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Special Issue: Communication and Crisis

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The Journal

The Northwest Journal of Communication is a scholarly, peer reviewed publication dedicated to understanding human and mass communication in all forms. The journal is indexed by Ebscohost. We encourage contributions related to any area of communication from all theoretical and methodological perspectives. Articles relating to any aspect of communication are welcome, as are all theoretical and methodological approaches. Manuscripts will be considered as they are received, and all submissions undergo rigorous peer review. Acceptance rates range, depending on the issue, from 15–25 percent.

Submitting to the Journal

Manuscripts are accepted on a rolling basis, and may be submitted electronically at any time. Manuscripts should conform to the *Publication Manual of the American Psychological Association* (APA). Most manuscripts should not exceed 8,000 words including references (although exceptions may be made at the editor's discretion) and should not have been published in any prior form. The journal follows a policy of blind review; authors should avoid any identification in the body of the manuscript or abstract.

All manuscripts should be submitted electronically to Trischa Goodnow at Oregon State University (tgoodnow@oregonstate.edu). Authors should submit:

1. A letter to the editor with the title and full names of author(s), affiliation, contact information, email, and telephone number sent in the body of an email to tgoodnow@oregonstate.edu.
2. The complete manuscript with 5–7 key words, references, tables and figures in a word document without author information.
3. A 75–150 word abstract in a word document without author information.

Table of Contents

Introduction to
the Special Issue

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The events of September 11th, Hurricane Katrina, the shooting at
Virginia Tech University, the indiscretions of Tiger Woods, the
Toyota recall and subsequent accusations stand out as significant
crisis events that reinforce the need for scholars to examine crises.
Although the aforementioned events became widespread media
spectacles, crises can take on many forms, and not all crises reach
such high profile status. Thus, extreme events with less iconic and
concrete representations sometimes go under-noticed. The popular
newsroom adage "if it bleeds it leads" may promote a gatekeeping
function that influences our perceptions of exactly what constitutes a
crisis. However, despite public misnomers concerning the definition
of a crisis, events that are non-routine, unexpected and threaten
high priority goals can be studied and learned from. There is still
much for scholars to learn about the communication functions of
crisis and disaster. The study of crisis has moved from a narrow
evaluation of post-event response to a broader conceptualization
including new models of information diffusion and effect, preven-
tion efforts, and message design and placement.

Scholars studying disaster and crisis communication find several
impediments in the research process. As noted by Matthew Seeger
and Dennis Gouran (2007) in their special issue discussion of the
2005 Atlantic Hurricane Season, such impediments can include

access to the site of a crisis, anonymous reviewers who are uneducated about the challenges of crisis research, and challenges related to the time-sensitive characteristics of crisis research. Spence and Lachlan (2010) outline further difficulties and obstacles to the effective study of communication and crisis.

Alongside the analytic and methodological challenges set before crisis scholars, the sparse and sometimes callow theoretical development surrounding the study of communication and crisis often becomes a point of contention. Crisis scholars need programmatic crisis research to aid in the development, testing and refinement of theory; reviewers often indicate a desire for crisis manuscripts to be theoretically driven, even when manuscripts are examining unprecedented events. It is our hope that outlets such as this special issue will allow scholars to present findings to the academic community for aid in building, refining and applying theory.

CONTRIBUTIONS OF THE SPECIAL ISSUE

Scholars, practitioners and students of crisis will come to a renewed appreciation of the powerful force and subsequent consequences of crisis through examination of these articles. The authors provide rich accounts of these extreme events and highlight the role of communication in the prevention, management and recovery from crisis. These studies provide only a small snapshot of the variable analytic landscape of crisis communication. The scholars featured in this special issue have taken up the task of analyzing the impact of communication and crisis in various contexts, each highlighting the role communication plays in the crisis lifecycle. The United States, as every other nation in the world, is vulnerable to a wide variety of natural, human, technological and organizational crises. The articles in this special issue examine the role of crisis from the individual, organizational and societal levels of analysis,

some looking outside our society or through societal comparison. First, Coffelt and colleagues examine the role of sensemaking and risk perceptions associated with an ice storm in Western Kentucky; this article applies and extends theory in the explanation of communication and risk involved with a natural disaster. Denise Oles outlines the challenges of image maintenance and repair experienced by Oprah Winfrey in three separate instances. This article also works to extend theory through the analysis of longitudinal instances of image repair, arguing that image defense and subsequent response are not often onetime events for the accused. Next are two cases of foodborne illness and subsequent response. Vidoloff and Petrun examine the Salmonella Saintpaul foodborne illness outbreak using best practices to highlight the communication responses. Similarly, using Situational Crisis Communication Theory, Howell and Miller argue that Maple Leaf Foods responded appropriately and successfully to a large-scale product recall due to Listeria. The final articles provide an opportunity to view cross cultural aspects of crisis communication. Crises are borderless events and examining cultural features can aid in crisis preparation and response. First, Burke and Zhou extend research on information seeking through an examination of Wenchuan earthquake survivors; using survey research the authors examine both crisis perception and subsequent information seeking. Finally, through newspaper stories from the United States and Japan, Meares and Fukumoto explore cultural dimensions of risk after the passing of the anticipated Y2K crisis. Taken together, these works provide a useful depiction of both the range of crisis events (from natural disasters to image problems, from the dramatic to the more mundane) and the range of approaches communication scholars utilize to examine these events.

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Using Sensemaking to Understand Victims' Responses to a Natural Disaster

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An ice storm in early 2009 created a crisis for residents in Western Kentucky. Residents were without electricity, water, and telephone services, among other resources. As such, residents of the area were unable to send or receive communication messages that are often recommended during a crisis. This study attempted to learn about the sensemaking process of victims. To that end, 327 residents of Calloway County, Kentucky were surveyed about the communication channels they used to obtain information before and after the storm. Results show that residents perceived little hazard or outrage before the storm and therefore, continued their current activities. Hazard and outrage after the storm were significantly higher than before the storm, suggesting a potential cosmology episode (Weick, 1993) as residents relied primarily on interpersonal communication to get information immediately after the storm. After the storm, radio communication became the sole source of mediated communication for residents who remained in the area.

KEYWORDS: Natural disaster crisis, sensemaking, hazard and outrage, victims' response

Communication researchers have acknowledged the importance of understanding how communication occurs during a crisis. As Procopio and Procopio (2007) stated, "crises disrupt the regular communication processes that sustain communities in routine circumstances" (p. 70). Organizational crisis is typically studied

by considering one organization and its members to determine how they planned (or did not plan), responded to, or functioned during a crisis. Furthermore, organizational communication crisis literature typically focuses on the organization and its image (e.g., Coombs, 2004), media coverage (Daniels & Loggins, 2007; Littlefield & Quenette, 2007), or overall case studies from specific organizations about particular crises (Fearn-Banks, 2007). Waymer and Heath (2007) contended that a dominant amount of scholarship has chosen to focus on the organizational impact regarding crisis communication research. The reports that have surfaced focusing on crisis communication often address strategies for avoiding, overcoming, and coping with the emergencies encountered by organizations and the use of public relations strategies, such as press releases, press conferences, and other forms of mediated communication to frame the crisis experience. Meanwhile, those reports have neglected to account for the tremendous impact felt by the ordinary victims of crisis. According to Waymer and Heath (2007), crisis communication research will continue to lack major substance and credibility until the perspectives of affected publics are accounted for in research. They argued that a managerial bias has led to an incomplete understanding of crisis communication and muffled the voices and perspectives that may add to the overall understanding of crisis communication (Waymer & Heath, 2007). The voices of victims are important to develop a comprehensive perspective of crisis situations.

Sensemaking theory serves as a suitable framework to facilitate understanding of victims' perspectives in crisis situations because victims attempt to make sense of crisis events by enacting their environment and attending to the information they receive. Therefore, the purpose of this study is to consider a broader approach to organizational crisis literature by focusing on the perspective of the victims who experience it. This study seeks to answer questions regarding the sources of information victims attend to as

they enact their environment through sensemaking and how they respond when they receive the information. These questions will be answered by examining a natural disaster, specifically the 2009 Western Kentucky ice storm. The next section discusses the intersection of organizational crisis and natural disasters, followed by an elaboration on sensemaking and its use as a framework to view victims' responses to a natural disaster crisis event.

ORGANIZATIONAL CRISIS AND NATURAL DISASTERS

A crisis is "a specific, unexpected, and nonroutine event or series of events that create high levels of uncertainty and threaten or are perceived to threaten an organization's high-priority goals" (Ulmer, Sellnow, & Seeger, 2007, p. 7). Milburn, Schuler, and Watman (1983) compiled a list of important elements that comprise an organizational crisis, four of which are particularly salient to this study. First, organizational crises create crises for individuals. Second, organizational crises may be sudden or predictable. Similarly, natural disasters have the potential to be both sudden and predictable. Third, resolution is necessary regardless of the type of crisis. Organizations, including communities, during times of natural disasters must respond to a crisis when it occurs. Fourth, organizational crises have various outlooks depending on their occurrences and resolution. After a crisis is over, organizations cope with the consequences of their actions.

Natural disasters are devastating phenomena that have the potent ability to wreak havoc and cause unfathomable amounts of damage to anything in their wake. Whether the disaster is a tornado, hurricane, flood, or ice storm, the damage can be intensely severe. While these disasters may be predictable days before their arrival, the destruction they cause is no less amazing and can affect an overwhelming number of people. Literature regarding natural disasters has been less documented than work about crises affecting

organizations (Sellnow, Seeger, & Ulmer, 2002). However, this tendency seems to be shifting as additional research is conducted. For example, Waymer and Heath (2007) discussed the way that pundits spoke regarding the federal government's response in the aftermath of Hurricane Katrina. Further, an entire issue of the *Journal of Applied Communication Research* explored various avenues of study pertaining to Hurricane Katrina, such as the dissemination of health related information (Vanderford, Nastoff, Telfer, & Bonzo, 2007), weather broadcasts (Daniels & Loggins, 2007), and victims' perceptions of hazard and outrage (Lachlan & Spence, 2007).

Natural disasters are a time of intense chaos for individuals and organizations. Crisis communication has a great impact on individuals within organizations and communities when natural disasters strike. Often, those involved in such crises must work to make sense of the situation. This study utilizes sensemaking (Weick, 2001) as a lens through which to examine victims' responses during a natural disaster. Next, sensemaking will be discussed to provide an understanding of how sensemaking and crisis communication provide some understanding of victims' responses to a natural disaster.

SENSEMAKING AND CRISIS

Organizational crises create a substantial amount of uncertainty for those affected by the event. Particularly during times of natural disaster, the magnitude of the damage both within and outside of the organization is unpredictable and difficult to manage. Stakeholders, members, leaders, and those in the community must all make sense of the events that occur as a result of the crisis. The sensemaking framework identifies reality as "an ongoing accomplishment that emerges from efforts to create order and make sense of what occurs" (Weick, 1993, p. 635). During a crisis, particularly a natural

disaster, organizational members must work to create order out of chaos and make sense of events that are not routine. The process of sensemaking is likely to occur during natural disasters as organizational members experience changes in their environment.

Sensemaking includes four phases that victims are likely to experience—enactment, selection, retention, and remembering (Weick, 2001)—of which enactment and selection are most salient to this study. Two steps are involved in the process of enactment. First, portions of the experience are sectioned for closer examination based on preconceptions. Second, people act within the context of those sections, using the preconceptions; therefore, the action often confirms the preconceptions. In the case of a natural disaster, individuals enact their environment by choosing what information about the disaster to attend to and how to use that information within their environment. One illustration of enactment can be drawn from victims of Hurricane Katrina, in which African Americans were more likely than Caucasians to seek information regarding evacuation (Spence, Lachlan, & Griffin, 2007).

Scholarship about natural disasters has also focused on the use of communication channels during a natural disaster. For example, African Americans and nonwhites reported more frequent use of interpersonal communication channels to seek information during Hurricane Katrina while Caucasians were more likely to use the Internet (Spence et al., 2007). Further, in Procopio and Procopio's (2007) study, victims of Hurricane Katrina were asked about their Internet usage during the crisis. Research showed that 49% of victims rated their hometown media sites as the most informative online resource. Furthermore, 72% of the participants said that the Internet was important to gathering information about property damage to their homes, 64% used the internet to "get the word out" about their status, and 61% gathered information about their friends from the internet. The Internet was an important communication tool for victims during Hurricane Katrina. These findings also

shed light on the sources of information victims use as they enact their environment. In an experimental study, people were more likely to express perceptions of higher probability and severity of a disaster whenever they experienced more spatial distance—a feeling of actually being present in a mediated environment as well as more perceived realism of the news story (Westerman, Spence, & Lachlan, 2009). This finding shows how victims choose to attend to informational input and do so with varying levels of intensity. Combined, this information about victims' responses contributes to the crisis communication literature in myriad ways. However, there is still much to learn about victims' enactment processes during times of crisis.

Selection, the second stage of sensemaking, requires an interpretation of the information chosen during enactment (Seeger, Sellnow, & Ulmer, 2003). During selection, individuals and groups create plausible stories from prior cues that serve to continue the process (Weick, 2001). The interpretation process that takes place during selection serves to reduce uncertainty (Miller & Horsley, 2009), to create a story of the event, which is then stored and retained until a more plausible story is revealed (Seeger et al., 2003). Selection as interpretation is usually discussed from an organizational perspective (Miller & Horsley, 2009; Seeger et al., 2003). However, individuals who experience natural disasters are also likely to extract cues from their environment and interpret those cues through selection to create plausible stories. Their stories produce post crisis communication about the natural disaster, which is communicated to others and retained for future crises. Victims' selection processes have yet to be formally analyzed within the natural disaster literature.

This study seeks to examine sensemaking through the use of Lachlan and Spence's (2007) hazard and outrage measure of crisis communication. While sensemaking is often studied qualitatively, it has also been studied quantitatively in crisis research (Gephart,

1993, 1997). The hazard and outrage measure was used after Hurricane Katrina to ask participants about their perceptions of the communication surrounding the events of the crisis and to gain an understanding of how communication shaped their responses to the proposed threat of the storm. Specifically, hazard measures individuals' perceptions of the severity of risk associated with an impending crisis situation (Sandman, Weinstein, & Hallman, 1998; Sandman, 2003). The factors of hazard and outrage are important for crisis communication practitioners because they address the "nature of the threat and the degree of risk involved" (Lachlan & Spence, 2007, p. 110). Based on current research on sensemaking theory and crisis communication in natural disasters, Lachlan and Spence's (2007) hazard and outrage measure will be used to answer two research questions:

RQ1: What sources of information will victims attend to as they enact their environment?

RQ2: How will victims respond when they receive information?

THE ICE STORM: A CASE OVERVIEW

This study emanated from an ice storm that struck a large portion of Southern Illinois and Western Kentucky in January 2009. The storm itself was predicted, but the magnitude of the storm was an unexpected surprise. More than half a million homes and businesses lost power overnight (Schreiner & Taylor, 2009), which was not only a surprise, but also a threat. According to Kentucky Governor Steve Beshear, Western Kentucky was part of the "biggest natural disaster the commonwealth [had] ever experienced" (CNN, 2009, ¶1). Over the course of two days, two rounds of ice covered the ground, roadways, trees, buildings, and power lines, including a TVA grid. Subsequently, the power supply to the entire area was eliminated, causing 91 counties to declare a state of emergency.

Even after the TVA grid regained its ability to provide power to the area, many power lines were down due to the weight of the ice or fallen tree branches. Murray, a town located in Western Kentucky, experienced further difficulties when a water main broke leaving residents with a limited supply of water. Further, AT&T cellular phone service was inoperable during this time.

The selection and enactment phases of sensemaking are of particular concern to the Western Kentucky ice storm due to the change in communication channels produced by the natural disaster. Victims of a crisis seek information through media outlets (Littlefield & Quenette, 2007). However, media organizations and the residents of Murray and Calloway County, KY lost the power to transmit signals and receive information. The ice storm caused an extensive loss of utilities and communication networks for several days. Communities in the affected area suffered great disruptions to their regular communication processes and experienced a significant crisis during the storm and its aftermath.

METHOD

Participants

The emphasis in this study was to gauge the reactions of victims of a crisis event, specifically a natural disaster. Due to the emphasis on victims, participants for this study were selected by their geographic location rather than their organizational membership. Citizens of the same geographic location receive information from similar media outlets and are served by the same governmental organizations. In addition, these citizens are likely to work for similar employers. Therefore, data for this study were drawn from 327 residents of Calloway County, KY, which was one of the 91 counties included in the state of emergency declaration for this crisis. Calloway County has a population of 36,240 (U.S. Census, 2008). The city of Murray is the county seat and largest community

within Calloway County. Murray State University also rests within this county and has a total enrollment of 10,156 (Bradshaw, 2007).

The participants ranged in age from 18 to 75 with a mean age of 34 and included 106 (32%) males, 209 (64%) females, and 12 (3.7%) who did not respond to this item. The racial composition of the participants included 295 (90%) Caucasian, 12 (3.7%) African American, and 9 (2.7%) other. The racial composition of this sample mirrors the Census Bureau data, which shows 92.5% of the citizens are Caucasian (U. S. Census, 2008). Of these participants, 120 (36%) lived within the city limits of Murray, 85 (26%) lived in the rural areas of Calloway County, and 111 (34%) were university students. Further, 145 (44%) owned their homes, 110 (33%) were renters, and 47 (14%) lived in university residence halls.

Procedure

A survey was given to participants to ascertain their perceptions concerning the 2009 ice storm. Five recruitment methods were utilized in order to capture a random sample of the Calloway County, KY population. Four recruitment methods directed respondents to an online survey using software from Survey Monkey. First, flyers were distributed to various retail outlets in Calloway County. These flyers had rip-off tabs with a URL address on each one. The URL directed respondents to a website with the online survey. Second, a social networking site known as Facebook was utilized by each member of the research team who wrote in his/her status line "is conducting a study about the ice storm. If you are a Calloway County, KY resident over the age of 18, please click on this link to read about it and participate." Third, e-mail messages were sent to personal contacts from each of the four members of the research team. The fourth avenue that was utilized was Racernet, a home page sponsored by the university that includes announcements for faculty, staff, and students. Within the announcement, the hyperlink to the survey was included so that respondents could click and be directed to

the online survey. The fifth recruitment method invited university students in Communication classes to complete a paper survey in exchange for 5 points of extra credit. Of the 327 usable surveys, 262 were submitted online (80%) and 65 were completed in a paper format (20%). Informed consent was obtained from online participants by directing them to a page with consent information. Students who completed a paper survey were given an attached consent letter. Both forms stipulated that completion of the survey indicated consent.

Measures

Hazard and outrage. Data were collected using the Hazard and Outrage Measure developed through Lachlan and Spence's (2007) research on Hurricane Katrina. This measure asks participants about their perception of the communication surrounding the events of a crisis and seeks to gain an understanding of how communication shaped their response to the proposed threat of the storm. The measure is a two-factor instrument. The hazard factor includes seven items and the outrage factor includes six items (See Table 1 and 2). The wording was altered in this instrument by changing *hurricane* to *ice storm*. The anchors were 1 to 5 with 1 being "not at all" and 5 being "very much."

Exploratory factor analysis (EFA) with principle components extraction was performed to test the validity of the two-factor model and reinforce Lachlan and Spence's (2007) instrument. The analysis resulted in a three factor solution.[1] However, the loadings in the analysis were difficult to interpret, and item 3, "How willing were you to evacuate?" did not load. The hazard factor accounted for 35.3% of the variance and the outrage items accounted for 23.8% of the variance in the model. As a result of the challenges of interpreting the EFA, the data were run a second time using a forced, two-factor extraction and varimax rotation. By confirming a two-factor solution, the analysis followed the theoretical underpinnings of hazard and outrage. As with Lachlan and Spence (2007), Comry and Lee's

	Factor 1	Factor 2
Table 1. *Two-Factor Item Loadings with Varimax Rotation*		
Hazard Items		
How worried were you in the hours before the storm hit?	.17	**.78**
In the hours before the storm hit, did you think the risk was serious?	.24	**.79**
How willing were you to evacuate?	−.08	**.39**
In the hours before the storm hit, did you think you would be badly affected?	.21	**.83**
In the hours before the storm hit, did you think friends or loved ones would be badly affected?	.11	**.82**
In the hours before the storm hit, did you think your life might be in danger?	−.05	**.58**
In the hours before the storm hit, did you think friends and loved ones' lives might be in danger?	−.06	**.64**
Outrage Items		
Did you feel the information provided by the media in the days leading up to the storm was appropriate?	**.71**	.17
Did you feel the government's preparation before the storm was appropriate?	**.90**	.03
Did you feel as though state and local authorities were taking the threat posed by the ice storm seriously?	**.88**	.09
Did you think that enough was being done in the hours leading up to the ice storm making landfall?	**.91**	.00
Did you believe the government responded quickly enough?	**.73**	−.04

(1992) recommendation that factor loadings should exceed .45 was followed. The analysis resulted in higher factor loadings than the first analysis and strong support for two factors, although factor 3 was below the established criteria. Reliability analysis resulted in $\alpha = .80$ and $\alpha = .87$ for the hazard and outrage factors, respectively. In addition, confirmatory factor analysis (CFA) was performed using a structural equation approach and AMOS 6.0 software.[2] A chi-square goodness of fit test showed support for the model, χ^2 (53, $N = 327$) = 349.2, $p < .001$. Other fit indices showed moderate support for the model TLI = .796, CFI = .862, RMSEA = .131.

