AGENDA SETTING AND FRAMING IN HURRICANE IKE NEWS

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ABSTRACT

News media have considerable ability to influence the public agenda. This thesis explores media agenda setting and framing in Hurricane Ike in order to infer whether the way disasters are covered in the news is a contributing factor in the lack of public attention on hurricane loss mitigation. The frequency and intensity of Atlantic hurricanes is increasing, placing residents along the U.S. Gulf Coast at greater risk, yet little has been done to try to reduce the impact from hurricanes. This study is grounded in agenda setting theory and utilized content analysis to examine newspaper coverage of Hurricane Ike in the *Houston Chronicle* and the *Dallas Morning News* from September 14, 2008 through October 14, 2008. Results indicate that media focus on disaster response/relief, devastation, recovery, and economic impact, with personal accounts informing all of these themes. Attention is on the immediate and short-term effects of the disaster, with little attention devoted to the issue of reducing future hurricane risk.
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Chapter 1. INTRODUCTION: THE PROBLEM AND DEFINITION OF TERMS USED

Importance of the Study

News media have considerable influence on the public agenda. Through story selection, story placement and length, choice of quotes, and emphasis of some attributes of an event or person over others, news media not only determine which issues receive the public’s attention but also influence how the public thinks about these issues. (Behr & Iyengar, 1985; McCombs, 2005; McCombs & Shaw, 1972). Even with changes in technology and the advent of social media, the majority of people in the United States continue to learn about significant events of the day from traditional news outlets (Pew Research Center, 2008). This is because a large percentage of people who get news electronically do so from internet sites owned by traditional broadcast or print media outlets (Pew Research Center, 2008; McCombs, 2005).

This study seeks to explore how natural disasters are covered in the news and, specifically, whether the way information about hurricanes is relayed in the press may be a contributing factor in the apparent absence of hurricane loss mitigation from the public agenda. This is worthy of exploration because scientific data suggest that the frequency and intensity of hurricanes in the North Atlantic is increasing (Emanuel, 2006). Population density along the U.S. Gulf Coast is also increasing, putting more people and property at risk (Perrow, 2008; Redlener, 2008). Unless policymakers address disaster mitigation and begin implementing plans for reducing hurricane risk, it is only a matter of time before the U.S. sustains even greater damage or loss of life from a hurricane than the losses caused by Hurricane Katrina (Hartwig, 2009).
The Problem

Hurricanes are catastrophic events that can cause widespread damage and loss of life. In the ten-year period from 1999 through 2008, the average annual death toll in the United States from hurricanes was 117 ("Natural Hazard Statistics", 2009). However, this number understates the risk to human life since the time period represented includes years when hurricanes did not strike the U.S. coastline. Hurricane Katrina, in which more than 1,800 people perished, illustrates the true deadly potential of these storms (Graumann, Houston, Lawrimore, Levinson, Lott, McCown, Stephens, & Wuertz, 2006). In addition, the economic impact of hurricanes is staggering. Eight of the ten costliest hurricanes to strike the U.S. occurred in the last six years, for a combined total of $165.4 billion in damage (Hartwig, 2009).

In light of the number of deaths and severe economic impact from hurricanes in the last decade, the paucity of substantive action to mitigate losses from future hurricanes is puzzling. While humans cannot predict the frequency or severity of hurricanes, there are things that can be done from both an individual and public policy standpoint to reduce the extent of damage. These include making choices about where people should live, adopting stronger building codes, enforcing building codes, and removing regulations and subsidies that keep coastal property and flood insurance rates artificially low compared to the degree of risk (Perrow, 2008). Unfortunately, there has been little public attention to or discussion about any of these basic strategies that could reduce future death and damage from hurricanes (Blendon, Benson, DesRoches, Lyon-Daniel, Mitchell, & Pollard, 2007; Perrow, 2008). Meanwhile, the U.S. population along the Gulf Coast is steadily increasing, causing some experts to question the long-term
sustainability of coastal communities (Miller & Goidel, 2009; Perrow, 2008; Redlener, 2008).

Issues that receive heightened attention in the media are often perceived by the public to be important or critical, and these issues also become priorities for policymakers (Leff, Prostess, & Brooks, 1986; Tan & Weaver, 2009). In other words, the media help shape the public agenda (McCombs, 2005; McCombs & Shaw, 1972). Given that hurricanes along the U.S. coast typically do receive attention in both local and national news, this study seeks to take a closer look at the way natural disasters are covered in the news and how such coverage may be influencing the lack of public action on hurricane risk reduction. The focus of this study will be on Hurricane Ike, the most recent hurricane to make landfall in the United States and the fourth costliest hurricane in U.S. history (Hartwig, 2009).

**Definitions of Terms Used**

1) **Hurricane** – A tropical cyclone that forms over water and reaches wind speeds of 74 miles per hour or greater.

2) **Disasters** – Events that cause widespread harm to the environment, animals, or humans. Disasters can be natural or man-made. Harm to humans can be financial (loss of property or jobs, or other adverse economic impact), social (civil unrest, war, or breakdown of social systems), or physical (injury or death).

3) **Natural Disaster** – Disasters that arise from events in nature, such as earthquakes, volcanoes, wildfires, drought, floods, or hurricanes.

4) **Disaster loss mitigation** – Activities that reduce or eliminate the harmful effects of disasters.
5) News media – Various means of mass communication through which the public obtains information about current local, national, and global events. News media can consist of broadcast (radio and television), print (newspapers, newsletters, and magazines), or electronic (internet).

6) Agenda setting – This study uses the definition of McCombs and Shaw (1972): the act of shaping public and political reality by selecting which information to report and how the information is displayed.

7) Framing – This study uses the definition of Entman (as cited in McCombs, 2005): the act of making a specific aspect of reality more salient in order to “promote a particular problem definition, causal interpretation, moral evaluation and/or treatment recommendation” (p. 546).

**Organization of Remaining Chapters**

This study is organized into five chapters. Chapter two provides the theoretical basis that forms the framework for this study, reviews the literature on this topic, and puts forth the research questions. Chapter three describes the scope of the study and explains the methodology used for data collection. Chapter four presents the results of the study, shows how the results relate the previous research, and discusses the implications of findings in relationship to the research questions. Chapter five discusses the limitations of the study, suggests further areas of research, and summarizes the study.
Chapter 2. REVIEW OF THE LITERATURE

Theoretical Basis

Sociologists, communication theorists, educators, politicians, scholars, and others have long been interested in the ability of mass media to shape people’s thoughts, attitudes, and behavior. Several theories can be used to explain the power of the news media to influence public opinion, such as cultivation theory, spiral of silence, and agenda setting theory.

Cultivation Theory

Gerbner (1998) posits that mass media provide the means for standardized messages to be mass-produced for large audiences, which results in the cultivation of common but often distorted perceptions of reality. While the advent of new technologies such as cable and the internet have given rise to considerably more media choices, there has not been a significant increase in the diversity of media content (Gerbner, 1998). According to Gerbner (1998), television programming is remarkably similar no matter what the source because programming tends to follow predictable patterns. Television typically portrays the world as a hostile place, shows men and women in stereotypical gender roles, and rarely depicts work in a realistic way (Gerbner, 1998). The more television people watch, the more likely they are to cultivate a distorted view of reality (Appel, 2008; Gerbner, 1998; Hetstroni & Tukachinsky, 2006). For example, people who repeatedly watch television programs involving violence or crime tend to believe these types of events happen more frequently than is actually the case (Hetsonri & Tukachinsky, 2006).

