COLLECTIVE DISASTER RESPONSES TO KATRINA AND RITA: EXPLORING THERAPEUTIC COMMUNITY, SOCIAL CAPITAL AND SOCIAL CONTROL[*]

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ABSTRACT

The goal of this paper is to explore the dynamics of one East Texas community's responses to hurricanes Katrina and Rita. Literature on community response to disaster forms a basis for reflections on observed local response activities, including convergence behavior. In particular, the concept of social capital is compared to, and contrasted with, Barton's model of therapeutic community. Social control is a relatively unexplored element of social capital, but one that helps us understand the development of normative frameworks, generalized trust and the perceived legitimacy of institutions–important factors in effective community response to disasters. In conclusion, implications for future preparedness are mentioned.

The 2005 hurricane season was a record-breaking one for East Texas. Proximity to Louisiana made East Texas a natural destination for evacuees from Hurricane Katrina and the subsequent flooding of New Orleans. Even as the area was sheltering hundreds of thousands of evacuees from Katrina, three weeks later Hurricane Rita arrived. In the 2005 hurricane season, coastal evacuation for Texas was based on pre-established evacuation hub communities. Huntsville, Texas had been designated the evacuation hub for evacuees from Galveston Island. The response of this East Texas community to large influxes of evacuees from both storms sparked this investigation of community response and demonstrated that when responding to an emergency, a community's "primary resource is its predisaster social organization" (Dynes and Quarantelli 1980:347). Unlike previous studies on community response, however, the focus here is on a community welcoming evacuees from other places. Can the frameworks developed through studies of communities directly involved in disasters help us understand community

dynamics *vis-à-vis* groups arriving from outside its borders? Can we still speak of altruistic or therapeutic response (Fritz 1961; Barton 1969)? Due to population growth and concentration around the world, the potential for risk and disaster has increased (Perrow 2007; International Federation 2004). The need for evacuation plans that take people to other communities, out of harm's way, has also grown. In light of these unfortunate expectations, it becomes necessary to understand how host communities will fare when required to shelter possibly large numbers of evacuees, perhaps for weeks or months rather than for hours or days. This paper attempts to provide a clearer understanding of how communities react to disaster by discussing the concepts of therapeutic community and convergence as applied to one case study.

As stated early on by Fritz (1961) and Barton (1969) community response is shaped by pre-existing social organization. Barton refers specifically to the "over-all pattern of interpersonal ties between [a community's] members" (1969:226). If social ties shape disaster response then social capital theory can inform a study of community response to help us understand issues like convergence, coordination and innovation in the context of an emergency. The idea of social capital used here is drawn largely from Bourdieu (1983/1986), Putnam (1993), Coleman (1990) and Dynes(2002). It should be noted that Coleman's use of the concept is seen as too individualistic and rational, even though his efforts to link social capital to social structure are useful. Dynes successfully uses Coleman's typology to explore the role of social capital in disasters. Elements from a single case study cannot be generalized, but they can indicate new ways of conceptualizing community disaster response. It will be the task of future studies to confirm, or dispel as anomalous, the response dynamics presented here. The conclusions drawn support Dynes' (2002) call to incorporate the building of social capital into community preparedness activities and programs.

Particularly in light of the grim news from New Orleans during and after Katrina, the small Texas town examined in this study admirably met the varied and unexpected needs of those who sought refuge here. Walker County received recognition from the Governor's office for sheltering vast numbers of evacuees so well. In fact, Huntsville has been asked to welcome larger numbers of evacuees in the official planning documents for future emergencies. The community, furthermore, has been selected as the site of a new multimillion dollar state evacuation shelter financed in part by FEMA. Understanding the factors contributing to an effective response in one community can help guide the selection of future evacuee communities and inform future emergency responses.