The hazard and outrage items were duplicated and modified to gauge victims' perceptions after the ice storm. Items were added to the outrage factor to distinguish between specific governmental organizations, particularly in light of Littlefield and Quenette's (2007) delineation of various groups who participate in crisis leadership. Specifically, one of the items on the original instrument asked, "Did you believe the government responded quickly enough?" The new items asked about the federal government, the KY state government, the local government, and the university. Due to these modifications, another EFA and CFA were performed. The EFA showed a three factor solution with all items loading.[3] The subsequent analysis with a forced, two-factor extraction and varimax rotation showed strong support for the two factor solution with all items loading. Reliability analyses showed the hazard factor as $\alpha = .87$ and the outrage factor as $\alpha = .91$. The CFA in AMOS for these items also showed support for the model, χ^2 (89, $N = 327$) = 596.15, $p < .001$. Other goodness of fit indicators were TLI = .774, CFI = 8.32, RMSEA = .132, which show moderate support for the model.

Communication channels. Respondents were asked several items about the channels they used to access information before and after the storm. First, participants were asked whether or not they heard about the storm before its arrival. If they answered yes, participants were then asked how they responded. Participants

Table 2. *Post Storm Item Factor Loadings with Varimax Rotation*		
	Factor 1	Factor 2
Hazard Items		
How worried were you in the hours after the storm hit?	.03	**.81**
In the hours after the storm hit, did you think the risk was serious?	.07	**.81**
How willing were you to evacuate?	−.01	**.57**
In the hours after the storm hit, did you think you would be badly affected?	.05	**.84**
In the hours after the storm hit, did you think friends or loved ones would be badly affected?	.05	**.80**
In the hours after the storm hit, did you think your life might be in danger?	−.12	**.73**
In the hours after the storm hit, did you think friends and loved ones' lives might be in danger?	−.12	**.69**
Outrage Items		
Did you feel the information provided by the media in the days after the storm was appropriate?	**.60**	.04
Did you feel the government's response after the storm was appropriate?	**.86**	−.03
Did you feel as though state and local authorities were taking the threat posed by the ice storm seriously?	**.81**	.02
Did you think that enough was being done in the hours after the ice storm making landfall?	**.89**	−.03
Did you believe the federal government responded quickly enough?	**.81**	−.02
Did you believe the KY state government responded quickly enough?	**.85**	−.01
Did you believe the local government responded quickly enough?	**.86**	−.08
Did you believe the university responded quickly enough?	**.65**	.02

could select as many of the following responses as possible: phoned friends or family to warn them, sent a text message to friends or family to warn them, spoke to others face-to-face to alert them to the storm, took action to protect myself from the coming storm, continued with the activity I had been doing at that time, and other. Finally, participants were asked to select the communication channel through which they first heard about the storm as well as the channel they used immediately after the storm. Options included television, face-to-face, newspaper, text message, radio, telephone call, e-mail, or other.

RESULTS

Enactment

The first research question asked about the sources of information residents will attend to in order to enact their environment. Before answering this question, it was important to ascertain the percent of the sample that were aware a storm was approaching. To that end, 40 (12.2%) of the respondents did not hear about the storm before its arrival. Respondents then reported that they first learned of the storm by turning to various communication channels. Those channels included television ($n = 160$; 49%), face-to-face interaction ($n = 70$; 21%), radio ($n = 26$; 8%), telephone calls ($n = 15$; 5%), e-mail messages ($n = 5$; 2%), text messages ($n = 7$; 2%), or other ($n = 26$; 8%). Other responses included an Internet-based resource such as the Weather Channel ($n = 16$) or by observation ($n = 8$). Those who indicated they learned about the storm by observation insinuate that they had not received any messages about an approaching storm. After the storm, respondents enacted their environment by receiving information from the same communication channels as before the storm, but with different percentages of use. Channels utilized after the storm included television ($n = 22$; 7%), face-to-

Table 3. *Source of Information*

	Before the Storm (%)	After the Storm (%)
Television	49	7
Face-to-face interaction	21	24
Newspaper	0	.3
Radio	8	51
Telephone call	5	5
E-mail	2	1
Text message	2	1
Other	8	8

face interaction ($n = 78$; 24%), newspaper ($n = 1$, .3%), radio ($n = 168$; 51%), telephone call ($n = 15$; 5%), e-mail ($n = 3$; 1%), text message ($n = 4$; 1%), or other ($n = 27$; 8%). The dominant example of "other" responses included the website ($n = 9$). Table 3 shows the comparison of channel use before and after the storm.

Selection

The second research question asked how residents responded to the information they heard, specifically examining communicative responses such as phoning family or friends, sending a text message, speaking directly to others, taking action to protect self or family, continuing current activity, or other. Respondents could select as many options as they wanted. From these options, 102 (31%) phoned family or friends, 34 (10%) sent a text message to family or friends, 92 (28%) spoke to someone directly, 96 (29%) took action to prepare for the storm, and 208 (64%) continued with the activity they were doing at the time.

Post Hoc Analyses

From these data, it was clear that 279 (85%) of the respondents heard about the storm. However, when they engaged in the selection process, making an interpretation of the information they received, 64% of the respondents continued doing the activity they were doing. Although some participants may have communicated with each other to plan for the storm, over half of the participants did little to prepare. The hazard and outrage items were important to distinguish how victims perceived the information they received about the storm. To that end, means and standard deviations were computed. The mean hazard (M = 1.95, SD = .69) was lower before the storm than the mean hazard (M = 3.14, SD = .93) after the storm. A paired samples t-test showed that the perceived difference in hazard before and after the storm was significantly different, t (317) = −21.88, p < .05; r = .32. The mean outrage (M = 2.65, SD = .93) before the storm was also lower than the mean outrage (M = 3.36, SD = .93) after the storm. A paired samples t-test showed that the difference in perceived outrage before and after the storm was significantly different, t (302) = −15.18, p < .05; r = .66. Therefore, the hazard and outrage after the storm was higher than before the storm once victims were aware of the actual damage caused in this crisis.

DISCUSSION

This study was conducted to understand victims' responses to a natural disaster crisis situation—the 2009 Western Kentucky ice storm. This natural disaster was distinct because traditional communication channels were inoperable, thereby complicating organizations' and victims' abilities to send and receive information. Such challenges in communication present unique opportunities to examine sensemaking. This section discusses the answers to

the research questions, implications for natural disaster and crisis communication, and hazard and outrage.

Sensemaking Theory

The first research question asked about the sources of information victims would attend to in order to enact their environment. The participants in this study relied on several communication channels to enact their environment. Nearly half of these participants first heard about the approaching natural disaster via the television. Television was found to be the channel most frequently used during crisis situations by Greenberg, Hofschire, and Lachlan (2002). However, Procopio and Procopio (2007) found that the Internet was utilized extensively during Hurricane Katrina. The channel usage shifted after the ice storm and the radio, specifically the public radio station housed at the university, became the primary media channel for residents of Western Kentucky. The benefit of the radio for the residents of this area was twofold. First, this radio station was the only media channel in the local region that had a generator and could therefore quickly begin broadcasting information. Second, many radios have the ability to operate with battery power in residents' homes. In addition to the radio, nearly one quarter of the victims in this study relied on face-to-face or interpersonal communication to get information after the storm, a process experienced by the victims of the World Trade Center (Greenberg et al., 2002). Without electrical or telephone service, many of these participants were left to personal networks to get information about the extent of the storm damage and the availability of food, water, kerosene heaters, gasoline, or other resources.

While the Internet is a mainstay for many in the United States, it is important for organizations to consider multiple channels to disperse information before and after natural disasters. As the Internet's presence increases in utility within organizations and

households, other channels cannot be neglected, particularly during crisis situations. Further, the face-to-face channel has particular importance in crises where the communications infrastructure is debilitated. As victims turn to face-to-face encounters, the accuracy and reliability of information is questionable. However, when organizations acknowledge this unmediated channel as a possibility, they can make appropriate, advance preparations so that accurate information can be relayed to victims.

While the channel of communication does not reflect the content of information to which victims of crisis enact their environment, the channels help organizations understand media or other outlets that are utilized during this phase of the sensemaking process. The challenge for many victims of this natural disaster was that the sensemaking process was paralyzed because of the lack of available information. Many victims were unable to "choose to notice some informational input" (Seeger et al., 2003, p. 22) because the devices they used to get information were temporarily inoperable. Without the ability to obtain information, victims may have felt helpless and unable to make sense of their crisis situation.

The second research question asked how victims would respond when they received information. Information is first perceived before interpretations can be made in the selection process of sensemaking. This study utilized Lachlan and Spence's (2007) measure of hazard and outrage to gauge perceptions of these victims. The data show that victims did not place a high level of hazard or outrage on the information they received before the storm. In other words, most of the participants heard that an ice storm was likely, but perceived little threat. As a result, over half of these participants selected the action of continuing to engage in their current activity. Only a small percentage of the participants took any action to personally prepare or to warn family or friends. However, once the ice made landfall and its consequences were self evident and experienced, victims' levels of hazard and outrage were significantly

higher than when they relied on mediated predictions about the storm. This finding diminishes the importance of communication to the sensemaking process because these victims perceived greater hazard and outrage as a result of physical evidence, rather than communicated warnings.

One implication of these results for sensemaking theory is to consider the communication void that leads to a suspension of enactment processes for both organizations and victims. It is plausible that the lack of information after the storm resulted in a cosmology episode (Weick, 1993; Sellnow et al., 2002) because the lack of previous experience with ice storms led to confusion and uncertainty. In a cosmology episode, victims feel a sense of helplessness and lack an understanding of what to do in their crisis situation. Victims involved in a cosmology episode have never been involved in the particular situation before, do not know who to call for help, and experience a loss of sensemaking and structure (Weick, 1993). Further, Weick (2001) asserted that "people using information technologies are susceptible to cosmology episodes because they act less, compare less, socialize less, pause less, and consolidate less when they work at terminals than when they are away from them" (p. 448). Eighty percent of these respondents indicated they heard about the storm through a mediated communication channel yet few victims reported that they took action to prepare for the storm. Additionally, information was unable to be sent or received after the storm, and hazard and outrage were significantly higher after the storm. Therefore, it is possible that many victims experienced a cosmology episode.

Implications for Natural Disaster and Crisis Communication

The results from this study inform organizations about the possible actions organizational members or citizens may take after communication is sent about approaching natural disasters. While organizations hope or assume that warnings will be heeded, these

data show that many people hear warnings yet continue to engage in their current activities. Other studies of natural disasters have mentioned that residents of an area facing an impending natural disaster do not always heed media warnings (Mills & Weatherbee, 2006). Many residents in Calloway County who heard information about the approaching storm reported experiencing low levels of hazard. Thus, despite warnings about the storm and mediated messages about preparedness, many residents were not adequately prepared for the ensuing loss of electrical power, water, telephone service, or other resources. As a result, residents turned to interpersonal communication, which has varying levels of accuracy for information. Vanderford and colleagues (2007) similarly found that the CDC had been too dependent on "high-technology delivery systems" (p. 18) to disseminate information to Hurricane Katrina victims. While the CDC has revised their strategies to include print information and stronger relationships with local organizations, the victims of the ice storm show that interpersonal communication is also an important tool. These findings demonstrate the importance of organizations to consider all forms of mediated communication in their crisis communication preparations and not to discount the importance of communication conveyed interpersonally during a crisis. Lachlan, Burke, Spence, and Griffin (2009) also recommended "the use of interpersonal networks for message diffusion" (p. 304) in future crisis and risk communication research. The key to successful interpersonal communication after a natural disaster is managing the dispersal of accurate information when organizations lose their connectivity through traditional mediated channels.

Mediated and high tech resources add value to crisis management initiatives. For example, the newspaper became a powerful communication channel after the Red River Valley floods (Seeger et al., 2003). Even though the equipment in Grand Forks was destroyed, journalists relied on the presses from a neighboring community to print the newspaper. Additionally, as emerging

technological devices gain greater market share, older equipment may still be needed in crisis situations. The "power of the media" (Littlefield & Quenette, 2007, p. 43) is only powerful when power is available. Therefore, it is important to consider all forms of media and to include contingency plans in case the media channels are unavailable.

This study also contributes to organizational crisis communication literature because of its emphasis on victims' responses to crisis communication. Organizations prepare for crises in myriad ways, and organizational communication research has done much to contribute to the advancement of organizational crisis communication. However, absent from this research is how victims perceive and respond to the information they receive. The results from this study show that information received through the media before the storm was perceived with low levels of hazard or outrage. It wasn't until after the ice storm had passed and victims experienced the damage that victims perceived higher levels of hazard and outrage. Implications for the media and other organizations are that information may be sent and warnings issued, but victims will prepare in various ways, if at all. As these data show, when participants heard about the approaching storm, they continued doing their present activities. Fewer participants took any action to prepare for the oncoming ice storm. Thus, the potential exists for many residents to be unprepared to cope with a loss of resources, despite organizations' best efforts to send warning messages.

Hazard and Outrage

The hazard and outrage measure shows promise for future studies that want to measure perceptions of victims to their overall experience with natural disaster situations. The reliabilities and factor loadings in this study were moderate to strong. However, one item, which asked participants if they were willing to evacuate, did not load in the factor analysis. This item loaded when used with

victims of Hurricane Katrina (Lachlan & Spence, 2007). The difference in these results may be due to the nature of the respective storms. The ice storm in Western Kentucky did not result in the level of property damage that residents of the Gulf Coast region experienced during Hurricane Katrina. The residents of Calloway County were without power and many were without water. However, many residents adapted to their circumstances by using gas logs, generators, or kerosene heaters. Communities as close as 30 miles from Calloway County had electrical power and merchants had supplies such as water, food, and generators. Thus, many residents of Calloway County were able to remain in their homes with limited resources. Perhaps these factors contributed to the failure of item 3 to load on the factor analysis. Furthermore, Lachlan and Spence (2007) suggest that African Americans experience higher levels of outrage than other ethnic groups. The representative sample from the current study is predominantly Caucasian, which may support their conclusion. Continued application of this instrument to other crisis situations will contribute to the discussion of these issues.

This study is an important part of the post crisis phase as the authors, who were victims of this natural disaster, analyze events through a communication lens. The intention of this study is to discover how people reacted with the goal of helping organizations and residents prepare for future natural disaster crisis events. This study relied on sensemaking theory to analyze some of the communication issues attached to the 2009 ice storm in Western Kentucky. Victims may have been inhibited in their ability to undergo enactment and selection processes and, instead, experienced a cosmology episode. Additionally, victims were unable to receive information from the Internet and television, but some accessed the local public radio station. As a result, interpersonal communication became an important channel for crisis communication.

NOTES

1. Results from this analysis are available from the first author.
2. The variance/covariance matrix is available from the first author.
3. Results from this analysis are available from the first author.

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Deny, Delay, Apologize: The Oprah Winfrey Image-Defense Playbook

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Broadening the application of Benoit's theory of image repair, this study conducts a longitudinal analysis of three separate incidents that forced Oprah Winfrey to take deliberate action in order to maintain and defend her favorable public image. Image repair attempts under investigation include the 1996 libel lawsuit over comments Winfrey made in regards to Mad Cow Disease, a snubbing at a Paris boutique, and finally, the 2005 scandal surrounding the selection of James Frey's alleged memoir, *A Million Little Pieces*, as an Oprah Book Club selection. The goal of this study is threefold: first, it investigates shifting strategies of image repair as a rhetor's persona encounters multiple challenges over time; second, this study focuses on Winfrey's image repair strategies that defend and maintain an already favorable public ethos more than how she repaired a damaged image because her personal image is interwoven with her company's public image; and third, this study concludes that after each incident, in Winfrey's case, her image was not only repaired, but regenerated as she emerged from each crisis a more influential and powerful cultural icon, which is an area yet to be investigated in the realm of apologia.

KEYWORDS: Oprah Winfrey, image repair, image restoration, apologia

Queen of the talk show world for nearly 25 years, Oprah Winfrey has created a following that was inspired by her humble beginnings and her remarkable ability to connect with people around the world—speaking to an audience of millions as if she was talking to each person individually. Winfrey evolved from broadcaster to entertainer, producer, publisher, and philanthropist. Today, she is one of the most powerful women in the world, breaking race, class,

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and gender barriers. Thompson (2007) wrote, "To speak of Oprah Winfrey is to speak in superlatives. She's the richest this, the most powerful that; the first this, the greatest influence on that" (p. vii). Her success is unprecedented in history and utterly beholding to one thing—her popular public image.

During Winfrey's life in the spotlight she has encountered several issues that jeopardized her public image. Her first crisis came in 1996 on an episode of *The Oprah Winfrey Show*,[1] when she discussed "Mad Cow Disease" and said, "It has just stopped me cold from eating another hamburger!" Subsequently, cattle futures plummeted and Winfrey was sued for libel by the Texas Beef Group in Amarillo, Texas. Several years later Winfrey was denied access to a Paris boutique that was closing. Some media coverage painted the incident as racially motivated, while others criticized Winfrey for forgetting she was black (Baker, 2005). Her image and perceived values were called into question in 2005, when she selected the alleged memoir, *A Million Little Pieces,* by James Frey for her book club, which propelled into bestseller status overnight. However, shortly afterward the authenticity of Frey's writings was called into question. Winfrey at first defended Frey's book, citing its powerful story, but then separated herself from the author to protect her book club and more importantly her image.

By analyzing the incidents outlined above, it becomes possible to interrogate how her image repair strategies have changed or evolved over a ten-year time span, which is a departure from the traditional snapshot approach to image repair studies. Moreover, this study will begin to address the lack of literature that investigates female apologia and image repair attempts.[2] Missing from the current literature on apologia studies are investigations into image repair strategies used by women when their personal character comes under attack as well as image repair strategies used by prominent women who are the face, image, and name behind a successful corporation. In these cases one's credibility or ethos

needs to be protected because it is intertwined with the credibility of the business.

The goal of this study is to use textual analysis to broaden the application of William Benoit's (1995) theory on image repair in three ways: first, to investigate shifting strategies of image repair as a rhetor's persona encounters multiple challenges over time; second, most previously published studies of this type focus on the discourse used to reestablish a favorable public image; however, Winfrey's case is unique because her personal image is interwoven with that of her media empire, thus her image repair strategies are more focused on *defending* or maintaining an already favorable public ethos because her personal image affects her company's image. This study shows that Winfrey's approach to defending her public image changed as her credibility with her viewers increased and she became a more influential and powerful cultural icon and business woman; and third, this study concludes that after each incident Winfrey's image was not only repaired, but regenerated.

IMAGE CHALLENGED, IMAGE DEFENDED

Scholars often refer to Winfrey's rise to fame as a modern Horatio Alger "rags to riches" story; like the downtrodden characters in Alger's novels, Winfrey struggled against adversity to achieve the "so-called American Dream." Stanley (2007) speculated that Winfrey represents the best "example of the American Dream realized—minus the spouse and the 2.5 children" (p. 40). Ironically it is her humble beginnings that she relies upon as a mechanism for connecting with her mostly female middle-class audience. Haag (1993) argued that Winfrey's star persona emerges from her "personal 'legend' and her accessible communication style" (p. 115). By sharing painful and intimate details of her private life, Winfrey creates feelings of immediacy with her viewers that foster her image as an "engaging, approachable, likeable person" (Haag,

1993, p. 115). This image is the lynchpin ingredient to her show and represents a significant departure from other talk show formats. The space between Winfrey's public image and her private self is under constant negotiation and her fans do not differentiate between the public "Oprah" and the private Oprah because Winfrey acts like a friend toward her fans, blurring the lines between the private and public spheres (Cloud, 1996). Winfrey rhetorically presents herself to her audience, "not as an informed expert but as an informed witness-participant" who demonstrates respect for viewers by talking to them as equals using a "friendly or even familial" tone (Harris & Watson, 2007, p. 5–6). This friendly tone aided in Winfrey's success, which has caused her to defend her image when it is threatened.

