

RESISTANCE TO CHANGE: UNDERSTANDING WHY DISASTER RESPONSE AND RECOVERY INSTITUTIONS ARE SET IN THEIR WAYS

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Abstract

Recently, disaster researchers have increasingly made recommendations to emergency management actors responsible for disaster preparedness to foster environments at the local and regional levels that are more amenable to the development of disaster cultures in order to reduce communities' vulnerability. Although most authors recognize the importance of historical circumstances in the development of cultural values and norms that influence local disaster management organizations and institutions, they tend to exclude the effect that path dependent processes play in allowing changes to occur. Through a framework of path dependence and positive feedback theory, this paper will discuss the reasons why once a community begins to make formal policy decisions that integrate cultural attitudes in reference to disasters into their governmental structures, they tend to become relatively static overtime even in the face of service delivery failures. Recommendations are proposed in the conclusion of this paper that seek to overcome negative issues related to path dependence in disaster response and recovery organizations and institutions in order to foster an environment more conducive to effective emergency management service provision.

Introduction

Over the last decade disaster researchers have increasingly made recommendations to emergency management officers, policy makers, and other actors responsible for disaster preparedness to foster environments at local and regional levels that are more amenable to the development of disaster cultures. However, conceptions of what disaster cultures are, are rarely, if ever, expressed by the researcher, and left to readers to interpret what the concept of disaster culture means. This is problematic in that national emergency management policies that seek to encourage the development of disaster cultures, which are then imposed on local jurisdictions, illustrate wide variation in programs and implementation. This variation in programming, which is directed at the development of disaster cultures, becomes difficult to implement on the behalf of responsible entities because higher level governmental agencies that are responsible for providing funds for these initiatives are not clear on what a disaster culture should look like.

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About the Author

Jason David Rivera is a doctoral candidate in the public affairs program at Rutgers, The State University of New Jersey – Camden. His research focuses on social vulnerability to and recovery from natural and man-made disasters with an emphasis on ethnic minority and low-income experiences. Examples of his work can be found in *The Journal of Public Management and Social Policy*, *Societies without Borders: Human Rights and the Social Sciences*, and the *International Journal of Emergency Management*.

In addition to ambiguous notions of what are and how to alter local communities' disaster related cultures that theoretically would decrease disaster vulnerability, most recommendations tend to overlook the ways in which disaster management policies, organizations, and institutions develop, which make them resistant to change. Although most authors recognize the importance of historical circumstances in the development of cultural values and norms that subsequently influence local disaster management organizations and institutions, they tend to exclude the impact that path dependent processes play in allowing changes to occur once organizations and institutions have internalized original values and norms from a constituent community.¹ To this end, this paper discusses the impact that historical disaster experiences have on the development of disaster cultures, and how these cultures influence the development of formalized collective decisions as manifested in emergency management public policies and response and recovery institutions. Specifically, this conceptual discussion questions how community cultures influence their respective disaster recovery and response organizations and government agencies. Through a framework of path dependence and positive feedback theory, I propose that once a community begins to make formal policy decisions that integrate cultural attitudes in reference to disasters into their governmental structures, they tend to become relatively static over time; accentuating the local community's initial norms and values in reference to natural disaster occurrences. Moreover, through the use of path dependence and positive feedback theories, I also propose that even when government structures fail to accomplish their disaster response and recovery roles and when a community's norms and values alter in such a way to stimulate interest in changing these structures' role, change along these lines is extremely difficult to achieve. The application of path dependence to the study of how communities can alter disaster management norms and values challenges mainstream notions of decreasing disaster vulnerability through cultural reframing because it emphasizes the notion that preexisting disaster management policies, organizations and institutions will be resistant to the incorporation of new values and norms due to the costs associated with change.

Disaster Studies, Culture and Policy Development

The field of disaster studies is relatively new in comparison to broader fields such as sociology and political science. Disaster studies as a discipline developed in response to federal government agendas during the 1950s that sought to manage the consequences of disasters, which were not previously defined as a federal government responsibility. Prior to this time disasters were generally conceptualized as unfortunate personal problems through which assistance was provided primarily through charitable organizations. Although Rivera and Miller (2006) illustrate that the federal government did past legislation several times throughout the first half of the twentieth century, such as the Flood Control Acts of 1917 and 1928, and created the Reconstruction Finance Corporation to provide aid to private citizens (Mittler, 1992, 1996; Comerio, 1998), these federal initiatives continued to hold the responsibility of disaster response and recovery at the local level. Platt (1999) maintains that even after the Disaster Relief Act was passed in 1950, and government aid was given to communities for repair and restoration of public infrastructure, the legislation was not created to aid individual families and businesses. This placed the predominate responsibility of neighborhood and community recovery in the hands of the people most affected by a disaster.

¹ In the context of this paper, the word community is used to represent a municipality due to the fact that it is a politically legitimized unit that has the ability to develop, pass, and implement public policies.

As a result of the federal government's emphasis on local responsibility for the response and recovery of disaster events, pioneering researchers in the field observed disasters as contexts in which to study research topics that centered on localized organizational and collective behavior under high-stress conditions (Quarantelli, 1987). According to Tierney (2007), this initial phase in disaster research that focused on organizational and emergent social behavior during and immediately following a disaster favored field-work methods that included in-depth interviews, observation, and the collection of archival materials, but not quantitative and survey approaches. These studies sought out to challenge commonly held negative assumptions and myths surrounding disaster behaviors in order to replace them with illustrations of positive behaviors and outcomes that were indicative to disaster settings (Fritz, 1961; Barton, 1969; Dynes, 1970; Quarantelli and Dynes, 1972). As a result, an emphasis on a community's culture became prevalent in explaining why some communities were more successful than others when dealing with disaster situations. Building off of the previously conceptualized definitions of disaster cultures, this paper defines a disaster culture as one that both contains latent and manifest social values and norms that revolve around disaster response and recovery behavior that accentuates communal cooperation and resiliency and respective organizational reflexivity in an effort to minimize reliance on outside government intervention when disasters occur.

