redistributes responsibilities and blame by demanding a vulnerable subject (Cavelty et al., 2015).

Even though such responsabilization⁶ can be perceived as a form of empowerment to individuals affected by disasters, Bulley (2013), Rogers (2013), and Cavelty et al., (2015, p. 7) warn against an overly “romantic notion of [resilience as] community [empowerment]...Resilience programs create the subject they speak about and valorize it as either resilient, and desirable, or vulnerable, undesirable and in need of state intervention”. Since resilience needs a vulnerable subject to thrive, it consistently reproduces it by forming

⁵ I am indebted to Marshall J. Beier for this explanation.

⁶ SAGE (2017) defines *responsibilization* as a term found in the governmentality literature and is mostly based on neoliberal political discourses referring to the process where subjects are rendered responsible for recovering from an event which previously would have been the responsibility of another - usually a state agency.

the basis of subjectively dealing with the uncertainty and instability of contemporary capitalism and the insecurity of the national security state (Neocleous, 2013; Cavelty et al., 2015). Resilience, therefore, not only robs human subjects inflicted by disasters of political options but also works as an *objectifying* force that individualizes disaster-affected peoples by transforming them into mere playthings of greater and uncontested powers attributed to a neoliberal logic of capital accumulation.

Operationalizing Resilience As (Neoliberal) Domination: From Hurricane Katrina to Hurricane Harvey.

At the time of writing, over a decade had elapsed since one of the deadliest and costliest environmental disasters in U.S. history, Hurricane Katrina, struck the Atlantic (Blake and Landsea, 2011; Forte, 2013). More recently, Harvey, a category 4 hurricane, inflicted disaster on the U.S. homeland on September 2017, becoming the costliest tropical cyclone to hit the U.S. with preliminary estimates approximating \$200 Billion USD in damages (Hicks and Burton, 2017). While one might expect that a decade is a sufficient time for public-private partnerships to develop more sophisticated risk management projects – thus society would be more culturally prepared to withstand and cope with natural disasters – the lead up to Hurricane Harvey, similar to Hurricane Katrina, made salient that state agencies such as FEMA, DHS, and several NGOs were fundamentally unprepared. Failing to implement and initiate recovery efforts and safety measures before and after hurricane Harvey – similar to Hurricane Katrina – brought forward the ominous truth that resilience as domination – veneered as neoliberal governance and profit-driven actors – is the preferred blueprint model of recovery steered and lobbied by state officials and private actors.

Case Study: Hurricane Katrina

Hurricane Katrina was the first natural disaster that subjectively constructed disaster response and recovery management using a neoliberal technique of embedded governance which empirically highlighted the state opting to responsibilize/individualize security to individuals affected by natural disasters. It is now common knowledge that during Hurricane Katrina, the neoliberal turn in disaster risk management was on full display as public-private partnerships – allegedly more efficient and superior in allocating services for affected individuals to “bounce back” – failed to function with shocking results in service provisioning and recovery mitigation in one of the worst catastrophes in U.S. history. Recent scholarship on Hurricane Katrina highlights several voluntary administrative failures that disclose how disaster response and recovery systems that were ostensibly organized around a practical idea of resilience *actually* functioned. Results show that public-private actors, along with political actors, exacerbated the psychological suffering of disaster victims by adhering to a neoliberal logic of accumulation which had negative consequences on vulnerable subjects attempting to “bounce-back” and cope with the inflicted disaster of the Hurricane (Adams, 2013; Forte, 2013; Cavelty et al., 2015; Tierney, 2015).

The ontology of (neoliberal) resilience informing the performance of public-private partnerships including state agencies such as the FEMA, the EPA, and the DOD, could not have been more evident when we notice that FEMA had a report issued in 2001 stating that a massive hurricane in the gulf coast of New Orleans was “one of three most likely disasters to hit the United States” (Noel, 2013, p. 75). Even though public-private actors had four years to prepare communities of Louisiana for such environmental disaster, the measures adopted

pre-disaster assume reactive resilience ontology rather than preventive security ontology⁷. According to Brym (2008) two factors played a vital role in Hurricane Katrina not quite being a “natural” disaster since political personnel with high political capital in harmony with private actors were 1) complicit in the removal of the coastal wetlands which act as natural flood control spaces and 2) overlooked infrastructural refurbishment of levees. In New Orleans, the marshes and barrier islands insulate communities from flood disasters; for every 3.2 km of wetland, the storm surge reduces by 15 cm (Forte, 2013, p. 75). Levees were not assessed or renovated since Hurricane Betsy hit in 1965, killing more than 70 individuals. Due to infrastructure neglect and inadequacy, half the levees during Hurricane Katrina were damaged and destroyed flooding roughly 80% of the city, killing hundreds, damaging thousands of housing units, and producing “climate refugees” who have never returned home (Forte, 2013; Uberti, 2015). While the catastrophe should not simply aim at blaming the US Army Corps of Engineers who designed the levees, lack of responsibility should also be pointed to public-private actors who benefited from the removal of wetlands and environmental regulations before and after the hurricane took place to expand their (neoliberal) private housing projects and accumulation of profit.

In 2003, President George W. Bush refused to pay \$14 billion to restore and refurbish the wetlands and barrier islands (Forte, 2013) but was eager to align with the recommendations made by Mike Pence’s Republican Study Committee (RSC) relief policies report funded by the Heritage Foundation which was released 15 days after the levees were breached on September 13th, 2005. These *laissez-faire* policies recommended the repeal of environmental regulations facilitating the removal of wetlands, and transforming affected areas into free-enterprise zones (FEZ) to allow public-private actors to replace them with townhouses, condos, and hotels (Klein, 2017). Given the fact that Louisiana wetlands disappear at a rate of one football field an hour, this highlights the absence and lax of environmental regulations (Uberti, 2015). If the lack of preparedness exacerbated by government and corporate officials before Hurricane Katrina struck seems uncomfortable to absorb, let us highlight how public-private actors dealt with the realities that ensued following the hurricane striking New Orleans.