As long as "specific, *unexpected,* and *nonroutine* event or series of events" occur that threaten and create image crises for individuals and organizations, the need for image repair discourse will continue (Ulmer, Sellnow, & Seeger, 2006, p. 7). In order to win positive rapport with one's public, "explanations, defenses, justifications, rationalizations, apologies or excuses for our behavior" are often given to begin the image repair process (Benoit, 1995, p. 71). Benoit (2000) notes his preference for the term "repair" over "restoration" because a damaged image is rarely returned or restored to its pre-crisis state. Because individuals and organizations continually face the challenge of constructing, defining, and then preserving their image, especially when controversy arises, it is important to look at the essential steps of image repair and how to rehabilitate an image once it is tarnished. A solidly constructed image must contain elements that will enhance an organization's or individual's ability to project a perception of power, character, trust, leadership and name recognition (Benoit, 1995). Benoit and Brinson (1994) contend that image is a personification of what the person or organization wants to be and that image is influenced by the perception of one's audience. If an image is threatened or

blemished, repairs must be started immediately because an image does not repair itself (Benoit, 1995). Individuals and organizations must be vocal when face threats occur; silence is often perceived by the public as an admission of guilt. The rhetor, not the press, must frame the message because management of an image during a scandal can either escalate the problem or turn the threat into a non-crisis (Benoit, 1995).

Benoit's (1995) theory of image repair is an alternative to the more traditional approach of apologia. His work has been used to analyze the image repair attempts of corporations, politicians, entertainers, and most recently countries such as Saudi Arabia (see Zhang & Benoit, 2004). His theory was selected for this project not only because of its flexibility in application but also because it provides a mechanism for analyzing what individuals, groups, and organizations can say when faced with a crisis. Previous apologia theories focus on what an individual or organization should do before and after a crisis, while the theory of image repair focuses on the message strategies used by individuals and organizations during a scandal (Benoit, 1995). Benoit's approach to image repair operates under two major premises: an assumption that communication is a goal-oriented activity, and an assumption that the primary communication goal is to maintain a positive image (Benoit, 1995; Blaney & Benoit, 2001). When faced with an image crisis, an individual or organization may use one or a combination of five repair strategies, which include (1) denial of the questionable behavior, (2) evading responsibility of the act, (3) reducing offensiveness of the allegation, (4) corrective action, and (5) mortification (Benoit, 1995).

Texas Beef versus Oprah Winfrey

Winfrey's first image crisis came in 1996, when she was sued for libel by the Texas Beef Group in Amarillo, Texas for saying during her *Dangerous Foods* episode that "It [Mad Cow Disease] has just stopped me cold from eating another hamburger!" In the

weeks following Winfrey's comment, the cattle-feeding industry claimed it lost an estimated $87.6 million in cattle futures. The lawsuit received intense media attention and put Winfrey on the defensive. She claimed that the downturn of the cattle futures was not related to anything she said. Guests that day included Dr. Gary Weber from the National Cattlemen's Beef Association (NCBA), who defended the safety of the American beef supply, and Howard Lyman, a former cattle rancher turned vegetarian and Humane Society representative, who questioned the safety of American beef.[3] In the exchange of discourse between the show's hostess and her guests, Winfrey started the segment by explaining how a mysterious bovine illness dubbed "Mad Cow Disease" was causing human death and spreading fear and panic in England.[4] Winfrey asked whether Mad Cow could spread to America, to which Weber said no. Lyman rebutted by saying that Mad Cow "could make AIDS look like the common cold" ("Mad Cow and Oprah," 1996, para. 3). Lyman's description of how cows are ground up and fed to other cows disturbed Winfrey. "But cows are herbivores," she said, "They shouldn't be eating other cows" ("Mad Cow and Oprah," 1996, para. 5). Lyman replied, "We've not only turned them into carnivores, we've turned them into cannibals" ("Mad Cow and Oprah," 1996, para. 6). It was after Winfrey learned about the ruminant feeding practices of cattle that she made the now infamous statement. Within an hour of the show's broadcast cattle prices crashed to a 10-year low and cattle futures prices closed at the daily price fluctuation limit of $1.50. Cattle ranchers were quick to scapegoat Winfrey and initially withdrew approximately $600,000 in advertising. They later sued her and Harpo Productions, Inc. for nearly $11 million in damages for what the group referred to as the "Oprah Crash," despite limited evidence of a relationship between Winfrey's statement and tumbling cattle futures.[5] The suit's claims included false disparagement of perishable food products, common law business disparagement, common law defamation, and negligence.

The ranchers claimed that the *Dangerous Food* episode was "nothing more than a 'scary story,' that falsely suggested that U.S. beef was highly dangerous and that a horrible epidemic worse than AIDS could occur from eating U.S. beef" ("Texas Beef v. Oprah Winfrey," 1996). The ranchers also alleged in the suit that Harpo Studios intentionally edited the tape so that Lyman's false exaggerations would create mass hysteria, and that the show's producers maliciously edited out most of the scientific refutation against Lyman's claims ("Texas Beef v. Oprah Winfrey," 1996). The NCBA blamed the show for presenting only one side of the story on the episode. They were especially concerned that producers had cut their claim that the association had "been ahead of the issue for 10 years" ("Beef Industry Blames Oprah," 1996, p. 36). The plaintiffs pursued the case under the "common law of defamation" meaning the ranchers had the burden of proving that Winfrey had it in for the beef industry by making disparaging comments (Mitchell, 1998, para. 5). Unprecedented in this lawsuit was that Winfrey essentially was being sued over free speech, freedom of expression, and the defamation of American beef.

Winfrey moved quickly to defend her image and her growing media empire. Winfrey's claim to have the right to make the statement did little to repair her image, especially in Amarillo, the heart of beef country where the trial was held (Richardson, 2007). Before the trial, the public, specifically in Amarillo, expressed negative sentiments toward Winfrey. Buttons and bumper stickers were seen that read, "Ban Oprah" and "The Only Mad Cow in America is Oprah" (Richardson, 2007). Winfrey did not let the hostile attitudes of some in Amarillo sway her attempts to win over the locals, nor thwart her image repair efforts.

Denial. Winfrey could not deny performing the perceived harmful statement; it was aired on national television, but she could deny making false statements. She relied on the discourse of "I did not do anything wrong," by denying that she had *malicious intentions.*

"I asked questions that I think the American people deserve to have answered in light of what is happening in Britain," she said. "We gave them a chance to respond" ("Beef Industry Blames Oprah," 1996). She explained that she had the right to explore the potential of Mad Cow Disease in this country and noted that she never said that the American beef supply was contaminated (Verhovek, 1998). Winfrey testified that "I've been successful all these years because I do my show with the people in mind, not for the corporations or their money" (as quoted in Gliatto, Calkins, Pierce, & Haedeerle, 1998, para. 11). "I feel in my heart I have never done a malicious thing to any human being. To have these charges brought against me, it is the most painful thing I have ever experienced" ("Oprah Winfrey's Second Day," 1998, para. 5). She defended the *Dangerous Foods* segment by insisting the show was balanced; although it was later revealed that Winfrey thought the episode was poorly edited by the producer. During her testimony, however, there was no mention of this opinion. She could not scapegoat the show's producer and editor because they represent Winfrey and as such, this discourse would have refocused attention on the rhetor.

She also attempted to downplay her influence: "I believe people I speak to are intelligent enough to make decisions for themselves" (as quoted in Oldenburg, 1998, para. 2). Attorneys for the ranchers rebutted that claim by citing Oprah's Book Club as evidence of her influential powers over viewers. If Winfrey's influence can turn a book into a best seller overnight, they claimed, than it can also stop 20 million viewers from eating beef (Brown, 1998a).

Evading responsibility. This incident is what is popularly called the "blame game." The ranchers blamed Winfrey for financial losses. Meanwhile, Winfrey counter-accuses them of trying to violate her freedom of speech. Under this image-saving approach, one hopes to elude the responsibility of an offensive act "that they are unable to deny performing" (Benoit, 1995, p. 76). The four categories of evading responsibility, according to Benoit (1995), are provocation, defeasibility,

accident, and good intentions. All four strategies were available to Winfrey, with the least emphasis being placed on provocation, which is when a rhetor claims that another provoked the undesirable action.

Working through the approach of defeasibility, which is when a rhetor would plead a "lack of information about or control over important factors in the situation" (Benoit, 1995, p. 76), Winfrey easily posited that she was unaware of the harmful nature of airing an episode on *Dangerous Foods* as well as the severity of freely expressing her feelings regarding cattle feeding practices. Given that Winfrey presents her show as a forum for debate and the exchange of ideas, and not as an objective news show, she could argue that she could not have predicted that an open exchange of ideas between cattle industry representatives and Lyman would negatively affect cattle futures because Winfrey positions herself as an informed participant, not an expert on cattle. Thus, it was Winfrey, the informed participant, that made the comment about not eating another burger; however, the ranchers sued her under the pretext that the show created circumstances that cast Winfrey as an informed expert. Moreover, she could not have predicted that some would claim a cause-and-effect relationship between the airing of her show and the price of cattle futures (Richardson, 2007). The ranchers claimed that this cause-and-effect relationship resulted in the market crash, but Winfrey could easily argue that this was an accident. One can also read her statement about her influence on American viewers as an accidental misunderstanding of how much social influence she really has.

Reducing the offensiveness of an event. Here offenders ask the public to view the mistake as less offensive than first thought. The six strategies available to a rhetor include bolstering, minimization, differentiation, transcendence, attack accuser, and compensation (Benoit, 1995). Bolstering is used when actors attempt to survive an image threat by relying on their good reputation to make up for an undesirable act. As stated earlier, Winfrey had positioned herself

as everyone's friend, confidante, and (at times) protector. Her self-defense rhetoric reiterated the reasons why she has been successful for all these years—because she cares about her audience and is a good person with good intentions. She emphasized that her well-intended motivation was only to inform and educate her audience. According to this repair plan, a rhetor may also try to use discourse to reduce or minimize any harmful feelings attributed to the negative act. For Winfrey, minimization was attempted immediately by reminding the public that the First Amendment guarantees free speech and that she was only asking questions of her guests. She tried to reduce the offensiveness of her remarks by combining minimization and bolstering. In a press release printed in the *Chicago Tribune,* Winfrey again positioned herself as an informed participant and not an informed expert as she asserted, "I am speaking as one concerned consumer for millions of others . . . Americans needed and wanted to know [about food safety]" (as quoted in Gunset, 1996). Her combination of bolstering and minimization was evident throughout this discourse by reminding the public that she was concerned for them. The defense was that she spoke for them because she is able to ask questions that the general public cannot. Winfrey also combined the strategies of bolstering and attacking the accusers during her testimony by insisting, once again, that the show is for her viewers, "not the corporations or their money" (as quoted in Gliatto, et al., 1998, para. 11). Transcendence was used by Winfrey as she attempted to reframe the incident in a new context, not that she did something wrong, but she did something right. Through her rhetoric of insisting that this episode created a better-educated audience on the subject of Mad Cow Disease and food safety, she reframed the incident so that the public could see a higher value emerging from her actions. The implication of this is that the information that ensued from this episode resulted in a greater public good because it created a better-educated audience.

Winfrey could not use differentiation in this case because a

rhetor tries to persuade the public that the act was less offensive than similarly committed offenses and Winfrey's defense revolves around her denial of any wrongdoing. The First Amendment and the format of her talk show provide her the freedom and platform to do this episode. The strategy of compensation in which the rhetor offers goods, services or monetary reparation for a damaged image would mean Winfrey conceded by admitting that she did wrong. Moreover, it would also mean that she does have influence over her viewers' beef buying habits.

Corrective Action. In an attempt to undo what was dubbed as the "Oprah Crash" and to make amends with the cattle industry under immense public pressure, Winfrey and her team put together a follow-up show that aired live a week later; however, beef experts claimed the second show was too little too late (Babineck, 1998b). Winfrey invited back NCBA Specialist Dr. Gary Weber for a live one-on-one talk where he resumed his role as expert. Following the original show, Weber claimed that Winfrey ambushed him and that the editing of his comments on the original show were unfair (Babineck, 1998a). Despite the follow-up show ranchers proceeded with the lawsuit. However, the show worked as a corrective action tactic in that most viewers positively regarded it, albeit not the ranchers.

Mortification. The final image repair strategy is to admit responsibility, express regret for the action and then ask for forgiveness (Benoit, 1995). Winfrey did not have the option of mortification for reasons similar to why compensation was not a viable strategy. For her to admit responsibility for the cattle futures crash would mean she accepted the assigned blame; accepting blame would have limited her legal options.[6]

The battle with the ranchers was Winfrey's first major experience with handling an image-threatening event. She survived this event with her public image intact by not just saying the right things but also by doing the right things, such as moving her show to Amarillo

during the four-week trial. This was a defensive tact not clearly classifiable under Benoit's image repair typology. The local taping of the show "allowed her to capitalize on her status as a television celebrity," which swayed local public opinion in her favor because it turned a perceived foreigner, "a successful black woman from Chicago," into a friend (Richardson, 2007, p. 168). Winfrey's star power, charisma, and ethos turned Oprah haters into Oprah fans and bumper stickers began to emerge that read, "Amarillo Loves Oprah" (Richardson, 2007).

What is seen with her first attempt at image defense is an individual who met the image repair challenge head on with action. She held a follow-up show in an effort to clarify any misunderstanding, but she also did not back down from the pending lawsuit. She defended herself and her show while retaining the verisimilitude of her public persona. She continually emphasized that she had the right and freedom to ask the questions she did because her actions produced a better informed public. What is also evident after this case is a new Winfrey, whose image is repaired but subsequently changed. Though she had great success saving her image by being proactive, she took a much different approach after confusion in Paris.

A Parisian Brouhaha

A second incident propelled Winfrey into the news cycle: a much-publicized brouhaha in Paris. In 2005, Winfrey was denied access to the upscale luxury boutique Hermès by employees at closing time despite the fact that other shoppers remained in the store. The incident created an immediate uproar.[7] Winfrey's friend Gayle King told *Entertainment Tonight* that Winfrey felt humiliated, while an unidentified Winfrey staff member referenced the incident as Oprah's *Crash* moment (Anglin, 2005).[8] Scholars Harris and Watson (2007) wrote, "It was evident to many commentators—Winfrey included—that race had been the impetus for the incident" (p.

15). A headline in *The Gazette* from Montreal read "Oprah Guilty of SWB" (Shopping While Black) and the article made the commentary that despite fame and fortune; an African American can never escape the curse of racism (Baker, 2005). An editorial in the *San Antonio Express-News* said, "It was the black woman whose hair wasn't styled—not the billionaire—who wasn't allowed to shop" (Anglin, 2005, p. 4). The *Chicago Sun-Times* published an editorial titled, "In Paris, not even Oprah can Escape Reality of Being Black," saying it was color, not social status or wealth that caused Winfrey to be denied access; however, Winfrey denied that race was the motivating factor in the incident (Mitchell, 2005). On the flip side, some commentators and critics claimed Winfrey was merely being a diva. They claimed that the incident demonstrated a disconnect between her popular image as an everyday person and her personal expectation of "star treatment." An *USA Today* editorial chastised celebrities, including Winfrey, who expect special privilege ("Lesson for Oprah," 2005) while other media outlets accused her of playing the "Don't you know who I am?" card.

The responsibility of the uncontrolled rumors and speculation fell squarely on Winfrey's shoulders because she did nothing to discourage what she claimed were false conclusions. The boutique issued a statement a week later apologizing for the misunderstanding while reiterating that the store was preparing for a private party. However, Winfrey waited four months to publicly address the incident on the season premiere of her show when she stated, "Just about 100 percent of everything you read was flat-out wrong" (Rakieten, 2005, p. 11). Winfrey claimed the incident could all be seen on the store's surveillance video. Winfrey emphasized that she was not trying to "dis or debate the store" but tell people what happened "because so many people got it all wrong" and that she did play by the rules by attempting to enter the store before it closed and by not playing the celebrity card (Rakieten, 2005, p. 12). She told her audience she was embarrassed and confirmed calling the president of the

company's U.S. division, Mr. Robert Chavez, who was a guest on the season premiere specifically to publically apologize to Winfrey.

Winfrey treated her guest more as an outlet to show the world just how right she was for being angered by the way she was treated in Paris and how dissatisfied she was in the company's private apology. She thanked Chavez for being kind and apologizing to her on the phone but then Winfrey criticized the company and its apology statement. She told viewers, "the company released the statement, and it appeared that I was some diva trying to get into the store . . . and it's not what my intention was" (Rakieten, 2005, p. 12). Though Winfrey denied acting like a diva in Paris, she was acting like one on television that afternoon, demanding a public apology from an individual not directly involved in the original altercation and dismissing the apology the store had already made. She told her audience that she was not upset about her inability to buy a purse but she was upset by the rudeness of the sales clerk. She said, "I was upset because one person, one person in that store was so rude, not the whole company . . . But one person" (Rakieten, 2005, p. 11). She told Chavez to tell the people what he said to her on the phone when she called to tell him about the incident. Chavez responded, "I'd like to say to you that we're really sorry for all those unfortunate circumstances that you encountered when you tried to visit our store in Paris. You did meet up with one very, very rigid staff member who . . ." Winfrey cut Chavez off and asked "rigid or rude." Chavez, corrected by Winfrey continued, "rigid and rude I'm sure" (Rakieten, 2005, p. 12). Then, Chavez, playing to Winfrey's celebrity side, apologized on behalf of the clerk for not recognizing Winfrey. He said, "I have to honestly tell you she did not know who you were." Winfrey quickly retorted, "[it] wasn't even about, 'Do you know who I am' I wasn't trying to play the celebrity card" and finally Chavez agreed that Winfrey was not trying to play the celebrity card (Rakieten, 2005, p. 12). To further prove that Winfrey acted properly during the ordeal, she brought

up the fact that Hermès was now doing sensitivity training with its employees. She concluded the segment by encouraging her audience to wear the Birkin bag and to shop, shop, shop, and she also thanked Chavez and the Hermès family for being so kind about the whole incident.

Looking at the incident through the frame of Benoit's (1995) theory, Winfrey did not immediately try to publicly defend her image or her actions since she waited four months to make a statement. When she did speak, she used an environment of her choosing, an environment that she controlled. She asked the questions and Chavez responded, creating a narrative of "Oprah was right and Hermès was wrong." The only rhetoric put forth by Winfrey was the denial of her doing anything wrong—by trying to enter the store and by acting like a diva. Winfrey's image defense strategy, to a minor degree, went beyond denial. Since Winfrey denied any wrongdoing, there was little action she could take to reduce the offensiveness of being involved in this incident (except having addressed it sooner) because as she claimed, it was a misunderstanding not of her making. Of course, one could speculate that her silence was an effort to use the subcategory of bolstering, which centers on a rhetor using his/her already favorable public image to overcome negative publicity. Winfrey's silence could be construed as her belief that her image is favorable and strong enough to survive a questionable act despite swarming negative media attention. Minimization should have been used to quell the overwhelming media speculation and to set the record straight immediately.

The final two categories of Benoit's (1995) image repair theory are corrective action and mortification, options not available to Winfrey because of her denial of any wrongdoing as well as her continual claim to have played by the rules. Given the circumstances, there was very little Winfrey could publicly say or do to return the situation to its original state. Mortification or admitting responsibility for the incident would have undercut Winfrey's denial strategy and

negated the need for Hermès to make a public apology. It is inter-esting to note that if Winfrey had simply made a statement to the press at the onset, it would have prevented the extended altercation. Instead, when staff members were questioned about what happened in Paris, the response was that Winfrey would address the issue during the season premiere. The only direct benefit of Winfrey not immediately clarifying the situation was the potential of higher television ratings causing those curious about the incident's end to watch the season premiere. Winfrey, for a second time, successfully defended her image despite her initial silence. Winfrey's handling of this image-challenging event reinforces the need for individuals and organizations to quickly address an image crisis.

A Million Little Pieces of Truth

In 1996, Winfrey launched "Oprah's Book Club." Since its inception, she has personally selected the club's readings and each selection has resulted in an instant best seller, drawing public interest to the club ("Life and Times of Oprah," 2007). Winfrey's book club has become an "undeniable economic marvel" as recommended books routinely sell more than a million copies (Rooney, 2002, p. 56–58). In 2005, Winfrey announced *A Million Little Pieces,* by James Frey, would be the fall reading selection. Soon afterward Winfrey found herself making public statements to protect and defend her positive image and that of her book club after it was confirmed that Frey's memoir was more fiction than fact. The Frey case provides another opportunity to analyze how Winfrey used her show, her status, and her influence to defend her public image. Winfrey started her image defense by denying she did anything wrong, quickly moved to corrective action and then mortification, bypassing the usual attempts by those accused of wrongdoing to evade responsibility or reduce offensiveness for the questionable act.

The journalistic website *The Smoking Gun* conducted a six-week investigation into the details of Frey's memoir that revealed,

among other things, his previous attempts to publish the book as a work of fiction ("The Man Who Conned Oprah," 2006).[9] As revelations surfaced about Frey's deceit, Winfrey remained faithful to Frey causing fans to question her judgment. She even called in to CNN's *Larry King Live* in Frey's defense when Frey was King's guest in 2006. She reminded viewers that she makes reading recommendations based on her connection to the book and its message, and then changed the focus of the conversation to the publishers. She said, "I am disappointed by this controversy surrounding *A Million Little Pieces,* because I rely on the publishers to define the category that a book falls within, and also the authenticity of the work" (King, Wallace & Cooper, 2006, p. 13). Yet, Winfrey went on to say that even though some have questioned the facts, which people have the right to do, "the underlying message of redemption in James Frey's memoir still resonates with me" (King, Wallace & Cooper, 2006, p. 13–14). King verified with Winfrey during the live phone call that she held no ill will against Frey and that she still recommended his book.