This can also apply to news audiences. The adage “if it bleeds, it leads” speaks to sensationalism in the news media. If the majority of news coverage consists of dramatic
events, or if some events are sensationalized, audiences may develop a heightened sense of concern about these events that may not be based on reality. According to one study, news stories about child abductions not only increased fear among parents and children who watched these stories but 80 percent of parents in the study sample believed occurrences of child kidnappings to be 10 to 100 times higher than actual occurrences reflected in FBI statistics (Wilson, Martins, & Marske, 2005).

**Spiral of Silence**

Another explanation for the news media’s influence can be found in Noelle-Neumann’s spiral of silence theory, which suggests that the desire for popularity and public esteem lead people to go along with the majority view (Noelle-Neumann, 1977). Therefore, people pay attention to public opinion and are reluctant to voice their personal views unless their views align with the dominant opinion or they believe opinions similar to theirs are gaining in popularity (Noelle-Neumann, 1977). Perceptions about public opinion are developed through a combination of personal experience and what people glean from mass media (Jeffres, Neuendorf, & Atkin, 1999). Comments from experts, interviews with eyewitnesses, and other individual accounts in news stories can have a powerful influence on what audiences believe is the majority opinion (Perry & Gonzenbach, 2000). It is important to point out that spiral of silence theory addresses the reluctance to express personal views that differ from the majority view, which is not the same as suggesting that people actually change their beliefs to align with public opinion.

**Agenda Setting**

Agenda setting is rooted in the idea that the news media are not simply a conduit for information. With numerous events taking place throughout the world at any given time, media must be selective about which events to report. The findings of McCombs
and Shaw (1972) suggest that news media, in making these choices, have considerable control over which issues receive the public’s attention and how the public views these issues. In 1972, McCombs and Shaw studied the 1968 presidential campaign and discovered that what voters believed to be the key issues facing the nation tracked almost exactly with the issues that received the most attention in the news. This was the case even when voters expressed a party affiliation and the candidate representing that party had a different view about which issues were most important.

Other studies have since resulted in similar findings. Behr and Iyengar (1985) analyzed seven years of public opinion data on energy, inflation, and unemployment, and determined that public concern over energy and inflation were not related to economic conditions but were related to news coverage. Unemployment was the only area where there seemed to be a relationship between public concern and actual economic conditions. Yue and Weaver (2009) studied news articles from the most popular newspapers in eighteen states and compared issues that received the most attention in the news against subsequent bills introduced in state legislatures. In seventeen of those states, there was a moderate to strong correlation between issues the media touted as important and issues that received attention in the legislature.

It is important to point out that despite the existence of hundreds of news outlets and different types of media (network and cable television, print, radio, and online), studies have found remarkable similarities in the events and topics that get reported in the news (McCombs, 2005). According to Atwater, Fico, and Pizante (1987), news outlets tend to follow one another’s lead. When a particular event or topic begins to receive prominent coverage in one news outlet, others will soon focus on the same event or topic. The same has also been found to be the case in online news content (Jeongsub, 2009).
This aligns with the findings of Gerbner (1998) regarding the lack of diversity in television programming in general.

In his meta-analysis, McCombs (2005) reviews the evolution of agenda setting theory using studies from 1972 through 2004. He points to three dimensions initially articulated by Kiousis which have emerged from these studies and which explain why news media are so effective in shaping the public agenda: attention, prominence, and valence. Attention is defined as the amount of time devoted to a particular topic. Prominence refers to placement in the news; for example, front page or lead story. Valence can be described as whether a story has a mostly positive or negative tone.

**Framing.** Besides choosing what information to report and how the information is presented, media also determine which aspects of specific objects or people to emphasize. This is commonly referred to as “framing.”

When the news media talk about an object—and when members of the public talk and think about an object—some attributes are emphasized, others are mentioned only in passing. For each object on the agenda, there is an agenda of attributes that influence our understanding of the object (McCombs, 2005).

There is some disagreement among scholars as to whether framing is an extension of agenda setting or a different theoretical concept (Scheufele, 2000; Scheufele & Tewksbury, 2007; Weaver, 2007). Media agenda setting involves calling attention to an issue by giving it prominence, such as placing a story on the front page or mentioning a topic repeatedly. Framing seems to go beyond agenda setting in that framing *interprets* issues by emphasizing certain characteristics over others (Sei-Hill, 2002). Thus, framing
can influence what an audience believes about events, issues, or people, although the
degree of influence depends on how the audience evaluates the frames (Scheufele, 2000).

While there may be disagreement as to whether framing is a higher level of
agenda setting or something totally separate, both are important elements in the media’s
ability to shape public opinion. Agenda setting, which involves message repetition and
message prominence, serves to call the audience’s attention to a specific issue. Framing,
which deals with how things are characterized, provides the audience with cues on how
to think about a specific issue (Scheufele, 2000; Scheufele & Tewksbury, 2007). Agenda
setting and framing work together. Framing an issue a certain way in a story that runs
once in the Lifestyle section would not have the same effect as a multi-day story on the
front page. Thus, both agenda setting and framing will be considered in this study.

Cultivation theory and spiral of silence theory recognize the power of mass media
to influence thought and behavior, and are important for understanding why people are
influenced by media. However, these theories focus more on the recipients of media
messages and how the recipients’ interpretations of media messages affect their beliefs or
actions. On the other hand, agenda setting and framing focus on how the media selects,
dispays, and conveys information and how these actions ultimately shape the public
agenda. Therefore, agenda setting and framing will be the focus of this study.

**What sets the agenda for the media.** According to Myrick (2002), the myth of
an objective news media that report information to serve the public interest is popular in
the United States but the reality is “news organizations--print and electronic (though they
often are one and the same in the current deregulated media industry)--are first and
foremost businesses” (p. 52). Appealing to the broadest possible audience boosts ratings
and circulation, and also attracts advertisers, which enable news outlets to remain profitable in a highly competitive market (Rozario, 2003).

**Disaster porn.** While news coverage of disasters can help call attention to suffering and rally the public to respond with desperately needed humanitarian assistance, media also exploit the shock value of disasters in order to capitalize on the natural human fascination with the macabre (Rozario, 2003). In his essay “War Porn”, which deals with the shock power of images from the September 11 terrorist attack and subsequent war in Iraq, Baudrillard (2006) refers to images of horror that are used to thrill, humiliate, degrade, or control as pornographic regardless of whether the images are of real events. The broader term “disaster porn” has been applied to the way media emphasize the sensational aspects of all types of disasters, which includes displaying repeated graphic images of victims in their most vulnerable state that violate both their privacy and human dignity (Sirota, 2010). In short, disaster and suffering are commodities consumed by the public to satisfy their morbid curiosity and provided by the media for private gain (Myrick, 2002; Rozario, 2003).