Wenger and Weller (1973) argue that the ways in which communities respond to disasters is dependent on the community's past experiences with similar events. Past disaster activity provides learning opportunities that can be applied to subsequent situations. When these learned behaviors are preserved over time, and across various disaster situations, Wenger and Weller maintain that a community possesses a disaster culture; however, the preservation of these behaviors is essentially the essence of such a culture. For Wenger and Weller, the residues of learning are applied to aid the community in survival, but the culture itself is preserved through time by transmission of its elements to new community members. Moreover, the "...true indication of the existence of a disaster subculture is the perpetuating of successful patterns of adaptation to the disaster context through socialization" (p. 1), which can only occur in communities that experience repetitive impacts from specific disaster agents.

In line with Moore (1964), disaster cultures/subcultures serve as "blueprints" for behavior among community residents before, during, and after the impact of an event. The culture itself includes cultural elements such as norms, values, beliefs, knowledge, technology, and legends about disasters, and imposes those culturally developed perspectives on public policy and collective action decisions. According to Wenger and Weller (1973), the inclusion of cultural knowledge, or past experiences, provides cues to local residents and local emergency management authorities in reference to how a disaster will be interpreted by the community population, the potential destructiveness of a disaster agent, and the efficacy of particular types of action that should be taken in response to the disaster. Additionally, cultural preferences in reference to technological usage will influence the types of methods of detection, warning, and physical safeguards used to mitigate disaster death and destruction (i.e. levees, taped plywood covers for windows, homes constructed on stilts, the prior designation and stocking of shelters, etc...). However, Wenger and Weller (1973) tend to agree with Moore (1964) in that these cultural patterns tend to be latent within most communities. Rather, they are appropriate guides for behavior only during the actual approach, duration, or immediate aftermath of a disaster event.

Arguing along these lines, disaster cultures represent cultural traits that are relatively discontinuous from those of the central institutions of the community or society. Public policies

created under the influence of these latent cultural traits tend to reflect this dynamic, focusing on addressing issues that specifically arise from the impacts of each disaster occurrence. Rivera and Miller (2006) concur with this reactionary explanation of disaster policy throughout its history in the broader American context by highlighting how policies at the federal level only tend to reach policy agendas when latent disaster cultural preferences are exposed in the direct aftermath of a disaster occurrence. Schurman and Munro (2010; Walker, 2012), expand upon this notion by illustrating how shifts in communal values, illustrated in social movements, can effect organizational and institutional change indirectly through the introduction of new cognitive categories; however, they also acknowledge how these changes can result in the narrowing of culturally acceptable actions. When policies are developed within these ad hoc policy windows, they tend to be discontinuous with prior policies that have disaster cultural traits embedded in their foundations.

The opposing perspective to the latent nature of disaster cultures is the notion that disaster cultural traits are manifest aspects of community life. Anderson (1968) argues that through the process of normalization, disaster experiences are integrated into the familiar manifest culture of a community. This integration can occur along a scale of degrees, in which some cultures integrate disaster cultural traits almost entirely into their broader community/society's culture, such as in the case of Yap (Schneider, 1957),² or more narrowly to subpopulations that live in flood plains, low lying districts, or even neighborhoods (Wenger and Weller, 1973). Depending on how broadly the disaster culture impacts the development of more macro-level community behavior dictates whether disaster cultures are perceived as either latent or manifest functions. Moreover, the extent to which the dynamics of disaster culture influences the creation of local emergency management policies subsequently impacts the ability of the community to respond and recover from disasters, in addition to the level and type of interactions a community has with other governmental authorities, both horizontally and vertically.

Anderson (1968) further maintains that when disaster culture patterns of behavior are absent or lack development, interpretations of disaster events at the individual level tend to be extemporaneous, unstable and individualized, and interpretations of what is occurring remain private. This leads to the heterogeneity and seemingly disorganized behaviors that are commonly expected of disaster victims in the aftermath of natural events, which is what Solnit (2009) more recently has attempted to disprove. However, in places where communities experience chronic disaster threats, disaster culture develops as a way of permanently accommodating to the natural environment; thereby defining disaster situations, investing the events with meaning, and interpreting the situation and its consequences within the descriptive and evaluative frameworks of the culture (Anderson, 1968). Moreover, non-individualistic behavior that occurs in the aftermath of a disaster reflects the cultural values of responsibility that people have toward others, which is not only a latent behavior brought about by a hazard event, but a normalized notion of how people are to act on a daily basis.

Along these lines, Aldrich (2012) argues that the sense of responsibility that individuals have toward others is best characterized by their level of social capital. For Aldrich (2012), social capital is more vital to a community's recovery than economic resources, or even governmental or outside agency assistance, because dense social networks encourage relatives,

² Schneider's (1957) study of the Yap people in the Western Caroline Islands depicts a culture that is centered around the continued experience of typhoons. In this society, the disaster agent has permeated almost every aspect of their culture, directly influencing social interactions in times of normalcy and emergency, in addition to values, beliefs, and norms.