After Winfrey made the phone call in support of Frey, Winfrey's fans began posting messages on www.oprah.com expressing their disappointment in Winfrey and criticizing her for letting the book cloud her judgment.[10] One person wrote, "C'mon Oprah, you can't be a stickler for the truth and promote deception at the same time. You disappoint me." Another person wrote, "Oprah's response was also off base by minimizing Frey's exaggerations/lies by focusing on an arcane discussion of the art of the memoir rather than on the ethics of Frey leading viewers if not also readers on." Shortly after Winfrey's conversation with King, she denounced the author and his book. The Frey incident played out entirely in the court of public opinion and Winfrey found herself having to admit she was wrong.

Denial. During Winfrey's phone call to the *Larry King Live* show, she denied having done anything wrong in making Frey's memoir

a book club selection. However, once fans and critics started attacking her image and judgment, Winfrey moved from defender to attacker.[11] Winfrey began looking for someone else to take the heat. She blamed Frey for "duping her" and scapegoated the publishing industry for not classifying the book appropriately.

Corrective action. As part of her image-defense strategy Winfrey invited Frey to be a guest on her show for a second time. During that second interview Winfrey attacked Frey. She chastised his dishonesty and apologized to her audience for her previous statements of support. Expressing her disappointment in Frey, Winfrey opened the show by saying, "I have to say it is difficult for me to talk to you because I feel really duped" (Rakieten, 2006, p. 1). She directly asked Frey if *The Smoking Gun* was correct. "I think most of what they wrote was pretty accurate," he said (Rakieten, 2006, p. 1). Winfrey grilled Frey about the book until he admitted he lied (Rakieten, 2006). After attacking Frey for lying, Winfrey started to grill Nan Talese, the book's publisher and editor-in-chief. Winfrey questioned Talese about when she realized he lied, whether she fact checked the book, and if she ever questioned the authenticity of the stories. Winfrey used the second show to make it clear to her viewers, fans, and critics that she no longer supported Frey. More interesting, however, is how quickly Winfrey publicly admitted she was wrong and apologized.

Mortification. Winfrey had to apologize for her actions. Upon realizing she angered fans, she admitted, "my judgment was clouded because too many people seemed to have gotten so much out of it [the book]" (Rakieten, 2006, p. 3). Just two weeks after phoning *Larry King Live* in support of Frey, she expressed regret in making that phone call. She told viewers, "I made a mistake, and I left the impression that the truth does not matter. And I am deeply sorry about that, because that is not what I believe" (Rakieten, 2006, p. 2). Interesting is Winfrey's approach to apologizing. In one sense, she gave a direct apology to her viewers, fans, and the public in

general by saying "I" made a mistake and "you," the public, are right to have called me out on this mistake. Through the use of "I" and "you" she also credits viewers—her "friends"—for helping her to understand her "mistake." She used words like "mistake," "regret," and "deeply sorry," but she did not directly say, "forgive me." Though some criticized Winfrey for not apologizing sooner, she was credited for not covering up her misplaced loyalty toward Frey. Viewers found the honesty Winfrey expressed refreshing in the wake of numerous headline-making scandals of the past ten years; Winfrey's honesty led to redemption without having to ask for forgiveness.

During this image-repair attempt, Winfrey never tried to evade responsibility for her actions; instead she proactively tried to set the record straight and attempted to discover what truth was and what fiction was in Frey's alleged memoir. Moreover, she questioned Frey until he admitted he lied, which showed she was not evading responsibility for selecting the book. In her apology, she thanked the public for bringing her to her senses about her misplaced loyalty. Winfrey briefly tried to scapegoat and attack the publishing company for not fact checking the book, but this strategy was overshadowed by the public's dislike of Winfrey's initial support of Frey. The proactive nature of Winfrey's response was key to saving her book club, brand, and image during this incident. She demanded truth from Frey, his publisher, and herself and made clear to her audience that the truth does matter and that she is fallible.

CONCLUSION

An individual or organization must respond to image-challenging events in order to make repairs (Benoit, 1995). In the three analyzed events, Winfrey directly addressed and was proactive for two of the three. She directly and immediately responded to being sued and to the deceit and lies surrounding Frey's memoir. However,

she remained silent immediately following the boutique snubbing but then followed her previous repair pattern by beginning with denial and then moving to reducing offensiveness, relying on the bolstering technique, and then letting the situation dictate what rhetoric and how much rhetoric she produced to defend her image. For all three incidents Winfrey used her show as a venue for defending her image because it provides a safe and controllable forum. Winfrey's approach evolved over the three incidents. With the ranchers she tried to make nice while artfully attacking her accusers and bolstering her good intentions, with the Paris snubbing she skillfully got Chavez to say exactly what she wanted, and with Frey she attacked him until he conceded to his deceit.

Denial was her first form of image defense in all three incidents. To deny wrongdoing she found scapegoats in order to transfer the blame and focus onto someone else in two of the three incidents. With Hermès she scapegoated the "rigid and rude" sales clerk, and with the memoir it was Frey and the book's publisher; however, with the beef incident she did not scapegoat anyone or anything (though she did deny her actions were intentional or malicious), which was a missed opportunity to transfer responsibility of the cattle futures crash to the external factors such as drought, feed prices, and oversupply.

A major shift in defense strategies happened with the Hermès incident when she began her defense by remaining silent, relying on her already favorable public image to survive this image crisis. From 1996 to 2005 Winfrey's social influence greatly increased, and it appears that she thought her image could sustain the negative publicity; however, it became clear that her silence exacerbated the rumors creating a *Hermès Said/Oprah Said* battle. Winfrey should have addressed the Paris snubbing immediately because then there would have been nothing to speculate about and the incident may have gone unnoticed, which would have prevented her from using the event as a ratings bonanza. She spent more time defending her

image following the Frey debacle than responding to the Hermès snubbing because there was more at stake.

The Frey incident required Winfrey to make repairs to her image, not just defend it, because her brand and the reputation of her book club were also being challenged. Winfrey's personal value of truth was under scrutiny; the public questioned her misplaced loyalty causing her to take deliberate steps to separate herself from Frey, and for the first time to employ mortification. She quickly moved from denial to mortification, as she admitted that she was wrong and apologized. By analyzing Winfrey's image repair campaigns, it is evident that the strategy of admitting guilt and apologizing can play an integral role in the repair process.

With Winfrey, the longest and most elaborate attempt at image repair was done when she had little experience at face saving. This study emphasizes the ways in which a rhetor's persona enables and disables certain types of defense discourse. For example, Winfrey had to deny wrongdoing during the beef incident because of her persona as a witness participant and not an informed expert. The repair discourse was minimized during the Hermès incident as, in the end, she explained it as a negative run-in with one person. The repair discourse then intensified later in the Frey incident when her personal values and her brand were threatened. Winfrey's defense rhetoric is one of a defiant woman who would not allow her image, her ethics, or her behavior to be challenged by anyone. The persona of "Oprah," which is built around the ideology that she is everyone's best friend, made her intense and angry reactions seem appropriate to the public because they understand that she has strong values. During the beef incident, the idea of creating an educated and well-informed audience bolsters her position as someone who cares for her audience, not someone who has done wrong. The angry reaction she had to her denied access to Hermès and her adamant claims that she "played by the rules" was another important and strategic set of discourses used to maintain her

persona. If Winfrey admitted she behaved badly her image would have suffered irreparable damage because the public Winfrey would never act like a diva. Winfrey realized with the Frey incident that she could scapegoat the publishing industry for mislabeling the book and claim that her support for the book was made based on inaccurate information. However, an important move she made in order to save face was to publicly admit that her original pledge of devotion and loyalty toward the author was misplaced, especially when her fans questioned her actions; at issue was that her public persona should know and enforce the difference between right and wrong.

In each image-threatening situation Winfrey not only had to take deliberate steps to repair her personal image, but also to protect her growing media empire, because Winfrey the person, is directly linked to Harpo, Inc., which is evident in all three situations. Her strategies in these circumstances included moving the show to Amarillo to win local support, having Chavez confirm that she played by the rules in Paris, and finally admitting that even Winfrey can be duped. Not only was her image repaired but she saved the reputation of her book club, protected her empire, and in some ways made it stronger. It must be noted that after each image crisis Winfrey experienced, she emerged with not only a repaired image but also a regenerated image—her image post-crisis was stronger and viewed more favorably than pre-crisis. This phenomenon of image regeneration is an area yet to be explored in the realm of apologia studies. Future research needs to explore why images, like Winfrey's, emerge stronger after a crisis by interrogating the rhetorical techniques that move an image from repaired to regenerated.

NOTES

1   The show debuted in 1985. That same year, Winfrey created Harpo, Inc., becoming the third woman in the history of television and movies to own her own studio (Brands, 1999; Wilkinson, 1998).

2   Nelson (1984) analyzed Billie Jean King. Benoit & Hanczor (1994) studied Olympic figure skater Tonya Harding. Benoit & Anderson (1996) looked at fictional television character Murphy Brown after Vice President Dan Quayle attacked the main character for glamorizing single parent families. Benoit & Brinson (1999) analyzed Queen Elizabeth's speech following the death of Princess Diana. Vasby Anderson (2002) studied Hillary Clinton's use of the Madonna persona as an image repair technique.

3   Official transcripts of the *Dangerous Foods* episode are unavailable, but unofficial transcripts can be found at internet sources such as: www.earthisland. org and www.unsafescience.com

4   The scientific name for mad cow disease is Bovine Spongiform Encephalopathy (BSE). This disease kills by destroying the brain. The human form of BSE is Creutzfeldt-Jakob disease (CJD) and is always fatal.

5   According to *PR Watch,* a series of external factors may have contributed to the ailing cattle industry after the airing of the *Dangerous Foods* segment including drought, high feed prices and oversupply. Moreover, the show aired less than a month after the British government announced that contaminated beef most likely caused 10 human deaths (Rampton & Stauber, 1998).

6   Winfrey defeated the beef industry in the defamation lawsuit. After her victory, she emerged from the courthouse giving her second famous quote from the ordeal, "Free speech not only lives, it rocks." The plaintiffs appealed the decision, drawing the case out another four years.

7   The incident was fueled in part by reports that the store had discriminated against North Africans in the past.

8   The 2006 Academy Award winning film for Best Picture chronicles incidents of racial tension and racial discrimination in Los Angeles.

9   The authenticity of the memoir was questioned prior to Winfrey making it a book club selection. *The Smoking Gun* is an investigative website owned by Court TV.

10 As of July 12, 2007 there were 27,329 posts to Oprah's message board regarding the Frey incident. The link is: http://boards.oprah.com/WebX?14@@. f0e3cc6!skip=27320&view=C

11 Editorials criticizing her actions appeared in newspapers like *The New York Times, Los Angeles Times, Washington Post,* and *The Boston Globe.*

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Communication Successes and Constraints: Analysis of the 2008 *Salmonella* Saintpaul Foodborne Illness Outbreak

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In 2008, health officials worked to identify the source of a *Salmonella* Saintpaul illness outbreak that lasted over three months. Heightened media attention coupled with a lack of source identification led to a prolonged crisis phase. A thematic analysis of media accounts, press releases, government documents and television media coverage provides a rich description of communication strategies utilized during the outbreak. Using the National Center for Food Protection and Defense's Best Practices in Risk Communication, this case study examines communication strategies utilized in this response and provides examples of each strategy.

KEYWORDS: Crisis, risk, foodborne illness outbreak, best practices

The United States experiences food recalls and foodborne illness outbreaks on a continuous, almost daily basis. Each incident challenges local, state, and federal authorities attempting to communicate about the outbreak and ongoing investigation; it also pushes the food industry's economic limits. Furthermore, foodborne illness outbreaks linked to fresh produce often complicate the recall process, primarily because of the way the produce is grown. "It may be grown in a field or orchard, and it is often consumed raw, without cooking or other treatments that

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could destroy bacteria and other pathogens" (FDA, 2007, p. 1).

Investigation into foodborne illnesses requires inclusion of two elements. First, foodborne illness outbreaks require health officials and food inspectors to work systematically to solve the contaminated product mystery. Second, such investigations require communication with the public regarding the contaminated product, what is being done to locate it, and what consumers can do to protect themselves. Consumers are subjected to messages from government agencies, industry groups, and grocers about handling contaminated food. At times these homogenous messages can be confusing and even conflicting as they reach heterogeneous mass media audiences through limited media channels. It is important to note that the harm associated with foodborne illness outbreaks can be mitigated by effective risk communication: communicating quickly about the outbreak and its causes, disseminating information via various communication channels, and providing clear, easy-to-understand information about what to do with potentially contaminated products (Seeger & Novak, 2009).

This study examines a 2008 tomato and pepper *Salmonella* illness outbreak that baffled health officials for nearly three months. Over 1,400 individuals became ill from the *Salmonella* Saintpaul strain and 268 were hospitalized ("Outbreak of *Salmonella*," 2008). The recall process for this case initially identified tomatoes as the source, but members of the public continued to be sickened. Nearly two months into the case, epidemiological evidence linked the outbreak to jalapenos and serrano peppers.

Using the National Center for Food Protection and Defense's (NCFPD) Best Practices in Risk and Crisis Communication, this study examines communication strategies utilized in response to this crisis and provides examples of best practices employed during the outbreak. This article will first provide an overview of relevant risk and crisis communication research, including the NCFPD's best practices. The next section will give a narrative case timeline.

The following section will discuss the database and methods used in analysis. The final sections will provide the discussion and implications of the analysis.

CRISIS COMMUNICATION

Crises are highly chaotic uncertain events that disrupt normal routines. To understand crises, researchers have developed crisis stage models. Fink (1986) proposed a four-stage model. The first stage begins with a warning stage, then evolves into the following phases: acute crisis, chronic crisis, and crisis resolution. He suggests that after a warning stage, a crisis occurs in the acute phase and begins to de-escalate in the chronic phase. Finally, as the crisis moves into the resolution phase, more attention is given to why the event occurred and what can be done to prevent the crisis from recurring.

Other researchers have suggested a three-stage model of pre-crisis, crisis, and post-crisis. These stages are similar to what Fink (1986) suggests, but the pre-crisis phase focuses on searching for potential threats that could emerge into a crisis. "The crisis stage, then, involves the crisis trigger event and the onset of harm and continues until such time as the system returns to near normal operations" (Seeger et al., 2003, p. 97). Further, the crisis stage is often fraught with uncertainty as to the cause or source of the crisis. This uncertainty often restricts the amount of time organizations have to initiate a communication response, because various stakeholders, including the media, will engage in information seeking behavior and rely upon the first source of information even if it is false or inaccurate.

With the rise of 24-hour news channels, the urgency of providing crisis information is evident. During the 2001 anthrax attacks, the CDC struggled to meet heightened media demands because of rapidly changing information about the situation (Freimuth,

2006). Crisis news coverage is often ubiquitous. Thus, agencies are tasked with monitoring the media to ensure true and accurate information is reported.

Fink (1986) suggests individuals responsible for responding to the crisis ought to work to control the information and messages to the public, since the media will seek out information if it is not provided.

> In the liberal tradition, media are seen as the transmission vessels for news and information, and the providers of a "publicity" designed to hold government accountable by rendering its practices transparent. In this view, readers, viewers, and listeners gain decision-making power by sharing "public" information. (Wahl, 1999, p. 27)

During a crisis, one role of the media is to disseminate information to various stakeholders, including other agencies, officials, and the public (NRC, 1989). The role of informing stakeholders represents the hard news aspect, while entertainment media often encompasses soft news (Hart, 1987). Information reported during a crisis often includes the severity of the situation, causes, accountability, and mitigation efforts. "Media coverage of a crisis has become more aggressive and frequent with the proliferation of news magazines and 24-hour news programs" (Seeger et al., 2003, p. 8). In foodborne illness outbreak cases, the media serves as a channel to distribute warnings about recalls and other product information. In the case of Hudson Foods' E. coli-contaminated beef, the recall was deemed successful because of the media's prompt attention to the issue (Seeger et al., 2003). Based on a study of 9/11 news coverage from five television news outlets, Li (2007) suggested that the crisis stage influences the media's function. For example, as a crisis evolves and new information is available, media framing of the story changes.

The crisis resolution (Fink, 1986) or post-crisis phase (Seeger et

al., 2003) focuses on self-organizing and renewal. Often this phase comprises the investigation and an analysis of what went wrong and who or what is ultimately responsible. In the 2008 *Salmonella* Saintpaul case, the transition from crisis to post-crisis was hindered by the uncertainty as to the outbreak source. The previous paragraphs provided an overview of the crisis stages, highlighting the crisis and post-crisis stages as well as a description of the media's role during a crisis.

NCFPD's Best Practices

These best practices were developed in 2004 at the inception of the NCFPD, a Department of Homeland Security center of excellence (Venette, 2007). The NCFPD's mission "is aimed at reducing the potential for contamination at any point along the food supply chain and mitigating potentially catastrophic public health and economic effects of such attacks" (NCFPD, n.d.). The NCFPD risk communication research team is tasked with "developing best practices for active engagement of multiple audiences in effective risk communications prior to, during, and after potentially catastrophic food bioterrorism incidents" (NCFPD, n.d.). Although the 2008 *Salmonella* Saintpaul outbreak did not result from an intentional contamination, it serves as a model case for examining communication strategies utilized by both the private sector and governmental agencies.

In 2006, the *Journal of Applied Communication Research* published a special section highlighting the NCFPD's best practices. Since then, no articles analyzing or testing the best practices have been published in peer-reviewed communication journals. Most best practices research has been limited to grant reports or translational research such as training modules for communication practitioners in the food industry (NCFPD, n.d.; "NCFPD/IFIC," 2009). This article seeks to fill a gap in the literature by analyzing the tomato pepper case, seeking examples of the best practices.

Examining a real world event with the best practices framework will either support or refute the use of such practices during a crisis communication response.

The NCFPD Best Practices in Risk Communication are as follows:

- plan pre-event logistics;
- collaborate and coordinate with credible sources;
- accept uncertainty and ambiguity;
- form partnerships with the public;
- listen to public concerns and understand the audience;
- be open and honest;
- meet the needs of the media and remain accessible;
- communicate with compassion, concern and empathy;
- provide messages of self-efficacy;
- continuous evaluation and updating of plans ("Best Practices," 2006; Seeger, 2006; Venette, 2007).

Other risk and crisis communication scholars have advocated for inclusion of an eleventh best practice to acknowledge and account for cultural differences (Sellnow, Seeger, Ulmer & Littlefield, 2009; Sellnow & Vidoloff, 2009).

TIMELINE AND OVERVIEW OF CASE

This section provides a *Salmonella* crisis background and timeline. The timeline table shows the sequence of key events from the Tomato Safety Initiative formation to the end of the crisis (See Table 1). The *Salmonella* Saintpaul strain outbreak first appeared in May 2008 with 19 reported cases in New Mexico (Busemeyer, 2008a). Early print media reports named tomatoes as the source for *Salmonella* illnesses in Texas and New Mexico ("Around the Nation," 2008; Weeks, 2008a). On May 31, 2008, the New Mexico

Table 1. *Timeline of Events during 2008 tomato/pepper Salmonella outbreak*

2007
Tomato Safety Initiative forms

2008
April: Cluster of illnesses begin appearing; Texas (21 persons) and New Mexico (19 persons); 30 persons with *Salmonella* Saintpaul infection have been reported since late April in residents of Arizona, Colorado, Idaho, Illinois, Indiana, Kansas, and Utah. (CDC)

May 31: The New Mexico Department of Health announced that *Salmonella* outbreak is likely caused by eating uncooked tomatoes.

June 5: CDC provides advice to consumers in New Mexico and Texas; CDC lists FDA information on their website.

June 7: FDA Warns Consumers Nationwide Not to Eat Certain Types of Raw Red Tomatoes
167 illnesses, 23 hospitalized

June: Businesses begin pulling tomatoes from menus and shelves: Chipotle, Maggiano's Little Italy, Panera Bread, Pot-Belly Sandwiches, Subway, Georgia Brown, Tim Horton's, Harvey's, McDonald's, Taco Bell, Burger King, Publix, Winn Dixie, Wendy's, Wal-Mart, KFC, Pizza Hut, Safeway, Giant, Harris Tetter, Wagman's

June 10: FDA and CDC advise people to avoid eating Roma, red plum, and red round tomatoes not attached to the vine

June 11: FDA clears some Florida and California tomatoes

June 13: FDA suspects tomatoes from South Florida and Mexico

June 14: FDA clears Virginia tomatoes; FDA suspects Mexico tomatoes

June 20: Safe list grows

June 27: FDA and CDC announce outbreak is linked to raw tomatoes, but the source is not pinpointed (*continues next page*)

July: Tomato market collapses

July 2: FDA and CDC expand investigation to include other produce commonly served with tomatoes; 869 illnesses reported

July 8: FDA announces they may never know the source; 1700 samples of tomatoes test negative for *Salmonella* Saintpaul

July 10: FDA and CDC advise people to stop eating jalapenos; 1017 illnesses reported

July 17: FDA and CDC announce that all tomatoes are cleared; 1220 illnesses reported

July 26: FDA and CDC believe two types of produce are involved in case

July 28: Kroger, Albertson's, Wegman's, Whole Foods Market, HE Butt Grocery pull jalapenos from shelves

July 30: FDA and CDC announce jalapenos and serrano peppers linked to outbreaks. FDA: only jalapenos from Mexico; found strain in irrigation water and serrano pepper farm

July 31: "We have a smoking gun, it appears," an official at the Centers for Disease Control and Prevention (CDC) told the Associated Press.