Therapeutic Community Revisited

To understand community response, it is useful to refer to the classic works of Fritz (1961) and Barton (1969) in which they describe the efforts, largely spontaneous, to help following a disaster as a therapeutic response. Both authors examine how communities handle disasters within their borders. For Barton, variables include characteristics of the disaster (suddenness, randomness) and collective variables referring to the community in which the disaster took place. Reactions to the victims are reactions on the part of others in the same community to their fellow citizens who have suffered losses. The current paper differs in that it examines how a community removed from the disaster location dealt with welcoming an influx of victims, strangers to their community. Scanlon (1992) points out that off-site and multiple-site convergence is possible, but disaster studies tend to focus on areas directly impacted by disasters as opposed to more distant host communities.

Barton's work sheds light on how any community responds to disaster, whether dealing with its own members or caring for evacuees from another place. In fact, Barton's discussion of the relational pattern characteristics within a community is very similar to the concept of social capital. By "relational pattern characteristics," Barton refers to "the over-all pattern of interpersonal ties between its members." Furthermore these social ties have an important influence on effective communication:

> "a community in which kinship and friendship ties are poorly developed in general, for example is a big-city apartment area full of isolated people, or a newly settled suburb full of strangers, will have much less informal communication even about a socially random impact than one with more dense social ties." (Barton 1969:226)

Other disaster scholars also recognize that how a community is organized socially prior to an event is seen to shape the reaction to a disaster.

> "The social-organizational view suggests behavior is best explained as being guided by norms embedded in roles. This is true for behavior in disaster situations as well as behavior in ordinary situations. Disasters do not modify the factors affecting behavior but rather create a series of tasks with which the existing social organization of the community must cope" (Dynes and Quarantelli 1980:347).

Social organization varies among communities. How people are connected and the nature of their interactions shapes communication, access and response to information, as well as involvement in activities. Barton describes how socially isolated groups within a community fare in a disaster. "In a community with 'segmental integration,' with close social ties within social and ethnic segments but few ties between them, a random impact can still create intense discussion and awareness within all groups, since each has some of its members affected" (Barton 1969:226-7). Segmented integration in a community may severely reduce communication about a disaster if the impact of the disaster is largely confined to only one area. Communication about the disaster within the area is likely to be very active, but a lack of ties across the community to other groups may keep the area relatively isolated and, consequently, limit response (Barton 1969:227).

In some ways Barton's argument that how people are connected across a community will shape communication and disaster response foreshadows Putnam's (2000) distinction between bonding and bridging social capital. Bonding social capital refers to the interactions within a group that reinforce its borders. On the other hand, bridging social capital involves interactions among groups, linking groups to one another. Both kinds of social capital facilitate social interactions and contribute to rapid dissemination of information and effective disaster response. However, if only binding social capital is present in the area affected by a disaster, as Barton's "segmental integration" indicates, communication with outside groups may be slow, problematic or largely nonexistent.

Barton's model also identifies social factors influencing willingness to help within communities. Barton (1969:261-8) refers to the influence of group culture on people's helping behavior by recognizing that there is a "normative mechanism" at work. If many people in a community help, the local perception is likely to be that people are expected to help, establishing a helping norm in the group culture (Barton 1969:261-3). This reference to normative influence on individuals' motivation to help is mentioned by Barton in his discussion of situational and motivational determinants of helping when he refers to the link between individual moral standards and the perception that others have moral standards mandating helping behaviors (Barton 1969:269-70).

Huntsville's response demonstrates the 'normative mechanism' well despite the fact that the community examined was not directly hit by either hurricane. Evidence of a strongly shared set of behavioral norms comes from the interviews. When talking about what made the local hurricane response work so well, interviewees frequently stated that "people just knew what to do," "people didn't

need to be told, they just did the job." The informal rules of conduct are transmitted through local institutions, family and social networks. Since many people share longstanding connections to the same institutions, a common set of rules is taught and internalized. This common culture informs communication, organization and response, helping things go smoothly even in unexpected situations. This common culture confirms Barton's 'normative mechanism' at work (Barton 1969:261-8).

