A Problematic Integration Approach to Capturing the Cognitive, Cultural, and Communicative Experiences of Hurricane Katrina Volunteers

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This essay outlines an applied approach for examining message reception and processing among natural disaster volunteers. It is argued that an applied approach provides analysis of volunteers’ decision-making processes that extends to cognitive, cultural, and communicative influences on the decision to volunteer. Implications for future research on volunteerism in natural disasters are discussed and policy-making implications are addressed.

In the wake of Hurricanes Katrina and Rita, the American Red Cross issued an unprecedented call for some 40,000 volunteers (van Zwieten, 2005). The organization reported an estimated 74,000 workers from all 50 states responded to the Hurricane Katrina relief effort and an additional 63,000 individuals were trained in specialized disaster relief skills (American Red Cross, 2005b). With the help of volunteers, the Red Cross was able to provide housing to nearly 75,000 survivors in 445 shelters across 19 states and the District of Columbia and serve 7.6 million hot meals and more than 6.6 million snacks to survivors of Hurricane Katrina (American Red Cross, 2005a). This was the organization’s largest mobilization of resources for a single natural disaster (National Climate Data System, 2005).

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A particularly challenging methodological issue for researchers is how to collect social scientific evidence about volunteer decision making in natural disasters as well as their lived experiences.

Although there has been significant discussion about the role of race and class in the treatment of Hurricane Katrina victims, there has been considerably less dialogue about how demographic and psychosocial characteristics of volunteers might have affected decisions about how, or even whether, to take part in the relief effort. As the massive mobilizations of ad hoc volunteers for Hurricanes Katrina and Rita slowly dissipate, it is imperative for scholars and policy makers to capture the cognitive, cultural, and communicative experiences of hurricane volunteers.

The ephemeral nature of this information is particularly troubling for a number of reasons. First, descriptive accounts of volunteering after the Hurricane could help illuminate the reality of volunteers’ post-Katrina attitudes, emotions, and behaviors. Not only do the experiences of volunteers have implications for those interested in preparedness planning for the future, but volunteers from these particular disaster events may also offer tremendous insight into the nature of intercultural, interracial, and interethnic communication between evacuees and volunteers. Finally, removal of the disciplinary silos that often divide social scientific inquiry would allow the body of literature on organizational communication and volunteerism to mesh with public policy, psychology, and other social scientific research to create a useful lens through which to view similar events in the future. Capturing volunteers’ experiences opens the door to this possibility.

The purpose of this essay is to suggest an interdisciplinary framework for use in studying psychosocial factors among volunteers in natural disaster events in the future. The theoretical underpinnings for the proposed model relies on the work of Babrow (1992), who developed a theory of problematic integration to examine the role of communication in producing and coping with subjective uncertainty, and on Hofstede’s (2001) work on cultural orientations. This essay extends Babrow’s and Hofstede’s ideas to create an applied approach for examining message reception and processing among natural disaster volunteers. Before suggesting a model for future empirical study of volunteers in crises, a more general discussion of volunteerism is warranted.

**Volunteerism**

Prior to Hurricane Katrina, the proportion of the American population who volunteer has been decreasing over the last decade. Overall, the number of volunteers totaled 93 million individuals in 1995 (Ladd, 1999). A September 2005 survey detailed that the number of Americans who volunteered through or for an organization was 65.4 million over the last year, the same as each of the two prior years (Bureau of Labor Statistics, 2005). In September 2006, when the Bureau of Labor Statistics reports annual volunteer rates, it is likely that American
Volunteers 89

volunteerism for 2005–2006 will increase due to the natural disaster events that have occurred.