August 28: Outbreak officially over. CDC continues surveillance

Department of Health stated the *Salmonella* illness was "likely caused by eating uncooked tomatoes" (Busemeyer, 2008b, p.1). To assist consumers, the FDA issued a safe list based on where the tomatoes were grown. Despite the safe list's creation, almost two dozen grocers and restaurants began pulling tomatoes from menus and shelves in early June (Kaplan, 2008; Lazo, 2008; Shin, 2008a; Weeks, 2008b). By mid-June, 552 individuals were sickened by the outbreak (Shin, 2008d). Because the number of cases continued

to increase, FDA inspectors were sent to investigate farms, warehouses, and packing sheds in Florida and Mexico (Shin, 2008d). On June 23, the FDA added Florida's tomatoes to the safe list, but industry officials speculated producers had already lost $500 million ("Florida Fruit," 2008). Despite the large increase in reported cases, a CDC official maintained that this increase reflected, in part, "better surveillance and reporting systems by state health departments" (Enis, 2008b, p. 1).

After Mexican food restaurants and fresh salsas had been inspected, two major events occurred, signaling the end of the crisis phase and the beginning of a transition to the post-crisis phase. First, the FDA began receiving criticism about the length of time required for the investigation and the lack of a computerized record-keeping system (Weise, 2008b). Second, epidemiological evidence showed that raw jalapenos and raw serrano peppers were also linked to the outbreak (Herndon, 2008; Zhang & Adamy, 2008). On July 18, the CDC and the FDA announced that people could eat tomatoes, but should be wary of serrano and jalapeno peppers (Hundley, 2008b). By this time, the number of illnesses totaled 1,237 ("CDC Information for July 17," 2008). On July 31, the FDA reported it had "a smoking gun," because health officials found the *Salmonella* strain in irrigation water and in serrano pepper samples from a farm in Mexico (Shin, 2008e, p. 1). Most media reports in August focused on the food industry's feedback on the FDA's performance during the outbreak; specifically, the industry said the FDA had shown an "unwillingness to share information, tap industry expertise, or consider that something other than tomatoes might be the culprit" (Allison, 2008, p. 1).

DATABASE

To conduct a thematic analysis, the researchers used three different data sources, including television media coverage, print media

articles, and press releases from government agencies. Using multiple data sources allowed for triangulation. A similar type of analysis was conducted by Shapiro and Ward (1998) as they analyzed various government documents looking for framing strategies.

For this study, data was coded through a deductive approach. Themes based on prior research were developed and a coding scheme consisting of the NCFPD's best practices was used to examine the data ("Best Practices," 2006; Boyatzis, 1998; Seeger, 2006; Venette, 2007). Examining the data for the presence or absence of the best practices allowed for a rich understanding of the crisis messages illustrated during the outbreak.

Seventy news articles were found through a LexisNexis database search. Search criteria included relevant articles found between June 3, 2008 and August 28, 2008. Keywords used to search the database were tomato, *Salmonella,* pepper, jalapeno, FDA, and CDC. Additionally, sixty-nine press releases were downloaded and printed from the CDC and FDA websites. All press releases from state health departments and other agencies were posted on the CDC website.

The television media coverage was captured through the Digital Content Analysis (DCA) lab at a large southern university. Beginning June 3 and ending August 28, the lab captured 610 hours of programming (1,221 half-hour video files). The television coverage is important to this analysis for two reasons. First, the television coverage as a whole was used to create media frequency graphs (See Figures 1 and 2). Second, the television coverage was also segmented into individual clips, which were used for the content analysis.

Data was captured on the following television channels: A&E, ABC, BET, CBS, CNBC, CNN, CNN HEADLINE, COMEDY, C-SPAN, C-SPAN2, CW, DISCOVERY, ESPN, E!, FOX, FOX NEWS, HISTORY, KET2, LIFE, MSNBC, MTV, NBC, PBS, TNT, USA, VH-1. The search terms for finding relevant television stories were jalapeno, pepper, *Salmonella,* FDA, and tomato. The terms
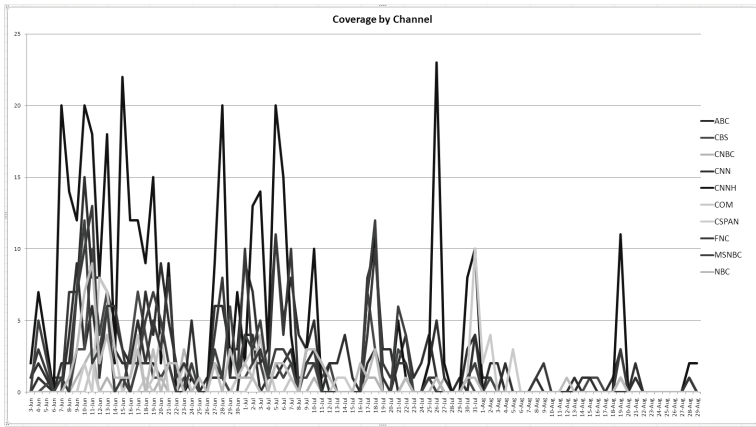
Figure 1. Television coverage of the 2008 tomato/pepper *Salmonella* outbreak by channel. The y-axis indicates the number of occurrences related to the outbreak; the x-axis includes dates of coverage.
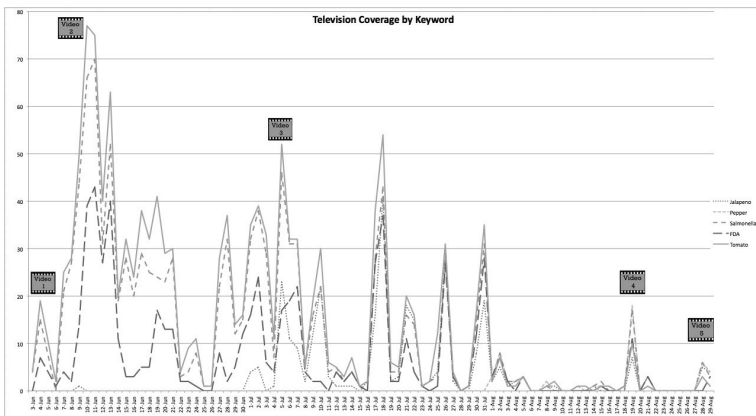

Figure 2. Tracking television based on keyword frequency during the 2008 tomato/ pepper *Salmonella* outbreak. Analysis of television coverage occurred at peaks marked with a video icon. The y-axis indicates the number of occurrences; the x-axis includes dates of coverage.

jalapeno and pepper were added after the FDA announced the involvement of jalapenos and peppers in the outbreak. Data was plotted according to channel and keyword in order to create the media frequency graphs for analysis. Further, within the keyword

graph, five major peaks emerged; these peaks coincided with major events in the outbreak.

For the analysis of the peaks, media clips dated three days before and three days after the peak were gathered. A total of 474 relevant video clips were found. Due to the number of clips, only one-third of the videos from each peak were selected for analysis. A list of omitted videos was maintained, along with a short explanation of why each video was omitted. Captured segments such as cooking shows or commercials were omitted because the content was not relevant to the foodborne illness outbreak, even though keywords may have been used.

Once segments had been identified, an internal search engine was used to locate the start time of the keyword in the video. This step eliminated the need to search through the entire video for the actual *Salmonella* Saintpaul story. At this point, the video portion containing the story was carefully scrutinized. If any instance of the best practices monitored for this study was found in the television clip it was noted in the code sheet, along with direct quotations or paraphrases from the video. Using this method, both quantitative and qualitative data was extracted. Researchers observed these television media segments in order to total the number of NCFPD's best practices depicted in the videos and to calculate the percentage of videos displaying these practices.

DISCUSSION

Four themes emerged from the data: coordinating networks, forming partnerships, providing messages of self-efficacy, and remaining accessible to the media. This section discusses the themes and provides examples from both print and television media. Practical implications follow in the subsequent section.

Coordinating Networks and Forming Partnerships

Print media of the *Salmonella* Saintpaul illness outbreak provided multiple examples of federal, state, and local agencies working together. Responding to foodborne illness outbreaks involves multiple stakeholders: the ill person(s), the local health department and/or healthcare provider, the CDC, the FDA, and the food industry (including the producer, the distributor, and the supplier). It is constructive when agencies work together to disseminate complimentary messages in response to outbreaks. Once a cluster of illnesses appears, state health departments notify the CDC, and the federal agency begins an epidemiological investigation of the outbreak to identify the food associated with the illness. A press release from the New Mexico Department of Health reported the following:

> New Mexico has been coordinating the investigation between other states, New Mexico Environment Department, the Navajo Nation, Indian Health Service, Centers for Disease Control and Prevention and the Food and Drug Administration. FDA is trying to pinpoint the exact source of the implicated tomatoes. (Busemeyer, 2008a, para. 3)

The CDC identifies the food linked to the illness and then contacts the FDA, the agency that ultimately determines the regulations for a response. FDA's Center for Food Safety and Applied Nutrition (CFSAN) works with the CDC to conduct disease surveillance and outbreak investigations (FDA, 2007). The CDC also coordinates with state and local health agencies to trace the source of the contaminated product. "The CDC estimates about 40,000 cases of salmonellosis are reported in the United States each year, but the actual number of infections maybe 30 times greater because mild cases go unreported" (Shins, 2008a, p. 2).

During the 2006 *E. coli* in spinach crisis, these partnerships were put to the test. "Investigators from the FDA, CDC, and the states worked together to trace the implicated spinach back from consumption to the fields. The fact that illnesses were reported in multiple states suggested that the contamination likely happened early in the distribution chain" (FDA, 2007, p. 3). Two years later, these relationships were again tested as *Salmonella* Saintpaul emerged in fresh produce. The CDC posted state health department press releases and FDA information on its website. Numerous media stories online reported decisions being made by the CDC and the FDA together. In almost half of the video clips around the second peak of coverage (See Figure 2), there were multiple reports of the CDC, the FDA, and state health departments working together to find the contamination source.

The television media coverage provided a different story. During peak two (See Figure 2), many television segments mentioned the FDA or CDC, yet rarely discussed the two working together. As evidenced in the code sheet, most segments did discuss what the FDA was doing to mitigate the problem. However, it was rarely the case that discussions of cross-organizational networking occurred. In some instances, state agriculture departments publicly aired their frustration with the FDA. In one media clip, representatives from the CDC and FDA were included in the interview, but the content of the messages did not reflect collaboration between the two agencies. The following is a segment from that clip:

> "We would characterize this outbreak as ongoing," said Ian Williams, Chief Outbreaknet Team, CDC. Not only are there no answers about the source of contamination from the FDA, "It is possible, that we may not know, but the same is true of any outbreak," said Dr. David Acheson, Associate Commissioner for Foods, FDA. (CNN, 2009)

Again, this clip illustrates that both agencies were working to find the contamination source but not necessarily together. Of the 101 video clips analyzed for the second peak of media coverage, approximately 18% of the data demonstrated the best practice of coordinating networks. In contrast, the third peak of coverage revealed 21% of the 47 media clips analyzed illustrated this best practice; however, during peak four of television media coverage, there was no mention of coordinating networks. This provides a startling view into how varying coverage may offer different perspectives concerning the same news story. Television coverage often focused on the FDA's inability to accomplish what should be routine tasks, whereas print coverage showcased cross-organizational collaboration and partnerships.

In addition to relationships between government agencies, farmers and other groups developed relationships with the FDA. In 2004 and 2005, the FDA sent letters to industry members regarding concerns about continuing foodborne illness outbreaks and expectations for produce safety (FDA, 2007). In 2007, the FDA formed the Tomato Safety Initiative, along with Virginia and Florida health departments, universities, and produce industry members. The initiative assesses food safety practices, environmental factors, industry outreach, research, and collaboration with federal, state, and local health authorities (FDA, 2007).

Multiple stakeholders add layers of complexity to the communication response. As foodborne illness reports emerge, uncertainty is often heightened by ignorance of the contamination source. However, by coordinating networks and forming partnerships organizations can utilize additional resources to help disseminate public information, assist with the source investigation, and provide tangible and/or economic resources to the responding agency. Failure to coordinate efforts may further frustrate stakeholders and lead to confusing or conflicting messages.

Providing Messages of Self-Efficacy

The CDC, the FDA, and state health departments included messages of self-efficacy in nearly every press release. State health departments provided four precautionary actions for consumers: wash the tomatoes, cook the tomatoes before eating them, wash hands and kitchen surfaces after contact with tomatoes, and cook food thoroughly (Busemeyer, 2008b). The CDC offered additional advice: vulnerable populations such as the elderly, the young, and those with weakened immune systems should refrain from eating tomatoes. Consumers were advised to avoid purchasing bruised or damaged tomatoes, to refrigerate the tomatoes within two hours of purchase, to keep them separate from uncooked meats, and to thoroughly clean kitchen utensils and cutting boards before switching to a different food product ("CDC Information for June 2," 2008).

Overall, the television media coverage provided several examples of self-efficacy. During the second peak of television media coverage, 101 video clips were analyzed for this best practice, and approximately 27% of the clips illustrated self-efficacy messages. Most of these self-efficacy messages included statements about which tomatoes were safe and which were not. In contrast, television media coverage from peak three demonstrated a major decrease in this best practice. Of the 47 clips analyzed for this best practice, only 8% illustrated messages of self-efficacy. Further, there is no evidence of this best practice during the fourth peak of television media coverage. During peak three, the major story evolved from the initial contamination to a widening search for other contaminated vegetables. Other media stories focused on criticizing the FDA for failing to do its job, thus representing a decrease in messages illustrating coordinating networks, self-efficacy, and media accessibility.

Messages of self-efficacy in particular abated because the FDA and CDC were uncertain about which food was contaminated

and, therefore, could not give advice about what to eat and what to avoid, resulting in inadequate recall lists. No evidence of self-efficacy messages was found in peak four. This is likely due to a shift in focus from the outbreak to the inadequacies of FDA and government regulation. For example, some media reports stated that federal inspectors had intercepted shipments of contaminated chilies from Mexico before the recall occurred and failed to investigate further. Many video segments advocated for a response from the FDA in addition to increased screenings of food entering the United States.

Remain Accessible to the Media

The final emergent theme focused on the media and the ability to communicate via numerous media outlets. FDA officials held seven press conferences and posted transcripts on their websites. The CDC posted dozens of updates on reported illnesses and messages of self-efficacy. Providing new information about the outbreak through various media channels such as websites, press releases, and television news coverage indicates the government agencies attempted to remain accessible to the media. In the television coverage, every attempt to remain accessible to the media was illustrated when the website of the government agency was shown during the news report.

For the second peak of media coverage, 101 video clips were analyzed and approximately 10% of the clips illustrated this best practice. Surprisingly, only 10 video segments listed websites where viewers might go to find more information about the foodborne illness outbreak. The most common websites mentioned were the CDC and FDA.

For the third peak of media coverage, only 2% of the video clips illustrated this best practice. The television analysis revealed that peak five, like peak four, (See Figure 2) failed to demonstrate media accessibility. The media and consumers concerned about the con-

taminated products were likely to seek out additional information from organizations such as the CDC and FDA. Providing websites or phone numbers enabled the media and consumers to search and access additional information about the outbreak.

During the final stages of the outbreak, media reports did highlight the collaboration between the FDA and the CDC as both agencies recognized the uncertainty of the source of the contamination. Further, a majority of the stories in this peak acknowledged that levels of *Salmonella* within the U.S population had returned to normal levels. As the crisis began to resolve in August, there were still many unanswered questions about the source of the contamination. This case provides a unique opportunity to examine the communication strategies utilized by government agencies and private industry. The following section highlights practical implications of the case and suggestions for practitioners communicating during foodborne illness outbreaks.

PRACTICAL IMPLICATIONS

Several implications emerge from the analysis of media coverage during the 2008 tomato/pepper *Salmonella* outbreak. These implications are based on the emergence of the best practices in this case and offer practical suggestions for crisis communicators to consider as they plan for and respond to future outbreaks.

Coordinating Networks and Forming Partnerships

Early source identification is pertinent during the recall process. As local, state, and federal health authorities work together during outbreaks, they can learn which agencies have specific resources available. Industry members criticized the FDA for not allowing them to provide additional resources to government officials to assist in locating the contamination's source. Government agencies, along with industry members, ought to discuss potential changes

in the systematic process of identifying the contaminated product. The ability of health officials to perform a traceback is essential to the safety of consumers.

Another implication arises from multiple stakeholders' voices. Again, crisis communicators ought to acknowledge other stakeholders for potential partnerships in the crisis. In this particular case, the food industry—specifically tomato growers—were negatively affected by the FDA's conclusion that tomatoes were the source of the contamination. Florida tomato growers, who send most of their tomatoes to the east coast, were committed to food safety and advancing food safety procedures and helped form the Tomato Safety Initiative. Had health officials considered this information, it might have facilitated a faster identification of the contamination source.

Organizations and government agencies should meet with various stakeholders to discuss resource management strategies in the event of a foodborne illness outbreak. By meeting with stakeholders to discuss emergency response efforts, organizations can offer office space, staff, or vehicles as tangible resources to assist the lead response agency. Such meetings ought to take place before a crisis begins. Previous crises have demonstrated a lack of pre-crisis planning, which has often hindered the crisis response.

Providing Messages of Self-Efficacy

The FDA, CDC, and local and state health authorities should be commended on their ability to communicate messages of self-efficacy and the consistency in their messaging. Crisis communicators should always provide messages of self-efficacy in any crisis. People need meaningful actions to do during a crisis. During a foodborne illness outbreak, people need to know what they can or cannot consume, what they can discard and what is safe to eat when properly cooked.

Health authorities at all levels should consider other self-efficacy

messages beyond washing, cooking, or throwing away food. Discussions should occur between health agencies, grocers, local farmers, and other industry members about how to return food, receive refunds, or exchange contaminated items for alternative food items. Vulnerable populations, including low-income individuals, are often affected by foodborne illness outbreaks because they have no other choice than to eat the contaminated food. Messages of self-efficacy should be increased and updated throughout the crisis to reflect what is currently known and unknown. Such messages are likely to resonate with people if they are crafted with attention to detail and tailored to various stakeholder groups.

Remain Accessible to the Media

Another implication is the organization's ability to remain accessible to the media and accept uncertainty. As the media graphs indicate, there was a high level of uncertainty during the tomato/pepper *Salmonella* outbreak (See Figures 1 and 2). This is exemplified by the multiple television coverage peaks during the outbreak, which illustrate the situation's uncertainty and the inability to locate a contamination source. Crisis communicators must find a balance between acknowledging the uncertainty level and attempting to reassure stakeholders about the outbreak's severity.

Crisis communicators ought to stay on top of the story by reporting early what they know, what they don't know, and what they are doing to find the contamination source. As this case demonstrates, foodborne illness outbreaks are uncertain and evolving crises that change daily. By acknowledging this uncertainty, crisis communicators can inform reporters that their messages could vary as the situation unfolds. The CDC and the FDA did post press releases, press conference transcripts, and outbreak updates on their Websites; however, compared to the CDC, the FDA had less information available online. By including up-to-date information about the outbreak online, government agencies can remain accessible

to the media. However, being accessible to the media also includes conducting press conferences, conference calls, and interviews. Posting information online should not be the only mechanism used to maintain contact with the media.

CONCLUSION

As the United States continues to experience food recalls and food-borne illness outbreaks, government agencies and the food industry should work to create and participate in food safety practices and procedures in order to develop a more resilient food distribution system. Local, state, and federal authorities should work to create better relationships with food industry officials to improve the process of identifying the contamination sources. Further, government officials ought to create and maintain relationships with international trading partners and encourage other governments to prioritize food safety policy. Additionally, it is imperative that organizations acknowledge the benefit of coordinating partnerships and forming networks and engage in pre-crisis planning. Organizations that fail to work together may essentially be counterproductive. For example, organizations might disseminate conflicting or unclear messages.

Crisis communicators should work with decision-makers and scientists to construct evidence-based messages while also providing instructional tips for self-protection against foodborne illnesses. Finally, disseminating messages of self-efficacy allows persons affected by the crisis to be proactive in the crisis response. Allowing individuals to take control of the situation decreases stress and feelings of helplessness. Additionally, health authorities, grocers, local farmers, and other industry members should discuss how to return food, receive refunds, or offer alternative food items for returning contaminated food.

