

Resilience and the Neoliberal Project: Discourses, Critiques, Practices—And Katrina

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Abstract

Like sustainable development, disaster resilience can be conceptualized as a collective surge in science, policy, and practice. The strength of the resilience surge is based on the concept's usefulness as a boundary object and in particular its resonance with the discourses and practices of neoliberalization, in which the role of the state is diminished and superseded by private–public partnerships and contracts. Current U.S. resilience approaches support particular types of state–society relationships, construct particular kinds of at-risk subjects, and privilege technocratic solutions to disaster vulnerability. Neoliberal disaster risk reduction strategies and their outcomes had a profound impact on post-Katrina recovery in New Orleans.

Keywords

post-Katrina New Orleans, disaster recovery, disaster resilience, neoliberalization, resilience discourse

Introduction

Sociologist and disaster researcher Benigno Aguirre published two important articles in 2002, both of which focused on the concept of sustainable development. Part of the impetus for these publications was that disaster researchers had begun viewing the concept as key to understanding how communities should approach disaster risk reduction—a trend that was perhaps best exemplified in Dennis Mileti's 1999 book, *Disasters by Design*, which situated risk reduction squarely within the domain of sustainability and argued for a new paradigm emphasizing “sustainable hazard mitigation.”

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Aguirre was skeptical of the mass acceptance of the sustainable development frame. In an article in *Social Science Quarterly* (Aguirre, 2002b), he characterized the scholarly and policy emphasis on sustainability as a “collective surge,” a term collective behavior scholar John Lofland had coined to describe the social processes that we commonly call fads or bandwagon effects. Noting that collective surges are actually not uncommon in science, and using bibliometric methods and content analysis, Aguirre (2002b) linked the beginning of the sustainability surge’s biggest wave to the publication in 1987 of *Our Common Future*, also known as the Brundtland Report, and charted its course in the 1980s and 1990s through different disciplines, beginning with ecology and subsequently into other fields such as economics, urban planning, sociology, and disaster research. The surge in academia was accompanied by the incorporation of the concept into the international development policies and programs of entities such as the United Nations and the World Bank, to the point where Aguirre (2002b) argued, it ultimately became “a ‘hip’ expression, part of the culture of granting agencies” (p. 103).

In that article and a companion piece titled “Can Sustainable Development Sustain Us?” (Aguirre, 2002a), Aguirre (2002b) made a number of observations about the concept that are relevant for this discussion. First, its adoption was not based on either theoretical or methodological breakthroughs that would signal the need for paradigm shifts in the sciences that were involved in the surge. Second, because it was defined in many different ways, sustainable development served as “an umbrella concept, a flag around which different constituencies can rally” (p. 106). For instance, those using the concept in empirical research often could not agree whether particular practices were or were not sustainable, but the sustainability frame was useful in that it permitted multiple interpretations and brought together a wide range of disciplinary and policy perspectives. Third, over time, the idea of sustainable development came to take on an almost religious significance among its adherents, and because it had become an article of faith, it was difficult to critique or to falsify empirically. Fourth, and perhaps most important for this discussion, the concept was initially developed in the global North and embraced more by scholars and institutions in the North than in the global South—an argument that had been made in an earlier critique by Fraser Smith (1997). Concurring with Smith about the concept’s North-centric view of the world, the ideological position it reflected, and its lack of relevance for poor and vulnerable nations, Aguirre (2002a) noted that:

The enormity of this truth becomes clear when one travels to the slums of Asuncion or Montevideo, for example, and witnesses the poverty, the unemployment, the deterioration of urban infrastructure, and the inability of local government to provide basic urban services such as garbage collection, drinking water, and police protection. Here, sustainable development’s lofty claims are foreign, hollow, and hypocritical, for the same north pushing sustainable development on the south also advances neoliberal economic policies and programs causing widespread suffering. (p. 120)

I discuss these articles at such length because of their obvious relevance for the dramatic rise of interest in the concept of resilience—a collective surge that is still peaking and that shows no signs of subsiding. Like its forerunner sustainable

development, resilience has become a scientific and policy fad, and I argue here that like sustainable development, it is a product of a particular social, economic, cultural, and historical context that disaster researchers and other social scientists would do well to consider. I first briefly trace the emergence of the term and then discuss its usefulness as a boundary object. On the basis of others' genealogies and critiques, I situate resilience discourse within the context of broader neoliberal discourses and practices and provide examples of how neoliberalization permeates U.S. research and practice. I then discuss research on post-Katrina recovery in New Orleans, with an emphasis on the realities of the neoliberal politics of recovery—realities that contrast starkly with the high-minded claims of resilience narratives.

I am not arguing here that there is no such thing as community or societal disaster resilience or that the concept is useless. We know that some neighborhoods, communities, and societies manage disaster risks and respond and recover more effectively than others,¹ and researchers have spent decades trying to understand why. In the face of growing threats such as extreme events and the risks associated with climate change, there is clearly a need for more robust efforts to protect lives, property, and societal functioning. Nor am I arguing that resilience narratives rule out the possibility of transformative and emancipatory actions aimed at securing societies against hazards, climate change, and other threats (for further discussions on this aspect of resilience, see Nelson, 2014). Rather, I seek to explore and unpack resilience as *a social construct* that in both theory and practice meshes seamlessly with broader processes of neoliberalization, supports particular types of civil society–state relationships, envisions particular kinds of at-risk subjects, and privileges specific types of solutions to the problem of disaster vulnerability. Much of what I will argue here is not new, although it may be new to some readers. My goal is to encourage risk reduction experts to take a closer and more critical look at the practical consequences of the use of resilience rhetoric within existing systems of political–economic relations.