A shift from civil defense to a resilient culture of preparedness in responding to natural disasters was activated following the events of 9/11, and more so in the wake of Hurricane Katrina. By 2003, the Federal Emergency Management Agency (FEMA) became fused with the Department of Homeland Security (DHS) (Peoples and Williams, 2015). Despite President Bush stating in 2007 that the DHS has a shared responsibility to protect the American people, in the wake of the hurricane FEMA seemed ill-prepared to respond and manage the disaster, thereby transferring responsibility for (in)security to victims affected by the environmental disaster. The failed disaster relief in New Orleans succeeding the hurricane has been described as the “biggest administrative failure in U.S. history” (Eikenberry et al 2007, p. 160; Forte, 2013). Five of the eight political actors involved in FEMA and its subdivision known as Emergency Preparedness and Response (EP&R) had no disaster experience, forcing FEMA’s leading director Michael Brown to resign in 2005 following his controversial handling of Hurricane Katrina (Forte, 2013).

⁷ See, e.g, David Uberti (2015) for a discussion on who is to blame for the lack of preparation and why.

The failure is due to FEMA and the DHS adopting an ontology of security that focused purely on managing and preventing acts of terrorism instead of developing a disaster management program that would help citizens cope with and overcome the consequences inflicted by the environmental disasters. Institutional incompetence is highlighted when we notice that the DHS released a memo entitled “How Terrorists Might Exploit a Hurricane” along with the National Response Plan (NRP) in 2004 which elaborated a plan for natural disasters and terrorist attacks while barely making any policy recommendations relating to managing, preparing, and recovering from natural disasters (Noel, 2013)⁸. Furthermore, the failure of public-private actors and government agencies in mitigating plans for disaster recovery is compounded when we note that political and public-private actors adopted a neoliberal-entrepreneurial market-driven logic as a response to social welfare programs in general, and to disaster recovery aid in particular. These profit-maximizing initiatives reveal how government agencies such as FEMA dispensed money and awarded contracts to corporations that were primarily seeking profit by privatizing security, education, and housing (Adams, 2013; Forte, 2013; Tierney, 2015; Zernike, 2016; Klein, 2017; Singer, 2017).

Adams (2012, 2013), Gotham (2012, 2015), and Tierney (2015) have documented the role of multinational corporations in the provision of disaster relief services such as temporary housing, individual assistance, and (privatized) schooling by adopting an entrepreneurial logic of recovery succeeding Hurricane Katrina (Zernike, 2016; Singer, 2017). These include government contracts and money dispensed by FEMA to corporations such as Bechtel, Shaw Group, Fluor, Halliburton, BlackWater on a no-bid basis. Contracts were so numerous that FEMA had to hire a contractor to award contracts (Gotham, 2012, p. 637). The logic of profit maximization informing these contracts resulted in significant overrun costs, mismanagement, corruption, and profiteering as well as the loss of transparency and accountability. For instance, FEMA and DHS extended contracts to consulting firms such as ICF which developed the infamous Road Home Program (RHP) and the Small Business Administration (SBA) loan program to ostensibly aid victims in recovering their houses. These two programs highlight what occurs when companies that are accountable to their shareholders and not to the government are put in charge of service provisioning. Five years after Katrina, only 55% of the 230,000 applicants received assistance, while the remainder were denied⁹, disqualified, or simply internalized the tragedy of the government not prioritizing their security (Adams, 2012; Tierney, 2015).

Through extensive qualitative research involving ethnographic analysis and hundreds of interviews, recent scholarship has been capable of highlighting that RHP and SBA not only forced victims of the disaster to pay for their long-term recovery but also had to pay interest on that self-sustaining venture. Adams (2013) makes it clear in her intersubjective ethnographic research in New Orleans that although both programs failed to help and extend services to the most vulnerable in recovering their homes, they proved extremely successful as profit-making ventures for corporations, and public-private agencies that used public funds to generate private profit. Richard Baker, a Republican congressman from Louisiana,

⁸ Farmer (2011, p.13) says that the main focus of the DHS “since its creation has been national security and terrorism, so natural disaster response preparedness efforts and mitigation plans were superseded by counter terrorism as the new homeland security focused organization developed plans based on terrorist disasters”

⁹ Abdel Fabian, Joshua and Wayland’s family from Lake Forest have stated that they did not qualify for FEMA or Red Cross aid and were never provided with a reason even though their property has been extensively damaged (Martin, 2017).

declared following Hurricane Katrina that, “We finally cleaned up public housing in New Orleans. We couldn’t do it, but God did” (Saulny, 2006). In the months after the storm, houses that were minimally damaged were entirely destroyed and replaced with condos and townhouses at hyper prices that victims could not afford (Klein, 2017). Similarly, neoliberal economist Milton Friedman’s piece for the Wall Street Journal identifies Hurricane Katrina as a moment of economic opportunity for the development of new luxurious housing projects and the radical privatization and reform of the educational system (Friedman, 2005; Zernike, 2016; Singer, 2017).