Remaining accessible to the media is equally important, as this

demonstrates the organization's willingness to remain transparent during times of crisis. Organizations ought to use multiple mechanisms to maintain contact with the media. In addition to traditional methods such as press conferences, conference calls and interviews, organizations should utilize Websites to post up-to-date information about the outbreak.

The 2008 *Samonella* Saintpaul case provides a unique perspective on communication successes and challenges that can occur during foodborne illness outbreaks. Communication practitioners face the difficult task of striking a balance between communicating the situation's uncertainty and over-reassuring the public, the media, and other stakeholders. Further, practitioners must deal with the time-pressures of the 24/7 news cycle and utilize multiple channels to disseminate information. The government agencies involved in the 2008 *Salmonella* Saintpaul outbreak did utilize some of the NCFPD's best practices in communication, including coordinating networks, providing messages of self-efficacy, and being accessible to the media. This case fills a knowledge gap by providing a descriptive analysis of government agencies' utilization of the NCFPD's best practices during an actual foodborne illness outbreak. Future research is needed to explore the effectiveness of these communications strategies.

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Organizational Response to Crisis: A Case Study of Maple Leaf Foods

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This article evaluates the crisis communication strategy employed by Maple Leaf Foods Inc during a large-scale product recall in the summer of 2008 using Situational Crisis Communication Theory. The research illustrates that Maple Leaf Food's crisis communication strategy was effective in upholding the organization's purported values of health and safety.

KEYWORDS: Crisis, communication, public relations, Maple Leaf Foods, Situational Crisis Communication Theory

Crises are unpredictable events that can impact an organization's viability, credibility and reputation (Baker, 2001; Mitroff, Shrivastava, & Udwadia, 1987). They are a prominent feature of the business environment with the potential to damage any organization (Baker, 2001; Mitroff & Alpasian, 2003; Olaniran & Williams, 2001; Pauchant & Mitroff, 1992). Examples of consumable product crises that have received extensive mass media coverage include: the U.S.A. 1982 Tylenol pain relief package tampering, the 1994 Schwan's ice cream salmonella outbreak, the 2005 Wendy's "finger-in-the-chili" incident, the Australian 2005 Masterfood's Mars and Snickers bars extortion attempt, and the 2007 United Kingdom salmonella scare forcing Cadbury Schweppes to recall more than one million of its choco-

late bars at a cost of £20m and a loss of 7 percent in market share.

In 2008, two major product recalls occurred. First, the global recall of Chinese milk products when it was found that 10 percent of the milk from the country's two largest dairy manufacturers: Mengniu Dairy Group and Yili Industrial Group—contained up to 8.4 milligrams of melamine per kilogram. Then, the reputation of Maple Leaf Foods Inc, one of Canada's most respected food processing companies, began to rapidly decline as a result of bacteria that was not detected by the organization's inspection process (Flynn, 2009). Identified as *L. monocytogenes* or commonly known as listeria, this bacteria contaminated food products and put customers who consumed these products at risk for a rare illness called *Listeriosis.* The symptoms of *Listeriosis* may include: fever, muscle aches and gastrointestinal symptoms such as nausea and diarrhea (New South Wales Food Authority, 2006). In the more severe form, symptoms also include collapse and shock and death (New South Wales Food Authority, 2006).

Maple Leaf Foods

Maple Leaf Foods Inc. (MLF) is a prominent food processing company headquartered in Toronto, Canada. The company employs 23,000 people across Canada, the United States, Europe and Asia, and had sales of $5.2 billion in 2008. MLF claims their meat processing facilities are federally inspected and meet the highest food safety standards in Canada. Further, the organization asserts that it was compliant with Hazard Analysis Critical Control Points (HACCP), a scientific preventative food safety system, which is recognized as the standard worldwide (Maple Leaf Foods, 2009a). MLF declared its "equipment sanitization process was completed in accordance with (in some cases exceeding) recommended manufacturer's cleaning protocols on a daily, weekly and monthly basis" (Maple Leaf Foods, 2008a, ¶3). MLF also boasted on its own website, that its production and cleaning operations were at the

highest level of food safety for Canadian small goods manufacture.

However, MLF's commitment to food safety failed to identify a fatal strain of listeria (Maple Leaf Foods, 2009b). It was only after MLF's slicers were fully disassembled that it became possible to identify the bacteria that had accumulated deep inside the equipment (Maple Leaf Foods, 2008a, ¶3). In August 2008, the Canadian Food Inspection Agency and Public Health Agency of Canada identified a strain of listeria in MLF products. Regular sanitization had not cleaned the equipment properly, allowing listeria to grow to high levels of concentration—enough to make people sick. It seemed that the bacteria then contaminated a range of deli meats that were largely distributed to nursing homes and hospitals and consequently "packaged meat from Maple Leaf Food's Toronto plant was killing people" (Pitts, 2008, p. 46).

A total of 21 deaths were attributed to the *L. monocytogenes* found in a MLF processing plant (Public Health Agency of Canada, 2008). As a result, 234 Maple Leaf Food products were recalled, the organization's reputation was damaged and market share was lost. It was estimated this crisis cost MLF $30million in lost sales. At the peak of the crisis, "Maple Leaf's brand sales had dropped more than 30 percent" (Lam, 2009, ¶9). President and Chief Executive Officer of MLF, Michael McCain, stated that: "this was by far the most awful event in the one hundred year history of our company" (Maple Leaf Foods, 2009b, ¶6).

During the crisis, MLF successfully presented itself to its publics as a company that was willing to do what was right, regardless of the cost, and subsequently the organization regained its status as a market leader in the production and sale of small goods in twelve months (Harris, 2009, ¶22). By January 2009, 70 to 75 per cent of lost sales had been recovered (Harris, 2009, ¶17). The focus of this article is the tactics employed by MLF during this crisis. The company's success provides insight into how to better manage a crisis in today's market.

Crisis Communication Theory

It is well documented that crises can have negative effects on an organization's market share, share price, purchase intention, on the sales of the recalled product, and even diminish the sales of other products by the company (Dawar, 1998). How organizations respond to and manage crises has been the focus of research for the past thirty years. As crises are events that often occur suddenly and without warning (e.g., Barton, 1993; Fearn-Banks, 2007; Mitroff, 1996; Seymour & Moore, 2000) and disrupt the normal operations of an organization, researchers have sought to identify best practice in the management of a crisis. Traditionally, the crisis communication literature focused on practical recommendations for predicting and preparing for crises, developing crisis management plans (e.g., Barton, 1993; Mitroff, 1996), and communicating effectively during a crisis. This approach to crisis communication has been challenged in recent years by those who argue for a prescriptive approach in order to incorporate an organization's need to build and manage relationships with key stakeholders (Ledingham, 2006). Image restoration remains the dominant paradigm for crisis communication research (Allen & Caillouet, 1994; Benoit, 1995, 1997; Burns & Bruner, 2000; Coombs, 1995, 1999, 2007a; Hearit, 1995, 1997, 2006; Rowland & Jerome, 2004).

Barton (1993), Mitroff (1996) and Seymour and Moore (2000) claim the key to crisis management is control of the message. However, organizations have a limited amount of time to gain control of the message as the media aim to communicate news as soon as it happens. This competition for control has compelled many well-managed organizations to formulate crisis strategies that can be implemented quickly and effectively (Howell & Miller, 2006). The concept that crises progress in a certain manner or follow a life cycle was developed in the early 1980s and is consistent with crisis management literature from this period (c.f. Barton, 1993; Coombs, 1999; Fink, 1986; Mitroff, 1996; Seeger, 2002; Sturges, 1994). Howell

and Miller (2006) extended the Crisis Life Cycle model to a robust framework within which mass media coverage during a crisis can be predicted and managed.

In the early development of crisis communication theory, crisis communication response plans focused on product harm that typically utilized the four crisis response strategies of: denial, forced compliance, voluntary compliance, and super effort (Siomkos & Kurzbard, 1994). *Denial* occurs when the organization claims there is no threat from their product (i.e. Pepsi's syringe in the can incident in 1993). *Forced compliance* is employed when the government forces a recall or other remediation efforts (i.e. Herron Pharmaceuticals' headache tablet recall in 2001). *Voluntary compliance* is evidenced when a company recalls or takes remediation efforts on its own accord (i.e. Mattel Toy recall in 2006). *Super effort* responses incorporate voluntary compliance by the organization, along with compensation and an extensive communication campaign to promote the company's efforts (i.e. Maple Leaf Foods in 2008).

Crisis communication theory was further advanced by Coombs' (1999) suggestion that each crisis situation possesses characteristics requiring the implementation of specific crisis communication strategies (CCSs) and the avoidance of others. According to Coombs (1998), a crisis manager should select one or more CCSs in accordance with the configuration of elements in the crisis situation. The lack of research regarding relationships between crisis situations, communication strategies and their associated effects led Coombs (1999) to develop the Situational Crisis Communication Theory (SCCT). The theoretical basis of this theory is that an organization estimates the public's attributions in order to determine the proper response level and to minimize damage to its reputation. Howell and Miller (2006) refined the CCSs for each stage within a crisis to enable organizations to develop key messages for each stage of the crisis lifecycle.

METHOD

Maple Leaf Foods' response to this crisis is best analyzed using Coombs' (1999) Situational Crisis Communication Theory. Coombs argues that as situational factors such as threat and negative affect increase, crisis managers must utilize a strategy with the requisite level of response to positively affect the crisis outcome (Coombs, 2007a). The factors influencing the reputational threat also serve to shape the affect generated by crisis and purchase intentions of stakeholders post crisis (Coombs & Holladay, 2004). Consistent with Coombs' SCCT, this study reveals that MLF analyzed its major reputational threat by drawing on Attribution Theory (taking into account key factors and intensifying factors). MLF then reacted using a *rebuild strategy* to decrease damage to its reputation, and worked to increase market position post crisis. Of particular interest is how MLF framed this matter of great public interest (i.e., contaminated small goods) to rebuild the organization's reputation and standing among purchasers. Only publicly available literature including documents released by MLF, the Canadian government and the available online media coverage was reviewed for this case.

Analyzing Reputational Threat

When a crisis occurs managers must predict the reputational threat before prescribing appropriate response strategies (Coombs, 2007a). Weiner's Attribution Theory, which acts as a product harm crisis for SCCT, focuses on people's emotional reactions to an event (specifically anger and sympathy) and the need to assign responsibility (Coombs, 2007b). Coombs (1995) asserted, "attributions of internal locus, controllability and stability create the perception that the organization is responsible for the crisis" (p. 449); thus, MLF's reputation was at higher risk of damage, as its product harm situation contained all of these elements.

When MLF accepted full responsibility for the recall, it increased public attributions of anger, increasing reputational threat. Mitigating this, MLF had *low consistency* (a limited history of food contamination) and their reputational threat did not progress from the level of an accidental crisis to that of an intentional crisis (Coombs & Holladay, 2004). MLF's previous actions assisted in enhancing the company's credibility, thus MLF enhanced its crisis response accordingly (Coombs, 1995).

When MLF accepted blame for the crisis, it increased the public's level of *felt involvement,* where people affected and those related to victims directed anger and blame toward the company and its production standards. This increased level of anger (specifically evident through individual reactions via telephone and blog postings) was an *intensifying factor* that caused MLF to move to a *rebuild strategy* in order to offset the high potential for reputation damage. Coombs (1998) defines corrective action as a response "crisis managers seek to repair the damage from the crisis, take steps to prevent a repeat of the crisis, or both" (p. 180). He later suggests that this corrective action should incorporate a *full apology* into the concession response (Coombs, 1999). The practice of corrective action should include both actual action and the verbal promise of future action: compensation, rectification, proactive works, and a change of corporate policy (Coombs, 1995). All of these activities were incorporated into MLF's response.

Crisis Response

The MLF crisis typology was classified as a technical breakdown because its product failed, causing potential harm to vulnerable stakeholders (elderly, sick and infirm). MLF chose to respond with super effort (Coombs, 2007b) to repair the damage to its reputation, and reduce backlash from the public and the media (Coombs, 2007a). Within hours of being notified as to the contamination by the Department of Health, MLF opted to accept full accountability for

the technical breakdown to show great concern for possible victims, which lowered expressions of anger from the public (Coombs & Holladay, 2004). According to Fearn-Banks (2007), organizations that have erred should "reveal the mistake at once, apologize and make amends" in order to gain control of the situation as soon as possible (p. 67). MLF anticipated this crisis to cause major damage to the company's reputation and reacted accordingly by coupling the excuse strategy (denying the intent to do harm) with that of mortification (offering compensation to those affected, Coombs, 1995; Coombs & Holladay, 1996).

Rebuild Strategy

MLF's primary response was an apology, but the organization also employed an excuse as a distancing strategy to influence attributions by denying intentional harm, and reaffirming the crisis as an accident. MLF employed a number of tactics in its *rebuild strategy* in response to a severe reputational threat. Coombs (2007a) states: "rebuild strategies are used for crises that present a severe reputational threat such as . . . accidental crises coupled with a crisis history" (p. 172). MLF opted for a *rebuild strategy* because, as Coombs asserts, rebuild strategies should be used for crises with strong attributions of responsibility (preventable crises) regardless of crisis history or prior relationship reputation (Coombs, 2007a).

At the initial media conference, McCain announced that the company would begin its recall of a range of MLF products. "The contrite video set the tone for the crisis communication response, which is now touted as best practice because of the organization's transparency and focus on consumers' health over that of the bottom line" (Harris, 2009, ¶9). Similarly, Matheson (2008) suggests, "what is rare, and decidedly refreshing, is the unconditional apology and unequivocal responsibility MLF has offered and assumed through company president Michael McCain" (Matheson, 2008, p. C8).

The company successfully implemented all mortification strate-

gies by demonstrating remediation to compensate victims, repentance and rectification (Coombs, 1995) and adapting information; thus, salvaging its reputation in the public's eyes. Coombs (1995) defined full apology as a response in which the "crisis manager publicly states that the organization takes full responsibility for the crisis and asks forgiveness for the crisis" (p. 180). MLF did undertake a full apology in the first media conference: "Tragically, our products have been linked to illness and loss of life. To those people who are ill, and to the families who have lost loved ones, I offer my deepest and sincerest sympathies," said Mr. McCain. "Words cannot begin to express our sadness for their pain." (Maple Leaf Foods, 2008b, ¶1). This apology was posted on MLF's Web site and footage of each media conference was uploaded and made publicly available. In addition, MLF released backgrounders, fact sheets and FAQ documents to further inform the public and thereby demonstrate care for its key stakeholders.

Over the course of the crisis, McCain became the public face of MLF by openly acknowledging current and future risks at a series of press conferences. Experts praised MLF for using McCain to communicate with the public. "I think for the chief executive to be on camera about it is the most effective way, and probably the only thing that should be done in a situation like this"(Watt cited in CBC News, 2008). For example, on August 30, 2008 a weary and upset-looking McCain said, "We have an unwavering commitment to keeping your food safe with standards well beyond regulatory requirements, but this week our best efforts failed and we are deeply sorry." Many analysts agree that MLF's management of the crisis was outstanding. Bob Reid, chief media strategist at Toronto-based Veritas Communications says, "I think time will show that they have significantly redefined the way corporate entities will respond in crisis situations in the future. It was an honest, compassionate response that defied the usual tap dance that naturally comes into play any time there is potentially legal liability" (Harris, 2009, ¶7).

Primary and Secondary Response Strategies

Consistent with SCCT, a good portion of MLF's success in responding to the crisis can be attributed to the company's primary response, which was an ethical choice to prioritize its stakeholders over its reputation. MLF's mortification strategies maximized public concern while sacrificing reputation, and immediate action was taken to protect the public by providing instructional information for physical safety (Coombs, 2007a). In this case, the organization's initial "outreach program" managed the media through numerous press conferences, media alerts with instructions for product returns, safety alerts and full-page print advertisements in major national newspapers. In addition, MLF employed a range of messages using complementary media tools such as the MLF Website, blogs and social media sites to communicate with key publics.

MLF's social media tactics featured an external company blog used to "maintain a direct and candid conversation with interested Canadians" (Maple Leaf Foods, 2009b). CEO McCain stated in his first blog, "We believe it is our responsibility to maintain honest and open communications on a subject that is of high interest and importance to everyone. This blog will engage leaders from Maple Leaf Foods including myself and Chief Food Safety Officer, Dr. Randall Huffman in a dialogue with citizens, consumers and others as we continue on our journey to food safety leadership" (McCain, 2009, ¶8). This blog provided updates on the company's progress towards food safety leadership, addressed topics and questions related to listeria management and responded to events and issues as they happened (Maple Leaf Foods, 2009b). Perry et al. (2003) suggests, "computer-mediated communication can help organizations communicate decisions quickly during a crisis to stakeholders and generate feedback from the public" (p. 207). In terms of secondary response strategies, MLF's use of web-based media was appropriate for these purposes as the site also contained downloadable information and forms for compensation for victims.

MLF compensated victims and reached a comparatively swift out of court settlement with the principal counsel groups who launched class actions following the *Listeriosis* outbreak (Owram, 2009) for approximately $25-million to $27-million in 2009.

This compensation and efforts to move beyond crisis have assisted in renewal of the organization's reputation. When MLF announced, with support from appropriate authorities, that products would be returning to retail outlets and were safe and ready for purchase, a media campaign to enhance the organization's reputation was also developed. This campaign supported the public relations efforts MLF had undertaken to restore its reputation and focused on trust building with consumers. Released in January 2009, this campaign showed microbiologists at work in MLF's Toronto plant and then at home serving MLF food to their children, with the tagline "passionate people, passionate about food" (Harris, 2009, ¶19). MLF also launched www.mapleleafaction.com, a Website dedicated to informing the public about steps being taken to improve food safety.

MLF's response emphasized the importance of positive media relations in a crisis. MLF proactively contacted reporters to announce the recall, and provided regular updates throughout the crisis through press releases, webcasts, and teleconferences with executives. The company advertised detailed lists of recalled products, communicated information about the bacteria, posted contact information both online and through traditional media sources, and encouraged consumers, shareholders and stakeholders to visit their Web site frequently for more information (Abbymartin, 2008). Because of this strong channel of communication with the media, failings in crisis management were exposed in negative press coverage of the Minister for Health in Canada rather than the organization.

MLF assembled a consortium of industry leading food safety experts, including officials from the Canadian Food Inspection

Agency and the Public Health Agency of Canada (PHAC) to consult and advise the company on various physical and operational enhancements under consideration (Smith, 2008). Following the consortium's recommendations, MLF undertook a number of plant-wide measures to ensure the public would have complete confidence in their products. Under the supervision of microbiologists and sanitation experts, the affected plant underwent six intensive sanitizations (well beyond normal cleaning procedures) (Smith, 2008). All slicing equipment was subjected to a daily disassembly, deep cleaning and multiple testing to verify the elimination of potential harborage points (Smith, 2008). Finally, a comprehensive pre-operation inspection conducted by the Canadian Food Inspection Agency was completed before any new products were distributed from the plant (Smith, 2008).

Furthermore, upon the successful reopening of the affected plant Michael McCain took groups of reporters on organized tours of the rejuvenated facility and outlined the company's improved safety protocols (Godbout, 2008). The implementation of these unique procedures epitomizes how MLF recovered from the crisis and regained market confidence with a strategy "above and beyond" all expectations. MLF's response provided adapting information to help stakeholders cope psychologically—ensuring customers that the company was taking measures to make certain such a danger would never happen again (Coombs, 2007a). MLF demonstrated that it learned from the crisis and displayed an ability to adapt by publicly presenting a preventative system to protect against a reoccurrence.

CONCLUSION

MLF's strategy was attuned to the reactions the public and the media might have to the listeria crisis. The organization took into consideration recent issues around manufacturing, as well as the

intensifying factors and felt involvement that increases attributions in order to respond at an appropriate level and preserve its pre-crisis reputation. Fearn-Bank (2007) describes MLF as the winner of a hard-fought battle in the war of public opinion rewarded with a reputation as favorable as before the crisis. Similarly, Coombs (2007a) asserts that "expressing concern for victims (adjusting information) and reinforcing this compassion through compensation and/or full apology serve to blunt feelings of anger" (p. 172). Throughout the response implementation, MLF managed to maintain a compassionate and apologetic response, while working with a constant flow of information to control the message and minimize further damage.

The use of the SCCT to measure reputational threat and respond accordingly seems appropriate in this case. MLF's actions demonstrate progress to an anticipatory model of crisis communications. MLF seems to have learned from the listeria crisis and now seeks to anticipate any future crises through prevention (adaptive information). For example, MLF appointed a research team headed by a Health Services Academic, established an ongoing cleanliness program in its plants and provided preventative information to others in the industry. These actions manifest the organization's ability to acquire knowledge and make changes following a crisis. Further, by retaining food safety links as a permanent fixture on the MLF Web site, the organization depicted core values of transparency and availability with stakeholders and the media. As a result, MLF is building a reputation as a leader in sanitation innovation in the small goods industry.