**News Media and Disasters**

Disaster porn theory is consistent with the findings of a number of studies on U.S. news media coverage of disasters in foreign countries (Fontenot, Boyle, & Gallagher, 2008; Franks, 2006; Singer, Endreny, & Glassman, 1991). Most notably, these studies found “no link between the scale of a disaster and the media interest it attracts” (Franks, 2006, p. 281). In other words, earthquakes may occur in two different parts of the world and have roughly similar effects, yet one event will receive a considerable amount of attention in the U.S. press while the other is virtually ignored. Studies reveal that the amount of media attention is determined not by the magnitude of a disaster but by
cultural proximity (the degree to which Americans are affected), shock value, characteristics of the victims, and whether the event can be explained in simplistic terms (Franks, 2006; Moeller, 2006; Singer et al., 1991). According to Moeller (2006), natural disasters tend to receive more media attention than disasters created or exacerbated by humans—such as war or famine—because natural disasters and their aftermath can be explained in simple terms while the political, social, or cultural complexities of man-made disasters cannot.

Unlike U.S. media coverage of foreign disasters, U.S. media coverage of U.S. disasters is a relatively recent area of research with most of the studies concentrated on Hurricane Katrina. A significant percentage of these studies focused on the portrayal of African-Americans in the news (Davis & French, 2008; Garfield, 2007; Gavin, 2008; Lynch, 2007; Sommers, Apfelbaum, Dukes, Toosi, & Wang, 2006; Tierney, Bevc, & Kuligowski, 2006). The studies overwhelmingly found stark differences in the way white and African-American disaster victims were characterized in the press. Further, news outlets disseminated unconfirmed reports of horrific violence, including lurid accounts of murder and child rapes, that were later determined to be unfounded (Barnes, Hanson, Novilla, Meacham, McIntyre, & Erickson, 2008; Garfield, 2007; Miller & Goidel, 2009; Voorhees, Vick, & Perkins, 2007).

These findings are consistent with disaster porn theory, but also raise questions about media agenda setting and framing as related to the way different ethnic groups are portrayed in the news. The findings are relevant to this study in that they seem to show just how much the media agenda is shaped by sensationalism as opposed to issues that may be critical but lacking in dramatic appeal, such as hurricane risk reduction.
According to experts in the fields of sociology, emergency management, risk management, public health, and economics, the plight of thousands of residents trapped in a flooded city and the staggering number of deaths due to Hurricane Katrina reinforced the vulnerability of people living along the U.S. Gulf Coast (Barnes et al., 2008; Graumann et al., 2006; Miller & Goidel, 2009; Perrow, 2008; Redlener, 2008). Yet there were very few news articles about Katrina that mentioned reducing the effects of future disasters, the capacity of government agencies to respond to future disasters, or the relationship between coastal development and environmental changes that increase disaster risk (Miles & Morse, 2007; Miller & Goidel, 2009; Tierney et al., 2006).

Unlike most natural disasters that either strike without warning or allow for very little advanced warning, hurricanes are typically tracked for a number of days before landfall. Research showed that news outlets did provide valuable information prior to Hurricane Katrina to help residents prepare for the storm’s arrival, such as information regarding orders to evacuate, evacuation routes, and storm shelter locations (Miller & Goidel, 2009). Afterwards, however, news articles and editorials rarely mentioned strategies for reducing future hurricane risk (Miles & Morse, 2007; Miller & Goidel, 2009; Priest, Leu, Duhé, Klipstine, & Fisher, 2006; Rojecki, 2009; Tierney et al., 2006). Studies suggest that the lack of prominence given to risk reduction serves to de-emphasize this issue (Miles & Morse, 2007; Miller & Goidel, 2009; Priest et al., 2006). In this case, the media agenda correlates to the public agenda in that there is little evidence of any significant risk reduction strategies being implemented in coastal communities or that there is widespread concern about the vulnerability of people living in these areas (Hartwig, 2009; Perrow, 2008).
Besides the lack of prominence afforded to the topic of risk reduction, the way disaster news is framed also serves to de-emphasize this issue. “Media coverage of natural disasters (and major events in general) defines and limits the discourse associated with these events” (Miles & Morse, 2006, p. 365). In analyzing studies involving news coverage of various types of disasters, both natural and man-made, it appears there are several common approaches to telling disaster stories that imply disasters are beyond the control of individuals and local governments. One such approach is in the way victims are portrayed. According to Rozario (2003), the more helpless the victims and more extreme the suffering, the greater the public interest. Therefore, victim stories are a key component in disaster storytelling. By the same token, when the public is made aware of human suffering, some type of resolution is expected (Moeller, 2006). In covering natural disasters in the U.S., the media focus considerable attention on government responsibility for disaster response. Specifically, media tend to emphasize the role of the federal government, placing a higher percentage of blame on the federal government when breakdowns in disaster response occur (Barnes et. al, 2008; Littlefield & Quenette, 2007).

**Helplessness of disaster victims**

Findings from several media studies show that victims of disaster are often portrayed as being helpless. This was found to be the case in the study involving news about a blizzard in Colorado, as well as studies of news coverage following Hurricane Andrew and Hurricane Katrina (Salwen, 1995; Tierney et al., 2006; Wilkins, 1985). News stories related to Hurricane Katrina in particular portrayed disaster victims first as needing to be rescued and then as helpless evacuees needing to be cared for (Tierney et al., 2006).
The portrayal of disaster victims as helpless is somewhat erroneous. Research shows that after disaster strikes, many people do not wait around helplessly to be rescued but act proactively to assist one another (Tierney et al., 2006). The concern with repeated portrayals of disaster victims as helpless is that it implies a degree of fatalism. If people are helpless, then disasters become something they cannot control. While individuals certainly cannot prevent hurricanes, there are a number of things they can do to reduce hurricane risk. People can make decisions about where to live, whether to buy or retrofit homes to withstand stronger winds, and whether or not to evacuate.

**Blame/Responsibility**

Another common approach in communicating disaster news is to assign blame or responsibility. A study of media coverage of six different types of disasters showed that half of the news stories attributed blame or responsibility (Turner, 1994). In reviewing news coverage following Hurricane Andrew, Salwen (1995) found that local and state officials were most likely to attribute blame, and more often attributed blame to federal agencies and officials. Blame was also prominent in Hurricane Katrina news. However, unlike previous disasters in which blame was attributed via quotes from a news source, reporters themselves were openly critical of the federal government response (Rojecki, 2009).

According to Barnes et al. (2008), when news stories emphasize the role of the federal government, it inflates public expectations about what the federal government could and should be doing while diminishing the role of individuals, and local and state governments. This contributes to an attitude among individuals as well as local and state governments that the federal government is supposed to “take care of me.” This, in turn, can lead to misconceptions about whether disaster mitigation is a responsibility that can
or should be handled at the local level. In addition, the public focus is not on advancing policies that can help communities be better prepared for, and mitigate losses from, future disasters but on playing the “blame game.”