When Hurricane Katrina hit the Gulf Coast of the United States, the nation was reminded that, like terrorism, natural disasters have a tremendous ability to reveal deficiencies in preparedness among individuals and local, state, and federal agencies. Many researchers have expressed concern that there is a worldwide lack of planning and preparation for disastrous events (Drabek, 1986, 2001; Perry & Mushkatel, 1984; Quarantelli, 1988). Instead, individuals and institutions tend to focus their attention on more immediate challenges and do not proactively plan for uncertain possibilities. Given this tendency to focus on the concerns of the moment, a lack of preparedness can lead to a strong need for ad hoc volunteers to work with those affected in the aftermath of a serious natural disaster event.

This was evident in the case of Hurricane Katrina, a natural disaster that prompted an unprecedented call for some 40,000 volunteers by the American Red Cross. Normally, Red Cross volunteer opportunities require hours of training and time commitment. However, in the wake of the Gulf Coast disaster, the American Red Cross provided one-day training for volunteers with disaster relief assignments ranging anywhere from 10 days to 3 weeks (Velliquette, 2005).

**Previous Approaches to Volunteerism**

Several approaches have been widely used in an effort to study motivation to volunteer. Among them are the Theory of Reasoned Action (Ajzen & Fishbein, 1980), Expectancy Theory (Vroom, 1964), Role Identity Model (Piliavin & Callero, 1991), and the Decision to Volunteer Model (Penner, 2004). However, none of them takes a message-centered approach to examine how interpersonal and mass communication messages explicitly affect cognition of volunteers.

The Theory of Reasoned Action (TRA; Ajzen & Fishbein, 1980) juxtaposes behavior and intention, predicting that behavior is the strength of intention. Therefore, intention formation, an amalgamation of subjective norms and attitudes, leads to behavior. According to Bennett and Bozionelos (2000), behavior is evaluated in terms of two cognitive processes: the individual’s own attitudes, and consideration of the relevant behavioral norms. Accordingly, these norms are determined by the dominant social ideology regarding volunteering. But, Sheeran, Abraham, and Orbell (1999) argue that “TRA’s conceptualization of social influence is too narrow” (Smith & Dickson, 1993, p. 122). In contrast to TRA, Expectancy Theory (ET; Vroom, 1964) examines motivational factors based on value and reward of behavior. According to ET, reward for behavior is associated with a value and the individual develops expectations to perform the desired behavior successfully. Thus, an individual’s motivation increases when values are positive. Consequently, while TRA and ET focus on the predictors of volunteering, they do not take into
consideration the interpersonal, mass media, or cultural dynamics associated with such a decision.

More recent models, such as Role Identity Model (RIM; Pilivian & Callero, 1991) and Penner and colleagues’ (1997, 2004) work on determinants of volunteering, do suggest that social roles drive volunteer behavior. Penner (2004) describes that “social pressure” plays a role in the initial volunteer decision-making process. Social pressure is similar to communication in that it is defined as direct or indirect requests to engage in volunteering (Penner, 2004). This model, however, fails to include the impact of more general mediated and interpersonal messages that saturate a community in a disaster situation. Messages about a disaster may or may not include requests to volunteer but, rather, may come in the context of discussions and reports of the disaster event.

Finally, Penner et al.’s Decision to Volunteer Model (DVM) begins to address the role of culture in volunteering, but does not explicitly depict cultural orientation as a primary factor in volunteer decision making. Demographic characteristics described by Penner (2004) focus largely on education and income of volunteers, and personal attributes are described as belief, attitudes, and personality attributes. These elements do not specifically address the influence of cultural orientation. Since communication and culture shape personal judgments about messages that an individual receives (Babrow, 1992), it seems necessary to include such elements when investigating volunteer decision making. In the case of Hurricane Katrina, the location of the disaster event and the extensive coverage of post-Katrina events make communication and culture central to examining the volunteer effort.