Enter Resilience

Like its progenitor sustainable development, the concept of resilience is a metaphor that has been used in a variety of physical, social science, and engineering disciplines (Norris, Stevens, Pfefferbaum, Wyche, & Pfefferbaum, 2008). Psychologists have employed the concept to explain why some individuals are able to withstand significant chronic and acute stressors without developing mental health problems. Ecologists have employed resilience extensively as a framework to analyze adaptation and change in natural systems. Through the work of Holling and others, the concept began to apply to the analysis of social systems, and within a short period of time, it achieved prominence in fields such as development and urban studies. Economists have used it to explain how economies adjust to disruptive shocks such as resource shortages, emphasizing economic diversification, and other factors that boost economic adaptive capacity. To a significant extent, resilience has supplanted the concept of sustainable development in those and other disciplines. Over approximately the past 15 years, the concept of disaster resilience has become increasingly central in research, policy, and practice. Internationally, it features prominently in both versions (2005 and 2015) of

the United Nations International Strategy for Disaster Reduction and is embraced in the most recent Asian Pacific Economic Cooperation agreement. Within the United States, it served as a guiding philosophy for the Office of Science and Technology Policy's approach to grand challenges in disaster loss reduction (Subcommittee on Disaster Reduction, 2005) and the U.S. National Strategy for Homeland Security. Resilience in the face of terrorism and extreme events is the stated goal of Presidential Policy Directive 8 (2011) on national preparedness. Within the research community, the National Academies and the National Research Council are extensively engaged in resilience-related work, with more than two dozen activities and initiatives devoted to one or more aspects of resilience. The National Science Foundation and National Oceanic and Atmospheric Administration also have large resilience-related research portfolios. In 2013, Presidential Policy Directive 21, Critical Infrastructure Security and Resilience, issued a sweeping set of recommendations for federal agency planning and research and development activities across a wide range of sectors, including intelligence, cyber security, and utility infrastructures. Subsequently, the National Institute of Standards and Technology established a large-scale program on community disaster resilience that included \$20 million in funding for a community disaster resilience center of excellence (headquartered at Colorado State University) and the development of community disaster resilience planning guidance. In 2014, the Department of Homeland Security (DHS) moved to fund a new center of excellence on critical infrastructure resilience with \$20 million. At about the same time, the Department of Housing and Urban Development established its Rebuild by Design program and announced a \$1 billion National Disaster Resilience Competition for which communities that had recently experienced a major disaster could be eligible.

Resilience has also captured the imagination of influential financial institutions and philanthropies. The World Bank and its Global Facility for Disaster Risk Reduction emphasize the need to integrate climate change and disaster resilience into development programs worldwide. In 2012, the Rockefeller Foundation created a managing director position focusing specifically on resilience, and in 2013, the foundation launched its 100 Resilient Cities initiative; as of this writing, more than 60 cities around the world are participating in the program. In 2014, Rockefeller President Judith Rodin published a book titled *The Resilience Dividend*. Subtitled *Being Strong in a World Where Things Go Wrong*, the book argues that resilience is essential in the face of major disruptive forces such as urbanization, globalization, climate change, and disasters (Rodin, 2014). Space does not permit a full accounting of the many other ways in which the concept of resilience has become embedded within academia, philanthropy, international finance, and "thought leadership" over recent decades. As I discuss next, this is partly because of the ambiguity and openness of the concept itself.

A Useful Ambiguity

As a result of its fadlike adoption, resilience, like sustainable development before it, has now become a catchall phrase and motherhood statement. Klein, Nicholls, and Thomella (2003) observed over a decade ago 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. (p. 42)

Efforts at operationalization and measurement notwithstanding, the concept has, if anything, become more elusive and abstract over time. Resilience has been defined in dozens of different ways and scholars disagree on whether the concept spans both preshock resistance and postshock adaptation. In most cases, the term is used broadly, incorporating both the capacity to resist and absorb disturbance and the capacity to adapt and bounce back from disruptive events. Newer formulations stress the notion that resilient systems do not so much “bounce back” as “bounce forward” toward higher levels of resilience. Within the disaster risk reduction realm, resilience has supplanted the terms formerly used to describe the disaster risk management cycle—mitigation, preparedness, response, and recovery—although it is unclear why such a highly abstract term is preferable to more concrete ones that are universally accepted and well institutionalized. More broadly, Walker and Cooper (2011) observe that “abstract and malleable enough to encompass the worlds of high finance, defence, and urban infrastructure within a single analytic, the concept of resilience is becoming a pervasive idiom of global governance” (p. 144).

Resilience as Boundary Object

Part of the reason for the concept’s prominence is its usefulness as a boundary object—that is, an idea or term that enables communication across disciplines and that can smooth the way for collaboration (Star & Griesemer, 1989). Boundary objects also enable communication between the scientific and policy domains (Cash et al., 2003), and resilience can certainly be said to serve that function. Precisely because they are vague and abstract, boundary objects allow people from different fields to work together without first having to settle disagreements about exactly what a concept or idea means. Instead, collaborators can bring to their work diverse interpretations, interests, and objectives. Brand and Jax (2007) have discussed how resilience functions as a boundary object for many different fields and again draw parallels with the concept of sustainability.