neighbors, and extra-local acquaintances to work together in order to meet communal goals and objectives. Through his historical cross-comparative study of four disasters within different cultural contexts, it is observed that areas with higher levels of social capital tend to make more effective and efficient recoveries from crises. Social capital achieves these outcomes by serving as 1) an informal insurance that promotes mutual assistance after a disaster, 2) providing a social environment amenable to collective action, and 3) strengthening social ties that discourage the dilution of communities in the aftermath of an event. However, social capital can have negative effects in reference to disaster recovery in that strong social bonds may discourage people from evacuating disaster areas because they want to help others (Horney et al., 2010), which places more people at risk. Additionally, the lack of social capital within communities has been shown to desperately influence residents' inclusion in recovery lists (Kruks-Wisner, 2011), their ability to receive assistance, and even be subject to unwanted redevelopment projects that were rejected by better organized groups. Although stronger social networks may benefit the majority of disaster survivors, when observed in conjunction with existing prejudices, social relationships across certain groups can slow recovery of out-groups (Nagar and Rethemeyer, 2007) and even create situations where groups with stronger social capital directly attempt to harm out-groups (Aldrich, 2012). In spite of these possible negative effects that stem from social capital, Aldrich (2012) recommends that governments should actively incentivize the development of social capital, which is characterized by communal norms, values, beliefs and behavior. Although Aldrich (2012) down plays the significance of culture within his discussion, what he is actually calling for is a reshaping of cultural attitudes around communal ideologies that can be used to strengthen disaster recovery, which specifically speaks to the partial development of a disaster culture.

In a cross comparison study of how border towns along the Rio Grande deal with floods, Clifford (1956) illustrated how different cultural values surrounding notions of honor plays a significant role in disaster response. Whereas American border towns perceived public health effects of the flood as priorities for control through mechanisms of assistance, Mexicans refused aid from American responders because they perceived the aid as demeaning. While Americans viewed the dangers of disease as important, Mexican authorities were more concerned with honor and its sacrificing in accepting proffered aid. According to Clifford (1956), this international cross comparison illustrates how culture provides a frame through which communities evaluate life experience, how reference points continue to be applied in extreme situations, and the tendency of victims to maintain normal procedure. As such, two communities, with two cultural frames of reference interpreted the same disaster and responses in different ways, thereby resulting in varying responses along unique culturally acceptable lines (Anderson, 1968).

Bates et al. (1963) analyze a case study of Cameron Parish, Louisiana and its response and recovery from Hurricane Audrey to not only highlight how culture affects groups' choices to cope with disasters, but also the way in which cultures can adapt over time. Prior to Hurricane Audrey, the parish's experiences with disasters were minimal, which Anderson (1968) argues resulted in weak cultural values centered around the government's (i.e. formalized policy's) role in disaster response. As such, traditional procedure in hurricane response relied on relatives for protection and assistance in coping with the effects of disasters. According to Bates et al. (1963), cultural values that placed kinship systems as a prime provider of security, led to low expectations for the role of police and fire departments in disaster response; however, when the kinship system was not capable of dealing with the effects of the hurricane, cultural values

shifted to have more heightened expectations of formalized institutions' role in disaster recovery. This directly resulted in the construction of a new hospital adequate for emergencies, new public services, modernization of public utilities, and the physical reconstruction of the community that emphasized the integration of building codes and zoning that were thought to be "hurricane proof." The development of more formalized disaster response mechanisms and structures illustrates the way in which cultural values influence formalized public decisions, in addition to the normalization of these values into daily interactions (i.e. building codes, zoning, and public services). Additionally, in later hurricane experiences it was found that because of the cultural adaptation that occurred in reference to Hurricane Audrey, local communities had such a high capacity to deal with disasters that they directly challenged outside emergency authorities in reference to disaster response and the pace of recovery (see also Moore et al., 1963); highlighting how higher governmental level disaster response and recovery organizations and institutions did not incorporate newly developed disaster values and beliefs into their operating procedures.

Halperin's (1998) ethnographic study of the East End of Cincinnati illustrates the way a neighborhood's past experiences with disasters, specifically the flooding of the Ohio River, has contributed to the formation of values and norms in reference to appropriate actions within such situations. Because of the city section's past experience with disasters, in addition to its marginalization within Cincinnati's broader city society, the neighborhood of the East End has normalized values into their daily routines that make responding and recovering from disasters more efficient. These include a strong preference for relying on kinship networks for support, in addition to aiding neighbors in times of need, which are not directly tied to the onset of flooding, but normalized behaviors needed for neighborhood residents' daily survival. Although their solidarity as a neighborhood predominately derives from their marginalization within the Cincinnati social structure, this section of the city's resilience and resistance to disasters also stems from their past experiences with organizations and institutions responsible for disaster response and recovery, such as the Federal Emergency Management Agency (FEMA), Neighborhood Services, Consumer Services, and other city, state, and county agencies/departments, which have yielded low expectations on the behalf of neighborhood members in reference to them receiving aid. The lack of governmental and third sector interest in aiding this section of the city over time can be linked to the political economy and proposed growth of the city, which would prefer to see the current residents of the city's section pushed out in the interests of the city's general economic growth. However, the importance of Halperin's observations of this neighborhood in times of crisis illustrate how cultural values and norms formed over time, and, as a result of both disaster experience and social marginalization, can converge to overcome official disaster response and recovery organizations' lack of interest in their plight, so that they are in a better position to recover from disasters.