Social scientists interested in collecting these data need to examine the role of messages sent and received by volunteers about their volunteer experiences. A message-centered perspective is relevant because communication is a resource that facilitates the understanding of our world (Miller, 2002). This is particularly salient in natural disaster situations, where individuals must make sense of their own experiences and the messages they receive about the event. Message processing regarding natural disasters is complex, as individuals receive, process, and attempt to make sense of the messages they get regarding the disaster. The internal processing of messages is even more complex if the event has national catastrophic implications, such as Hurricane Katrina, which has been labeled the single largest natural disaster in America in almost 100 years (National Climate Data System, 2005). Individuals are inundated with messages from mass media, and political, social, and religious institutions, but the final framing of the event emerges through interpersonal communication with family and friends (Miller, 2002).

The uncertainty of the situation emerges through communicative processes, wherein uncertainty surfaces as a result of either too little information, too much information, or not being certain of the information received. The model of message processing underpinning this proposal relies on the work of Babrow (1992), who developed a communication theory that examines message reception and
processing. Unlike the work of Azjen and Fishbein (1980), Vroom (1964), and Penner (2004), the proposed model takes a message-centered approach to understanding information processing and volunteer judgments.

This approach is germane for any examination of volunteers in disaster events because it helps illuminate factors that may impact future volunteers’ decision-making processes. Policy makers interested in learning how to predict future ad hoc volunteer efforts must ascertain the role of cognition, emotion, and culture in communication about volunteering. Figure 1 describes the process through which volunteers make decisions about volunteering based on cognitive, cultural, and communicative factors. The remainder of this article will describe the proposed model and discuss its implications for future research on volunteerism in natural disasters.

**Problematic Integration Theory**

Babrow (1992) argues that the process of gathering and interpreting information is linked to managing uncertainty about an event. Problematic integration (PI) theory includes two components used in producing and coping with subjective uncertainty: *probabilistic orientations*, the likeliness of the event/issue occurring in their life, and *evaluative orientations*, an assessment of the goodness of the outcome. Probabilistic orientations are based on cognition, whereas evaluative orientations are based on emotion. For volunteers in natural disasters, probabilistic judgments might be the extent to which volunteers identify with the victims, or feel a similar event could happen to themselves or someone they know. Evaluative judgments might include volunteers’ perceptions of potential contributions in response to a disaster, or assessments of the volunteer effort in general. These two components are integrated in the minds of volunteers through messages that are sent and received as part of the volunteer experience (Babrow, 1992; 2001).
Probabilistic Orientations among Volunteers

Babrow (2001) illuminates probabilistic orientations as “associational webs of understanding that we form through more or less thoughtful engagement with the world” (p. 560). Social scientists interested in examining motivations and experiences of natural disaster volunteers should consider the role of probabilistic orientations in decisions about whether and how to participate in a relief effort. For example, probabilistic orientations are key for state and local authorities interested in managing public uncertainty about an event. Mediated dissemination of factual information about the need for volunteers is key to mobilization efforts because the media affects perceptions of the relative need for assistance in the response. Moreover, probabilistic judgments are central to assessments of the success of a response to crisis, because as the public communicates about the event through interpersonal networks, public perception of the event may be altered.

For some volunteers, probabilistic orientations create a need to increase uncertainty about an event (Bradac, 2001). In this instance, potential volunteers might view a disaster event as being too far removed from their own life to actively participate in a relief effort. Alternately, potential volunteers may feel compassion fatigue from extended media coverage of a disaster. Decisions about volunteering could be driven by unconscious self-protection of thoughts and feelings emanating from the threat posed by a disaster event.

Probabilistic and Evaluative Orientations and Culture

Many Hurricane Katrina volunteers came from differing racial and cultural groups. Researchers interested in ad hoc volunteerism also need to pay attention to the unique cultural characteristics of victims and volunteers, and account for these characteristics in the development of a model for mobilizing volunteers in the future. In the case of Hurricanes Katrina and Rita, many volunteers in Texas were Hispanic. Hispanic cultures at the macro level are characterized by values associated with collectivism as opposed to individualism. This well-established dimension of comparison refers to the degree to which a culture encourages, fosters, and facilitates the needs, wishes, and desires of an autonomous and unique self over those of a group.