Boundary objects tend to be viewed in a positive way, as the grease that helps the machinery of science and policy work more smoothly, efficiently, and productively. However, Brand and Jax (2007) also call attention to the “Janus-faced” nature of boundary objects and their negative as well as positive effects. For example, terms like sustainability and resilience can be used to legitimize the activities of groups with very different interests and to “hide conflicts and power relations when different persons agree on the need for sustainability when in fact meaning different things by it” (2007, n.p.). As I discuss later, resilience accommodates the activities of groups with widely divergent interests: multinational corporations working on large infrastructure improvement projects, consulting companies helping government agencies with their resilience conceptualization and measurement projects, other consultants assisting communities in becoming

more resilient, community- and faith-based organizations providing services to vulnerable populations, grant-making agencies, international aid programs, academic researchers seeking support for their work under the rubric of resilience and a host of other actors. However, despite its ascendancy, the resilience concept has begun to draw criticism, particularly in fields that have a longer history in its use. These critiques, which I discuss in the sections that follow, raise important issues for disaster scholarship.

Resilience as Neoliberal Discourse

On closer examination, the concept of resilience comes to the field of disaster studies with considerable ideological baggage. Walker and Cooper (2011) trace its origins to Cold War concepts of complex adaptive systems and complexity science, which diffused through the work of Holling into the field of ecology, bringing about a movement away from the earlier “balance of nature” paradigm, which emphasized the return of a system to a stable or equilibrium state following disturbance, toward a new conceptual framework that emphasized system reorganization and change in response to destabilizing forces. Holling’s scholarship led the way in applying ecological theory to social systems. Walker and Cooper (2011) argue this work had resonance in part because it was similar to the perspective on socioeconomic systems put forth by leading economist and Nobel laureate Frederick Hayek, whose views on economic organization and dynamics rejected reigning Keynesian notions of market equilibrium in favor of a complexity perspective that saw markets as nonlinear, adaptive, unpredictable, and therefore not amenable to central planning. Similarly, the concept of panarchy (Gunderson & Holling, 2002), central to the resilience paradigm, stands in opposition to notions of hierarchical control, emphasizing instead the ability of systems to self-organize across multiple scales. In much the same way, Hayek’s work argued for the need to allow the exercise of free choice in social and economic domains and to eliminate government intervention and regulation.

These authors make another point that is echoed by other critics of the resilience frame and that is important for the analysis of disaster and crisis, which is that resilience rhetoric presupposes a social order that is continually at risk of disruption. Focusing in particular on post-September 11 national and homeland security discourses, Walker and Cooper (2011) observe that:

As in the work of the later Hayek, the catastrophic event (natural, social or economic) here becomes a sign not of the occasional failure to predict, prevent, and manage crisis but of the systemic limits to public policy and state management. What is called for instead is a “culture” of resilience . . . the culture of preparedness envisaged by the Department of Homeland Security sees no end point to emergency . . . What is resilience, after all, if not the acceptance of disequilibrium itself as a principle of organization? (p. 154)

We see this idea echoed in Rodin’s (2014) arguments regarding the importance of resilience; she contends that “[i]n the twenty-first century building resilience is one of our most urgent social and economic issues because we live in a world that is defined

by disruption” (p. 4). Disruption is inevitable because of rapid urbanization, which increases disaster vulnerability, the potential for disease outbreaks, ecological decline, and other crises. Climate change and its impacts constitute a source of social and economic distress that demands resilient responses. Globalization is a third disruptive force that brings with it more rapid social change, population movements, complex supply chains, and commerce that “is unpredictable and puts strains on individuals, families, enterprises, economies, and governments” (Rodin, 2014, p. 5). Here disruptive change is naturalized and framed as inevitable. Its root causes cannot be altered, and the only reasonable response is to adapt. At the same time, disruption also creates opportunities and “dividends” if dealt with in a resilient fashion. Referring back to Aguirre’s (2002a) 15-year-old critique, just as in the case of sustainable development, resilience discourse frames members of at-risk populations as increasingly pressured to adapt to deprecations that are the direct result of the historic and contemporary forces of neoliberalization.

Julian Reid’s (2013) critique highlights the impact such thinking has at the individual level. The emphasis on the continual need for resilience in the face of inevitable crises has the effect of constituting a “resilient subject that must permanently struggle to accommodate itself to the world . . . a subject that accepts the disastrousness of the world it lives in as a condition of partaking in that world” (p. 355). Resilient subjects are not political subjects, but rather subjects whose thoughts and actions center on adjusting to external conditions, who have “accepted the imperative not to resist or secure themselves from the dangers they face but instead adapt to their enabling conditions” (Reid, 2013, p. 355). In a global context of continual risk and uncertainty, individuals are challenged to achieve resilience by becoming adaptive and seeking out opportunities for betterment in an entrepreneurial fashion. Rather than resisting and demanding an end to suffering through political action, the resilient individual changes in ways that make it possible to bear that suffering.