An unprecedented amount of over \$3.3 billion of aid from international and national organizations entered the coffers of the U.S. Treasury following Hurricane Katrina, as highlighted by the Internal Revenue Agency (IRS) (Noel, 2013)¹⁰. Among the International NGOs present during the disaster scene was the International Medical Corps (IMC) that possess expertise in disaster relief and the American Refugee Committee (ARC) who provided FEMA with water, sanitation, shelter, and healthcare (Noel, 2013). Among the national faith-funded-charities and NGOs, there were charity initiatives such as HandsOn Network (HN) and Points of Light Institute (PLI). This begs the question – since there was no lack of revenue in helping victims, why did public-private actors and government agencies fail to prepare for such catastrophe and/or fail to aid vulnerable victims to recover after the hurricane? According to Noel (2013, p. 82) and Eikenberry et al., (2007) the failure is due to there being no system in place to deal with disasters, and in particular with the distribution of aid. There was a common perception that since the U.S. government and its related agencies knew beforehand that a hurricane in New Orleans was a probable occurrence that there would have been more infrastructure in place and that the provision of relief would have been more efficient in a developed country (Noel, 2013). The confusion was identified at all governing levels to the point that local officials who sought to deliver resources reached a dead-end as there was no standard in place to provide relief. On several occasions, NGOs “received late responses or none at all from governmental agencies” (Noel, 2013, p. 82).

Furthermore, faith-based charities such as HN and PLI did not “give” charity, but rather administered aid by relying on free-market strategies, thereby undermining any effective distinction between “for profit” and “non-profit” initiatives. The emotional and vulnerable response of the poor and the less-resilient was channeled through an “affect economy” in which a surplus of emotion served market agendas with (vulnerable subjects) volunteering their labor. This point is significant when we recall that the consulting firm ICF was a major investor in faith-based initiatives. ICF offered its relief services at a charge to help groups organize themselves according to successful neoliberal market strategies, which took advantage of *affect* being translated into volunteer-labor for profit-driven initiatives (Adams, 2013). The obvious problem here is not simply that vulnerable disaster victims were being taken advantage of for profiteering purposes, but that all of these market-based initiatives were made possible through homeless-laborers and volunteers with virtually no governmental regulation or oversight. According to Adams (2013), the emotional response to the disaster by its victims was an opportunity seized by directives of profit-driven charity

¹⁰ According to the National Center for Charitable Statistics (NCCS), as of November 2011, “the IRS reports a total of 1.58 million registers non-profits (including private foundations). Of these, the 1.16 million non-profits filing 990 forms with the IRS generated a total of \$1.94 trillion in revenue and \$6.36 trillion on total assets. The growth rate was 25% between 2001 and 2011, surpassing that of the private and public sectors” (Sadiq and Fordyce, 2013, p.394).

actors who quickly replaced direct government assistance¹¹. Cindy Katz describes the situation following the disaster as the “non-profit industrial complex” (Katz, 2008, p. 25) since the U.S. government willingly chose to extend responsibility for recovery to non-governmental bodies that built their large businesses and immense wealth from environmental disasters.

Adams (2013) and Klein’s (2017) qualitative research forecasts that profit-driven recovery highlighted during Hurricane Katrina could be an ominous foreshadowing of how governments will react to future disasters. Considering the mismanagements highlighted above, this manuscript identifies Hurricane Katrina not as a *natural* disaster, but a *voluntary* failure in terms of “philanthropic insufficiency, particularism, paternalism and amateurism” (Eikenberry et al., 2007, p. 166), and a failure due to a long history of corrupt contracts between government and private business actors. Adam and Klein’s prediction became a self-fulfilling prophecy when Hurricane Harvey struck in September 2017. The response adopted by state and non-state actors resembles the response adopted and influenced by public-private actors and government agencies during Hurricane Katrina. Hurricane Katrina’s profit-driven disaster recovery is now empirically substantiated – in the case of Hurricane Harvey – as a blueprint in our increasingly disaster-prone times by being guided and driven by corporations whose profits are made possible by environmental disasters being concealed through (neoliberal) discourses of resilience.

Case Study: Hurricane Harvey

Houston is known as the HQ-city of multinational corporations involved in refining and distilling petrochemical products such as oil and gas. It also includes corporations such as Exxon Mobil, Chevron, Magellan and BP, among others. Hurricane Harvey flooded storage tanks of Exxon Mobil, Valero Energy, and Kinder Morgan (Blum 2017; Oyeniya, 2017) which have leaked numerous chemicals into the water streams of several counties. Communities were no longer simply attempting to survive an environmental disaster but were victims trying to survive a chemical attack that could have been mitigated and prevented if public-private actors and state governors did not adopt a neoliberal logic of resilience which perceives disasters as profit-making opportunities. Neoliberal public-private actors heading these MNCs refused to implement regulations before Hurricane Harvey that would relocate refineries to areas least prone to floods and/or implement risk management measures that would have alleviated the victim’s susceptibility to respiratory diseases and cancer. As will be highlighted below, FEMA and the EPA, before and after Hurricane Harvey, were influenced by powerful political developers and private corporate actors that hindered the initiation of flood management projects, choosing to adopt the logic of *laissez-faire* resilience in dealing with environmental disasters. Hurricane Harvey, like Hurricane Katrina, was a *voluntary* failure since it was primarily perceived as a capital making opportunity that steered state policy in the direction of prioritizing profit thus trivializing aiding citizens in “bouncing-back” (Martin, 2017a).