However, there are several factors considered by Barton that do not seem to fit the case of a community helping disaster victims from elsewhere. According to Barton's model, spontaneous informal response to disaster increases with proximity to a disaster. Although Barton points out that those directly affected may have suffered so much damage and/or injury that they are not able to assist others, those closest to the disaster are seen as the most likely to help the victims. Barton's model does not explain the responses to either Hurricane Katrina or Rita seen in Huntsville and many other towns and cities across Texas and the nation. In this instance, these communities were far removed from the disaster, but they nonetheless demonstrated the ability to become "therapeutic communities."

It should be noted that time is another element to consider when examining disaster response. In the case of Hurricane Katrina, many disaster survivors stayed a long time in the new communities, eventually becoming new residents. However, after a certain period of time has passed since a disaster, people's willingness to help begins to decline. Wolfenstein's (1957:189-98) early exploration of the temporal element of response describes this dynamic in detail. In the case of Hurricane Katrina many people have been forced to resettle permanently in communities where they found shelter during and after the storm. Almost like immigrants, they have a different impact on a community than people requiring temporary emergency shelter for hours or several days. Further research is needed on the transition from disaster evacuee to new immigrant to document the process and how these new arrivals are integrating into their new environments.

Social Capital: A Framework for Understanding Community Response

The notion that the nature of people's social interactions can shape the safety of their environment is not new. Jane Jacobs (1961) points out that urban spaces in which people interact are safer than those which discourage public interaction. She advocates multi-use buildings to bring people into and through spaces at a variety of times of the day and night. The presence of people brings eyes and ears to public spaces, reducing isolation and increasing safety. It is not surprising then that the degree to which people are connected within a group or a community will shape

how they will respond in an emergency situation. The concept of social capital provides a useful framework for understanding community response to disasters. As an idea, social capital has enjoyed tremendous popularity and many scholars have adopted the concept in a variety of ways. The diversity of uses has created confusion about the concept's definition and therefore some doubt as to its usefulness. What is proposed here is a composite version, borrowing from several authors, to create a view of social capital that is most applicable to collective disaster response.

Bourdieu offers a relatively early approach to social capital that highlights how social ties can be seen as 'collectively-owned capital.'

> "Social capital is the aggregate of the actual or potential resources which are linked to possession of a durable network of more or less institutionalized relationships of mutual acquaintance and recognition–or in other words, to membership in a group–which provides each of its members with the backing of the collectively-owned capital, a 'credential' which entitles them to credit, in the various senses of the word" (Bourdieu 1983/1986: 248-249).

Particularly useful here is the idea that social capital is a characteristic of the collectivity, whereas more recent treatments of social capital tend to focus on an individual's use of social ties and group membership for instrumental means.

Social capital facilitates productive activity and therefore helps explain why some communities can mobilize resources better than others. Putnam defines social capital as the "features of social organization, such as trust, norms, and networks that can improve the efficiency of society by facilitating coordinated actions…." (Putnam 1993:167) He argues that institutions that function well are found in regions having many formal and informal organizations. High levels of social participation by citizens in a variety of organizations seem to be the key to institutional efficiency. "In the most civic regions…citizens are actively involved in all sorts of local associations–literary guilds, local bands, hunting clubs, cooperatives and so on" (Putnam 1993:97). Coleman agrees stating that "…a group whose members manifest trustworthiness and place extensive trust in one another will be able to accomplish much more than a comparable group lacking that trustworthiness and trust" (Coleman 1990:304).

Coleman's types of social capital attempt to identify how social relations translate into social capital by identifying six forms of social capital: obligations and expectations, information potential, norms and effective sanctions, authority

relations, appropriable social organization and intentional organization (Coleman 1990:306-13). Note that Coleman's is an individualistic, rational-actor approach with which this author is not comfortable, but the framework he provides helps us to think about characteristics of community that condition how individuals interact. All of these can be directly linked to aspects of disaster response in the literature and to the case study at hand.