In a similar vein, David Chandler (2013) observes that resilience discourses shift the burden of providing security from the state to the individual. Citing Anthony Giddens’s influential notions of “manufactured insecurity” and the logical response to that pervasive risk as the development of a self-confident autotelic self that can take advantage of the opportunities presented by insecurity, Chandler (2013) notes that such a stance effectively rules out action that would challenge directly the larger societal structures that produce insecurity. Instead, following Giddens, the resilient subject is “an individual capable of self-governing in a world of contingency and radical uncertainty. The autotelic self turns insecurity into self-actualization, into growth” (p. 220; see also Duffield, 2011; Welsh, 2014, for related critiques).

Giddens’s observation that uncertainty—or more accurately, risk—is manufactured through the workings of the social order itself is widely accepted in the field of disaster studies. I have recently written on that topic (Tierney, 2014), as have many others (Mileti, 1999; Wisner, Blaikie, Cannon, & Davis, 2004). However, the notion that individuals must exert agency primarily by turning risks into opportunities implies both that nothing can be done to change the risk landscape itself and that adaptation on the part of so-called resilient individuals is preferable to collective resistance against

the conditions that place them at risk. Those who are unable to transform themselves into autotelic selves or whose adaptive efforts are unsuccessful are helpless and vulnerable in the face of risk. I will return to this theme later, because recent research shows that the idea that even victims of catastrophe should behave in what Giddens would call an autotelic fashion increasingly underpins the provision of disaster recovery assistance.

Various critiques of the resilience surge have observed that resilience discourse is highly compatible with the regnant neoliberal political economy and its associated ideological frames. The concept of neoliberalism is itself a boundary object that is malleable and subject to multiple interpretations, and processes of neoliberalization are diverse, multifaceted and context-specific (Peck, 2010). Neoliberalism is neither monolithic nor internally consistent. Rather, it is variable, changing and replete with contradictions. Even so, it is possible to pinpoint key aspects of neoliberal social, political, and economic arrangements and ideology and discuss how they both shape and reflect resilience discourses and practices as they relate to disasters and disaster risk reduction.

To avoid digressing into discussions on Hayek, the Mont Pelerin Society, *The Road to Serfdom*, Friedman, the Chicago School, Reagan, Thatcher, the Washington Consensus, and other milestones on the path to neoliberal hegemony, which is not necessary for my purposes, I will briefly outline key elements of neoliberalization² that are useful for this analysis. It almost goes without saying that the first element is an emphasis on economic growth and capital accumulation, best achieved by means of neoliberal policies and practices. The second element, as discussed above, is the rejection of Keynesian approaches to economic regulation in favor of deregulation and the ascendancy of markets. The third is a mistrust of state power, accompanied by ideological claims making that frames private-sector actors as superior to the public sector in delivering what were formerly considered essential government services. The private sector, we are told, is both more efficient and more effective at delivering a host of services, from health insurance to welfare, retirement benefits and incarceration. At the same time, even as the state has appeared to be “hollowed out” with the advance of neoliberalization (Jessop, 1994), new forms of neoliberal governance have emerged that involve symbiotic relationships among market and state actors. As described by Peck and Tickell (2002), neoliberalism in the Reagan–Thatcher era was focused on privatization and the *rollback* of institutions that were seen as standing in the way of market freedom—overly powerful states, unions, left-leaning parties, and governments—but has more recently put in motion a *rollout* of new ideas and practices that emphasize various types of public–private partnerships and the importance of civil-society entities such as community- and faith-based organizations in service provision (see also Jessop, 2002). Additionally, what appears on the surface to be a decentralization and localization of policies and programs under neoliberalization, which is discursively constructed as a desirable alternative to centralized state control, is actually the result public–private collaboration and “policy steering” at the state level. Similarly, particularly with respect to economic and financial activity, national-level policies are subject to the governance of international institutions such as the World Bank, the

International Monetary Fund, the World Trade Organization, and other compacts, such as the North American Free Trade Agreement.

Becoming Resilient

The social sciences and related disciplines approach the resilience construct with their own theoretical and conceptual frameworks. One thoughtful and well-researched approach conceptualizes resilience as consisting of a set of networked adaptive capacities that contribute to social capital, community competence, effective communication, and economic development. Contributors to these dimensions of resilience include social support and embeddedness, collective efficacy, creativity in solving community problems, trust in information sources, and economic diversification (Norris et al., 2008). Some studies (Aldrich, 2012; Nakagawa & Shaw, 2004) home in on the role of social capital in resilience and community disaster recovery, while others take a broader “community capitals” approach to resilience definition, adding to social capital other forms such as natural, built, political, cultural, and human capital (Ritchie & Gill, 2011). The Baseline Resilience Indicators for Communities framework (Cutter, Burton, & Emrich, 2010) includes indicators that relate to social, economic, institutional, infrastructure, and community capital dimensions of resilience. Similarly, the work of the Community and Regional Resilience Institute emphasizes the multifaceted nature of resilience and multidisciplinary approaches such as the “4-Rs” resilience framework that refers to technical, organizational, social, and economic dimensions of resilience (Bruneau et al., 2003). Studies of resilience in the postdisaster response context see group and network emergence and change, improvisation, and creativity as indicative of community resilience (Kendra & Wachtendorf, 2003; Kendra, Wachtendorf, & Quarantelli, 2002). This literature acknowledges the broad scope and multidimensional character of the resilient construct, and while it privileges the societal bases of resilience, it also assigns importance to critical infrastructure and other elements in the built environment.