Considering the fact that Houston is the most flood-prone city in the U.S., according to Bedient and Brody (2017), and that “more people die here than anywhere else from floods”, citizens were left asking what could have been done to prevent the extent of the

¹¹ Adams (2013, p.13) says that Katrina is not a story about “the decline of the welfare state or the rise of crony capitalism, but a story about how the two have become intertwined in new ways: crony capitalism now makes money *on* the welfare state”

Hurricane Harvey catastrophe, or at least mitigate its effects (Resnick, 2017; Satija and Collier, 2017). Experts state that the flooding in the Houston region could have resulted in less havoc if local officials had made different decisions over the last several decades (Satija and Collier, 2017). While Houston is nicknamed the Bayou city, environmental engineers and federal officials informed The Texas Tribe and Propublica that unchecked development over the last few decades had heightened flooding risks (Martin, 2017a; Satija and Collier 2017). The root cause of the lack of preparedness is that influential developers run the city of Houston, in tandem with local officials such as Governor of Texas Greg Abbot (recipient of corporate campaign donations) and head of the powerful Harris County Flood Control District, Mike Talbott, who categorically denies that flooding is a “scientific problem” in Houston (Borenstein and Bajak, 2017).

Scientists have recently identified the “paving of Houston” (Satija and Collier, 2017) as one of the main reasons for increased flooding casualties and increased flood rain. Houston as a region was once home to 600,000 acres of flood-absorbing land, such as prairie grass roots, that have a capacity to absorb water for days on end and/or even permanently (Alvarez, 2017). According to Katy Prairie Conservancy, an advocacy group, one-quarter of Houston has been paved over with concrete that makes the surface “impermeable”. Similarly, according to John Jacob, another Texan researcher from A&M University, almost 20% of Harris County wetlands were lost between 1992 and 2010, a figure which he calls “unconscionable” (Satija and Collier, 2017). Brody states that since there has been a 25% increase from 1996 to 2010 in wetland and prairie grass being replaced by impervious surfaces, engineering projects and/or flood regulations have not made up for such drastic ecological modification (Satija and Collier, 2017). Research also reveals that local officials insist on snubbing stricter building regulation, thus allowing developers “to get what they want” (Borenstein and Bajak, 2017; Satija and Collier, 2017) in paving over critical natural disaster remedy spaces that have the innate capability of protecting communities from floods.

Another sector that lacks risk management preparedness and hindered the community’s ability to bounce back following Hurricane Harvey was petrochemical industries failing to adopt regulations designed by the EPA to prevent explosions, fires, and spills at hazardous facilities (Martin, 2017a; Powell, 2017). While private industries and local political actors at the American Petroleum Institute stated that “our industry has applied lessons from previous hurricanes and developed new technology, best practices, and safety standards”, Hurricane Harvey reminded us that these “best practices” have failed to prevent and/or mitigate flood-threats induced by hurricanes inundating chemical facilities. The American Chemistry Council prior to Harvey stated that “chemical companies know well to avoid the dangers of being unprepared for any threats” especially because Texas is home to the largest concentration of energy infrastructure with six counties, including over 230 chemical plants, 33 oil refineries, and hundreds of mile of pipeline (Martin, 2017a; Powell, 2017). Chemical plants and refineries reported over two dozen major air pollution releases in the period following the Harvey disaster (Powell, 2017). A study released in 2005 following Hurricane Katrina highlighted that storage tanks in Texas and Louisiana are prone to becoming dismantled during floods induced by hurricanes and that from 2004 to 2013 there were over 1500 chemical releases and/or explosions causing the death of hundreds and the injury of thousands (Powell, 2017).

To protect vulnerable communities surrounding petrochemical plants, the EPA designed the Chemical Disaster Rule (CDR) which requires facilities surrounding Houston neighborhoods to improve plant safety. This initiative also calls upon fossil fuel industries to increase information sharing with first responders and emergency planning committees and enables communities to receive information on a daily basis concerning chemicals spills and leaks (Caldwell, 2017; Powell, 2017). Tactlessly, EPA administrator Scott Pruitt, a President Trump appointee, moved quickly after his confirmation in 2017 to steer policy towards postponing the implementation of these protection rules for over twenty months to please his private corporate donors (Martin, 2017a; Powell, 2017). The forfeited (state) responsibility to mitigate risk by being prepared to respond and implement preventative measures that would have aided vulnerable citizens is highlighted in the event that took place at Crosby, Texas during Hurricane Harvey. The Arkema plant in Crosby became inundated with six feet of water, which consequently disabled its support generators and resulted in the explosion of 9 refrigerated (chemical) storage tanks (Martin, 2017a).

The Arkema Company and its trade association, the American Chemistry Council, lobbied the Trump administration to delay implementing the CDR, and EPA administrator Scott Pruitt delivered. The rules that Pruitt blocked would have gone into effect on March 14th but as previously mentioned, were postponed for another twenty months. Scott Pruitt has also signed the Clean Air Act waiver on certain fuel requirements for the Texas oil industry, thus making it easier to extract fuel (Cassano, 2017; Martin, 2017a; Wray, 2017). This means refineries can cut corners with the full blessing of federal environmental regulators without having to worry about what gets spewed into the air (Cassano, 2017; Martin, 2017a; Wray, 2017). Similarly, Governor Greg Abbott has also suspended numerous rules from the Texas Commission on Environmental Quality (TCEQ) intended to help affected communities recover from a natural disaster. These rules would have also forced fossil fuel industries to establish preventative measures that would have regulated air emissions and obliged them to provide an RMP that reveals their level of preparedness in dealing and responding to chemical spills caused by natural disasters (IBT, 2017; Martin, 2017a; Wray, 2017).