**Research Questions**

Agenda setting in news coverage of U.S. natural disasters is a relatively recent area of research, with a majority of studies concentrated on Hurricane Katrina. This study proposes to extend the research on media agenda setting by analyzing natural disaster news coverage that is likely to impact the public agenda regarding hurricane risk reduction: prominence given to the topic of hurricane risk reduction, the presence of blame attribution, and portrayal of disaster victims. The specific questions to be examined include:

RQ1: How frequently did news reports mention disaster risk reduction and how prominent were these stories in terms of placement (front page, editorial, etc.)?

RQ2: Did news stories attribute blame and, if so, to whom was blame attributed?

RQ3: Were disaster victims portrayed as needing help/rescue or as being in control?
Chapter 3. SCOPE AND METHODOLOGY

Scope of the Study

Since Hurricane Ike made landfall at Galveston, Texas, news stories about Hurricane Ike were selected from two Texas newspapers: the Houston Chronicle and the Dallas Morning News. While television and radio news outlets also covered Ike, this study was limited to newspapers for several reasons. First, archived newspaper articles are more readily available than news broadcasts. When archived broadcasts are available, it is usually in transcript form and this makes it more difficult to evaluate context. Transcripts do not provide the visual and/or auditory component that helps establish context in broadcast mediums. Second, newspapers tend to provide broader and more in-depth coverage of events (Graber, as cited in Littlefield & Quenette, 2007).

The Houston Chronicle was chosen due to its proximity to the Texas coast, and because Houston was significantly impacted by Ike. In addition, the Houston Chronicle is the ninth largest newspaper in the United States in terms of circulation (“List of newspapers”, 2009). The readership and influence of the paper includes a sizeable portion of the Texas population beyond the Houston area. Chronicle articles are often reprinted by other Hearst papers in Texas, such as the San Antonio Express News, Laredo Times, and Midland Reporter-Telegram.

The Dallas Morning News also reaches a sizeable audience. Owned by Belo Corporation, the Morning News is the tenth largest newspaper in the United States (“List of newspapers”, 2009). The Dallas Morning News provides an interesting comparison to the Houston Chronicle, as Dallas is located roughly 300 miles from Houston and the Gulf of Mexico. Dallas is rarely affected by hurricanes other than serving as a destination for people temporarily fleeing the coast. Nevertheless, both inland and coastal residents
must view hurricane risk reduction as a priority for Texas in order for a change in the public—and public policy—agenda to occur. The Houston Chronicle and the Dallas Morning News together reach a sizeable portion of newspaper subscribers in Texas.

National newspapers such as the New York Times or USA Today were not selected for this study. Local media have a stronger influence on the public agenda when issues are local, and when issues are both local and national (Hester and Gibson, 2007). In addition, many of the public policy actions necessary for reducing hurricane risk—such as controlling development in coastal areas, adopting stronger building codes, and strict enforcement of building codes—take place at the local and state level.

**Methodology of the Study**

This study consisted of a content analysis of newspaper coverage of Hurricane Ike. Content analysis “is a procedure that helps researchers identify themes and relevant issues often contained in media messages” (Rubin, Rubin, Haridakis, & Piele, 2010, p. 215). Any technique that allows the researcher to infer information by systemically identifying specific message characteristics can be considered content analysis (Holsti, as cited in Hoyle, Harris, & Judd, 2002). Content analysis can be quantitative or qualitative (Altheide, 1987).

According to Altheide (1987), quantitative content analysis is used to examine objective data that can be counted; such as the number of times a specific symbol occurs during a television show or where a specific message appears in a newspaper. Qualitative content analysis is used to study the communication of meaning by examining underlying themes and message context (Altheide, 1987). Unlike quantitative content analysis, in which data are examined using predefined categories, qualitative content analysis allows categories to emerge during the course of the research (Altheide, 1987).
Both quantitative and qualitative analyses were used in this study. RQ1 asks how frequently disaster risk reduction was mentioned and where in the newspaper these stories appeared. Since RQ1 seeks to determine the number of times a topic is mentioned and where these stories appeared, quantitative content analysis is the appropriate method to use for RQ1. RQ2 asks whether news stories attributed blame and, if so, to whom blame was attributed. This question also involves frequency in that it seeks to determine the number of times blame was a topic in news stories, as well as the number of times specific organizations or people were blamed. Again, quantitative content analysis is the more appropriate method for examining this question since the question seeks to find the number of Hurricane Ike stories that involved blame.

RQ3 asks whether disaster victims were portrayed as helpless or being in control. This question deals with the way people are characterized and, as such, it is necessary to review messages in context to determine whether the overall theme is one of helplessness or empowerment. Qualitative content analysis, which is used to study meaning, is the more appropriate method for RQ3 (Altheide, 1987).

**Research design**

Articles were located using LexisNexis Academic with the search terms “Hurricane Ike” and “Ike” for the date range September 13, 2008 through October 13, 2008. This time period covers the first month of Hurricane Ike news, beginning with the date Ike made landfall. The search initially yielded 1,730 articles in the *Houston Chronicle* and 129 articles in the *Dallas Morning News*. After eliminating unrelated stories (such as those about a person named Ike or sports teams called “hurricanes”), stories that only superficially mentioned Hurricane Ike (such as events being rescheduled due to the storm), and search results that merely listed photo captions without...
accompanying text, the final number of articles was 595 in the *Houston Chronicle* and 61 in the *Dallas Morning News*. Articles were located using search terms shown in Table 1.

Table 1

*Search terms for locating articles related to research questions*

| Q1: How frequently did news reports mention disaster risk reduction and how prominent were these stories in terms of placement (i.e., which section of the newspaper)? | **Topic:** Risk reduction | **Search Terms:** | “risk”; “risk reduction”; “prepare”; mitigate”; “development”; “recover”; “recovery”; “rebuild” | **Placement (section):** | State/Regional | Metro | Business | Editorial |
|---|---|---|---|---|---|---|---|---|---|

| Q2: Did news stories attribute blame and, if so, to whom was blame attributed? | **Topic:** Blame | **Search Terms:** | “blame”; “fault”; “fail”; “wrong”; “incompetent”; “mismanage”; “responsible”; “accountable”; “culpable”; “guilty” | **Actor:** | FEMA | Federal Government | President | Governor | State agency | Local/county agency | Other |
|---|---|---|---|---|---|---|---|---|---|---|---|---|

A coding instrument was then developed to help identify and collect data from the news articles. This coding instrument is shown in the Appendix. Both the coding instrument and news articles were also uploaded to the Coding Analysis Toolkit, a free online data analysis program available through the University Center for Social and Urban Research. Use of the program did not eliminate human coding. The program simply improved the efficiency of the coding process by keeping the study sample organized, allowing the coders to view the coding key and definitions alongside the data, and automatically keeping track of the code(s) selected by the coders.
Validity

Validity is “the extent to which a measure reflects only the desired construct without contamination from other systematically varying constructs” (Hoyle et al., 2002). There are three types of validity concerns: construct validity, internal validity, and external validity (Vacha, 2007).

