ABSTRACT

Two of a Kind: Comparing Photographic Media Coverage for Hurricanes Katrina and Ike

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Both media and the United States government received much criticism for the way that they handled their responses to Hurricane Katrina, which made landfall in New Orleans in 2005. The government was criticized for a slow, seemingly apathetic response, while the media were criticized for sensationalizing the news, spreading untrue information, and unfairly depicting the minority population in the role of the victim. Three years later, a similar storm named Hurricane Ike approached Houston and people feared for the worst. Houston's government was prepared for this storm, and the loss of life was much less severe. Since the government changed its approach to dealing with such a natural disaster, would the media as well? This study seeks to analyze the front pages of newspapers from across the United States, looking closely at the featured photographs. Placement, size, and subject of the photographs will be analyzed.

Two of a Kind: Comparing Photographic Media Coverage for Hurricanes Katrina and Ike

by

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A Thesis

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CHAPTER ONE

Introduction

Throughout the history of the United States, there have been hundreds of hurricanes, but only a fraction evolved into bona fide disasters. Hurricane Andrew, for instance, destroyed the coast of Florida and Louisiana in 1992. Galveston, Texas, suffered considerable damage from an unnamed storm that made landfall in 1900. Few hurricanes in recent times have received the attention, however, that Hurricane Katrina garnered in August 2005.

The most destructive hurricane to make landfall in the U.S. since 1928, Katrina also proved to be the costliest in history. With an estimated $75 billion in damage, the force of Katrina was felt by a large percentage of the population living along the Louisiana and Mississippi coasts. While it did strengthen to a Category 5 storm, Katrina made landfall as a Category 3 storm and was responsible for the loss of approximately 1,200 lives.

The turmoil caused by Hurricane Katrina was not limited to the rain and winds. Frantic to get information to a largely unprepared population, both the media and the government released inaccurate information about what was happening in the aftermath of Hurricane Katrina. Reports of mass killings, rape inside gathering places for victims, wanton looting, and even sniper fire were all reported as fact. Eyewitness accounts were drastic, sensational, and oftentimes false. Even some government officials were relaying these stories. Then there was the rampant criticism of how the photographs run in newspapers portrayed the black population of New Orleans. Many of the photographs

seemed to feature blacks in the role of victim, and did not represent the racial breakdown of the victim population.

The total breakdown of communication and aid was what made Katrina so unique, making the hurricane a popular subject for media scholars to study. Despite the numerous studies on the media coverage of Katrina that have been published, there is a distinct lack of scholarship in the area of comparing Katrina media coverage with the media coverage of another storm. After how unprepared the public was for the disaster and considering all the mistakes government officials and the media made, would they act any differently if a similar storm were to make landfall?

Just a little more than 350 miles away and three years later, Hurricane Ike barreled towards the Texas Gulf Coast, and many worried that this storm would cause damage similar to that of Katrina. Ike made landfall in Galveston, Texas, on September 14, 2008, as a Category 3 storm, but quickly became a Category 2 storm as it moved inland. With an eye more than 100 miles wide, much of Houston was deluged with torrential rain and wind. Pictures of unbelievable physical destruction ran in newspapers in the days following Ike's landfall, and much of Houston was without power for days. While the overall impact of Ike proved to be much less catastrophic than that of Katrina, it did provide a point of comparison for media coverage. For instance, one difference was the severity of warning issued by the National Weather Service for both storms. The Ike warning said that those who chose to stay in the direct path of the storm would die. The wording in the Katrina warning was not nearly as strong. Did journalists change how they approached covering this storm? Comparison of the media coverage of both Ike and Katrina can provide answers to this question.

CHAPTER TWO

Literature Review

Hurricane Katrina proved to be a tragedy from all angles. Between the loss of life and the panic caused by lack of information, everyone who experienced the storm first hand had some level of additional stress in their lives. Whether people had flooding to their houses or their houses totally demolished by the storm, many in the world, much less New Orleans, will never forget the impact of Hurricane Katrina. Some people are still struggling to recover from their storm experience three years later. After the physical storm subsided, the social uproar began. Many questions came to the forefront of public discussion. Was the government to blame? Was it true that President George W. Bush was on vacation when the hurricane hit and chose not to return to Washington for a few days? Were people really killing each other while taking refuge in the New Orleans Superdome? How did so many levees fail? Could this tragedy have been prevented? Was it made worse by the lack of accurate and reliable information available to the public? Was the hysteria many felt created or exacerbated by the media? These questions, along with thousands more, boiled down to one all-encompassing issue: What exactly went wrong during Hurricane Katrina?