Other than private-public (capitalist) developers and local state politicians collaborating in prioritizing capital accumulation (rather than implementing risk management measures that would have positively influenced the recovery and coping mechanisms of affected disaster communities), FEMA's performance during Hurricane Harvey in relation to recovery and preparedness has also been lacking. Over nine months have passed since Hurricane Harvey wreaked havoc in Texas and Florida – the 2 states that were most affected. Residents of both states have expressed that FEMA has yet to inspect the property damage inflicted by the hurricane and has been inadequate and unreliable in handling and extending post-disaster provisions (Fernandez, Alvarez, and Nixon, 2017; Jansen, 2017; Martin, 2017a; Zaveri, 2017). Aid relating to property damage repair and temporary housing allocation are two areas that highlight FEMA insufficient recovery measures in the wake of Harvey. The average waiting time for an inspection is over 40 days, and qualification is not guaranteed (Fernandez et al., 2017). Ethnographic research in affected areas reveal that FEMA declined property damage applications, often failed to provide reasoning, and in several cases provided crude explanations such as incomplete identity information and/or “insurance companies do not cover flood damage” (Fernandez and Alvarez et al., 2017; Martin, 2017b). The AP (2017) learned in September 2017 that

FEMA had auctioned over 100 disaster-response housing trailers days before Hurricane Harvey (Bowden, 2017). According to Stickler (2017), FEMA did not want to prioritize trailers as a remedy because of the “Toxic Trailer Scandal” which arose after Hurricane Katrina. The scandal concerned families who were extended temporary FEMA trailers developing headaches, nosebleeds, asthma, and breathing difficulties. Ethnographic research conducted in October by Fernandez et al., (2017) reveals that FEMA has only approved 15 trailers in Texas two months after Hurricane Harvey. Ben Carson, Secretary of the Department of Housing and Urban Development, stated that the reason for delayed housing assistance is due to “regulation burdens” and that the department is attempting to “relax these regulations” (Jansen, 2017).

Fernandez et al, (2017) research also reveals that in East Texas, a FEMA mobile disaster center was scheduled to assist elderly flooded residents. However, FEMA personnel did not show up, resulting in Republican Stephen Brint Carlton noting that dozens of elderly people are “sitting out in a parking lot” with “no one there to help them” (Fernandez and Alvarez et al., 2017). It is important to note that over 70% of the deaths during Hurricane Katrina New Orleans were people aged 60 years and above, and while the American Association of Retired Persons (AARP) highlighted that it is difficult to determine the precise percentage of people with disabilities who are killed by hurricanes, “it is clear that a disproportionate number of the fatalities were people with disabilities” (O’Brien, 2017). While O’Brien highlights that FEMA established the Disability Integration and Coordination Office in 2010 and that it is too early to know the full scope of fatalities involving elderly people with or without disabilities during Hurricane Harvey, evidence shows that the agency has not adopted measures to mitigate their needs. For example, on September 2017 during a news conference in Manatee County, Florida announcing mandatory evacuation, an American Sign Language interpreter signed with 95% inaccuracy, which according to Clemson University Professor Jason Hurdich is not only a violation of the American Disability Act (ADA) but is also a mistake that might have caused more fatalities (O’Brien, 2017). Furthermore, while Nancy Lee Jones’s congressional research service report shows that the ADA should apply to natural disasters, empirical evidence reveals that FEMA evacuation measures have overlooked disabled and elderly people’s particular needs; for examples, evacuation vehicles often did not possess wheelchair lifts and oxygen tanks, and shelters lacked electrical outlets for medical equipment (O’Brien, 2017). Professor Rabia Belt from Stanford Law School said that state agencies need to “anticipate problems by including disability concerns in emergency plans when they are created”¹² to ensure disabled peoples are able to navigate hurricanes and disasters in general (O’Brien, 2017).

In both environmental disaster case studies, we notice that state agencies in collaboration with developers and public-private actors lacked preparedness not only in bureaucratic organization but most crucially in establishing disaster risk measures that would have mitigated and diminished human suffering. This operationalizes our earlier statement that resilience logic replaced security logic in responding and recovering from environmental disasters, since agencies assumed reactive resilience ontology rather than preventive security ontology. Also, both cases reveal that resilience as neoliberal governmentality is not concerned with citizens “bouncing back”, but is primarily concerned

¹² O’Brien continues by saying that “partnering with people with disabilities and disability advocacy groups and pushing emergency management organizations” provides a “clear direction on what they are doing for the disability community” (2017)

with citizens being resilient enough to “bounce forward” and take (individual) responsibility for security. There is a fundamental contradiction or neoliberal irony¹³ that is apparent in both case studies being informed by resilience as a neoliberal form of recovery. When Katrina and Harvey struck and vulnerable subjects demanded state intervention for protection and aid provision – a spirit that the liberal democratic state is beholden to – loyalties of state members and private actors were beholden to financial accumulation and/or ideological interests (Forte, 2013). This is salient in the aforementioned examples highlighting instances in which both state and non-state actors refused to halt development on green spaces that would have absorbed flooding water, petrochemical industries overlooking environmental regulations, and the Chemical Disaster Rule. One of the key themes in both hurricanes is that the neoliberal recovery processes post-Harvey and post-Katrina required survivors to become “entrepreneurs” and “empowered consumers” in order to “qualify” for the assistance they needed to “bounce forward” (Tierney, 2015).

Gotham (2012, p. 635) notes that by voiding the Hobbesian social contract and shifting emergency management responsibilities from the state to the market, privatization addressed “disaster victims not as citizens and members of an aggrieved community, but as customers, clients and consumers”. Similarly, Neocleous (2013, p. 4) mentions that “neoliberal citizenship is nothing if not a training in resilience as the new technology of the self: a training to withstand whatever crisis capital undergoes and whatever political measures the state carries out to save it”. In both case studies, we notice the activation of neoliberal “citizenship”. That is, instead of vulnerable subjects receiving the aid they needed within a reasonable timeframe, survivors had to prove through extensive documentation that they qualified for assistance. The ability to qualify by persevering in seeking assistance – by taking on additional distress – was seen as evidence that vulnerable victims became “autotelic selves” who made the most of their victimized conditions in coping and adapting to the post-Harvey-Katrina new normal (Chandler, 2013; Tierney, 2015). Therefore, there is nothing “liberal” about resilience as embedded neoliberalism since it rejects liberal modernity’s democratic promise embedded in the social contract between the citizen and the sovereign.