Although the MLF crisis cannot be considered a complete surprise (due to the history of recalls and knowledge of the manufactured food industry's issues), CEO and President, Michael McCain reflected that he worked with a team of "very capable, committed, passionate people" (McCain cited in Ewing, 2009, ¶10). He further explained that the response to the 2008 crisis was effective because

of the ethos of the organization and MLF's accountability for their
team members' individual and group actions in light of adversity.
McCain asserted, "Obviously, I have the pinnacle of that account-
ability and act as the face of the organization, but this was a very
dedicated, principled team of leaders, all 23,000 of them, and we
acted together through this," (McCain cited in Ewing, 2009, ¶11).
McCain refused to claim the management of the crisis a success
or failure. In terms of crisis communication, he continued to send
the message that while business was important, public safety was
paramount. "We would be thankful if we can fully recover our
business and we're optimistic we can earn that trust back from
consumers, but these types of things rarely should be described
in terms of success or similar adjectives, because this is just an
outright tragedy" (McCain cited in Ewing, 2009, ¶13).

It is concluded that Maple Leaf Foods acted appropriately, con-
trolled its message and survived the crisis. In terms of Situational
Crisis Communication Theory, MLF's strategy met three objectives
relative to protecting its reputation: it shaped attributions, changed
the public's perception of the company and reduced negative affect
(Coombs, 2007a). Although MLF has a wide range of stakeholders,
their crisis communication strategy ensured that all stakeholders
were provided with extensive information. MLF's anticipation of
the public's attributions caused the company to react accordingly,
and ultimately revive its reputation. It can be argued that MLF's
chosen response to this crisis positively altered the company's im-
age as predicted in Coombs' SCCT (2007a).

The effectiveness of communication is evaluated on the basis
of its ability to satisfy the needs of the public (Heath, 2001). The
management of the listeria crisis by MLF is now being described
as 'the gold standard' in effective crisis management (Tattrie, 2009,
¶10). Boyd Neil, Senior Vice President and National Practice Direc-
tor for Corporate Communications at Hill & Knowlton Canada,
suggests that MLF's response to the listeria outbreak is "a case

study in how to effectively handle a crisis" (Todd, 2008, ¶1). In 2009 the CEO of Maple Leaf Foods, Michael McCain, was named business newsmaker of 2008 based on his handling of the listeria crisis. While various national and international commentators have recognized MLF communication success, customer loyalty and sales for 2009 will determine if the ongoing viability of the brand has been strengthened.

McCain's strong leadership underpinned by an open and honest approach focused on public safety to manage the obstacles presented by the MLF crisis. This case study illustrates the potential effectiveness of Situational Crisis Communication Theory. Finally, MLF's response to the listeria outbreak exemplifies best practices in crisis communication management and provides instructions for organizations facing crises in the 21st century.

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Wenchuan Earthquake Preparation and Information Seeking: Lessons from the Field

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This study investigates disaster preparation, and information seeking patterns of Wenchuan (Sichuan) residents in the aftermath of the 2008 earthquake, based on survey responses from Wenchuan earthquake survivors. Results indicate that residents of the region were not prepared for the natural disaster. Age related difference did emerge in information seeking behaviors. Findings are discussed and recommendations for communication practitioners are offered with regards to message design and placement.

KEYWORDS: Wenchuan earthquake, Sichuan, disaster communication, risk, information seeking

Recent natural disasters such as the earthquakes in Haiti and Chile, the cyclone that swept across southern Myanmar, and the floods along the eastern coast of the Philippines reinforce the notion that crises are powerful physical and social forces that shape the lives of those affected by the events and those who respond to it. Clearly, natural disasters disrupt multiple communities. Similar disaster events are increasingly more common and cataclysmic in social and geographic effects. Hence, there is a raising concern about the best ways for citizens to prepare for disaster and seek information in response to cataclysmic events.

This study focuses on the disaster preparation and information

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seeking behavior of the Wenchuan County population directly affected by the Wenchuan (Sichuan) earthquake. Through exploration of the disaster preparation and information seeking behaviors immediately following the earthquake, this study presents recommendations concerning how first responders, non-government organizations, and governmental agencies can use this information to reduce the damage of future disasters and facilitate effective responses. Additionally, this study compares the earthquake and other recent crises and provides a cross-cultural comparison of behaviors after disaster events.

Natural disasters are often cataclysmic in nature and can be classified as a crisis event. A crisis is "a specific, unexpected, and non-routine event or series of events that create high levels of uncertainty and threaten or are perceived to threaten high priority goals including security of life and property or the general individual or community well being" (Seeger, Sellnow, & Ulmer, 2003, p. 253). Natural disasters such as the Wenchuan earthquake have received less attention than other crises because communication scholars often times investigate them in terms of an organizational, governmental or political context (Sellnow, Seeger & Ulmer, 2002). However, the study of communication processes enacted amid natural disasters is imperative to containing the potential harm caused by such events.

China has had many fatal earthquakes throughout history, including the 1556 Shaanxi earthquake, the 1920 Haiyan earthquake, the 1976 Tangshan earthquake and most recently the 2008 Sichuan earthquake known as the "Great Sichuan earthquake." This latest disaster is also known as the Wenchuan earthquake, named after the earthquake epicenter (Bai, 2009). At approximately 2:28 p.m. local time on May 12, 2008 an 8.0 magnitude earthquake struck the northwestern part of the Sichuan province in China. The affected areas were mainly among the mountainous regions and the road system suffered extensive damage contributing to the difficulty of

rescue operations in the area (Yang, Yang, Xiangsu & Gong, 2009). The severity of the Wenchuan earthquake was demonstrated by reports that effects were felt as far away as Beijing and Shanghai, which are 1056 miles and 932 miles respectively from the epicenter of the quake (Bai, 2009). The Wenchuan earthquake caused serious loss of life for the residents of the area. More than 80,000 people died and approximately 5 million became homeless (Yang et al., 2009). In addition, the status of the Sichuan province as a major grain producing area in China resulted in serious damage to the agricultural economy contributing to more widespread disruption across the country (Chan & McNeal, 2007).

Disaster Preparedness

The public often makes assessments of potential natural disasters based on sensory perception (Helsloot & Ruitenberg, 2004; Spence, Lachlan & Burke, 2008), because risks associated with natural disasters are usually visible and well understood. Therefore, it can be presumed that the public will take action to protect itself should sufficient time be available before disaster strikes and if danger is believed to be imminent. Communities repeatedly affected by this type of crisis often develop a disaster subculture for knowledge exchange to increase the survivability of the community (Helsloot & Ruitenberg, 2004; Tierney, 1989). As a result, the reaction to disasters in these communities often is faster, and more effective, proving that disaster preparation can be beneficial.

In the case of the 2008 Wenchuan earthquake, the disaster did not come without warning. In the 1970s, geologists at the China Earthquake Administration studied the Disaster of 1933, the last major earthquake of the Sichuan region, (Wade, 2008), which measured 7.4 magnitude (U.S. Geological Survey, 2008). The Administration issued warnings to the Chinese government to raise awareness of imminent disasters; however, Beijing "did little" to prepare for the 2008 earthquake (Wade, 2008).

Yet a disaster of this scale cannot be the fault of one individual's or department's oversight. Additionally the Chinese authorities deserve some credit for being forthright when the earthquake occurred; 18 minutes after the earthquake hit the Chinese Xinhua News Agency broadcasted the disaster and reported, approximately 90 minutes later, that "Party Secretary Hu Jintao had given instructions about emergency relief efforts and Premier Wen Jiabao was on his way to the earthquake region" (Yang, 2008, p. 2). This was a difficult story to broadcast in the midst of China's preparation for the Summer Olympics scheduled to begin in less than three months.

Despite geological warnings about potential earthquakes, little is known about disaster subcultures in China and how/if rural Chinese populations actively engage in disaster preparations. Examining the perceived seriousness of the 2008 earthquake from the perspective of the Wenchuan residents may contribute to understanding best practices for crisis communication in this context; therefore, the following research question is offered:

RQ1: To what extent did residents of Wenchuan take preparations to survive the Wenchuan earthquake?

Uncertainty and Information Seeking

Because a high level of uncertainty is a defining characteristic of disaster, individuals seek information when danger is likely to follow disaster events (Brashers et al., 2000; Spence et al., 2005, 2006). A dominant source for this information may be the mass media (Lachlan, Spence, & Seeger, 2009); however, there are not as many available channels of mass media in rural China as in the United States. Regardless, individuals typically have a preferred media they turn to (Ball-Rokeach, 1985; Ball-Rokeach & DeFleur, 1976). Additionally, people use interpersonal channels to gather information (Spence et al., 2007) even when mediated channels are available. Sometimes interpersonal channels are utilized because

of a distrust of authority, other times it is a means of confirming information that the media has presented. Obtaining information also aids in the reduction of uncertainty (Spence, Lachlan & Burke, 2008), provides a sense of control, and allows individuals to learn about behaviors of others in a given situation (Perse et al., 2002). Also, through increased information seeking, safety information can be obtained and individuals can learn how to interpret the crisis (Weick, 1995).

Perry and Mushkatel (1986) indicate that awareness of a potential threat and the preparation for it can be related to particular demographic characteristics. With a low illiterate population of about 500,000 people, 4.9% of the entire Wenchuan County (China Data Center, 2008), understanding information that is disseminated through oral or written means—presuming that it was conveyed in a timely fashion—should not be a problem. Thus, having eliminated illiteracy as a primary factor of the high fatality rate, other possible demographic differences are examined such as age, sex and income. Although research on demographic variables and disaster events in China is scarce, previous research suggests that disaster preparedness across ethnicity and socioeconomic status is varied, motivating the following research questions:

RQ2: To what extent did demographic differences exist in the disaster preparation of Wenchuan residents?

RQ3: To what extent did demographic differences exist in the information seeking behaviors of Wenchuan residents?

METHOD

Survey and Participants

A collaborative Chinese and American research team was established to study crisis communication immediately following the Wenchuan earthquake. An English version of the survey question-

naire, which had been previously used in American tragedies and disasters such as Hurricane Katrina, Hurricane Ike, the Minnesota Bridge Collapse and September 11th, was translated into Chinese in early June 2008. Because results were numeric they did not need to be translated back into English. Beginning in July, thirty Sichuan University graduate and undergraduate students were trained to administer the survey questionnaires in the disaster zone areas. Students traveled to disaster areas in 4 counties and collected 140 survey questionnaires. During this initial interview process, it was determined that some survey questions, which offered various choices, were not suitable for this rural location and the questionnaire was adjusted accordingly.

Widespread structural devastation of the roads and infrastructure made it difficult to get to the epicenter of this earthquake where the most damage had occurred. Therefore, in an effort to make the survey population more inclusive of the survivor population, researchers also enlisted six Non-Governmental Organizations (NGOs) and International NGO's with either a reconstruction program or a volunteer program in various disaster areas. The local NGOs were Liang Shuming Rural Construction Center, GreenSOS, 5.2 Earthquake Aid Center, and the Chengdu Urban River Association. Eventually, 541 questionnaires were returned of which 533 questionnaires were considered valid. Questionnaires were discarded when the participant did not complete the survey and when interviewers did not follow the standardized methods required to interview the target population. The surveys included items pertaining to primary source information such as demographic attributes, disaster preparation, and information seeking behaviors.

Demographic Variables

Three items pertained to demographic variables: Age as a continuous variable, the sex of earthquake survivors, and their actual annual

household income. The income categories included "less than $5,000, $5,000 to $9,999, $10,000 to $14,999, $15,000 to $19,999, $20,000 to $24,999, $25,000 to $29,999, $30,000 to $34,999, $35,000 to $39,999, $40,000 to $44,999, $45,000 to $49,999, $50,000 to $99,999, and more than $100,000." The average respondent age was 33.86 (SD = 12.05). The sample was 49% percent female and 51% percent male.

Disaster Preparation

Two items were designed to understand the survivors' proactive efforts to prepare for a disaster like the Wenchuan earthquake: 1) "before the earthquake, did you prepare an emergency kit or emergency supplies?" and 2) "did you have any evacuation or preparation plan at all in mind this earthquake season?" The first item addressed the emergency preparedness in the home while the second item focused on evacuation efforts.

Information Seeking

There were eleven items related to individual information seeking characteristics. For these eleven items, respondents were to "indicate what information [they] most wanted immediately following the earthquake." The items included information concerning the scope of the damage, government responses, food and water distribution, evacuation, shelters, rescue operations, the larger impact of the storm, who else was affected, friends and family, and where to get healthcare or medication. In addition, an information seeking index was computed by taking the mean score for all 11 items.

RESULTS

General Preparations

The first research question asked the extent to which Wenchuan residents took preparations ahead of time for some sort of disaster

or emergency. This question was addressed using simple descriptive statistics. The results indicate that Wenchuan residents were generally unprepared for the earthquake, especially in terms of having a survival kit in place. Of the 487 respondents who answered this question, only 29 (6%) responded that they had some sort of emergency kit in place. The results for having an evacuation plan were not as discouraging, but still indicated a lack of preparation. Out of 483 valid responses, only 115 (23.8%) reported having some sort of evacuation plan in place.

Demographic Differences in Preparation

Research question two asked if there were differences across demographics in terms of the likelihood that residents would have prepared for the earthquake. To explore this research question, logistical regression analyses were used to evaluate the predictive power of sex, age, and income level on having an emergency kit and on having an evacuation plan. Significant results were not detected for the likelihood that respondents had an emergency kit in place, χ^2 (3, N=487) = 3.98, *n.s.* Entering sex, age, and income into a single block did, however, produce a significant model for having an evacuation plan, χ^2 (3, N=483) = 48.48, p<.001. Specifically, age (Exp(B) = 1.06, p<.001) and sex (Exp(B) = 1.30, p<.03) were found significant, as men and younger respondents were more likely to have such a plan in place.

Demographic Differences in Information Seeking

Research question three then asked if there would be detectable difference in patterns of information seeking across demographics. To explore this research question, an index was first calculated by taking the average response to the eleven information seeking items (α = .77). Age, sex, and income were then entered in a linear regression analysis exploring the aggregate information seeking scores. The resulting model did not demonstrate a relationship

between these demographic variables and aggregate information seeking, F (3, 370) = 1.29, *n.s.*

In order to further explore this research question, analyses were then performed on the individual items comprising the scale. First a series of t tests examined sex differences in information seeking tendencies. These t tests failed to reveal differences between men and women for any of the individual information seeking items.

Bivariate correlations were then used to explore the relationship between age and individual information seeking preferences. Younger respondents were more likely to desire information concerning food and water distribution (r = .10, p < .03) and who else was affected (r = .121, p < .009). These analyses were then repeated for income level. Those in higher income brackets were more likely to seek out information on government responses (r = −.110, p < .04), while those of lower income levels were less likely to desire information about the larger impact of the earthquake (r = .110, p < .04).

DISCUSSION

Demographic Differences in Preparation

The numbers are quite disparaging in the areas of disaster preparation, information seeking and use of information for Wenchuan residents after the earthquake. The first area regarding the disaster preparation results indicates there are no demographic differences related to sex, age and income of Wenchuan residents that influenced disaster preparation. The demographics of age, sex and income had no impact regarding who had a survival kit. Wenchuan residents were generally unprepared for the disaster and less than six percent of the respondents had a survival kit in place at the time of the earthquake.

The income in rural China is one-third of the income in urban China. Many of the families live in poverty. Minority populations

are less prepared for disasters (Perry & Mushkatel, 1986; Tierney, 1989) and oftentimes, respondents that did not have a survival kit in place could not afford one.

In comparison to the startling low numbers of Wenchuan residents who had a survival kit, around twenty-four percent of the residents did have an evacuation plan in place. This percentage is also somewhat disparaging considering the geographic region of the Wenchuan residents. Residents realized that this area is located along a mountainous region of China which is likely to be affected by an earthquake. It is known to be a treacherous and earthquake prone area. The low percentage of residents who did have evacuation plans in place were primarily males and younger people. Past studies indicate that as age increases, so does the difficulty of evacuating (Perry, 1979). Younger people and males are more likely to feel as though they can evacuate because they are more physically able and financially secure than the elderly. By nature, elderly people have their financial resources delivered to their homes because it is difficult for them to get around. Oftentimes, they also have age related disabilities. These two variables make it less likely they will consider evacuation as a viable option. Oftentimes, elderly people are more isolated from information and tend to live alone which increases their social isolation (Worbely & Angel, 1990) and thereby decreases their preparedness. Another possible explanation for the lack of evacuation planning among the elderly may have to do with the demographic population and cultural norms in rural China. In rural China, family is considered important and a large portion of the population is youth. Because younger respondents were more likely to have an evacuation plan and many of the family households include elderly relatives, it may have been that the youth had a plan that included senior members. This thereby eliminated the necessity of elders actually needing an evacuation plan if one was already in place for the family. As with the United States, more attention is needed in examining the evacuation of the elderly (Spence et al., 2008).

Demographic Differences in Information Seeking

There were no significant differences between men and women in information seeking. This is in startling contrast to research on disaster communication, which points to the idea that women seek information more than men (Spence et al., 2006, 2008; Lachlan, Spence, & Nelson, 2010). Results from the current study indicate no sex difference related to information seeking patterns. This may be an outcome explained by the radical changes in China over the last few decades. Women have been encouraged by their government to participate in the workplace and men have been encouraged to be supportive of their wives (Liu, Burleson, Liu, & Mortenson, 2009). These results are interesting and further research should continue to examine sex differences in information seeking after disasters.

China has the largest population of young people in the world and 60% of its youth are living in rural areas (Chan & McNeal, 2007). For this reason, the Chinese youth continue to be an area of interest for disaster researchers. In this study, one major difference was that younger respondents were more likely than older respondents to desire information concerning others affected by the disaster and food and water distribution. General research supports the position that family and neighbors generally institute search and rescue efforts, and oftentimes food and water distribution is sought for immediately (Quarantelli, 1978). Thus, the emerged differences may be a combination of both cultural and geographic factors. Because there are significant differences between urban and rural China, such information seeking and preparation patterns should be examined in urban areas of the nation. If the results are replicated and supported, they could have potential use for emergency practitioners in message targeting.

There is a significant difference in income between rural and urban China. The income gap is considerably lower in the rural areas. This income gap may have contributed to the ways in which the Chinese youth seek information. Lower income in rural China

has created a poorer education system in which "rural children may not seek and access information in an active way. They may rely heavily on personal sources in obtaining information" (Chan & McNeal, 2007, p. 99). Research indicates that the youth in rural areas find teachers, parents, grandparents, friends and associates to be the most useful and credible source of information (Chan & McNeal, 2007). Questions regarding where to find information about food, water and who else may have been affected could potentially be answered by such personal sources.

Income also impacts care of family members and in rural China family is considered extremely important. In contrast to urban China, rural Chinese families are usually larger, and have elderly members living with them. Rural groups in China place more value on personal freedom than government intervention as they live more independent of the government and have less direct contact with the government (Chan & McNeal, 2007). This may explain why less information seeking occurred in regards to the government response to the earthquake.

This study is a first examination of the information seeking behaviors and needs of rural Chinese populations after a crisis. As international travel and immigration increases, cultural comparisons of such variables surrounding a crisis will become more valuable. Over the last three decades, the United States Asian American population has grown from 1.5 million to nearly 12 million and is projected to be around 20 million by 2020 (Population Matters, 2009). Learning patterns that immigrants may bring over with them before assimilating into a culture can help reduce the harm, severity and duration of a crisis. Additionally, as evident with the earthquake in Haiti, disaster response is becoming more international in scope. As China becomes a more open nation, understanding information needs and acquisition patterns during a crisis will help prepare relief workers for the realities of a crisis in China.

Limitations

Limitations exist within this study that should be considered in the results. The data was collected over an uneven timeframe. Some data was collected immediately following the earthquake and other data was collected within weeks. This was the result of a complex process of coordinating time zones and transcription efforts between Chinese and American colleagues. It was also difficult to get to the disaster zone and surveyors were changed and retrained after a short period of time. Future efforts should aim at obtaining audiences' responses at one point in time, and as quickly as possible, in order to reduce the likelihood of hindsight bias and memory distortion in the responses.

CONCLUSION

Shortcomings of information can aggravate the extent of the disaster catastrophe. " The following 2 to 3 days after an earthquake is often a time of confusion with decisions based on little information so that the efficiency of rescue and build up of trust in the authorities are jeopardized" (Wenzel & Marmuraenu, 2007, p. 938). It is important to understand the information seeking behaviors and patterns of men, women, elderly and youth surviving disasters such as the 2008 Wenchuan earthquake so that government agencies, organizations and first responders can be better able to create messages and select appropriate message placement among media sources for targeted populations. As society continues to globalize, the need to understand the information seeking behaviors of other cultures becomes more significant. Further, as the world population increases, the magnitude of disasters also increases because larger populations inhabit the disaster zone areas. Each of these factors makes understanding the information seeking behavior of world populations affected by natural disasters even more significant.