Construct validity. According to Vacha (2007), “construct validity refers to the ability of a measure or indicator to capture the essence of the abstract concept it is supposed to measure” (p. 4). Construct validity is a concern in content analysis because of the potential for subjectivity in interpreting data. For this reason, content analysis studies should use multiple sources of information and multiple investigators using the same “instrument”—that is, the same search terms, categories, and definitions (Stemler, 2001). This study addressed construct validity through use of a coding instrument that contained definitions used by two different coders. In addition, data was selected from two sources of information, the Houston Chronicle and the Dallas Morning News.

Internal validity. Internal validity refers to the degree to which it can be inferred that there is a causal effect of one variable on another (Hoyle et al., 2002). Internal validity is a problem with media effects studies in general because, while a correlation can be inferred, it cannot definitively be proven that exposure to media cause certain opinions, beliefs, or behaviors (Hoyle et al., 2002). According to Hoyle et al. (2002), it is impossible to rule out all other possible influences. Although this study seeks to explore whether news media coverage of hurricanes may be a contributing factor in the public’s failure to address hurricane risk reduction, it would not be possible to prove that one causes the other. Therefore, internal validity is a limitation in this study.
External validity. External validity is the extent to which the results of the research can be generalized to populations and settings of interest (Hoyle et al., 2002). This study examined only two newspapers over a one-month period of time. This may impact the ability to generalize the study findings as truly representative of Hurricane Ike news coverage. It is difficult to know whether similar results would have been achieved if different newspapers or other media, such as radio or TV, had been included. However, to the extent the results of this study align with findings of other, similar studies, external validity is increased.

Reliability

According to Hoyle et al. (2002), reliability of coding is a critical aspect of quantitative content analysis. Reliability exists when results are consistent; that is, the same coder gets the same results time after time and/or different people code text the same way (Stemler, 2001). In quantitative content analysis, reliability is commonly measured by measuring the percent of agreement between coders. However, it is not necessary for all coders to code the entire sample (Stemler, 2001).

The researcher initially coded the entire study sample manually. Subsequently, the sample and coding instrument were uploaded to a data analysis computer program. Two coders, one of whom was the researcher, then coded a sub-sample of the data consisting of 230 articles. Intra-coder reliability, or the percentage of agreement from the two separate times articles were coded by the researcher, was 91 percent. Inter-coder reliability, or the percentage of agreement between coders, was 78 percent. Agreement between 61-80 percent is considered substantial agreement (Stemler, 2001).
Chapter 4. THE STUDY

Introduction

The data for this study were obtained from newspaper articles, with each article considered a separate unit for coding purposes. The total number of articles was 595 in the Houston Chronicle and 61 in the Dallas Morning News. This chapter explains how the articles were reviewed and coded, provides the results of the study, and discusses what the results mean in terms of media agenda setting and framing relative to disaster loss mitigation.

Data Analysis

The articles were first reviewed to identify a theme. In cases where an article dealt with multiple themes, the coder made a determination as to the most predominant theme using cues such as the headline and length of paragraphs or number of lines devoted to each theme. For articles where the theme was disaster loss mitigation, the section and page where the article appeared were noted. In addition, each article was reviewed for the purpose of determining whether or not the article identified an organization, agency, group or individual as having a role in disaster response, relief, or recovery. For all articles that discussed roles or responsibility, a notation was made as to the specific organization, agency, group, or individual identified. The coding instrument used for identifying and collecting the data is shown in the Appendix.

In addition, each news story that mentioned disaster victims was read in its entirety to ascertain whether the article characterized victims as generally helpless or as taking control. Stories in which disaster victims were primarily portrayed as fearful, anxious, depressed, vulnerable, or unable to act unless some other party intervened on their behalf were considered characterizations of helplessness. Stories in which disaster
victims were primarily portrayed as determined, strong, hopeful, or taking action on their own without waiting for assistance were considered characterizations of empowerment. For each article about disaster victims, a notation was made of the date and title of the article as well as the specific adjectives used to describe victims.

Results of the Study

While the research questions this study seeks to explore do not specifically address disaster themes, each article was first coded according to its overall theme. As mentioned previously, the way news media choose to “frame” events or issues—that is, what the media choose to emphasize or ignore— influences how audiences interpret those events or issues (Sei-Hill, 2002). Examining general themes of newspaper articles about Ike can provide insight into how media tend to frame natural disaster events. As shown in Table 2, the most dominant themes in both newspapers were disaster response/relief, devastation, recovery, and economic impact. These findings support the findings of previous studies of disaster news coverage (Miles & Morse, 2006; Rojecki, 2009; Tierney et al., 2006).

The Dallas Morning News had a much higher percentage of stories about the economic impact of the storm than the Houston Chronicle. This may be due to proximity. In their study of newspaper coverage of a train accident in South Carolina, Priest et al. (2006) found that the newspaper located in the city closest to the accident was more focused on the event’s impact on individuals and local businesses, while news coverage in the city furthest away was less concerned with personal accounts and more focused on the event’s broader impacts. Dallas is located 300 miles from the coast and did not sustain damage from Ike, while Houston is close to where Hurricane Ike made landfall. Chronicle coverage included articles about the storm’s impact on infrastructure...
(impassable roads, power outages, school closures, etc.) and helpful tips such as what kinds of food products should be thrown out, which were absent in the *Dallas Morning News*. Unlike Priest et al. (2006), however, this study did not find a significant difference in the percentage of coverage devoted to personal stories. This is most likely because a large number of coastal residents had evacuated to Dallas and were therefore easily accessible to reporters.

Table 2

*Predominant news article themes*

<table>
<thead>
<tr>
<th>Themes</th>
<th>Houston Chronicle</th>
<th>Dallas Morning News</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Stories</td>
<td>Total Articles</td>
</tr>
<tr>
<td>Loss Mitigation</td>
<td>3</td>
<td>595</td>
</tr>
<tr>
<td>Economic Impact</td>
<td>70</td>
<td>595</td>
</tr>
<tr>
<td>Ecological Impact</td>
<td>30</td>
<td>595</td>
</tr>
<tr>
<td>Infrastructure Impact</td>
<td>56</td>
<td>595</td>
</tr>
<tr>
<td>Disaster Response/Relief</td>
<td>113</td>
<td>595</td>
</tr>
<tr>
<td>Helpful Tips</td>
<td>23</td>
<td>595</td>
</tr>
<tr>
<td>Looting/Crime</td>
<td>8</td>
<td>595</td>
</tr>
<tr>
<td>Recovery</td>
<td>74</td>
<td>595</td>
</tr>
<tr>
<td>Human Interest/Personal stories</td>
<td>84</td>
<td>595</td>
</tr>
<tr>
<td>Devastation and Damage</td>
<td>112</td>
<td>595</td>
</tr>
<tr>
<td>Death</td>
<td>7</td>
<td>595</td>
</tr>
<tr>
<td>Health &amp; Safety</td>
<td>15</td>
<td>595</td>
</tr>
</tbody>
</table>