Beier (2015, p. 240) indicates that “if ‘agency’ refers to the capacity to act, ‘subjecthood’ bespeaks mastery of one’s own agency or the idea that actions are products of one’s (at least relatively) autonomous choices”. Therefore, while an individual with subjecthood has agency, numerous individuals are not subjects since they are not authors of their actions (Beier, 2015). Taken together, both case studies make salient to the observer that resilience as neoliberal governmentality operationalized in the U.S. was non-transformative in that the victims of both hurricanes were extended artificial autonomy¹⁴ *through* resilience. Also, they highlight the implication of (neoliberal) resilience as a social construct reversing the relationship between institutions and subjecthood with individual autonomy appearing in both cases studies as *the* problem that requires management (Joseph, 2013). Beier (2015, p. 249, *emphases added*) warns about resilience thinking

¹³ Goldstein (2010, p.494) says that the contradiction of neoliberalism lies “between its rhetoric – which depicts the state as a minor player in the open field of free capitalist activist – and in its reality – in which the state operates as manager, actuary, and cop, maintaining this open field for transnational business by creating laws, enforcing policy reforms, and controlling dissent among citizens whose own economic interests run counter to those of industry and whose social rights impose unwanted and extensive restriction on transnational industry”

¹⁴ Beier (2015, p.249) refers to this artificiality as “*ersatz*”.

running the risk of being predisposed to “downloading responsibility to be resilient in the very *abject sense* of abiding the naturalized social pathology...those subjects possessed of *actual power* are absolved of responsibility to address, remediate, and resolve the social pathology”¹⁵.

The performances of local state actors and public-private actors being driven by capital accumulation produced subjects that are victims of random forces that need to cope with such risks through self-responsibility. During both hurricanes, displaced individuals were required to embody neoliberal rationality as they adapted in the face of danger through entrepreneurship (Cavelty et al., 2015). In other words, displacement is framed through resilience discourse as a strategy of a progressive “flexible and optimizing subject that transforms itself instead of the problem” (Cavelty et al., 2015). This is highly problematic because resilience eludes the cause of the problem by (de)politicizing the subject by making them believe that they have a free, self-contained choice when in reality, these decisions are significantly limited (Cavelty et al., 2015). With both case studies highlighting resilience discourse shifting the burden of providing security from the state to the individual, Tierney (2015) and Chandler (2013) note that such conceptualization rules out activities that would have challenged directly the larger societal structures that produced and/or exacerbated the insecurity of vulnerable subjects in the first place.

In both case studies, the U.S. government could have taken a more assertive role in providing and implementing measures that would have facilitated recovery and preparedness by ensuring that those who suffered losses were adequately compensated. The government could have taken measures and set in motion programs that would have maintained the dignity of survivors by acknowledging the importance of protecting their “spaces of familiarity” such as their neighborhood, family, schools, and community. However, as mentioned, such state action is impossible in an era of neoliberalization because when the state did choose to intervene, it intervened on the side of the profit-sector. Both case studies offered us a vision of an uncertain future, and it is not resilience as resistance that contours such future, but resilience as domination. While emphasizing resilience as an all hazards-approach might be seen as an entirely pragmatic response, on the ground realities falsify such “lofty claims” (Tierney, 2015). The programs ostensibly designed to enhance resilience ignore the workings of political and economic power and construct residents of disaster-stricken areas not as political actors with agency and rights, but as clients “served by corporations for their own profit” (Tierney, 2015, p. 1339).

Cuban Resilience Strategy: A Lesson for the U.S.?

Since researchers have highlighted the significance of “resilience thinking” being an important avenue in recovering subjecthood by attempting to understand why some individuals adapt, cope, and bounce-back differently from others following a natural disaster, then the task of this section is not to argue that there is no such thing as community or societal resilience – quite the contrary. This section suggests that pragmatic “risk-reduction” experts would benefit from adopting a critical approach in analyzing the consequences of the use of resilience rhetoric within existing (hegemonic) institutionalized systems of (neoliberal) political-economic relations. In the face of a growing future that is

¹⁵ Joseph (2013) and Chandler (2010) make similar claims by highlighting that the autonomy of the individual in moments of disaster becomes the problem for development, rather than the lack of development being the problem for individual subjecthood.

identified according to institutionalized definitions of resilience as “uncertain” and “risky”, there is a vital need for more robust efforts to protect lives, property, and societal functioning.

The ontology of the Cuban Resilience Strategy (CRS) includes a culture of disaster preparedness, risk-management, and protection measures that have been identified by developed and developing countries as a model to be emulated for countries punctuated with environmental disasters. In 2015, Rosendo Mesias, a UN disaster risk reduction specialist, declared Cuba “a model in hurricane risk management” (United Nations, 2004; Aguirre, 2005; Mesias, 2015). Similarly, Wisner (2001), Thompson and Gaviria (2004, p .16), and Aguirre (2005, p. 56) mention that Cuba’s resilience model reduces risk and vulnerability because it emphasizes *contra* resilience *à la* neoliberalism: universal access to services; policies to reduce social and economic disparities; investment in human development; government investment in infrastructure; and social and economic organization. Thompson and Gaviria (2004, pp. 22, 27) highlight that the most important part of disaster mitigation in Cuba is the “political commitment on the part of the government to safeguard human lives” which upholds the social contract and creates a trustful relationship between the government and the people during times of emergencies. This is at odds with resilience being conceptualized as neoliberal embedded governmentality, which states that individualizing security results in more optimal resilient subjects.