Soon after the storm hit, both media personnel and government personnel became aware that the public wanted answers to these questions, and they wanted those answers immediately. Neither the government nor journalists wanted to be responsible for the lack of organization and misinformation that happened prior to, during, and in the aftermath of Hurricane Katrina, so the discussion immediately turned to blame.

Accusations flew back and forth between the government and media entities as to whose fault the spreading of inaccurate information was. The congressional committee assigned to report on how Katrina was mishandled included several scathing statements directed towards the media in its report. Committee members maintained that many of the disastrous consequences of Hurricane Katrina, such as the hysteria which was fueled by inflated news reports providing little more than rumor, stemmed from the inaccurate media coverage the storm received (Fleetwood 2006). After all, there was no widespread looting or murder rampages like the media had reported. In fact, some reporters even reported sniper fire aimed at rescuers and violent gangs targeting other young people, including babies (Sommers, Apfelbaum, Dukes, Toosie, Wang, 2006). In one of the most bitingly pointed lines of the report, the committee asserted that "The media must share some of the blame here… it's clear accurate reporting was among Katrina's many victims. If anyone rioted, it was the media" (U.S. House of Representatives, 2006).

Some media researchers tended to agree with the government's stance. Sommers, et al., noted that the plethora of inaccurate articles and broadcasts related to Hurricane Katrina was what made this storm so unique, and that the media could have chosen substantiated sources to use instead of questionable first-hand accounts. In particular, the National Guard was in charge of the operations in the Superdome, so those reports should have been easier to verify. Many would argue that the Bush administration was not always immediately forthcoming with all the details, so this assertion about information coming from the National Guard might be true in theory, but not in practice. In reality, it probably would have been very hard to get confirmation or denial about what was happening in the Superdome, even with government officials present. The government

has a vested interest in getting any situation under control before letting the public know about it as it is an expectation by many that the government be able to adeptly handle crises such as hurricanes and other natural disasters. As it is no secret now, many elements of the government response to Hurricane Katrina were less than perfect, so they would not have been forthcoming with information as to the aspects of the situation they had not managed to quell. Usually, mistakes like the ones made with Hurricane Katrina are rarely due to one person's actions or inactions, but to the decisions of many. The quest to find just one entity to shoulder the blame of what went wrong during the response to Hurricane Katrina was bound to be fruitless and only succeeded in creating more animosity between the public, journalists and the government.

Critics also noted that the reporting of questionable information was not a singluar event—prestigious newspapers reported many inaccuracies and many reporters did it more than once during the coverage of Hurricane Katrina. *The Washington Post, The New York Times, The Times-Picayune, The Seattle Times,* and *The Arizona Daily Star* all reported gross inaccuracies as fact (Garfield, 2007). What the journalists thought were the facts were certainly newsworthy. If there were snipers targeting children, people would certainly want to know. It is no surprise that these papers chose to report this information. When a crisis happens, the public clamors for information. If the media had chosen to not give them the information they believed was accurate because the reporters wanted to wait for the government to verify all statements, hurricane coverage would have probably taken place a few months after the hurricane made landfall. The spreading of misinformation became an international problem. Normally described as straitlaced, the *Financial Times* of London published a report about the Convention Center, saying

that "Girls and boys were raped in the dark and had their throats cut and bodies were stuffed in the kitchens while looters and madmen exchanged fire with weapons they had looted" (Thevenot, 2006, p. 33). While the paucity of communication avenues was unprecedented in this situation, shouldn't the journalists have exercised more care in making sure they simply gave the news to those who needed it, and did not incite more panic in a panic-ridden situation? Or, would a lack of information have bred more hysteria, with people who were struggling to remain calm becoming frantic due to the fact that they could not learn anything about what was going on around them?