Unsurprisingly, however, efforts to understand and improve resilience across multiple domains are overshadowed by the contributions to discourse, research, and practice of actors that frame resilience in engineering and information technology terms and that offer technocratic solutions to resilience enhancement. For example, the National Institute of Standards and Technology’s (2015) planning guidance regarding ways of achieving community disaster resilience acknowledges the significance of social and economic resilience but focuses to a far greater extent on the resilience of buildings and infrastructure. Its newly funded center of excellence includes funding for social science research on resilience, but that research is far outweighed by efforts focused on developing a cyber infrastructure to enable the modeling of interdependent built-environment systems. Although the DHS center on critical infrastructure resilience has not yet been established, it is safe to assume that the “critical infrastructure” on which it will focus is the nation’s physical and cyber infrastructure as defined by federal policy and specified in Presidential Policy Directive 21. Among the DHS academic centers of excellence that were established in the aftermath of the September 11

terrorist attacks, three have portfolios that focus to some degree on social resilience, narrowly defined. The National Consortium for the Study of Terrorism and Responses to Terrorism, which is headquartered at the University of Maryland, initially funded work focused on societal resilience, but its resilience research program has moved away from basic research on resilience to topics such as risk assessment and risk communication and projects like the one titled “Mobile Radiation Detectors: Threat Perception and Device Acceptance,” indicative of a technology-centric approach to resilience challenges. At the University of North Carolina’s Coastal Hazards Center, resilience planning and disaster response research share a modest part of a research budget devoted mainly to modeling hazards and infrastructure vulnerability. The Center for Risk and Economic Analysis of Terrorist Events sponsors research on economic resilience, but its work is confined primarily to threats arising from terrorism, and the main thrust of its research is oriented toward engineering and operations research. Recently, the National Science Foundation initiated large interdirectorate and multidisciplinary programs supporting resilience research,³ but the projects supported by those programs focus almost exclusively on engineering solutions to critical infrastructure vulnerabilities. There are no large-scale research programs on social resilience, and the best known U.S. research center whose work focuses on vulnerability and resilience assessment, the Hazards and Vulnerability Research Institute at the University of South Carolina, has difficulty obtaining support even for its well-known and widely used data resources.

Practical approaches to enhancing community disaster resilience are increasingly being shaped by neoliberal conceptions of governance. The Federal Emergency Management Agency’s current guidance emphasizes the need to engage the “whole community,” in particular the business and the nonprofit sectors, in disaster risk-reduction efforts. While intuitively an appropriate way to approach the challenge of increasing community resilience, emphasizing the responsibility of all community sectors is also a way of deemphasizing the state’s responsibility to ensure the health and safety of community residents and to protect property. Similarly, under a charge from DHS, the National Research Council convened a committee to produce a report on strengthening community disaster resilience through private–public partnerships (National Research Council, 2011).⁴ The clear assumption behind the charge to the committee was that such partnerships should become the main vehicles for resilience improvement. Discussions on critical infrastructure protection invariably note that the vast proportion of infrastructure systems are privately owned, and plans such as the 2013 National Infrastructure Protection Plan emphasize the need to provide incentives for private owners of infrastructure systems to move beyond their commercial interests and partner with one another and with the government. However, narratives on the importance of public–private collaboration elide problems inherent in institutional arrangements involving government and private businesses, whose purpose is to increase returns to shareholders and investors. At the same time, resilience promotion can itself become a source of significant profits, as I discuss below.

The Rockefeller Foundation’s 100 Resilient Cities program offers additional insights into what a major foundation sees as important contributors to community

resilience. The program provides funding for the position of “chief resilience officer” in participating communities, but those positions are time limited and are not accompanied by funding for staff support.⁵ The program has also engaged a number of entities it calls “platform partners,” whose role, according to the 100 Resilient Cities website, is to “provide critical tools to help cities around the world become more resilient to the shocks and stresses that are a growing part of the 21st century.” The list of platform partners, which is continually expanding, is dominated by private-sector entities specializing in engineering, information technology, and consulting, such as Amec Foster Wheeler, Arup, DigitalGlobe, Cisco, Microsoft, Palantir, an information technology and data mining firm with roots in the national and homeland security sector, and Veolia, a major corporation specializing primarily in water and wastewater infrastructures. Also included among platform partners is the consulting company ICF, which will be discussed later. Sandia National Laboratories, the World Bank, and Swiss Reinsurance are partners, as are the United Nations International Strategy for Disaster Reduction and other United Nations agencies. The partner groups include nonprofits such as the American Geophysical Union, the American Institute of Architects, the Nature Conservancy, and International Council for Local Environmental Initiatives, as well as two university-based entities, the Community Innovation Lab at the Massachusetts Institute of Technology, located in MIT’s prestigious Department of Urban Studies and Planning, and the Advanced Research Institute at the Virginia Institute of Technology, whose work focuses primarily on engineering and computer science.