Cuba’s outstanding record of successful risk reduction and disaster mitigation is reflected in the relatively low number of casualties resulting from recurrent meteorological events and sporadic seismic activity that hit the island every year (Thompson and Gaviria 2004; MEDICC, 2005; Lizarralde et al, 2014). Smith (2007) argues that Cuba has become a reference point for efficient disaster planning and recovery by highlighting that in 2004, Tropical Storm Ivan killed 52 people in the U.S. but none in Cuba. In 2005, Hurricane Katrina destroyed 20,000 homes on the island, but resulted in zero fatalities (Smith, 2007; Lizarralde et al., 2014). Most recently in 2017, Hurricane Harvey caused the death of over 90 people in the U.S. and zero in Cuba; also, in 2017 Hurricane Irma caused the death of over 100 people in the contiguous U.S. and 10 casualties in Cuba. This prompted Gail Reed to echo that Cuba has “a lesson for the U.S.” in disaster prevention and mitigation (Reed, 2017; Telesur, 2017). These results have been attributed to a sophisticated risk management plan supported by clear political will and integrated measures which include a complex system of popular mobilisation based on accurate information, efficient communication, (Rodriguez and Perez, 2004; Lizarralde et al., 2014) efficient health-care services (Mesa, 2008), high levels of training, planning, and preparation, a warning system that has the trust of authorities and the civilian population, and finally, the coordination and cooperation of individuals from various state and non-state institutions (Sims and Vogelmann, 2002; Olivera and Gonzalez, 2010; Olivera et al, 2012; Lizarralde et al., 2014).

Cuba’s resilience model refuses to individualize responsibility for security by emphasizing that security is the shared responsibility of the state and citizens, thus ontologically harmonizing security and resilience into a national security strategy. Cuban decision makers at all levels have realized that even though resilience and security are different in their temporal and spatial properties, both signifiers relate to each other and that it is possible to balance between the two in terms of objectives and the optimal use of resources (Sims and Vogelmann, 2002; Olivera and Gonzalez, 2010; Olivera et al., 2012;

Lizarralde et al., 2014). According to Cuban disaster ontology, security and robustness are essential elements of resilience with a specific aim to reduce the likelihood of a major event, and limit its impact in order to avoid irreparable damage, loss of life, as well as to facilitate efficient recovery by maintaining the most essential structures and resources (Fjader, 2014). Therefore, Cuba's model of recovery and disaster mitigation perceives resilience as an integrated element of national security; Cuba's model has emphasized preparation against unforeseen and sudden threats by lowering the risk of disruption to an acceptable level and by ensuring that society as a whole can recover in a reasonable time, at an appropriate cost (Fjader, 2014)

The prevention of disaster and risk management is handled by the Physical Planning Institute (PPI) which identifies high-risk areas of flooding at the national level by cooperating and consulting with the Cuban Institute of Meteorology (CIM) and Civil Society Organisations (CSO). The intersectoral relationship between these organizations identify specific risk zones and decides which areas are suitable for populations to reside, industries to settle and development to occur. Key measures adopted and implemented by these organizations are the adequate use of land, the appropriate location of settlements, and the construction of appropriate structures (Bosher, 2008). The PPI prioritizes safety over profit accumulation and/or economic development when deciding whether to grant licensing permits for developers (Bornstein and Barenstein et al., 2014). All constructions in Cuba require a building permit that is exclusively issued by the PPI, which must include a detailed plan of the construction, including details regarding whether the area of construction is prone to flooding (Lizarralde et al., 2014). At the local level, the Community Architect Offices (CAO) provides technical guidance to self-builders. A planning officer in Santa Clara mentions that "our participatory approaches are sometimes conducted through collective workshops or sector-specific meetings, according to what we want to achieve and the development perspectives that are targeted" (Lizarralde et al., 2014, p. 584). In addition, the Civil Defence (CD) institution, at the national, provincial and municipal levels coordinate with local governments and CSOs to implement risk mitigation plans which enhance the culture of preparedness of vulnerable subjects in the event of an environmental disaster (Lizarralde et al., 2014). As an organization, CD operates through multiple decentralized units at the national level to interact with "operational cells" distributed across the island. Units across all levels (national to municipal) train in disaster simulations called *Meteoro* involving the participation of popular councils and CSOs (Lizarralde et al., 2014). Provincial and Municipal Assemblies of the Popular Power coordinate with the CD to draw up mitigation plans and create Risk Reduction and Management Centres.

The Cuban government collaborated with the United Nations Development Program (UNDP) in 2005 to create and enhance a model of local risk reduction management. The objective of the model is the promotion of local level decision-making that relies on coordinated early warning systems, risk and vulnerability studies, communication systems, effective database management and mapping, and community preparedness (Mesias, 2015). The centers compile and manage information relevant to disasters by "collaborating in designing strategies that progressively reduce risk in a given area, facilitate inter-institutional communication and compile information, conduct periodic evaluations of risk, and support Civil Defence with personnel, equipment and information" (Lizarralde et al., 2014, p. 584). As of 2015, the Cuban government has established 8 provincial and 84 municipal centers linked to 310 communities. The non-individualistic logic the center is

founded upon has aided communities to reduce and communicate the impact of hurricanes by increasing awareness and preparedness (Mesias, 2015). According to Lizarralde et al., (2014) and Prashad (2017), Cuba's preventative measures have made significant progress in the deterrence of material damage, especially in the agricultural and pharmaceutical sector. Unlike the U.S. during Hurricane Harvey, the Cuban government during Hurricane Irma made sure electricity lines and gas transformers were cut off before the storm, thus protecting affected individuals from electrocution and/or chemical spills (Prashad, 2017).