Articles about the hurricane’s effects on the economy, ecology, and infrastructure were also indirectly about devastation, since these were all outcomes of damage caused by the hurricane. These articles were mostly factual, and often included numbers or statistics and quotes from experts. On the other hand, articles where devastation was a theme in and of itself had a somewhat dramatic quality with frequent use of adjectives such as “nightmare”, “fury”, or “terror” to describe the storm and its aftermath (Tolson, Hays, Feibel, & Berger, 2008; Schiller, Stewart, O’Hare, & Cortez, 2008).
Research Question 1

RQ1 asks how frequently news reports mentioned the subject of reducing future hurricane risk or loss, and whether these articles were prominently placed within the newspaper. A search of the *Dallas Morning News* found no articles in the month following Hurricane Ike that mentioned mitigating future hurricane risk or loss. In the *Houston Chronicle*, only 3 of the 595 articles about Ike dealt with this topic—or 0.5% of the total number of Ike stories. Two of the three articles ran in Section B, on pages 4 and 8, five days apart. One article appeared on the front page. However, both the front page article and one of the other articles focused more on the conflict between those who sought to limit development on the coast and those seeking to rebuild than on how or whether coastal development could contribute to the severity of impact of future hurricanes (Tresaugue & Robison, 2008; Tolson, Rice, Tresaugue, & Pinkerton, 2008). Only one of the three articles made a direct connection between actions local and state lawmakers could take in the aftermath of Ike and the fact that those actions would have consequences for future life and property loss. This article appeared on page 8 of Section B and was a reprint of a *Washington Post* editorial (“Another Voice,” 2008). These findings support previous studies that showed that news media devote little, if any, attention to the issue of future disaster risk and loss prevention (Miles & Morse, 2007; Miller & Goidel, 2009; Priest et al., 2006; Rojecki, 2009; Tierney et al., 2006; Wilkens, 1985).

Research Question 2

RQ 2 asks whether news stories attributed blame and, if so, to whom blame was attributed. There were 156 stories in the *Houston Chronicle* that mentioned the role of organizations or individual actors, in which responsibility or blame for actions were
discussed. This represents 26% of the total number of Hurricane Ike stories in the
*Chronicle*. The *Dallas Morning News* had far fewer Ike stories but the percentage of
stories dealing with responsibility/blame was 29%, which was very similar to that of the
*Chronicle*.

Table 3

**Attribution of Responsibility/Blame**

<table>
<thead>
<tr>
<th>Actor</th>
<th>The <em>Houston Chronicle</em></th>
<th>The <em>Dallas Morning News</em></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total Stories</td>
<td>Favorable</td>
</tr>
<tr>
<td>Local government</td>
<td>17/156</td>
<td>13/17</td>
</tr>
<tr>
<td></td>
<td>(11%)</td>
<td>(76%)</td>
</tr>
<tr>
<td>State government</td>
<td>12/156</td>
<td>6/12</td>
</tr>
<tr>
<td></td>
<td>(8%)</td>
<td>(50%)</td>
</tr>
<tr>
<td>Federal government</td>
<td>30/156</td>
<td>10/30</td>
</tr>
<tr>
<td>(FEMA)</td>
<td>(19%)</td>
<td>(33%)</td>
</tr>
<tr>
<td>Governor</td>
<td>5/156</td>
<td>4/5</td>
</tr>
<tr>
<td></td>
<td>(3%)</td>
<td>(80%)</td>
</tr>
<tr>
<td>Mayor</td>
<td>20/156</td>
<td>15/20</td>
</tr>
<tr>
<td>Private Sector</td>
<td>30/156</td>
<td>13/30</td>
</tr>
<tr>
<td>(Utility, Insurance)</td>
<td>(19%)</td>
<td>(43%)</td>
</tr>
<tr>
<td>Relief Organizations</td>
<td>35/156</td>
<td>35/35</td>
</tr>
<tr>
<td></td>
<td>(22%)</td>
<td>(100%)</td>
</tr>
<tr>
<td>Military/Nat’l Guard</td>
<td>15/156</td>
<td>14/15</td>
</tr>
<tr>
<td></td>
<td>(10%)</td>
<td>(93%)</td>
</tr>
<tr>
<td>Disaster Victims</td>
<td>4/156</td>
<td>0</td>
</tr>
<tr>
<td>(i.e. those who refused to evacuate being responsible for own fate)</td>
<td>(3%)</td>
<td>(0%)</td>
</tr>
</tbody>
</table>

Local officials’ actions in response to Ike were portrayed favorably in a majority
of the stories in both newspapers while the federal government’s response was portrayed
unfavorably in a majority of stories. The state’s role was mentioned in only 8% of
*Chronicle* stories, with half the articles being favorable and half unfavorable. By
contrast, the state’s role was mentioned in 22% of the *Dallas Morning News* stories and
all the stories were favorable. This can be explained by the fact that Houston sustained
damage from Ike, and local officials were not only involved in Ike recovery but were accessible to Chronicle reporters. In interviews, local officials typically gave themselves the credit when things went well but blamed the state or federal government when things did not go well. Houston Chronicle reporters rarely included information that contradicted this perspective provided by local officials. The exception was Galveston Mayor Lyda Thomas who received considerable criticism in the press for decisions related to evacuation orders and keeping residents off the island (Langford & Wise, 2008; Latson, Langford, Rice, Khanna, & Tolson, 2008). The city of Dallas did not sustain physical damage from Ike, but did incur significant expenses providing shelter to hurricane evacuees. The state and governor were both mentioned almost exclusively in the Dallas Morning News in the context of trying to get reimbursement for those expenses from the federal government, and both were portrayed favorably.

Regardless of the accessibility of local or state officials, both the Houston Chronicle and the Dallas Morning News had almost twice as many articles dealing with the response of the federal government and FEMA as articles about the response of local and state governments. Even when news media are being critical, the amount of attention focused on the federal government’s response may create the impression that natural disasters should be handled at the federal level. This lends support for the contention of Barnes et al. (2008) that individuals and local and state governments do not perceive that disaster mitigation is their responsibility.

There is a common perception that crime and looting are widespread in the aftermath of a disaster; a myth that has been reinforced by news media (Tierney et al., 2006). Tierney et al. (2006) argue such messages resonate strongly with audiences because they are consistent with what people have seen in Hollywood depictions of
disaster. This was evident in the Houston Chronicle’s coverage of Hurricane Ike, where the National Guard was mentioned more frequently than local police or firefighters. Most of the articles favorably cast the National Guard in dual roles of rescuers and enforcers of order. There were eight articles in the Houston Chronicle where the predominant theme was crime. In five of these, the National Guard was mentioned in the role of keeping order and preventing looting. While only eight articles had crime or looting as the overall theme, there were 25 articles in which crime was mentioned. A close reading of the articles showed that a majority of the stories were about the possibility of looting. In fact, there were only three news accounts where information was provided about actual incidents of looting (Glenn & Feibel, 2008; Kever, 2008; Schiller, 2008).