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When Disaster Doesn't Strike: Reframing Y2K Coverage in Japan and the United States

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This study explores cultural construction of risk perception in Japan and the United States after the Year 2000 technology disaster fears proved to be largely unfounded. Using a content analysis of Japanese and U.S. newspapers issued after January 1, 2000, this study examines national cultural influence on the construction of the Y2K problem, as well as the applicability of risk perception literature and framing to the Y2K problem. Articles from *The Yomiuri Shimbun* and *The New York Times* were analyzed to determine how each country's media framed the problem. Japanese coverage still described Y2K as a concern, focusing on government responsibility for monitoring ongoing problems. U.S. coverage portrayed Y2K as a solved problem, questioning the validity of the concerns and the money spent on solutions, and utilizing humor to minimize the perceived seriousness of the potential crisis.

Welcoming the year 2000 was like welcoming Judgment Day. The Year 2000 problem, or Y2K, was a computer-programming problem that could have disabled computers as they did not recognize the new century. Y2K had the potential to be anything from an inconvenience to the malfunction of food manufacturing distribution systems, and utility failures, or, in a worst-case scenario, the malfunction of military systems resulting in the accidental

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launching of missiles (Pear, 1999). People waited to see if measures taken by governments and businesses would be effective in minimizing disruptions. Although major problems were averted, the possibility of disaster coupled with the minor impact of Y2K triggered potential cognitive dissonance (Festinger, Riecken, & Schachter, 1956). Y2K was an international problem, allowing for comparison across national borders. The media played a role in contextualizing the concerns; analysis provides insight into risk perception and media. Did Y2K remain a risk in public opinion after January 1, 2000, or become a thing of the past? How did the media report the Y2K and related problems after January 1, 2000? How did national culture influence the reporting of Y2K? This study addresses those questions; the answers can help us to understand how risk perceptions may differ across cultures at the end of a crisis and in its aftermath.

RISK, RISK PERCEPTION, AND CONSTRUCTION OF RISK PERCEPTION

Risk involves two aspects: probability and impact. Dake (1992) defines risk as "the probability of an event occurring, combined with an accounting for the losses and gains that the event would represent if it came to pass" (p. 22). Accordingly, risk involves assessment of those two aspects as to whether the probability of occurrence is significant, and, if so, what levels of countermeasures are necessary considering cost and potential losses or gains. Assessment of risk is not just based on objective physical existence of risk. Rather, risk involves intersubjectivity. *Risk perception* is the degree to which an individual or a group of individuals hold beliefs and assessments of risk and its impact and probability. Sjöberg (2000) argued that risk perception is not a cognitive issue, but an attitudinal issue with social factors, such as beliefs, constructing risk. Risk perception is a cultural construction of reality (Dake, 1992; Douglas, 1992;

Douglas & Wildavsky, 1982), filtered through "cultural lenses" that help people decide "what to select and magnify as a risk" (Dake, 1992, p. 33). Culture influences selective perceptions; rhetoric in media and society reinforces them. The likelihood of someone taking action in response to a threat is based on this culturally-based assessment (Brewer, Weinstein, Cuite, & Herrington, 2004).

Based on the assumption that risk perception is a cultural construction, Fukumoto and Meares (2005) examined Japanese and U.S. newspaper coverage of Y2K prior to January 1, 2000. The Japanese newspaper attributed responsibility for taking countermeasures to the government, reporting details of governmental actions more frequently than did the U.S. paper. It also described the government plans already adopted as effective, while emphasizing the need to be cautious about possible future incidents. In contrast, the U.S. newspaper emphasized individual responsibility for solving potential problems, providing background information such as websites where individuals could access help for Y2K.

Framing, Risk Perception, and Construction of Y2K

Framing supplies a system for analyzing newspaper coverage of Y2K after January 1, 2000, because of the relationship between frames, risk perception, and cultural construction of Y2K. Both framing and risk perception assume subjectivity in assessment of an event or a problem. Frames are the perspective of an individual that define an event or a problem and framing is the act of adopting a frame to understand an event or problem (Takeshita, 1997). Framing involves selecting and highlighting a particular aspect of an event. Risk perception, or beliefs and assessments of risk, involves subjective assessment of probability and impact focusing on particular aspects of risk and information. Both frame and risk perception selectively focus on and highlight a particular aspect of an event or problem. Examining the framing and perceptions of risk around Y2K problems allows us to identify the reality

constructed in each culture, as well as the idealized responses to deal with these issues.

Entman (1993) identified four functions of frames: to identify a problem, diagnose the cause, evaluate it, and suggest remedies. The frame defines the cause(s) of a problem, evaluates the problem and its cause, identifies who is responsible for the problem, and proposes a solution to the problem. Fukumoto and Meares' (2005) examination of control and perceived impact of Y2K corresponds to the evaluation functions of framing, while attribution of blame and responsibility correspond to the suggestion function. Similarity can be found between the location of the frame and the study of construction of risk perception. Entman (1993) identified four locations of frames: the communicator (sender), the text, the receiver, and the culture. A communicator adopts a frame to understand a problem and encodes his/her frame in a text to communicate it to a receiver. The receiver also holds a frame to interpret the text. Culture influences both the communicator and receiver frames. Analysis of the Y2K coverage of newspapers allows for consideration of three of the four locations of frames (communicator, text, and culture). Accordingly, the framing perspective is appropriate for studying whether Y2K was still perceived as a risk. Thus, the research question for this study is:

RQ1: How did U.S. and Japanese newspapers frame Y2K after January 1, 2000?

Responsibility. Responsibility is the identification of an agent to deal with or repair a perceived problem. Technological disaster involves identification of responsibility as well as blame for litigation against those who caused the disaster (Gill & Picou, 1998). In the United States, people tend to hold an internal locus of control (Sue & Sue, 1990) and a clear boundary of responsibility (Sakurai, 1998). When an individual is unable to carry out his

or her responsibility, others attribute blame to him or her. In a culture such as Japan, where people make collective decisions, a boundary of responsibility is blurred and it is hard to attribute blame when responsibility is not carried out. For technological risks, Japanese tend to place trust in the ability of industry and government to manage the risk (McDaniels & Gregory, 1991).

Fukumoto and Meares (2005) found that Japanese newspaper coverage emphasized governmental responsibility to deal with the Y2K problem by reporting actions taken or planned by the government. In contrast, the U.S. newspaper emphasized individual responsibility more by providing background information for individuals to prevent Y2K problems. Accordingly, the first hypothesis offered is:

> H1:   Japanese coverage after January 1, 2000, will report more government actions taken to counter Y2K problems than U.S. coverage.

Control. Yamagishi et al. (1999) and Williams and Wong Wee Voon (1999) identified control as a dimension of risk perception. The former emphasized avoidability and the latter emphasized controllability. Accordingly, *control* is the degree to which an individual or a group of individuals perceive a risk to be both avoidable and controllable. A sense of control over a risk helps an individual mitigate uncertainty and decrease perceptions of risk (Fothergill, 1996; Kleinhesselink & Rosa, 1991). Fukumoto and Meares (2005) found that the Japanese newspaper emphasized control over the Y2K problem, both for the present and in the future, while the U.S. newspaper covered control inconsistently. The Japanese newspaper emphasized the capability of the government and industry to deal with the Y2K problem. Accordingly, the second hypothesis for this study is offered.

H2:   Japanese coverage will report more Y2K-related situations and
       incidents as being under control after January 1, 2000, than the
       U.S. newspaper.

Impact. Both Yamagishi et al. (1999) and Williams and Wong Wee
Voon (1999) identified impact as a dimension of risk perception.
Impact is the anticipated severity of a catastrophe by an individual
or a group of people. Yamagishi et al. (1999) included three issues
related to impact: (a) the level of catastrophe, (b) the emotional tone
in expression, and (c) the severity of consequences. Williams and
Wong Wee Voon (1999) included four issues related to perceived
impact: outcome uncertainty, potential gains and losses, perceived
safety, and situation framing. Fukumoto and Meares (2005) found
that the Japanese newspaper emphasized preparations taken for the
anticipated problems more than the U.S. newspaper. Accordingly,
the third hypothesis for this study is offered:

H3:   The Japanese newspaper will report more on the success of
       preparations resulting in less impact of Y2K-related incidents
       after January 1, 2000, than will the U.S. newspaper.

METHODS

To test the hypotheses, a content analysis was conducted using one
newspaper from the United States, *The New York Times,* and one
from Japan, *The Yomiuri Shimbun.* These two newspapers were
selected due to their large circulation and agenda-setting roles.
A search for *New York Times* articles was conducted using the
LexisNexis database, using the keywords "Y2K" and "Year 2000
Problem."[1] A total of 118 articles were identified to contain one of
these terms between January 1, 2000, and June 30, 2000. However,
many articles mentioned Y2K in passing; these articles were elimi-
nated (62%, $n = 73$).[2] All the articles that specifically addressed the
Y2K problem in *The New York Times* (45 articles) were coded. The

G-search Database Service, the largest Japanese language business information database, was used to locate and retrieve *Yomiuri Shimbun* articles about Y2K.[3] As *The Yomiuri Shimbun* has four different local morning editions, only the Tokyo morning edition was used, resulting in 163 articles about Y2K between January 1, 2000, and October 31, 2000. In *The Yomiuri Shimbun,* 23% of the articles (*n* = 38) mentioned Y2K in passing and were eliminated; due to the larger number, every other article was coded (59 articles, see Table 1). The units of analysis were the two newspapers and the units of observation were the articles related to Y2K in the newspapers. The coding unit for the content analysis was the article.

Entman (1993) suggested focusing on salient elements in a text for examining framing in media rather than counting all terms or themes (i.e. positive and negative) equally. Semetko and Valkenburg (2000) described two types of content analysis to explore media framing—inductive and deductive. Inductive content analysis starts analyzing text without set categories, counting themes and words as they emerge. Inductive analysis lacks generalizability, but is inclusive of themes. Deductive content analysis analyzes text with predetermined categories. While it may miss themes, findings can be generalized. Deductive content analysis for the dimensions of risk and inductive content analysis for sub-theme analysis were used so that framing of the range and themes of the Y2K problem could be compared across cultures.

For the inductive content analysis, separate coders coded each newspaper. Categories were created as new themes emerged. After coding, the two coders discussed correspondence and combined themes to create an overall coding scheme for the two newspapers. Then, the coders recoded the newspaper articles using the thematic categories. A subject expressed in four or more articles in combination of the newspapers was reported as a theme. The Japanese coder coded 20% of *The New York Times* articles to check for intercoder reliability (Cohen's kappa = .88). Ten sub-themes emerged (see Table 2).

The coding scheme developed by Fukumoto and Meares (2005)

Table 1. *Number of Issues of Y2K Coverage During 2000*

	The Yomiuri Shimbun	The New York Times
January	95	38
February	9	2
March	18	2
April	2	1
May	1	1
June	0	1
Total	125	45

was used for the deductive content analysis. Each article was classified four times, based on three different dimensions of risk perception: (a) responsibility for the Y2K problem, (b) control over the problem, and (c) impact. As the articles were coded, some of them were found to have more than one theme, so a mixed category was created such as combination of "inconveniences" and "no significant impact" for the impact dimension. The current authors coded the newspaper articles. Both coders coded 20% of *The New York Times* articles to check for coder consistency. Intercoder reliability using Cohen's kappa was .80 (responsibility = .79; control = .81; impact = .80).

RESULTS

The research question asked about the framing of Y2K. Table 2 shows the frequency of themes from the inductive analysis. All ten themes were found in analysis of *The New York Times* articles. Many of the themes shared a focus on analysis of the problem, rather than just topical reporting events. Only seven themes emerged from analysis of *The Yomiuri Shimbun* articles. The balance of coverage

Table 2. *Emergent Themes from Newspaper Coverage on Y2K-Related Issues*

	The Yomiuri Shimbun		The New York Times	
1. Relief	59%	(35)	66%	(29)
2. Problems that occurred	73%	(43)	43%	(19)
3. Allocation of personnel	44%	(26)	11%	(5)
4. Anticipation of future problems	27%	(16)	22%	(10)
5. Situations in other countries	7%	(4)	39%	(17)
6. Overreaction	2%	(1)	34%	(15)
7. Cost	2%	(1)	34%	(15)
8. Personal experiences	0%	(0)	25%	(11)
9. Comedy	0%	(0)	11%	(5)
10. Community (Unity in Solving)	0%	(0)	9%	(4)

between relief and anticipation of future problems related to Y2K were similar between the two newspapers. However, other themes connected to the relief and the anticipation guided readers in opposite directions. *The New York Times* covered criticism and concerns about overreaction and overspending in preparing for the Y2K problem both seriously and with comedy and satire. *The Yomiuri Shimbun* reported more minor problems and information about the allocation of personnel to communicate the seriousness of Y2K and the country's readiness to deal with problems. No jokes or personal experiences were found in *The Yomiuri Shimbun*. Further, the Japanese newspaper reported minor problems related to Y2K more than the U.S. newspaper.

The hypotheses predicted differences in Y2K coverage between the two countries. A Chi square with nominal data was used to test the hypotheses. The independent variable was country. The dependent variables were based on the risk dimensions: responsibility,

Table 3. *Two Newspapers' Coverage of Responsibility for Y2K-Related Issues*

	The Yomiuri Shimbun		*The New York Times*	
1. Own government	30.5%	(18)	13.3%	(6)
2. Other government	5.1%	(3)	0%	(0)
3.Businesses/ Organizations	25.4%	(15)	22.2%	(10)
4. Individuals	0%	(0)	8.9%	(4)
5. Not applicable	0%	(0)	26.7%	(12)
6. Combination of 1 and 2	3.4%	(2)	2.2%	(1)
7. Combination of 1 and 3	30.5%	(18)	17.8%	(8)
8. Combination of 3 and 4	5.1%	(3)	0%	(0)
9. Combination of 2 and 3	0%	(0)	6.7%	(3)
10. Combination of 1, 2, and 3	0%	(0)	2.2%	(1)
Total	100%	(59)	100%	(45)

Cramer's V = .59, *p* < .001

control, and impact. The number of articles in each category was compared between the two countries. Tables 3 through 5 show the frequency of articles for each dimension. The categories that did not have any examples were excluded from the tables.

The first hypothesis anticipated that Japanese coverage would report more government actions to deal with Y2K than U.S. coverage. The Y2K coverage showing responsibility was significantly different between the Japanese and the U.S. newspapers (Cramer's V = .59, p < .001; see Table 3). The Japanese newspaper reported more actions taken by the Japanese government or taken by both the government and business corporations. In contrast, the U.S. newspaper most

Table 4. *Two Newspapers' Coverage of Control of the Y2K-Related Issues*				
	The Yomiuri Shimbun		*The New York Times*	
1. Can control	8.5%	(5)	0%	(0)
2. Under control	71.2%	(42)	68.9%	(31)
3. Uncertain	16.9%	(10)	28.6%	(4)
4. Not applicable	3.4%	(2)	20.0%	(9)
5. Combination of 2 and 4	0%	(0)	2.2%	(1)
Total	100%	(59)	100%	(45)

Cramer's V = .35, p = ns

Table 5. *Two Newspapers' Coverage of the Impact of Y2K-Related Issues*				
	The Yomiuri Shimbun		*The New York Times*	
1. Inconveniences/Small problems	1.7%	(1)	0%	(0)
2. No significant impact	22.0%	(13)	55.6%	(25)
3. Uncertain for future	11.9%	(7)	0%	(0)
4. Not applicable	3.4%	(2)	6.7%	(3)
5. Combination of 1 and 2	30.5%	(18)	20.0%	(9)
6. Combination of 2 and 3	15.3%	(9)	11.1%	(5)
7. Combination of 1 and 3	13.6%	(8)	2.2%	(1)
8. Combination of 1, 2, and 3	1.7%	(1)	4.4%	(2)
Total	100%	(59)	100%	(45)

Cramer's V = .44, p < .01

frequently reported general information about Y2K without specifying a responsible agent. Thus, the first hypothesis was supported.

The second hypothesis predicted the Japanese coverage would report more control over situations and Y2K-related incidents after January 1, 2000, than the U.S. newspaper. The Y2K coverage of control was not significantly different between the Japanese and American newspapers (Cramer's V = .35, *p = ns;* see Table 4). Both the Japanese and the U.S. newspapers reported control over Y2K related incidents within a week after January 1, 2000. Accordingly, Hypothesis 2 was not supported.

Hypothesis 3 predicted the Japanese newspaper would report the impact of Y2K-related incidents less than the U.S. newspaper due to preparation. The Y2K coverage of impact, as shown in Table 5, was significantly different (Cramer's V = .44, *p* < .01) between the Japanese and U.S. newspapers in two ways. The U. S. newspaper portrayed Y2K as no longer a risk or threat, questioning the countermeasures that had been taken and the cost of preventing what turned out to be minor problems. The Japanese newspaper maintained that Y2K was a risk and further monitoring of possible problems was necessary. The frequency of coverage of potential impact and future uncertainty illustrated the differences between the two newspapers. Second, reporting problems related to Y2K, the Japanese newspaper extensively reported small inconveniences and problems, explaining factors that caused them. "Problems that happened and were fixed or taken care of" (a combination of 1 and 2 in Table 5) was the most frequent theme in the Japanese newspaper. Since Y2K was resolved and perceived as exaggerated, the U.S. newspaper reported "no significant impact" most frequently. Accordingly, the third hypothesis was not supported.

DISCUSSION

The present study examined cultural construction of Y2K with content analysis of frames and risk perception. The themes found

in the coverage, as well as analysis of responsibility, control and impact, reveal two different constructions of reality. Returning to Entman's (1993) function of framing as identifying a problem, two different problems were identified. In Japan, Y2K remained as a problem after January 1, 2000. The government was responsible for mitigating the risk and adopting countermeasures in collaboration with businesses. Even after the first week of January, Y2K remained a risk in the Japanese newspapers. Accordingly, the coverage portrayed the Japanese government as needing to remain cautious and collect as much information as possible on the problems. The newspaper set a tone of caution to its readers in anticipation of future problems.

U.S. coverage reflected a belief that there was no longer any risk and raised questions about the authenticity of the Y2K problem and whether the problem was exaggerated by the government and the computer industry for their profit. The government justified spending by emphasizing the leadership necessary for helping the world avoid chaos. The government and corporations updated computers, so the spending might not have been wasted, yet perhaps U.S. society should have spent some of the money for better causes (e.g., AIDS in Africa). In some cases, hysteria about the problem was viewed humorously.

Y2K was an objective phenomenon; however, the two countries and their newspapers created and dealt with two different realities. Contrasting the two illustrates the intersubjective realities of the two cultures and contrasting government and corporate strategies for public relations in the United States and Japan. The American readiness to criticize Y2K preparations as exaggerated reflected a cultural expectation of invulnerability. U.S. media reports about Y2K minimized the potential impact by making fun of preparations and expecting individuals to take action to prepare and deal with problems. The U.S. paper, instead of maintaining a few frames, approached the coverage of Y2K from a number of different perspectives. The U.S. mainstream values of "rugged individualism" and

control over the environment (Stewart & Bennett, 1991) allowed the American newspaper to offer alternate frames for viewing the potential disaster without creating as much of a sense of cognitive dissonance in readers.

Theoretically, analysis of Y2K coverage confirms the cultural nature of risk perception. In other crisis situations, the "deadline" of the crisis is not usually a specific date. For example, a pandemic presents much more uncertainty about the timeline of its impact. However, if similar patterns of framing emerge in a public health crisis, the U.S. public may be likely to take the risk less seriously and may perceive that the risk is over sooner than the Japanese. The Japanese may be more cautious and focus attention on governmental actions to resolve the crisis. In addition, the U.S. media may minimize cognitive dissonance about the crisis by presenting multiple frames for viewing it, while the Japanese media maintains a more unitary focus in order to prevent dissonance, not recognizing that the crisis may be over.

As Scheufele (1999) suggested, further studies need to be carried out to understand mutual influences between media and society. The present findings have limitations in the generalizability of the findings due to the type of crisis; however, they do serve to illustrate differences in the framing of risk in the communicator, the text, and the culture. This line of research sheds light on both risk perception and the cultural differences in construction of reality through the media. Further studies should explore the connection between locus of control and media/government credibility, as well as how the nature of the risk (technological, environmental) may influence the cultural response. While Y2K was a problem both in the United States and Japan, the risk was framed differently, illustrating how culture influences framing.

NOTES

1 The Library of Congress keyword is "Y2K problem"; however, an exhaustive search of the newspapers found that many articles referred to it as simply "Y2K" or the "Year 2000 problem," so these terms were used in the search.
2 For example, an article on birth rates said they rose after Y2K, but did not address Y2K as a problem beyond that mention.
3 While the Yomiuri Shimbun Company publishes an English version (*The Daily Yomiuri*), we decided to analyze the Japanese version. The English version included fewer articles about Y2K. In addition, it is reasonable to believe that the audience may be one factor influencing editorial choices about what to include in each version. The audience for the English version includes expatriate English-speakers and tourists, as well as English-speaking Japanese, and therefore is different from the Japanese edition.

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