A Qualitative Study

The research includes firsthand experience of the local response efforts to both Hurricane Katrina and Rita. National and local news sources (including *The New York Times*, National Public Radio, *The Houston Chronicle*, KUHF Houston, the *Huntsville Item* and KSAM) have been monitored for storm and evacuation-related information starting several days prior to Katrina up to the present. In-depth conversations, ranging from formal open-ended interviews to less formal discussions, were conducted with twenty-four representatives of the primary organizations involved in the local response to the emergencies described here including: local emergency coordinators, city and county government officials, Chamber of Commerce staff, faith-based organization staff and volunteers, nonprofit organization staff, law enforcement personnel, first responders and volunteers. These recorded interviews ranged from thirty minutes to two hours. The interviews were guided by a series of questions regarding the interviewee's official and unofficial role(s) in local disaster response activities; whether or not his/her organization worked with other organizations and, if so, in what ways and with which ones; and questions asking for the interviewee's evaluation of the effectiveness of the local disaster response. None of the people contacted refused to be interviewed. Since all of the people interviewed were active in the emergency response, it is possible that their evaluations of it are overly forgiving. However, many did speak frankly about weaknesses in the plan, identifying areas in need of improvement. Another possible element of distortion is that the interviews took place in the months following the 2005 hurricanes (fall 2005 through spring 2006) and may reflect clarity of hindsight. Conducting interviews during the events was not feasible as all of the individuals contacted would have been inaccessible due to their roles in the emergency response.

Further background information on the community and response activities was accumulated through more casual conversations with volunteers, participants in local organizations and community residents. All of the descriptive details of the disaster response that are integrated into this text are from these conversations.

The author also was a participant observer after the evacuation at emergency management training sessions, planning meetings, and emergency simulations during the last three months of 2005 and all of 2006. Living in the community under study means that daily life is a form of ethnography (Lofland and Lofland 1984) and therefore participation in local organizations and culture provides a foundation to the observations made here. To begin to understand a community we must examine data regarding its size and composition, how its members interact, and a comprehensive description of the institutional context.

Case Study: Huntsville, Texas

In response to the two recent hurricanes, this observer saw the community react to emergency situations in remarkable ways. What made the aftermath of Katrina and Rita of particular interest was that the response was not within the damaged communities, but extended far beyond the affected areas. In the case of Katrina, communities in every state of the nation were included. For the town of Huntsville, Hurricanes Katrina and Rita each presented new challenges that required fast, flexible, innovative solutions. The first task was how to house evacuees for relatively long periods of time. State and local emergency plans were to care for people for a maximum time period of seventy-two hours. However, people arrived requiring emergency shelter for weeks after the storm since they had lost everything and had no place to go. The second issue was how to shelter so many people. The 2005 local emergency plan foresaw sheltering 1500-1600 people for several days. Hurricane Katrina sent more than 500 (some estimates are closer to 700) evacuees, many of whom stayed weeks or months and a few have become new residents in the community. Additionally, during Rita, Huntsville sheltered an estimated 15,000 people–temporarily increasing the local population by more than 50%.

As in all disasters, additional unforeseen problems arose, requiring creative solutions. For example, nearly all Katrina evacuees arrived at one time after having spent days being shuttled from place to place on various buses. How to provide them all with shower and laundry facilities, and changes of clothes? Many escaped with only the clothes they were wearing. The shelter shower facilities were very limited and there were no washing machines available. What to do with the beloved household pets arriving with the evacuees? (Red Cross shelters prohibit animals for health and safety reasons.)

Other problems surfaced connected to the response itself. Once word spread that evacuees from New Orleans would be arriving in the local area, problems of

convergence began. There were too many volunteers and too many donations of too many kinds, all of which created additional needs for coordination and personnel. The magnitude of the response became an additional obstacle. Problems of convergence of this type have been well documented in Fritz and Mathewson's early work (1957) and more recently in Scanlon (1992), Wenger and James (1994), and others.