Notwithstanding the good intentions of those who direct and participate in it, the 100 Resilient Cities initiative embodies the technological/technocratic approach that dominates resilience discourse and practice in an era of neoliberalization. Rockefeller’s resilience strategy tilts toward the for-profit sector generally and U.S. and global corporate entities specifically. Even Rockefeller’s nonprofit and university partners are mainly U.S. based. The 100 Resilient Cities program is global; recipients of its assistance span many nations and continents and communities in core, periphery, and semi-periphery regions in the world system. Yet the partnerships the program offers originate from its base in the global North. Have the vulnerable and dispossessed societies of the South produced no institutions worthy of inclusion as partners in developing resilience? Linking 100 Resilient Cities and similar initiatives to the rise of philanthrocapitalism is beyond the scope of this discussion, but suffice it to say that philanthrocapitalism’s foundational assumptions are consistent with such initiatives. More important, those perspectives elevate the profit motive itself as essential in all efforts to increase societal and community resilience.

Katrina and the Future of Resilience

Initiatives such as those discussed above find resonance with and are legitimized by neoliberal discourse and practice, which constructs states as weak and ineffective actors whose deficiencies can only be overcome through alliances with powerful non-state actors. The neoliberal turn in disaster risk management was never clearer than in

Hurricane Katrina, as critics of response and recovery efforts have observed. The vaunted public–private partnerships that are viewed as central to community disaster resilience were on full display following Katrina, and with utterly shocking results, as were a host of experiments consistent with neoliberal approaches to service provision and governance.

Thanks to recent scholarship, we now know how a disaster response and recovery system that was ostensibly organized around the idea of disaster resilience actually functioned in one of the worst catastrophes in the nation's history. We also have a better understanding of how neoliberalization has shaped that system in ways that have profoundly negative consequences, especially for the most vulnerable. Kevin Gotham (2012) and Vincanne Adams (2012) have documented the role of major multinational corporations in the provision of disaster relief services such as temporary housing and individual assistance, in a pattern that amounted to wholesale privatization of recovery efforts in New Orleans. While neoliberal discourse emphasizes the value of competition, billions of dollars were given to such corporations as Bechtel, the Shaw Group, and Fluor on a no-bid basis. Contracts for various services were so numerous and complex that "FEMA [the Federal Emergency Management Agency] even had to hire a contractor to award contracts to contractors" (Gotham, 2012, p. 637). Among the consequences of this widespread privatization of relief and recovery were major cost overruns, mismanagement, corruption and profiteering, as well as a loss of transparency and accountability. The now-notorious Road Home program, which was established by the state of Louisiana but operated by the consulting firm ICF International, is one among many examples of what can happen when companies that are responsible not to the public but to their government income sources and their shareholders are put in charge of critical recovery activities.⁶ By 2010, 5 years after Katrina, only 55% of the nearly 230,000 applicant households had received assistance. The remainder were disqualified, denied, or simply gave up on ever being able to receive assistance (Adams, 2012).⁷

Katrina ushered in many social experiments cast in the neoliberal mold. In education, they included firing school employees, eliminating teachers' unions and expanding reliance on programs such as Teach for America. Virtually all New Orleans schools are now charter schools. Supporters of the move toward charter schools claim that school performance is improving, but if it is, that could be due to the rise in per capita spending for schools that was made possible by an infusion of federal funds and tens of millions of dollars in donations from charities such as the Bill and Melinda Gates Foundation, or to other changes that were made in the aftermath of Katrina (National Public Radio, 2014).⁸ There has been a dearth of high-quality systematic research on educational outcomes in New Orleans since Katrina (Sparks, 2010),⁹ and while many parents are happy with changes to the educational system, they also lament their lack of choice regarding where their children will go to school.

In housing, the post-Katrina story is well known: the demolition of public housing, interventions by Brad Pitt's Make It Right Foundation in the Lower Ninth Ward and the "adoption" of other neighborhoods by universities and charities. Volunteers streamed into the city to assist with rebuilding, and New Orleans became a favorite site for alternative spring breakers. In labor, the Davis–Bacon Act, which requires

prevailing wages to be paid for work done under federal procurement, was suspended for 2 months after Katrina. Rules designed to protect the safety of truckers were also suspended. The Environmental Protection Agency waived fuel refinement and emission standards, and regulations for the transportation of hazardous materials were waived in Louisiana and other states affected by Katrina.

One of the key themes in Vincanne Adams's (2012) research is that the neoliberal post-Katrina recovery required survivors to become "entrepreneurs" and "empowered consumers" (p. 195) in order to receive the assistance they needed to get on with their lives. Similarly, Kevin Gotham (2012) observes that "[i]n shifting emergency management responsibilities from government to market, privatization addresses disaster victims not as citizens and members of an aggrieved community but as customers, clients, and consumers" (p. 635). Rather than receiving the aid they needed when they needed it, Katrina survivors had to prove through extensive documentation that they qualified for assistance such as Small Business Administration home loans and the Road Home program. Road Home applicants were even photographed and fingerprinted to prevent "fraud" (Adams, 2013). The ability to qualify, to persevere in seeking assistance and to take on additional debt were seen as evidence that Katrina victims were deserving recipients of aid and not just dependents looking for a handout. Put another way, they were required to become "autotelic selves," making the most of their victimized condition and adapting to the post-Katrina new normal. Those who could not do so continued to fare poorly, or sought help from private and religious charities that themselves were increasingly drawn into subcontracting relationships with for-profit service providers.