Peacock et al. (1997) expand upon these ideas through their study of Hurricane Andrew and the ways in which the community of Miami responded to the disaster. The authors conceptualize the process of responding to a natural disaster as a social phenomenon that occurs within a broader context – a socio-political ecological field. This approach views human settlements as an ecological framework of interrelated social systems that, together with the biophysical setting, form an ecological field (Bates and Pelanda, 1994). Through a review of the history and urban ecology of Miami, their work illustrates how existing patterns of residential segregation and economic marginalization for different racial/ethnic groups structure the course and consequences of a disaster event and recovery. Moreover, the authors examine the larger political economic forces that shape recovery and local attempts at preserving communities and

assisting those with unmet needs. Groups and organizations within a community are linked by sets of contingency linkages through which information, members, and resources flow. Coordination or control of these linkages is posited to not be the result of centralized authority structures, but to have emerged out of the interplay of mutual contingencies, competing interests, and coalitions that are practiced through a variety of structural linkages (Bates and Harvey, 1975; Peacock, 1991). The outcomes of competition and conflict over the control of resources determine relationship patterns and the interactions between the social network and its larger ecological field. Subsequently, this leads to the development of culture, in this case material culture expressed through infrastructure and the built environment that has direct impacts on the level of disaster damage that occurs from an event (Scanlon, 1988; Tierney, 1989; Peacock, 1996). Through their study of Miami, Peacock et al. (1997) are able to highlight the characteristics of material culture in a specific place that are expressive of not only power arrangements, but also environmental pressures (i.e. architectural characteristics, land use trends, and building regulations) which results in the community's variable vulnerability to disaster events across different subpopulation groups. Moreover, their work emphasizes the continued relationship between the political economy and the natural environment itself, which is variably reinforced over time through formalized public policy decisions and institutions.

Political Economy, Path Dependence, and Resistance to Change

Most frequently systems theory is used to explain how disaster events disrupt continuous social systems and subsystems; thereby emphasizing the need for adaptation among social units to recover from extreme events (Tierney, 2007). According to White (1974), adaptations along these lines include avoiding disasters entirely, through land-use planning and development restrictions, mitigating the impacts of disasters through measures such as building codes, spreading risks through insurance provision, and preparing for disaster events (see also Burton et al., 1978). Without these adaptations, it was, and continues to be, argued that communities have a decreased capacity to resist and be resilient from disasters. Moreover, White's natural disaster perspective emphasizes the notion that the root causes of disasters are not primarily the direct result of the actual disaster event, but are centered in the social actions and nonactions of a community that limit options for adjusting to environmental extremes. As such, Tierney (2007) argues that disasters are socially constructed and foreseeable manifestations of broader social forces that shape a disaster stricken community. Similarly, Blaikie et al. (1994) maintains that although natural phenomena, such as hurricanes, earthquakes, and floods, act as triggers for disasters, disasters themselves directly stem from social conditions and processes that may be far removed from the actual events. These conditions include factors that encourage settlement in hazardous areas, poverty and other forms of social inequity, low capacity for self-help among subpopulation groups, and failures in the physical and social protective systems, which are directly related to the historical collective choices communities make (Blaikie et al., 1994). Further, the effects of disasters on a local community can also be partially explained as part of a set of negative externalities that occur as a consequence of larger political and economic trends.

What these conceptualizations highlight is that communities' capacity to cope with disaster situations is directly tied to their localized social structures, which are the result of both micro and macro social and economic forces. However, the formalized choices that communities make, which are manifested in public policy, stem from cultural values and norms indicative to a particular community (Giddens, 1984; Collins, 1988; Hustedde and Ganowicz,

2002). According to Peacock et al. (1997) and Bolin and Stanford (1998), these localized values and norms develop as a direct result of a community's relationship with the natural environment. Natural phenomena and the disasters that follow them are best understood as part of a continuous process, a new factor incorporated into the ongoing evolution of societies and the physical spaces they occupy, which is molded by the political ecology of a place. According to Bolin and Stanford (1998, p. 8),

...the implications of understanding 'nature' and human landscapes as social productions and material expressions of political-economic forces have gone largely unnoticed in the US disaster response literature...The preference there appears to treat the setting as a given, a routinely functioning organized 'system' without a history or social dynamics apart from what the disaster itself originally produced.

Moreover, Ali (2002) maintains that the analysis of disasters must occur within the context of the political economy of place (Logan and Molotch, 1987) in which communities are shaped by growth machine politics and continual pressure for land development profits. As such, perspectives on the political economy of the environment, place and space (Foster, 1999, 2005; O'Connor, 1998), in addition to concepts of treadmill production (Schnaiberg, 1980; Schnaiberg and Gould, 1994; Gould et al., 2004), provide an important framework through which to understand the origins of disasters.

Bolin and Stanford's (1998) research argues that the root causes of disaster are tied to both the historical geography and political economy of places. Additionally, disasters occur at the intersection of environmental hazards and vulnerable people, and as such are social products. These authors use a series of ethnographic interviews to examine the local contexts for dealing with disaster, specifically the Northridge Earthquake, in order to discern lessons for dealing with disasters across a range of societal contexts. Bolin and Stanford's main argument is that social relations of production, specifically the effects of capitalist penetration and commoditization of subsistence economies, produce vulnerabilities to the natural environment (Watts, 1991). Therefore, marginalized populations are driven to exploit increasingly marginal land, degrading it further, as they attempt to survive in a wage-based economy from which they have been largely excluded. Although this produces populations more vulnerable to disasters (Blaikie et al., 1994), it also creates the opportunity for different disaster coping, response, and recovery mechanisms to develop among various groups, which are a direct result of their access or lack of access to resources. As with other cultural development, the population's access to resources contributes to the development of other disaster related cultural attributes, which again varies in respect to their political ecology.

By utilizing this framework, researchers are able to observe that regimes of production and accumulation tend to make communities and other population groups more vulnerable to all types of disasters (Tierney, 2007). However, the application of the political economy does not explain how or why these political perspectives on community development originate in the first place. These policy preferences, which are illustrated by the political economy of a place, are theoretically the result of shared community values and norms that overtime are incorporated into the public policy realm resulting in distinctive community development trends that can be

supported by cultural explanations.³ But, understanding why these norms and values in disaster public policy perpetuate over time requires an alternative explanation, which can be found in theories of path dependence.