In the case of Huntsville, the articulated institutional environment facilitated the mobilization of resources possible during the hurricane responses. On a grassroots level, Huntsville's many churches played a critical role. They were called upon to provide shelter, volunteers, food, nonperishable items and money. Not only did the churches provide all of these necessities, volunteers and donations were turned away for days after both hurricanes because of an overwhelming surplus. In response to Katrina two of the largest churches volunteered to open as shelters (both had been certified as Red Cross shelters prior to the storm) and, according to one city employee, were "practically fighting to open first." The largest shelter for Katrina evacuees estimated that approximately 500 volunteers worked there during the course of the evacuees' stay. Roughly half of these were members of that congregation, but many churches provided teams of people and numerous other individuals signed on as well. The Council of Ministries, the local inter-church coordinating body, divided up the tasks so that people from all churches could help support the shelters and feed those staying in the local hotels and motels (also full to capacity). So many people offered to work, that many were turned away as researchers have reported in other circumstances (Dynes and Quarantelli 1980; Scanlon 1992; Wenger and James 1994). Locally, volunteers who were not given tasks experienced feelings of frustration.

Similarly, citizens heard that the shelters needed supplies and that the evacuees needed clothes and many brought items to the shelters. The shelters were quickly overwhelmed with donations, as was the local mission which provides food and shelter to those in need year round. Radio announcements began to go out asking people to stop donating because there was no more storage space. The Chamber of Commerce improvised by setting up a phone bank to answer questions and to record people's donations. When there was a specific need, the shelters could then contact the Chamber volunteers and they would call the person making the donation, thereby matching supply and demand. The local volume of donations and volunteers was higher than anyone had expected, although Fritz and Mathewson (1957), Scanlon (1992) and others would have anticipated such a response. Because the numbers of volunteers and donations were unforeseen, their management was

not sufficiently incorporated into the emergency management plan. As a result some resources were not fully utilized. The Emergency Response Plan has since been updated to include dedicated space, volunteer personnel and procedures for collection, sorting and distribution of donations.

Hurricane Rita involved the entire community to an even greater degree. Only two official shelters housed Katrina evacuees, but Rita saw twenty-three shelters open. People were literally sheltered in all available large buildings (churches, universities, schools, fairgrounds). Again the hotels were full to capacity. Stores were opened in the middle of the night to allow city personnel to get what supplies were left to distribute to people stranded on the Interstate. Once more, residents lined up to help feed the evacuees and provide the shelters with needed supplies. Many other communities in Texas and elsewhere reported a tremendous desire to help people in the wake of the storms, particularly Katrina. What makes the local situation seem remarkable is that because of the size of the town, the response affected everyone in the community in some way. This collective behavior raises the question of what motivates people to volunteer to help others, especially people they do not know. Is there something in the way the community works that shapes the collective reaction? A look at the local institutional context will provide insight as to how people in this community are interconnected and how this affected resident involvement in emergency response.

Community Institutional Context

Founded in 1845, Huntsville, Texas, is located approximately seventy miles north of downtown Houston along the major north/south thoroughfare between Houston and Dallas, Interstate 45. Huntsville is located in the Piney Woods of East Texas, squarely in the socially and politically conservative Bible Belt. The population of Huntsville is 35,078, more than half the population of Walker County (61,758), of which it is the county seat. The population of Huntsville is slightly more African American, poorer, less educated than the state averages. Twenty-four percent of the population of Walker County was African American in 2004 compared to 12% of the state's overall population. Other minorities, however, represent smaller percentages in Walker County than in Texas as a whole. In 2003, 19.4% of Walker County's residents lived in poverty compared to 16.2% of the state's population. The median household income in Walker County in 2003 was $30,537, but $39,967 in Texas as a whole. Just more than 18% of the population in Walker County held a Bachelor's degree or higher in 2000, compared to 23.2% of the population of Texas (U.S. Census Bureau 2007).