Conclusion

Government could have taken an aggressive role in providing the resources needed for the recovery of New Orleans, ensuring that those who suffered losses were adequately compensated and preserving housing, jobs, and critical social institutions. It could have acted in ways that respected the dignity of disaster survivors and the importance of their neighborhood, family, and community ties, and it could have taken steps to enable all those who were displaced to return home. It could have set in motion programs that treated all of Katrina's victims as citizens whose rights include the right to safety, security, and voice. But such vigorous state action is impossible in an era of neoliberalization in which government can no longer provide needed assistance except through the for-profit sector.

Narratives that elevate resilience as a primary goal for disaster risk reduction have little meaning within this context. Quoting Aguirre (2002a), the "lofty claims" put forth by champions of sustainable development and now by resilience advocates stand in contrast with the on-the-ground realities not only of programs designed to enhance resilience but also of those that putatively integrate resilience into postdisaster recovery, which in the main reflect neoliberal ideals, ignore the workings of political and economic power and construct the residents of disaster-stricken areas not as political actors with rights, but as clients served by corporations for their own profit. Katrina offered us a vision of the future, and it is not a resilient one.

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Notes

1. For more on the resilience of New Orleans as a whole and its neighborhoods, see Hobor's (2015) article.
2. Following geographer and sociologist Jamie Peck (2010), I prefer the term neoliberalization over neoliberalism, highlighting the idea that the neoliberal political economy and its ideological underpinnings involve processes, rather than settled accomplishments.
3. The programs to which I refer are Resilient Interdependent Infrastructure Processes and Critical Resilient Infrastructure Systems and Processes.
4. I was a member of that committee.
5. New Orleans is one of the 100 Resilient Cities and its chief resilience officer has the following responsibilities: "to work across silos and to create and implement a resilience strategy, serve as a senior advisor to the mayor, promote resilience thinking and act as a global thought leader, coordinate resilience efforts across government and multisector stakeholders and liaise with other CROs, 100RC staff, and service providers via the network and platform" (NOLA, 2015).
6. ICF went public not long after Hurricane Katrina. Its financial machinations in managing the Road Home and other programs are detailed in Adams (2013).
7. For a critical examination of the disbursement of rebuilding aid in New Orleans after Katrina, see Gotham's (2015) article.
8. For more on the drastic changes in the New Orleans public school system since Katrina, see Buerger and Harris's (2015) article.
9. A 2013 report titled Charter School Performance in Louisiana, produced by the Center for Research on Educational Outcomes at Stanford University, does indicate positive educational impacts, but that report was not a peer-reviewed publication, and many dispute whether educational improvements are occurring, and if they are, whether charter schools per se—as opposed to, say, vast infusions of cash into the system or longer school days—are responsible. For a critical view, see Gavor (2013).

References

- Adams, V. (2012). The other road to serfdom: Recovery by the market and the affect economy in New Orleans. *Public Culture*, 24, 185-216.
- Adams, V. (2013). *Markets of sorrow, labors of faith: New Orleans in the wake of Katrina*. Durham, NC: Duke University Press.
- Aguirre, B. E. (2002a). Can sustainable development sustain us? *International Journal of Mass Emergencies and Disasters*, 20, 111-126.
- Aguirre, B. E. (2002b). "Sustainable development" as collective surge. *Social Science Quarterly*, 83, 101-118.
- Aldrich, D. P. (2012). *Building resilience: Social capital in post-disaster recovery*. Chicago, IL: University of Chicago Press.