Although not specifically discussed by Peacock et al (1997), they and other disaster scholars (Bolin and Stanford, 1998; Oliver-Smith and Hoffman, 1999; Hoffman and Oliver-Smith, 2002; Miller and Rivera, 2008) point to the importance of path dependence models for explaining how and why communities are more or less vulnerable to disasters. The path dependence model exemplifies the notion of “historical causation”, in which dynamics triggered by an event or process at one point in time reproduce themselves into the future (Stinchcombe, 1997). Normally, path dependence models are used by social scientists to support various claims, such as specific patterns of timing and sequence matter; starting from similar conditions a range of social outcomes is often possible; particular courses of action, once introduced, can be virtually impossible to reverse; and social and political development are often punctuated by critical moments that shape the basic contours of social life (Baumgartner and Jones, 1993; Collier and Collier, 1991; Ikenberry, 1994; Krasner, 1988). Moreover, Arthur (1994), David (2000), and Pierson (2004) maintain that positive feedback, or self-reinforcement, perpetuates the process of path dependence in such a way that it makes it difficult for organizational units to reverse course once a decision is made. According to Hacker (2002, p. 54), “path dependence refers to developmental trajectories that are inherently difficult to reverse.” When positive feedback is present, the probability of further steps along the same path increase with each move down that path (Pierson, 2004). Pierson (2004) argues that this is due to the costs associated with switching to some previously plausible alternative decision rising over time. As formal decisions are made over time to help reinforce some original decision, the ability of changing course, or social change, becomes more and more difficult to achieve, due to the different types of investment that have been made in adherence to the original decision. Not only does this theory imply that communal decisions are important in the development of disaster vulnerability at the local level, it also suggests that once decisions are made, even decisions that have initially small relative impacts on a community, place it on a trajectory into the future that can either enhance or inhibit their ability to respond and recover from disasters.

Hall and Taylor (1996) maintain that institutional forms, public policy, and procedures that are seen as specific to locations assimilate local culture into organizations over time, not necessarily to enhance their means-ends efficiency, but as a result of more general processes of cultural transmission. Through these processes not only formal rules, procedures and norms are developed within organizations, but also symbol systems, cognitive scripts, and moral templates are also developed that provide frames of meaning that guide human and organizational action (Campbell, 1995; Scott, 1994) not only in daily life, but also in times of emergency. In this way individuals who have been socialized into particular institutional roles or who have been socialized to expect certain action roles from institutions internalize these norms associated with these roles, which places institutions in a position to affect individual and group behavior (Hall and Taylor, 1996). Institutions influence behavior not only by guiding what an individual should do, but also what one should do in a given context. Therefore, what an individual views as independent and a seemingly limitless choice of actions in a given situation is actually limited by institutional structures that directly or indirectly constrain social behavior.

³ It should be noted that these “shared community values” may not actually represent a community as a whole, rather the values and norms of community members with access to power and authority.

The social construction of individual behavior also influences the ways in which institutions and organizations behave as a function of expectations of other organizational units. According to Pierson (2004), institutional arrangements provoke complementary organizational forms, which subsequently encourage the development of new complementary institutions. In reference to path dependence, organizational and institutional development along these lines contributes to what North (1990a) conceptualizes as “the interdependent web of an institutional matrix.” North (1990a) maintains that this network system fosters an environment of increasing returns for conformity in reference to sharing norms and values in reference to policy and procedure preferences in order to increase organizational efficiency. Accordingly, path dependent processes that originate at the local level have the ability to diffuse into complementary organizations and institutions at the macro-level and vice versa (Katznelson, 1997; Hall and Soskice 2001; Pierson and Skocpol, 2002). However, once established, general conceptions that range from ideologies to understandings of aspects of governments or perspectives of political units’ role in specific situations become inflexible (Pierson, 2004) because of their path dependence. As maintained by Wendt (1999, p. 188), “[s]ocial systems can get ‘locked in’ to certain patterns by the logic of shared knowledge, adding a source of social inertia or glue that would not exist in a system without culture.” In this way, public policy decisions that are made through the integration of cultural norms and values, become deterministic of individual and organizational behavior over time, which, in the case of disasters, influences a community’s vulnerability to adverse effects.

As already stated, the processes of path dependence and positive feedback tend to inhibit the ability of community organizations, institutions, and policies to change. Even in the face of apparent service failures, the improvement of policies and procedures, in addition to alteration of values and norms indicative to specific community organizations and institutions, through processes of trial and error are not automatic (Pierson, 2004). Various scholars (North, 1990b; Denzau and North, 1994; Arthur, 1994) maintain that actors that operate in a social context of high complexity and opacity are significantly biased in the way they filter information into their existing operational approaches and ideologies. Because of this, confirming information tends to be incorporated, while disconfirming information is filtered out. According to Converse (1991), the development of new social understanding involves high startup costs and learning effects. General information must be sorted in an effective way in order to facilitate the processing of additional information, which when filtered through processes of positive feedback tend to exclude new transformational information that would possibly result in the implementation of new values and norms into organizational structures.

Literature on organizational learning tends to mimic these findings (Dixon, 1992). According to Hedberg (1981) there tends not to be a reflective match between the real world and an organization’s map of the world. Information, whether generated externally or internally, is subject to perceptual filters, that are characterized by the organization’s norms, procedures, and beliefs that influence what information the organization attends to and accepts. Additionally, organizations, as well as individuals, tend to interpret events differently. According to the interpretive perspective of information distribution, each event that an organization deals with is interpreted in various ways by various organizational stakeholders. As a result of this ambiguity of information gained through the experience of an event, organizations must reduce the equivocality of information gained through the experience (Weick, 1979; Daft and Huber, 1987). In situations where organizational learning must progress through a traditional bureaucracy, as with the Department of Homeland Security or the Federal Emergency Management Agency,

learning is based on institutionalized experience, and a reliance on rules and records (Daft and Huber, 1987; Dixon, 1992), which significantly relies on path dependent and positive feedback mechanisms for cues to understanding and incorporating information into operations and actions.