Media personnel agreed that there was certainly someone to blame: the government. After all, only some stories reported had come from unsubstantiated sources, like victims of the storm. Mayor Ralph Nagin of New Orleans had released statements to the media about the suspected crime wave and looting taking place in the city. Television reporters and commentators seemed particularly set on blaming top officials for the misinformation given, and oftentimes, the reporters' cases against the government officials appeared quite convincing. In one infamous example, an interview with the Federal Emergency Management Agency (FEMA) director Michael Brown maintained in a Nightline interview that the government had only learned what existed on day four of the crisis, to which interviewer Ted Koppel asked if anyone in the agency had turned on a television recently (Durham, 2006). Not all journalists and media personnel were keen to jump on the "blame-the-government" bandwagon. One reporter, Brian Thevenot of the New Orleans *Times-Picayune*, explained much of what the media experienced in a comprehensive article he wrote, explaining exactly where he heard his information, and who he believed was at fault.

Even with all the criticism of journalists and reporters that came in the wake of

Hurricane Katrina, the *Times-Picayune* became a forum that community members

flocked to. Their Web-based bulletin boards became akin to personal ads, with

community members posting information about their loved ones whom they had not yet

been able to contact. The Web site of the *Times-Picayune* was a place where people

dealing with similar circumstances could come together, grieve for their losses, rejoice

for their victories, and connect with others experiencing the same array of emotions.

Even though the *Times-Picayune* was not able to produce a print edition due to the

obvious constraints of its geographic location, the newspaper was able to provide a

service much greater than that, which was giving hope to those able to access its Web

site. The *Times-Picayune* was one of the outlets that did end up publishing false

information, but before criticizing the publication, critics should look at what the

newspaper was able to accomplish during an incredibly trying time.

Thevenot first addressed the myth that there were bodies of murdered victims in

the freezers at the Superdome. He, in fact, had reported this fact in *The Times-Picayune*.

Because he was told by members of the military, Thevenot believed that the soldiers had

indeed seen these bodies (they even specified seeing a 7-year-old girl with her throat cut),

so he ran the story and quoted the soldiers by name. Unfortunately, the information

given to Thevenot by those soldiers turned out to be little more than hearsay. Later, he

was informed that these soldiers had heard the story secondhand in a food line at

Harrah's Casino and that no soldier had seen any such bodies. While this type of mistake

can be extremely embarrassing to a journalist, Thevenot did not blame the source of the

information for the misinformation he reported. Instead he took responsibility for the

information he reported, saying "The soldiers might have branded me a morbid fiend and run me the hell out of there, but my story in the September 6 edition of *the Times-Picayune* would have been right, or at least included a line saying I'd been denied the opportunity to lay eyes on the freezer" (32). Thevenot shouldered the blame and responsibility for his own work, despite the fact that he could have tried to give, or at least share the blame with the soldiers he quoted. Instances like this, when a reporter uses information given to him or her by supposedly trusted sources, leads the public to see media coverage as sensational and disproportionally focused on the horrific (Voorhees, Vick, Perkins, 2007).

Thevenot also shared the experiences of *New York Times* reporter Jim Dwyer, who was assigned to cover the unfolding story of inaccurate media reports. Dwyer said that the reporters dispatched to Houston and Austin, Texas, found plenty of second-hand and third-hand accounts of the violence that had supposedly been so widespread, but no actual witnesses to the events. A basic tenant of journalism is to tell the stories of those involved in the event being reported, so finding witnesses is crucial to the success of a story. Think of the "quote-transition-quote-transition" format that news releases often follow, or think of a typical broadcast. The reporter will often write or speak an introduction, give the basic information, and then use the words of other people closer to the situation to tell the rest of the story. Finding witnesses to speak or give quotes about the violence being experienced in the aftermath of Hurricane Katrina would have been a top priority for these reporters. One can only imagine how frustrating it might have been for these reporters to try to find information that they found plausible.

Even if the information had been accurate, newspapers had to spend a great deal of time and energy just to get the information out to the public. Thevenot reported that while getting facts was not an easy task, reporters had the additional problem of trying to find electricity in order to file their stories. His paper, in fact, could not have a print edition at all due to the folooding. Given that the community came to largely use the Web-based operations of the *Times-Picayune* as a bulletin board for communicating with neighbors and loved ones they could not reach, this put additional pressure on the newspaper staff to make sure that the forum stayed available. These additional challenges, Thevenot asserted, jarred the reporters and contributed to the mistakes that were made by the media.