Research Question 3

RQ3 asks how disaster victims are portrayed. Articles in the Dallas Morning News mentioned disaster victims in stories about evacuees in local shelters, or in articles about organizations such as the Red Cross or United Way raising money for relief efforts (Bush & Krause, 2008; Horner, 2008; Myers, 2008). Therefore, disaster victims were more frequently portrayed in the Dallas Morning News as people in need of help. The Houston Chronicle also portrayed disaster victims as helpless. Terms such as “anxious”, “vulnerable”, “distraught”, “desperate”, “stressed”, and “overwhelmed” were used to describe storm victims. On the other hand, the Chronicle also ran many stories about neighbors helping one another and of people taking control of their own situation. In some articles, disaster victims were portrayed as both helpless and heroic in the same story. For example, one story about an elderly retirement home resident told how the woman was helpless as the storm approached, having no means to evacuate on her own,
and described her as “increasingly desperate” but the article also provided great detail about her neighbors’ heroic efforts to save her (Wise, 2008).

Stories portraying disaster victims as empowered were personal accounts, while stories portraying disaster victims as helpless consisted of both personal accounts and discussions about disaster victims as a group. Nearly 40% of articles in the *Houston Chronicle* and 64% of articles in the *Dallas Morning News* about disaster victims mentioned the need to assist victims in the collective without providing information about the plight of any specific individuals. These articles frequently contained quotes from relief organizations or government representatives urging the public to support disaster relief efforts. The net effect was an impression that incidents where disaster victims took control of their situation were isolated cases, while there was something almost “official” about helplessness.

**Discussion**

In agenda setting, news media make deliberate decisions about what gets reported (McCombs, 2005; McCombs & Shaw, 1972). Using attention, prominence, and valence, news media are able to influence whether, and how much, the public pays attention to a specific issue (McCombs, 2005). Consistent with previous studies (Barnes et al., 2008; Miller & Goidel, 2009), this study found that stories about devastation, disaster response/relief, and recovery received the most attention and were the most prominent, with stories about disaster victims serving to inform all of these themes.

Personal accounts of disaster victims made stories about devastation more real and, at the same time, more dramatic. In these stories, victims recounted in detail the terror they felt riding out the storm or described their grief at having lost someone or something they loved. The articles read almost like fictional narratives but were more
powerful because the people described were real. While perhaps not quite disaster porn, it did seem these stories were intended to appeal to the audience’s curiosity in a different way than articles that provided just factual data and statistics. Furthermore, discussing devastation and subsequent disaster response through the use of personal accounts allowed the media to convey information about the hurricane in a simplistic way. As previously pointed out, media devote more attention to things that can be explained in simple terms (Franks, 2006; Moeller, 2006; Singer et al., 1991).

Through framing, the news media interpret or characterize people, events, or issues by emphasizing some things more than others or ignoring some things altogether (McCombs, 2005; Scheufele, 2000; Sei-Hill, 2002). The findings in this study provide some insight into the way victim frames are used by the media to communicate disasters. According to Tierney et al. (2006), helpless victims are part of the disaster myth. Both the *Dallas Morning News* and *Houston Chronicle* portrayed victims as helpless, which is consistent with findings of other studies (Salwen, 1995; Tierney et al., 2006; Wilkins, 1985).

In this study, the helpless victim myth appeared to serve several purposes. Portrayals of disaster victims as helpless were used to garner public support for relief efforts. Victim stories were also incorporated into articles that cast the government or for-profit organizations in a negative light. For example, delays on FEMA’s part in providing housing or inability of the utility company to restore power quickly were mentioned in connection with a story about a disaster victim who was suffering as a result of these actions. Explanations provided by government or corporate representatives may have been legitimate but, when compared to the victim’s plight, came across as lame excuses. In addition, victim stories also seemed to provide a
measure of how well the recovery process was going and how lengthy the recovery might be.

While both newspapers ran stories about helpless victims, the *Houston Chronicle* also ran stories in which victims helped other victims or otherwise took charge to change their own situation. These people were often characterized as heroic. Stories about helpless victims and heroic victims were sometimes contained within the same article. Hall (1992) states that dual stereotyping, or dualism, is a way of dividing the world into “us” and “them.” Since Hurricane Ike made landfall very close to Houston, many of the Chronicle’s readers would have been impacted by the storm and many may have seen themselves as victims. Stories about heroic victims would have allowed them to identify with a positive image. By contrast, there were no heroic victim stories in the *Dallas Morning News*.

Unfortunately, victim stereotyping—whether positive or negative—never takes people out of the context of the present disaster. Thus, there is no opportunity to discuss the various things individuals can do to control their future risk.

The way roles and responsibility were framed is also important to understanding how the news media communicate disasters. Not only were there twice as many articles that mentioned the federal government, but the federal government was also portrayed in a more negative light than local or state government when things did not go well. In addition, both the *Houston Chronicle* and *Dallas Morning News* featured more stories about the National Guard than about local police or firefighters. The federal government seemed to play the part of relief agency, first responder, and law enforcement, thereby minimizing the role of local or state governments in disaster response as well as their level of accountability when things did not go smoothly. Although many of the steps
critical for disaster mitigation—such as restricting development, adopting and enforcing stronger building codes, and disaster planning—take place at the local and state level, natural disasters are largely framed by news media as being a federal government responsibility.

Findings from studies of Hurricane Katrina suggest that disaster porn was a significant part of the Katrina media coverage. News outlets disseminated reports of victim on victim crime in the New Orleans Convention Center and Superdome, including unconfirmed stories of murder and child rapes (Barnes et al., 2008; Garfield, 2007; Miller & Goidel, 2009; Voorhees et al., 2007). Disaster porn was not evident to the same degree in Hurricane Ike news. The Chronicle did contain a high percentage of stories about devastation and damage, including personal recollections of terrified victims who chose to ride out the storm. In addition, the number of articles that mentioned looting and crime seemed disproportionately high compared to the actual number of incidents. So the Chronicle did seem to devote considerable attention to the most sensational stories possible. On the other hand, the highest percentage of stories in the Dallas Morning News were about the storm’s economic impact.

News reporting tends to be episodic, or event-focused, with little attempt to establish context or address broad systemic issues (Miller & Goidel, 2009; Rojecki, 2009). This was certainly evident in news coverage of Hurricane Ike. Even though Texas was hit by Hurricane Rita in 2005 and Hurricane Dolly just a few months prior to Ike, these previous storms were mentioned mainly as a means of providing a comparison; for example, the cost of damage caused by Ike compared to Rita. News articles did not look at these storms in the broader context of an ever-increasing coastal population taxing underlying systems to the point where lives and property are at greater risk. As a result,
reducing future hurricane risk never really emerged as an issue deserving of attention. Media failed to talk about logistical problems in coordinating mass scale evacuations, delays in getting needed relief to storm victims, and damage to roads or bridges that left some people stranded and others unable to return to their homes as evidence of larger systemic issues that need to be addressed. Instead, these were blamed on the poor decisions or mismanagement of some person or agency—usually the federal government.
Chapter 5. SUMMARIES AND CONCLUSIONS

Limitations of the Study

One of the most significant limitations regarding agenda setting research is that, while correlations can be shown between what is in the news and what the public believes or does, causation cannot be proved. Although this study found that disaster loss mitigation was largely absent from the media agenda, it is not possible to prove that lack of media attention is the reason for the lack of public attention.