Within the state of Texas, Huntsville is well known for its two main institutions and by far its largest employers: the Texas Department of Criminal Justice (TDCJ) and Sam Houston State University (SHSU). Texas has prisons throughout the state, but Huntsville has an unusually high concentration of them with prison units housing 8,300 inmates within the city limits, and 13,000 in the county. TDCJ employs 6,744 workers countywide. The state's first penitentiary, the "Walls" unit where the state's executions take place, is one of five units within the city limits. Four additional units are within twenty-five miles of Huntsville.

SHSU (established in 1879) is part of the Texas State University System enrolling approximately 16,000 students and employing faculty and staff of 2,500. The presence of these two institutions characterizes life in Huntsville. Daily rhythms are affected by work shifts at the prison units; seasons are marked by the ebb and flow of the student population. The unusual coexistence of two very large institutions in a small city, one emphasizing learning, research and training and the other aimed at more explicit social control and 'correction' creates the context for the current study.

Huntsville's institutional context is further concentrated in that it is home to only one public school district which is the county's third largest employer. This means that children attending local public schools know everyone in their own grades and recognize those in the adjacent grades. The fact that the school-age children know one another points to how members of a community are tied together, but more important, if children know each other and participate in activities together, their parents and other adults associated with them are also involved and connected, even if loosely. Activities such as PTA meetings, field trips, little league, soccer teams, football and basketball practices and games, ballet recitals, band concerts, cheerleading and school plays involve adults in the community and connect them to each other.

Furthermore, the local area is characterized by a large number of churches. The faith-based organizations number approximately 80 and range from small congregations in the double digits to a handful of very large congregations of more than 1,000 members. While there are many, separate churches, they are all Christian and overwhelmingly Protestant. As such they play strong, similar roles within the community, particularly with regard to shared values and norms, community participation and helping behavior. Sunday church going is the norm, with many attending a wide range of other activities like choir practice, youth groups, prayer breakfasts, mission trips, volunteer work days and bible study groups at other times of the week. Through church membership people become

involved with others within their congregations but because of outreach and service activities, church membership also increases interaction with people outside of their own congregations.

The local nonprofit sector is also active and diverse. In 2006 the Walker County Chamber of Commerce listed 163 nonprofit organizations in its official registry (Huntsville Walker County Chamber of Commerce 2006). Whether small or large, these vital service, sports or social groups represent a wide array of organizations in which community members connect with each other. Putnam (1993) would argue that they contribute to the community's social capital. As we will see in the discussion of social capital below, this interconnectedness, or system of overlapping memberships, is important to the social organization of a community and to its ability to respond to an emergency.

The Importance of Trust

Huntsville's and Walker County's responses to the events were flexible and creative in that procedures for sheltering huge numbers of evacuees, some with special needs and/or animals in tow, were not outlined in the emergency plans in place during the 2005 hurricanes. Despite these omissions, the response was generally seen as effective not only by local officials, but by evacuees, local residents and by state and national agencies. Interestingly, the response efforts in this case were directed toward outsiders to the community. In this sense the local case is significantly different from Barton's model. A return to the concept of social capital provides a broader framework with which to understand the local community reaction. Putnam (1993) states that the civic-mindedness of community members is linked to the effectiveness of governmental institutions because in civic communities citizens express "greater social trust and greater confidence in the law-abidingness of their fellow citizens" (Putnam 1993:111) than those in less civic areas. Social participation seems to help citizens trust their institutions and one another. This general trust is based on "the expectation that others will probably follow the rules. Knowing that others will, *you* are more likely to go along, too, thus fulfilling *their* expectations" (Putnam 1993:111, emphasis in original). Sabel states that trust is "the mutual confidence that no party to an exchange will exploit the others' vulnerability…" (Sabel 1990:1). This is not to imply that people consciously evaluate their own or others' behaviors, but they are less likely to question motives and behavior if they generally trust people.