As Hofstede (2001) and Triandis (1989) have suggested, cultural differences along the individualism–collectivism continuum place Hispanic and African Americans at the opposite end from European Americans. Hispanics and African Americans are decidedly more collectivistic and are more likely to place the needs of others above personal needs and goals. Being more individualistic, European Americans see themselves as separate and independent individuals. This orientation might lead to less active participation among volunteers or more low
Volunteers

involvement behaviors such as donating money or making telephone calls. In contrast, traditional Hispanics tend to see themselves as connected to and part of kinship and friendship relations. This orientation might be related to more high involvement volunteer behaviors.

Cultural orientation is a deterministic screen that impacts probabilistic and evaluative judgments by highlighting particular values associated with the need for volunteers. Previous research suggests that differences in the individualism–collectivism issue may be related to the ways people view work (Brislin, 1992; Brislin, Worthley, & McNab, 2006; Early, 1993), that is, workers in individualist cultures are more likely to view work as a means of obtaining individual wealth. By contrast, workers in collectivist cultures may have a need to identify with and feel part of the work environment. More specifically, research by Garza and colleagues comparing Mexican and European Americans samples has shown consistent ethnic differences related to reward structure and situational variations (see Epinoza & Garza, 1985; Garza, 2000; Garza, Lipton, & Isonio, 1989; Garza & Santos, 1991; Santos, Garza, & Bohon, 1995). These findings have particular relevance for examining volunteer behaviors, because the cultural environment within which a natural disaster occurs may have an impact on perception of the relative rewards and responsibilities for potential volunteers. A group-centered orientation is a defining characteristic of collectivist cultural groups.

While some research in other countries has found that a collectivistic orientation leads to lower levels of volunteerism (Penner, 2004), the determining factor in volunteering and helping has been associated with in-group membership (Sturmer, Snyder, & Omoto, 2005). We propose that in-group membership within disaster events could be associated with homophily between volunteers and displaced evacuees. In other words, collectivist cultural groups that see evacuees as being similar to themselves will mobilize out of empathy to extend social support to other collectivistic in-group members. Previous research has documented that empathy and a shared sense of suffering are strong predictors of helping someone who is an in-group member (Omoto & Snyder, 2002; Sturmer et al., 2005).

Solving Problematic Integration

A Problematic Integration (PI) approach to volunteer decision making suggests that communication must be used as a tool to help potential volunteers integrate cognitive and emotional responses to messages about a natural disaster. To solve PI is to ensure successful ad hoc volunteer efforts in the future, because, as individuals converse with friends and family and as media coverage of an event unfolds, there must be a unification of motivation for those who might give aid. Researchers need to become more aware of the decision-making process involved in volunteer work. Such work will bring to the surface the limitations that
Table 1. Application of Problematic Integration in Studying Natural Disaster Volunteers

<table>
<thead>
<tr>
<th>Form of Problematic Integration</th>
<th>Definition</th>
<th>Example</th>
</tr>
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<tbody>
<tr>
<td>Divergence</td>
<td>A discrepancy between what we want (evaluative) and what is likely (probabilistic)</td>
<td>A volunteer believes that they or their family members might be in danger for a similar type catastrophe.</td>
</tr>
<tr>
<td>Ambiguity</td>
<td>The probability of the event/issue is unknown or uncertain</td>
<td>A volunteer is unable to predict the likelihood of such an event happening in their life.</td>
</tr>
<tr>
<td>Ambivalence</td>
<td>(a) Two equal evaluations are present or (b) an event produces two contradictory responses</td>
<td>Volunteers have favorable attitudes about the idea of volunteering, but s/he recognizes the potential cognitive and emotional health risks associated with volunteering.</td>
</tr>
<tr>
<td>Impossibility</td>
<td>An individual feels that there is certainty that an event will not happen (zero probability).</td>
<td>A volunteer hopes to completely relieve pain and suffering of evacuees but recognizes it is impossible to achieve that goal.</td>
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</table>

exist in current decision-making theories, specifically cultural influences on the decision-making process.