Finally, organizational learning and subsequent change relies on an organization's memory. According to Walsh and Ungson (1991), organizational memory is defined as the "stored information from an organization's history that can be brought to bear on a present decision" (p. 61). In this way organizational memory may affect learning negatively to the extent that it presupposes how a situation will be viewed, based on positive feedback mechanisms, automatically eliminating alternative choices of action that might be more useful for an organization to pursue in service provision (Nystrom and Strabuck, 1984). Levitt and March (1988) note that path dependency mechanisms encourage the development of competency traps that emphasize usage of inferior organizational procedures over more superior alternatives because the organization's continued experience with the inferior procedure keeps it from developing experiences with superior alternatives. Although this dynamic tends to be observable in organizations that have a long institutional memory, it is equally as problematic in organizations with low levels of memory. In reference to disaster management, FEMA and its prior agency forms lacked official "history divisions" or institutional memories that were more than the recollections of employees who worked there, which has led to management knowledge that is uncodified, inaccessible, or kept secret by government classification (Sylves, 2008). According to Edwards (2005), emergency management tradition was historically oral, not in writing, and ad hoc rather than procedural. This has led to a situation in which most emergency management procedures and actions are learned through apprenticeships within the organization itself that is highly vulnerable to positive feedback mechanisms, and not on broadly based emergency management education and research. With such a lack of information infusion, organizational memory, and reliance on employee education based on path dependent procedural training, organizational and institutional change is difficult to facilitate. In reference to local community disaster policies, when new information is excluded through positive feedback, initial norms and values that influenced the development of response and relief policies continues to persist into the future, regardless of whether policies have been effective at controlling the negative effects of disasters.

Along these lines, Hoffman (1999) attempts to measure the impact that disasters have on social change within communities at the local level. She argues that change, in addition to the amount of change, in a community is related to the magnitude and nature of the disaster event, the size of the population, the complexity and background of the culture, whether one attempts to observe small shifts or major change, and the length of time a community is studied. Additionally, Hoffman discusses how disasters that once may have been large enough to destroy entire societies and cultures now more likely affect a limited population within an entire social whole, and whether alteration of a small group can affect the social and cultural evolution of the larger society. She highlights these dynamics through an analysis of the Oakland firestorms that occurred in 1991. She observes that localized cultures form boundaries on perceptions, fetters on language, and walls in categories that significantly influence the ability of communities to act in response to disasters. For Hoffman, the lack of institutionalization of disaster norms and values into community bureaucratic structures, organizations, and institutions is a result of a lack of historical disaster experiences. Moreover, she illustrates how demographic characteristics indicative to a specific community, such as median income, can have an influence on formal alterations to culture at the local level, but also institutional and organizational culture in

reference to disaster response and recovery. Hoffman explains that in cases where communities have a high proportion of low-income residents, issues of path dependence that influence the ways in which disasters are handled over time persist because of the population's relatively low political efficacy. Alternatively, in communities that exhibit relatively high median incomes the influences of path dependence and positive feedback can be diminished, which she ties to these communities' ability to mobilize political resources in order to offset perceived costs of altering institutional and organizational norms and values surrounding disaster response and recovery. This phenomenon is important because it highlights that path dependence plays a large part in the way that public policies and institutions resist change even in the event of service failures, but it also does not negate the ability of change to occur at all. However, Hoffman would also argue that these changes do not tend to occur in the short-term because of the existence of positive feedback processes. Therefore, cultural changes that could influence the development of norms and values surrounding disaster response and recovery need to be studied over longer periods of time, otherwise, because of the influences of path dependence and positive feedback, changes will seem to be minimal or nonexistent.

Klein (2008) continues to expand on the discussion of how path dependence and positive feedback processes in the free market are dependent upon disaster related events in order to stimulate macro-level growth within domestic and international markets. She argues that a disaster places an impacted community in a state of collective shock, which leaves it vulnerable to political, social, and economic reshuffling as directed from higher bureaucratic structures. Whereas most disaster stricken communities wish to salvage what they can and begin repairing the social structures that were present prior to the event, Klein argues that the free market, particularly in mega-event situations, uses the destruction wrought by disaster as an excuse to use the location as a clean slate and bring to manifest Schumpeter's vision of "creative destruction", reinventing social dynamics that are more conducive to profit making. Through the phenomena of disaster capitalism, the author maintains that new artificially constructed cultures are superimposed on places, thereby marginalizing and sometimes forcing preexisting cultural development into extinction. Similar to what North (1990a) and Pierson and Skocpol (2002) maintain in reference to complementary institutional and organizational formation, Klein argues that because this process occurs from the top-down, local vulnerability is heightened due to a non-acknowledgement of indigenous human-ecological relationships that cease to further influence human physical and social development. More importantly, however, is the notion that because the location is treated as a clean slate, previous indigenous cultural development is marginalized in the face of free market principles that tends to leave the community with little institutional memory in reference to dealing with its natural environment. Although these new community development entities attempt to construct safeguards to protect against future disaster effects, the minimization of indigenous knowledge/culture has the potential of heightening the reestablished community's vulnerability because there is an almost total break with communal historical experiences. In this environment, higher governmental institutions and organizations have the ability to impose their cultural perspective on local public policy and institutional development, placing the local community along a new path dependent process that is engineered from the top down. This potentially has the ability to increase the influence of positive feedback effects that reinforce higher governmental values and norms because of the resources these larger institutions and organizations have at their disposal.

Finally, in their study of New Orleans, Miller and Rivera (2008) illustrate how the interaction of the natural and built environment influences each other's development over time.