Trust helps social interaction to proceed in expected ways. When people are interconnected and know something about each other's past behavior or can

reasonably anticipate what the other will do, they are more likely to trust one another. Frequency of interaction and knowledge of others are typical elements of life in small communities. How trust affects interaction can be seen in the use of contracts. When people are strangers to one another, are unconnected and social information is scarce, as is often true in a large city, some form of contract is usually used to ease both parties' minds about an exchange (Black 1976; Macaulay 1963). On the other hand, in tight-knit communities (usually smaller) formal contracts are rarely used.[1]

Trust nurtures reciprocity and reciprocity in turn reinforces trust. Specific reciprocity refers to the dynamic we all experience with gift giving. If I do something nice for you now, you'll do something nice for me in return. General reciprocity is the notion that if I help you when you are in need, someone will assist me when/if I require it. Trust operates in both types of reciprocity, but the presence of the more diffused type of reciprocity helps explain what happened in the local hurricane response. One might expect that a relatively small community characterized by social participation and interconnectedness would respond well to an emergency, bonding together to take care of their own. What was observed in the current case study was a community that rallied to help large numbers of strangers, perhaps indicating the presence of diffused trust and a very abstract idea of reciprocity. Several people interviewed connected this idea of general reciprocity to religious faith. Since the presence of Christian faith-based organizations in the community is strongly felt, the associated normative frameworks are widely shared, and could well contribute to the more diffused sense of reciprocity.

As people are reasonably certain that others will behave in expected ways, their behavior is likely to conform, too. The very elements that work together to create social capital, also exert social control on the participants. Shared normative frameworks, created and maintained through overlapping memberships in local institutions, shape people's interactions: prescribing and proscribing behaviors. In fact, where there is increased social capital, we may also find relatively more social control. Rather than limiting openness and innovation, a highly institutionalized social environment and the social control that accompanies it appear in this case to make innovative problem solving possible.

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[1]Siegrist and Cvetkovich (2000) connect trust to the evaluation of risks and benefits crucial in emergencies. See also Earle and Cvetkovich's (1995) extensive treatment of types of trust.

Social Control and Legitimacy

According to Habermas (1984) the legitimacy of social institutions refers to people's acceptance that they are fair and just, deserving of support and cooperation. Citizens' views of social institutions are critical during a crisis in that it is these institutions that attempt to prepare for, warn about, help during and recover after, disasters. If they are seen as trustworthy, residents will be more receptive to disaster-related efforts. New Orleans highlighted difficulties resulting from lack of information but, more important, what seemed to hamper response efforts were problems of legitimacy and lack of trust. Even when information and people were in place, the communities most affected by Katrina voiced suspicion of institutions, particularly of the institutions whose representatives were most present in the hardest hit areas – law enforcement (Baum 2006). Ellison (2006) reports that a recent survey of African Americans in Houston reveals a similar lack of trust that local government would help them in an emergency.

The degree to which social information is transmitted within a group depends on a group's characteristics: size, types of relationships, and amount of interconnectedness. Huntsville is a relatively small town characterized by the interconnected personal and organizational networks of its citizens. Therefore, it represents a community in which information – both technical and social – is likely to be dispersed at a rapid rate. As a result, informal social control is very present, serving as a kind of guarantee that people can be trusted. As a result authority is usually accepted as legitimate.

Scanlon (1992) recognizes the importance of information in disaster response by noting that "…convergence is a function of lack of information and that it can be controlled only with carefully collected, shared, accurate information—something the very nature of a disaster makes difficult to achieve" (Scanlon 1992:38). Social organization before a disaster does shape response and information can travel more quickly in a community that is characterized by overlapping memberships, thick networks of social ties and high levels of social capital than in communities without these characteristics. Quickly traveling information is positive when alerting people to danger, accessing resources and gathering volunteers and donations. However, if information travels too quickly, convergence can become a burden.