The context of volunteering in the relief effort of Hurricane Katrina provides one way of examining how individuals solve PI, thus making information less problematic. PI solutions use communication to “combine concepts of cognition and emotion and highlight the tension that arises in the integration of probabilities (a rational and cognitive judgment) and evaluations (a more emotional or affective judgment)” (Miller, 2002). In this sense, communication is a central factor in the decision-making process.

Unfortunately, volunteers in high-stress environments may not easily process and integrate the multiplicity of communicative, cognitive, and emotional responses experienced as a result of volunteering. Integration of information can become problematic in one of four forms: divergence, ambiguity, ambivalence, and impossibility (Babrow, 1992). Table 1 details the application of this theoretical framework to studying the message processing of Hurricane Katrina volunteers.

Table 1 highlights that researchers interested in examining volunteerism using a PI approach need to consider several issues. First, the form of PI most germane to volunteers identifies motivation based on a message-centered approach. In other words, each form of PI has the potential to uncover how volunteers process messages differently. Policy makers and practitioners should pay attention to the types of messages disseminated about a disaster to successfully gauge their impact on volunteer efforts. Moreover, future volunteer mobilization efforts should include messages constructed to help volunteers solve cognitive and emotional discrepancy that positively impact volunteerism.
The typology including divergent, ambiguity, ambivalence, and impossibility message processing represent differing challenges for researchers interested in collecting data from volunteers. For example, volunteers who can be classified with a divergent message processing style may experience different motivations from those who feel a sense of impossibility. For this reason researchers should include questions related to, and representing, PI and message processing in future studies on volunteers’ motivations.

Since communication about disaster events plays such a central function in volunteer recruitment, quantity and types of messages received by volunteers should also be monitored by policy makers and practitioners. Volunteers exposed to large quantities of media coverage about an event may experience different forms of PI from those who engage in interpersonal dialogue with friends and family. The quantity and quality of communication preceding volunteer decision making should be assessed to uncover its impact on motivational factors.

Finally, although there is little research on the role of culture in PI, each form of PI could be used to examine how cultural affiliation relates to message processing and volunteerism. For example, it would be worthwhile to measure how different cultures view a disaster event, and to ascertain the strength of any existing relationships between culture and each of the four typology styles in the context of volunteering. This information would add to the body of literature on volunteer motivation by including a discussion of how interpersonal and mediated messages enmesh with cognition to create behavioral outcomes.

Research in this area has much to offer to professional staff in organizations, who rely on volunteers. Understanding the differences in motivation and experiences of volunteers has the potential to influence recruitment and retention rates in volunteer organizations—as well as understand these issues in natural disasters. In particular, the proposed model highlights the importance of culturally appropriate messages in recruitment of volunteers for disaster events. Mediated messages can be constructed to draw on similarities between the situations of evacuees and potential volunteers to create the perception of an in-group orientation. Such messages should prove successful in recruiting potential volunteers. It is necessary that future research acknowledge the cultural influence on recruitment and retention in volunteerism, particularly as more and more Americans are solicited to take on this role. Decision-making models as well other psychologically oriented theories and models can shed some light on the experiences of volunteers, consequently leading to a better understanding of the decision-making process.

Hurricane volunteers are disbursed across the country, working for a number of federal agencies, relief organizations, church groups, and civic organizations, and some are even working completely independently. Despite the lack of organizational structure or sufficient record keeping about volunteers, a very significant need still exists to capture social scientific evidence about the experiences of these volunteers. The proposed framework offers a mechanism through which
to formulate hypotheses and collect relevant data to create a unified account of volunteer experiences. We hope this model will be useful for policy makers and will prompt future research into this area.

References


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