The authors take a social-historical approach to observing how the physical development of the City of New Orleans occurred in relation to the geography and ecology of the surrounding area, which subsequently influenced the development of social relations indicative to the city. The authors argue that formalized decisions made in the city's founding and throughout the city's development directly led to the city's level of vulnerability to Hurricane Katrina. For Miller and Rivera (2008), the predominance of the city's emphasis on technology's ability to conquer and control nature resulted in city development and disaster policies and institutions that did not acknowledge the location's unique place-based characteristics, such as geography and natural hazard occurrence, placing the city in a more vulnerable position. The value placed on technology resulted in a community ideologically placed outside of the environment, thereby resulting in the development of cultural, organizational, and institutional attitudes not conducive to effectively dealing with disasters. Although path dependency and positive feedback are not specifically used as a theoretical framework in their study, it is insinuated throughout by their description of the impact that past communal decisions have had on the development of community organizations, institutions, and public policy that have reinforced community cultural attitudes surrounding technological innovation and its importance in disaster mitigation. In their conclusion, Miller and Rivera (2008) argue for the fostering of a social environment that shifts the city's disaster culture in a new direction so that the city's disaster response and recovery organizations and institutions can become more efficient in service provision. They believe that this can be achieved partially through political administrative changes, but they also acknowledge that because of historical legacies (path dependence processes) the incorporation of new disaster response and recovery norms and values from both the bottom-up and the top-down will be difficult in making bureaucratic changes within organizations and institutions responsible for these activities.

Conclusion

By understanding whether emergency management institutions and organizations change in reaction to alterations in their constituents' values and norms surrounding disasters, social actions can be better developed to make communities less vulnerable to disaster impacts. Although this discussion challenges the notion that by simply fostering an environment at the local level conducive to the development of disaster cultures there will be reflexive organizational and institutional changes, it does not mean that encouraging the development of disaster cultures within communities is not worthwhile.⁴ As Rivera and Miller (2010) illustrate through their cross-case study analysis of how different racial and ethnic minorities in the United States respond and recover from disasters, the presence of disaster related cultures within communities allows for various populations to compensate for nonaligned values and norms between themselves and respective disaster response and recovery institutions and organizations that could potentially result in the further marginalization of minority communities in the aftermath of disasters. However, despite the level of disaster culture development and the nuanced ways in which individual communities are capable of responding to disasters, they are only capable of dealing with disaster situations up until a certain point. When disasters place too great a strain on locally developed coping mechanisms, official disaster response and recovery

⁴ The author is not attempting to insinuate that the encouragement and development of local disaster cultures is an easy process; however, the point is that the development of disaster cultures needs to occur in conjunction with and acknowledgement of institutional and other organizational arrangements.

organizations and institutions are needed to aid local communities in their survival, but these organizations need to also share similar values and norms that are appropriate in their application for the communities they are serving.

As discussed previously, once organizations and institutions develop their values and norms in reference to providing a certain type of service, these values and norms may be perpetuated through path dependence and positive feedback mechanisms that make it difficult for organizational culture to change. In reference to disasters, this phenomenon makes it extremely difficult for organizations and institutions to integrate new values and norms into their operating structures as demographic and cultural changes occur within their client populations. This leads to an eventual mismatch in expectations between clients and organizations over time that detrimentally affects these organizations' efficiency in providing culturally acceptable response and recovery aid to communities most in need. Therefore, in addition to recommendations that attempt to strengthen the localized resistance and resilience to disasters through the development of disaster cultures, steps must be taken in order to overcome normative and valuative differences between communities and their disaster response and recovery organizations and institutions that are perpetuated through path dependent mechanisms.

Some may criticize the applicability of the argument proposed here based on issues of level of analysis. For example, it can be argued that while disaster response and recovery organizations based at the federal level maybe more resistant to change due to path dependency mechanisms, or, as Roberts et al., (2012) maintains, these organizations do not change due to the lack of a sufficiently large and powerful enough group within the policy-making process that wants change, resistance to the organizational and institutional internalization of local values and norms at the local level may be less significant. Although this would be highly probable in most other governmental and service provision organizations, official disaster response and recovery organizations and institutions are exceptional in that they rely highly on a militaristic structure, in addition to personnel, which are relatively more resistant to acknowledge the values and norms of civilian communities in relation to providing needed services when it contradicts their own organizational values, beliefs and norms (Lipsky, 1971 and 2010; Johnson, 2003). When organizational and institutional changes have been made to attempt to overcome this dynamic, such as placing emergency management under civilian control, there are discrepancies that occur between leadership and the ways in which practices are implemented in the field, resulting in more problematic situations (Roberts et al., 2012; see also Lipsky, 2010 and Skogan and Hartnett, 1997). Moreover, because of the relative monopoly that these organizations and institutions have on the provision of disaster response and recovery services, in addition to the manifestations of path dependence within and between other organizations, they tend to further disregard conflicting notions in reference to how or through what means they should provide their services (Carpenter, 2001). Even though it can be argued that local disaster response and recovery organizations and institutions may be more easily influenced by local values and norms because of the intimate relationships that can be present between local disaster personnel and the communities they are serving, path dependent mechanisms and the militaristic structure of such organizations minimizes this influence.