Another limitation is that this study examined only two newspapers over a one-month period of time. This may impact the ability to generalize the study findings as truly representative of Hurricane Ike news coverage. It is difficult to know whether similar results would have been achieved if different newspapers or other media, such as radio or TV, had been included.

Initially, the data for the study were coded by a single coder. With only one coder, however, it is impossible to know whether a study is objective, measures what it claims to measure, or will yield consistent results. To address this issue, a sub-sample consisting of 230 articles was coded by this researcher and a second coder. Inter-coder reliability, or the percentage of agreement between the two coders, was 78 percent. This level of agreement is within the range that satisfies the test for reliability, as agreement between 61-80 percent is considered substantial agreement (Stemler, 2001).

Further Study Recommendations

Since a majority of studies on agenda setting and framing in natural disasters involve Hurricane Katrina, this area of research would benefit from additional studies of other hurricane events. In addition, an inter-media study that examined newspaper, TV, and radio coverage of the same hurricane would provide valuable insight as to whether
the agenda and frames are consistent across media.

Agenda setting theory is significant because of the correlation between the media’s agenda and the public agenda. Future studies of media agenda setting in natural disasters should ideally include surveys of news consumers to see how strongly their attitudes and beliefs correspond to what is in the media, as well as a review of any ordinances, laws, or regulations adopted by local and state governments in the year following a hurricane.

**Conclusions**

This study found that news media devote little attention to the issue of reducing future hurricane loss. The greatest amount of attention is focused on devastation, relief, recovery, and economic impact. These findings from Hurricane Ike news coverage were consistent with findings of previous studies (Miles & Morse, 2006; Miller & Goidel, 2009; Priest et al., 2006; Rojecki, 2009; Tierney et al., 2006; Wilkens, 1985).

While this study did find dramatic and sensationalistic news coverage, it was not present to the same extent as Hurricane Katrina. However, victims were still a significant part of the disaster story. Although there were stories that portrayed victims heroically, as well as stories that showed victims as helpless, the hero stories were personal accounts. On the other hand, stories that portrayed victims as helpless included official statements from relief agencies and government representatives. This gave more weight to the portrayal of victims as helpless.

Both the public and public policymakers take cues from the news media about which issues are important (Behr & Iyengar, 1985; McCombs, 2005; Yue & Weaver, 2009). The way media currently communicate disasters creates the impression that citizens are generally helpless in a disaster situation and must be rescued by the federal
government. The heightened attention on immediate or very short-term effects from a hurricane, such as the need for disaster assistance or the extent of damage, sends a message that quick response and quick recovery should be the public’s priority. Local and state government receive very little attention in the news outside of being seen blaming the federal government for not doing enough or responding quickly enough.

In this study, hurricane risk reduction never emerged as a significant issue in the media, much less one that can and must be addressed by individuals, and local and state governments. The fact that little has been done to reduce hurricane risk along the U.S. coast despite a decade of higher than normal hurricane activity (Blendon et al., 2007; Hartwig, 2009; Perrow, 2008) supports the argument that there is a correlation between the media agenda and the public agenda.
References


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Tolson, M., Rice, H., Tresaugue, M., & Pinkerton, J. (2008, September 21). Coastal development: Drawn back to the shore; Galveston residents have shown before that storms can't force them from the island they love. *The Houston Chronicle*. Retrieved February 15, 2010 from LexisNexis Academic database.


## Appendix

### Coding Instrument

<table>
<thead>
<tr>
<th>Code</th>
<th>Theme</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Economic Impact</td>
<td>Stories that cover the impact of Hurricane Ike on the economy. Examples include stories about how the hurricane affected the price of goods and services, jobs, business growth, taxes, or the cost to governments of paying for disaster recovery.</td>
</tr>
<tr>
<td>B</td>
<td>Ecological Impact</td>
<td>Stories that cover the impact of Hurricane Ike on the environment, including stories that discuss beach erosion, cleanup of beaches, long-term effects on wildlife or native plants, rodent or insect infestation, pollution, or access to clean drinking water.</td>
</tr>
<tr>
<td>C</td>
<td>Infrastructure Impact</td>
<td>Stories that cover the aftermath impact of Hurricane Ike on roads, bridges, or other means of transportation, as well as utilities, schools, or hospitals.</td>
</tr>
<tr>
<td>D</td>
<td>Death</td>
<td>Stories that deal with people killed directly or indirectly as a result of Hurricane Ike.</td>
</tr>
<tr>
<td>E</td>
<td>Devastation/Damage</td>
<td>Stories that specifically focus on the widespread and immediate damaging effects of the hurricane on people, property or the environment. These stories provide a contrast between what things were like “after” versus “before” the storm. Examples include stories about the number of homes damaged, trees uprooted, massive flooding, etc.</td>
</tr>
<tr>
<td>F</td>
<td>Response/Relief</td>
<td>Stories that deal with providing assistance to disaster victims.</td>
</tr>
<tr>
<td>G</td>
<td>Recovery</td>
<td>Stories about efforts to restore normal services, activities, or functions. Examples include stories about property being rebuilt or power restored.</td>
</tr>
<tr>
<td>H</td>
<td>Health or Safety</td>
<td>Stories that cover the hurricane’s affects on people’s health or safety.</td>
</tr>
<tr>
<td>I</td>
<td>Looting or Crime</td>
<td>Stories that deal with looting or crime in direct connection with the hurricane, whether or not actual incidents of looting or crime occurred. Examples include stories about increased law enforcement to deal with the possibility of looting or concern on the part of residents that looting will take place.</td>
</tr>
<tr>
<td>M</td>
<td>Disaster Mitigation</td>
<td>Stories that deal with efforts to reduce or eliminate long-term hurricane risk to people or property. Examples include stories about whether coastal development should be restricted, whether property or flood insurance rates along the coast should be increased to reflect degree of risk, or whether building codes in coastal communities should be changed. *Include notation as to date, section, and page of each article coded “M”.</td>
</tr>
<tr>
<td>P</td>
<td>Human Interest/Personal Accounts</td>
<td>Stories that are largely anecdotes about people’s personal recollections and experiences of the hurricane, or stories about odd incidents related to the hurricane. Examples include personal stories what it was like to ride out the storm, or a story about someone finding a box of Civil War memorabilia that had washed up on the beach.</td>
</tr>
<tr>
<td>R</td>
<td>Responsibility</td>
<td>Story that identify an organization, agency, group, or individual as having responsibility for disaster response, relief, or recovery.</td>
</tr>
<tr>
<td>R, 1 = Favorable</td>
<td>R1 = Organization, agency, or group is shown to be meeting responsibilities. Characterized as helpful, competent, efficient, caring, well trained.</td>
<td></td>
</tr>
<tr>
<td>R, 2 = Unfavorable</td>
<td>R2 = Organization, agency, or group is shown as failing to meet responsibilities. Characterized as slow to act, ineffective, irresponsible, making poor decisions, poor communicators, mismanaging tasks.</td>
<td></td>
</tr>
<tr>
<td>O</td>
<td>All other themes</td>
<td></td>
</tr>
<tr>
<td>V</td>
<td>Victims</td>
<td>Stories about disaster victims.</td>
</tr>
</tbody>
</table>