Similar to the preventative measures mentioned above, reactive measures adopted after the storm are also coordinated and implemented in correspondence with interdependent networks amongst organizations. For instance, in the case of imminent disaster, the CD gathers specialists from various organizations around the National Direction Centre for Disasters, the PPI and the Cuban Institute of Meteorology (CIM) which direct and implement all the responses to disasters (Lizarralde et al., 2014). The National Housing Institute, CD and the Ministry of Economy share responsibility for assisting the population when disasters occur by distributing provisions and resources for reconstruction. Reactive measures would not be possible without local committees such as the Committee for the Defense of the Revolution, the Federation of Cuban Women, and the Confederation of Cuban Workers being directly involved in the implementation of preventative measures and communicating across all sectors (Lizarralde et al., 2014). The most essential reactive measure to highlight here is that seldom has the Cuban government reverted to displacement or forced movement of people as a reactive measure (Aguirre, 2005) in contrast to the U.S. According to Gail Reed (2017), the Cuban government emphasizes protection rather than evacuation because it grasps the importance of *spaces of familiarity* helping victims psychologically bounce-back and recover from the trauma inflicted by disasters. Unlike the people of Texas who were forced by FEMA to apply for federal aid as a reactive measure, the people in Cuba – despite their vast inferior economic resources – do not feel as though they will be abandoned by the state “no matter what”, nor subjected to “market-driven price gouging of vital supplies” as witnessed in the U.S. during Hurricane Harvey (Reed, 2017; Garfield, 2017; Reed, 2017; Telesur, 2017). Neighborhood organizations along with CSOs, state-sponsored committees, and federations, meet regularly to discuss local issues and study ways to prevent and respond to disasters. These social networks facilitate the development of bonds in the community which simultaneously improves the social capacity to cope, recover, and respond to disaster situations (Thompson and Gaviria, 2004; Lizarralde et al., 2014).

Closing Remarks: A Way Forward?

The significance of CRS is not only that it highlights resilience being a boundary object, but also a signifier that in most cases, challenges the traditional role of the state in the provision of security. Cuba's resilience model highlights that there needs to be a declared compromise shared between the state and the citizen and/or a “new” social contract that acknowledges at least a partial shift from prevention of threats to the management of the impact of threats (Fjader, 2014). While CRS explicitly exposes the danger of securitizing/resilienizing the environment by emphasizing that optimal recovery from natural disasters should be the “business” of citizens and their political executive representatives organically working together, it also underlines that policies contoured by a resilience discourse of *laissez-faire* or *dirigisme* is not *a priori* flawed unless it reifies one at the expense of the other, thereby undermining the emancipatory and resistance potentiality

of resilience being a “national” human social trait that should constantly be ameliorated. The empirical study highlighted above finds that resilience in Cuba and the U.S. cannot be achieved exclusively at the local or state level. The state and other organizational sectors are vital in mitigating disasters by continuously cooperating and communicating with different governing and institutional sectors. Power, as shown in the CRS, is not simply centralized in the state but is diffused to other networks. For example, housing development and construction in Cuba requires national (holistic) state policies to be achieved in conjunction with local municipalities and CSO’s to optimize recovery (Lizarralde et al., 2014). The United Nations International Strategy for Disaster Reduction (United Nations, 2004; Lizarralde et al., 2014; UNISDR, 2017) considers inter-sectoral coordination between mayors, local governments at the state and non-state level as “key targets and drivers” in determining the success of recovery and preparedness measures.

The “institutionalized” positivist performance of (neoliberal) resilience in the U.S. during Katrina and Harvey highlighted the *fetishization* of a “complex adaptive system” in risk-management. The fetishization of being overly concerned with an abstract concept rather than the real-world risks preserving and maintaining the hegemonic *status-quo* in-charge of engineering a resilience neoliberal complex adaptive system instead of seeking to preserve the contract between the sovereign and the citizen¹⁶. Researchers need to make salient that the danger in voiding the social contract – by placing primary responsibility of security on the citizen – erases the possibility of fundamental change¹⁷. While resilience theories are useful in that they simplify extreme complexities (Welsh, 2012), that same simplification is itself inherently dangerous because fetishizing the complex adaptive system leads academics and scholars in maintaining the preservation of a hegemonic system¹⁸ that is shorn of political context by discounting questions of power, inequality, and injustice. The lesson to be learned from the CRS is that it “emancipates resilience” (Welsh, 2012, p. 21) by being a strategy of resistance and hope that perceives victims of disasters as *subjects* – authors of their life and actions; rather than a concept involving processes and systems of domination and discouragement¹⁹ as identified with U.S. agencies extending victims of hurricanes artificial authorship (*ersatz*) by perceiving them as *objects* of capital accumulation.

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¹⁶ See, e.g. Welsh (2012) for a discussion on the fetishization of “adaptive systems”

¹⁷ Here I am thinking about Rousseau as a contractualist theorist.

¹⁸ À la Gramsci.

¹⁹ It should be noted that before Hurricane Irma hit Cuba, U.S. President Trump renewed the embargo on the island. This means that Cuba was and continues to be at the time of writing denied crucial supplies needed to mitigate and/or implement risk-safety measures.

Potentia. Finally, and needless to add, I alone am responsible for the errors and infelicities of this manuscript.

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