However, in order to overcome the influence of path dependency among organizations and institutions, Pierson (2004) argues that the political landscape must encourage one or both of the following situations: an environment of learning and/or competition among these bureaucratic entities. Although some scholars argue that politics has the potential to induce learning within institutions to address public problems and subsequently change institutional

values and norms (Lindblom, 1959; Hecló, 1974; Hall, 1993), it has already been pointed out that positive feedback mechanisms that operate within organizations restrict the amount of outside information that can contribute to learning. Moreover, even when learning does occur, institutional and organizational reforms face the barriers to change that are indicative to the consequences of positive feedback, resulting in marginal changes if any occur at all (Pierson, 2004). Pierson (2004) explains that the marginal effect that learning has on organizational and institutional change is also a byproduct of the short time horizons that political actors have in order to galvanize change within policy windows, and the influence of the status quo on decision making rules that govern most political institutions. These two factors, therefore, tend to intensify the effects of path dependency in reference organizations, but also politics, which results in the lack of substantial encouragement for learning among these entities.

Over the last two decades the role of public and policy entrepreneurs has begun to be studied in order to observe how these types of individuals are able to overcome the challenges of path dependence and positive feedback within bureaucratic institutions and the political arena. According to Carter et al. (2004), successful public entrepreneurs are able to manipulate the agenda of public discussion and generate broad interest in the political and social problems to which they propose novel ideas. While these individuals act in response to policy windows (Kingdon, 1984), they also are skillful at helping to develop and open these opportunities as well (Schumpeter, 1942; Meo et al., 2004). Public entrepreneurs are able to accomplish this task by balancing their administrative responsibilities with democratic values (Bellone and Goerl, 1992) in order to bring the organizations and institutions they work for into a more accurate alignment with real world dynamics (Schnellenbach, 2007). Although Schnellenbach (2006) argues that public and policy entrepreneurs tend to alter organizational and institutional cultures incrementally over time, drastic quick changes can occur when decision-makers and the majority of the citizens they represent view a service provision organization or institution as unsustainable or inefficient (Schnellenbach, 2007). As observed within Tulsa, Oklahoma in reference to its disaster mitigation innovations, public entrepreneurs have been able to create new ways of solving problems within the emergency management structure that have been able to overcome path dependent organizational challenges by fostering a policy and political environment in which organizational and community learning can more easily occur (Meo et al., 2004). Therefore, in order to overcome organizational learning challenges, which are the result of path dependent and policy feedback mechanisms, one recommendation would be to encourage disaster response and recovery organizations to create bureaucratic environments in which public entrepreneurship and innovation can occur more easily.

In reference to competition, Alchian (1950) maintains that competitive pressures in the US market society theoretically allows for new organizations with more efficient structures to develop that should eventually replace suboptimal organizations and institutions. In this way, the federal and state governments should create broader incentives for the development and support of nonprofit, faith-based and other types of organizations that directly deal with disaster recovery and response. These types of organizations, that have been shown to be more reflective of local values and norms over time (Hall, 2006), potentially have the ability to be more efficient and effective at developing locally acceptable disaster response and recovery actions that are also culturally acceptable to the communities in which they serve. This may include sustained and more robust support for local fire and EMS organizations that utilize volunteers from their respective communities, which are more knowledgeable of culturally acceptable disaster response and recovery methods. Not only would this conform to present Federal Emergency

Management Response (FEMA) values that place the initial responsibility of disaster management in the hands of local organizational units, it would also indirectly challenge FEMA's broader institutional values that dictate how actors under its control, in addition to complementary organizations, behave in disaster response and recovery. If over time these localized organizations prove themselves to be efficient in their service provision, because of forces tied to market competition, FEMA, and its localized branches and complementary agents, would be forced to alter their organizational cultures in order to legitimize their continued existence through the provision of services that conform more to their varied constituents' values and norms.

Although path dependency offers a lens through which to understand disaster response and recovery organizational change, this paper is limited by its contemporary empirical support. In order to more comprehensively understand the factors that influence organizational culture change within these types of organizations, future research should focus on the personnel that work within these bureaucratic structures. Because there is such a strong reliance on internal training of employees within disaster organizations, the characteristics of employees and managers, specifically those personality traits that are amenable to learning and innovation, should be explored. By understanding the level of which employees are amenable to organizational innovation, in addition to learning, more impactful policy and human resource proposals can be made that have the potential of enhancing these organizations' reflexivity with client interests.

Additionally, there needs to be a more broad understanding of how residents perceive and are satisfied with disaster response and recovery organizations and their procedures. Although government disaster planners think of their operational procedures as rational and practical, many plans tend to lack popular support or understanding by disaster victims, which results in plans being inefficient, under effective, and challenged by residents (Aldrich, 2012). According to Sylves (2008), policy analysts have been slow to understand the utility of client satisfaction in measuring the effectiveness of government disaster assistance programs. However, without an empirical understanding of client sentiments toward disaster response and recovery organizations and institutions, in addition to the personnel that work for these entities (specifically those individuals that interact with clients⁵ and those that maintain and create organizational policies and procedures), information about the ineffectiveness of these organizations is anecdotal and marginalized within the service provision organizations themselves (Meo et al., 2004). Therefore, if the potential of change within these organizations is to occur, in addition to making competing organizations more effective at providing services, disaster researchers and practitioners need to better understand what is expected from these organizations by their constituents. Only through this understanding can disaster organizations and institutions alter their cultures to be more complimentary to community norms and values surrounding disasters.

Again, this recommendation to increase competition and learning among disaster response and recovery organizations does not imply that communities should not continue to make concerted efforts to increase the prevalence of disaster cultural characteristics that reduce their vulnerability as many disaster researchers suggest. However, this discussion attempts to explain why cultural adaptations at the local level have had limited impact on the ways in which disaster response and recovery organizations and institutions alter their behaviors. In order for disaster response and recovery efforts to be more effective at decreasing human suffering in the

⁵ Here I am referring to street level bureaucrats (Lipsky, 1971; 2010) that represent disaster response and recovery organizations in face-to-face interactions with the general public and clients.

aftermath of disasters, it is extremely important for notions of organizational and institutional change to be integrated into the discussion of how to approach altering formal disaster response and recovery behaviors.

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