- Brand, F. S., & Jax, K. (2007). Focusing on the meaning(s) of resilience: Resilience as a descriptive concept and a boundary object. *Ecology and Society*, 12(1), 23.
- Bruneau, M., Chang, S. E., Eguchi, R. T., Lee, G. C., O'Rourke, T. D., Reinhorn, A. M., . . . von Winterfeldt, D. (2003). A framework to quantitatively assess and enhance the seismic resilience of communities. *Earthquake Spectra*, 19, 733-752.
- Burger, C., & Harris, D. (2015). How can decentralized systems solve system-level problems? An analysis of market-driven New Orleans school reforms. *American Behavioral Scientist*, 59(10), 1246-1262. doi:10.1177/0002764215591182
- Cash, D. W., Clark, W. C., Alcock, F., Dickson, N., Eckley, N., Guston, D. H., . . . Mitchell, R. B. (2003). Knowledge systems for sustainable development. *Proceedings of the National Academy of Sciences*, 100, 8086-8091.
- Chandler, D. (2013). Resilience and the autotelic subject: Toward a critique of the societalization of security. *International Political Sociology*, 7, 210-226.
- Cutter, S. L., Burton, C. G., & Emrich, C. T. (2010). Disaster resilience indicators for benchmarking baseline conditions. *Journal of Homeland Security and Emergency Management*, 7, 1-22.
- Duffield, M. (2011). *Environmental terror: Uncertainty, resilience and the bunker* (Working paper No. 06-11). Retrieved from <http://www.bris.ac.uk/media-library/sites/spais/migrated/documents/duffield-0611.pdf>
- Gavor, A. (2013, September 20). Post-Katrina, the great New Orleans charter tryout. *Newsweek*. Retrieved from <http://www.newsweek.com/2013/09/20/post-katrina-great-new-orleans-charter-tryout-237968.html>
- Gotham, K. F. (2012). Disaster, inc.: Privatization and post-Katrina rebuilding in New Orleans. *Perspectives on Politics*, 10, 633-646.
- Gotham, K. F. (2015). Limitations, legacies, and lessons: Post-Katrina rebuilding in retrospect and prospect. *American Behavioral Scientist*, 59(10), 1314-1326. doi:10.1177/0002764215591186
- Gunderson, L. H., & Holling, C. S. (2002). *Panarchy: Understanding transformations in human and natural systems*. Washington, DC: Island Press.
- Hobor, G. (2015). New Orleans' remarkably (un)predictable recovery: Developing a theory of urban resilience. *American Behavioral Scientist*, 59(10), 1214-1230. doi:10.1177/0002764215591180
- Jessop, B. (1994). Post-Fordism and the state. In A. Amin (Ed.), *Post-Fordism: A reader* (pp. 251-279). Oxford, England: Blackwell.
- Jessop, B. (2002). Liberalism, neoliberalism, and urban governance: A state-theoretical perspective. *Antipode*, 34, 452-472.
- Kendra, J. M., & Wachtendorf, T. (2003). Elements of community resilience in the World Trade Center attack. *Disasters*, 27, 37-53.
- Kendra, J. M., Wachtendorf, T., & Quarantelli, E. L. (2002, September-October). Who was in charge of the massive evacuation of lower Manhattan by water transport on September 11? No one was, yet it was an extremely successful operation. Implications? *Securitas*, 1(5).
- Klein, R. J. T., Nicholls, R. J., & Thomella, F. (2003). Resilience to natural hazards: How useful is this concept? *Environmental Hazards*, 5, 35-45.
- Mileti, D. (1999). *Disasters by design: A reassessment of natural hazards in the United States*. Washington, DC: Joseph Henry Press.
- Nakagawa, Y., & Shaw, R. (2004). Social capital: A missing link to disaster recovery. *International Journal of Mass Emergencies and Disasters*, 22, 5-34.
- National Institute of Standards and Technology. (2015). *Draft community resilience planning guide for buildings and infrastructure*. Retrieved from http://www.nist.gov/el/building_materials/resilience/draft-community-resilience-guide.cfm

- National Public Radio. (2014, September 2). The end of neighborhood schools. *National Public Radio*. Retrieved from <http://apps.npr.org/the-end-of-neighborhood-schools/>
- National Research Council. (2011). *Building community disaster resilience through private-public collaboration*. Washington, DC: National Academies Press.
- Nelson, S. H. (2014). Resilience and the neoliberal counter-revolution: From ecologies of control to production of the common. *Resilience*, 2, 1-17.
- NOLA. (2015). *Chief resilience officer*. Retrieved from <http://www.nola.gov/resilience/chief-resilience-officer/>
- Norris, F., Stevens, S. P., Pfefferbaum, B., Wyche, K. F., & Pfefferbaum, R. L. (2008). Community resilience as a metaphor, theory, set of capacities, and strategy for disaster readiness. *American Journal of Community Psychology*, 41, 127-150.
- Peck, J. (2010). *Constructions of neoliberal reason*. Oxford, England: Oxford University Press.
- Peck, J., & Tickell, A. (2002). Neoliberalizing space. *Antipode*, 34, 380-404.
- Reid, J. (2013). Interrogating the neoliberal biopolitics of the sustainable development-resilience nexus. *International Political Sociology*, 7, 353-367.
- Ritchie, L., & Gill, D. (2011). *The role of community capitals in disaster recovery*. Report for an online symposium sponsored by the Public Entity Research Institute.
- Rodin, J. (2014). *The resilience dividend: Being strong in a world where things go wrong*. New York, NY: Rockefeller Foundation.
- Smith, F. (1997). A synthetic framework and a heuristic for integrating multiple perspectives on sustainability. In F. Smith (Ed.), *Environmental sustainability: Practical global implications* (pp 1-26). Boca Raton, FLA: St. Lucie Press (now CRC Press).
- Sparks, S. D. (2010, August 24). Few studies track post-Katrina school changes. *Education Week*. Retrieved from <http://www.edweek.org/ew/articles/2010/08/25/01research.h30.html>
- Star, S. L., & Griesemer, J. R. (1989). Institutional ecology, 'translations,' and boundary objects: Amateurs and professionals in Berkeley's Museum of Vertebrate Zoology, 1907-1939. *Social Studies of Science*, 19, 387-420.
- Subcommittee on Disaster Reduction. 2005. Grand Challenges for Disaster Reduction. Washington, DC: Office of Science and Technology Policy.
- Tierney, K. (2014). *The social roots of risk: Producing disasters, promoting resilience*. Palo Alto, CA: Stanford University Press.
- Walker, J., & Cooper, M. (2011). Genealogies of resilience: From systems ecology to the political economy of crisis adaptation. *Security Dialogue*, 42, 143-160.
- Welsh, M. (2014). Resilience and responsibility: Governing uncertainty in a complex world. *Geographical Journal*, 180, 15-26.
- Wisner, B., Blaikie, P., Cannon, T., & Davis, I. (2004). *At risk: Natural hazards, people's vulnerability and disasters*. New York, NY: Routledge.

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