Citing Quarantelli and Dynes (1971, 1976), Wenger and James write of 'consensus crisis' as the "basic agreements among the participants regarding the goals and objectives for action. In these settings there is a leveling of social distinctions, a present orientation, the emergence of altruistic norms, an external

threat to the system, the expansion of the citizenship role, increased identification with the community, and the presence of immediate and non-ambiguous problems" (Wenger and James 1994:231-2). A 'consensus crisis,' or the shared understandings about a crisis and what should be done about it, is more likely when predisaster social institutions are viewed as legitimate according to Habermas' (1984) concept. These characteristics coincide with dynamics found in areas with strong social capital.

Information spreads quickly through the many connections residents have with one another. Most of the links are through some sort of organizational participation or membership. Because there are so many interconnected formal and informal organizations in Huntsville, it can be considered a highly institutionalized environment. Given the large percentage of local population directly or indirectly affiliated with the two main institutions, the centralized school system, a vibrant nonprofit sector and frequent community-wide events, local residents share memberships in local organizations and activities. The overlapping memberships stem from the fact that so many resident families have at least one person employed by either of the two large institutions. There is only one public middle school and one public high school allowing the students to know nearly everyone their own age. Church participation is another main source of connectedness among community members. Moreover, the city offers large public events several times a year that are typically well attended. Nonprofit organizations and social clubs abound (Huntsville Walker County Chamber of Commerce). Emergency management personnel, local officials and members of the faith-based community demonstrated a clear awareness of residents' interconnectedness, mentioning the concept frequently in the interviews.

Although interconnectedness and interdependence can be positive elements of social capital, they potentially can have negative consequences leading organizations and institutions to become insular and introspective. This closure may create inflexible organizational structures, limiting adaptability to change. Instead, the contention here is that to some extent the rigidities of interdependence (including the tight social control of a relatively small town) contribute to, rather than hinder, quick adaptable responses in emergency situations.[2]

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[2]Although applied to a different context, this is similar to Dore's (1986) concept of flexible rigidities. See also Bianchi and Miller (1996).

Fostering Social Capital: Conclusions and Next Steps

Social capital is generated through social participation and the collective definition of a group or community. Therefore, actions aimed at encouraging the collective definition of people in a given area as stakeholders in a community are seen as important to generating social capital. Likewise, active social participation in the community is crucial. As we have seen, the types of organization and participation are less important than the act of collective participation.

Trust has been identified as a vital component of social capital. So we must ask the question, can trust be produced? Both Perrow (1992) and Sabel (1990) would likely assert that this can only be done indirectly by establishing the conditions for trust. Sabel suggests that drawing group boundaries to identify groups, and encouraging interdependence among group members, fosters trust within the group (Sabel 1990:9). Huntsville is characterized by long-term relationships, a sense of belonging or community, overlapping personal, social and business networks and shared culture providing an example of a context that encourages trust. When this trust is present, social institutions are accepted as having legitimate authority: an important aspect of effective disaster response.

Given the importance of social capital, it becomes evident that emergency planning and training models should include a wide array of social actors and social information in addition to logistics and law enforcement elements as Dynes (2002) suggests. Further exploration of how social capital can inform emergency preparedness is an ongoing part of the current research initiative.

Social capital is therefore seen to facilitate effective emergency response, at least in this community case study. Interestingly, the process of sheltering people, although a strain on local resources, has stimulated people to become more involved in emergency planning and response confirming Dynes and Quarantelli's (1980) finding that volunteers reported feelings of increased community closeness and pride as a result of disaster response activities. Additional volunteers have formed new committees to meet needs that emerged during the storms. Numbers at the Red Cross training sessions were up from the previous year indicating that the storms helped increase participation. Reports from the Houston area confirm this trend. The number of volunteers participating in the Community Emergency Response Team training has more than doubled since last year prior to Katrina and Rita (Grant 2006).

According to Coleman the creation of new social capital can grow from existing social capital or can be completely new (1990:10). Increased participation in emergency preparedness activities bodes well for the community when another

emergency occurs. More important, even if we are crisis free, the process of preparing and training for emergencies increases the local 'stockpile' of social capital.

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