Thevenot also expressed sympathy to the plight of the public officials who made erroneous statements. Thevenot's colleague, Daniel Perlstein, reinforced this idea, saying Mayor Ray Nagin was given reports from sources he deemed credible, and simply shared them. The communication lines of the government were just as compromised as those of the media, and Thevenot believed that the media should have tried to pick up the slack and do more background checking. Thevenot's tone in his article should not be misunderstood as overly blameful of the media for the misinformation, but rather he was trying to spread the blame to all parties involved rather than consolidating it, giving it to a handful of public officials as many of his media counterparts wished to do.

As solid as the practical reasons behind the distribution of misinformation by the media, Thevenot noted that many of the newspapers conducted in-depth investigations as to how they could have published stories with such gross inaccuracies. Considered some of the most prestigious newspapers in the nation, and even the world, these newspapers

were understandably embarrassed that even they were susceptible to a mistake of this magnitude. After the scandals in recent years of certain reporters plagiarizing or reporting purposely fabricated information, many media outlets feel extra pressure to make sure that the public's trust in them is not diminished. *The Times-Picayune, The New York Times, The Los Angeles Times,* and *The Washington Post* all ran similar stories, coming to the conclusion that much of the information reported had proven to be false, because reports simply could not be verified. Much of the information reported was attributed to refugees, police, soldiers, and top public officials.

As careful as Thevenot was to not assign blame to one specific entity, he seemed to take offense to the notion that the media had committed some sort of unforgiveable crime through the reporting of this information. Critics compared the misinformation to the transgressions of Stephen Glass and Jayson Blair, infamous journalists known for completely and partially fabricating stories published in their highly respected publications. In response to that accusation, Thevenot said, "Early Katrina reporting, in which reporters often attributed tales and/or couched stories of violence with qualifiers, isn't even in the same ballpark, much less the same league, as making up stories out of thin air" (34).

An interesting concept to consider in regard to the Hurricane Katrina coverage is the making and perpetuating of disaster myth. Described by Henry Fischer (1998), "The media tends to publish post-impact human interest stories which are based upon victim and local official interviews. The tendency for the media to publish unconfirmed statements made to them by their interviewees who tend to embellish their stories or pass along rumor appears to result in mythology perpetuation in the case of natural disaster

news stories" (p. 43). While this may be true, Fischer fails to offer an alternative. People expect immediate, on-going news coverage. What should reporters fill that time with if they are expected to confirm witness statements before airing or publishing them? While interviewees may tend to embellish their stories, the average person would view eyewitness accounts with the knowledge that people recall scenarios differently, even if they see the same event.

Past Scholarship on Hurricane Katrina

In the three and a half years since the hurricane made landfall, many studies concerning media coverage of Hurricane Katrina have been performed. From the prevalence of race in newspaper photographs to the word-by-word content of each newspaper article, researchers have sought to understand the phenomenon of inaccurate reporting that took place.

Two theoretical references are important to note when examining scholarship related to photographs in newspapers. The first is the concept of gatekeeping, which refers to the ability of a journalist to choose what information is released to the public from the information that is available. The journalist literally decides what passes "through the gate" into public domain. In this sense, the media are often referred to as the "fourth estate of government" because they are so powerful in influencing what others hear and the frame from which they hear it. The other concept to discuss is framing, which refers to the light in which the news is presented. This can include supporting evidence used in articles, information that may be omitted, and the sources that are called upon, all of which can create certain opinions and perceptions among readers.

Gatekeeping is useful in understanding exactly how news frames are created (Fahmy, Kelly, and Kim, 2007). Frames for each news story can be divided into two areas: frames of inclusion and frames of exclusion, which are based on the information that is and is not presented out of the information available to the media. While excluding information from the public's knowledge can sound like an attempt at censorship, this practice has pragmatic roots. Realistically, not all the information available is relevant to a given story, and journalists have a responsibility to try and filter out some of the irrelevant information to make the story more concise. After all, reporters work on deadlines, have specified word allotments for their stories, and have to try to walk a fine line between fully educating a reader and entertaining them long enough to keep their attention. Many cries of the media favoring one viewpoint or another come from objections to gatekeeping practices. It is a tough decision to decide the most important information to share with readers and viewers. After all, what is important to one person may not resonate with another. Most studies in visual framing analyze coverage during times of unrest, such as war (Fahmy, Kelly, and Kim, 2007) and there is no doubt that the average person would classify the aftermath of Hurricane Katrina as a prime example of a time of unrest.

In a study conducted by Voorhees, Vick, and Perkins (2007), 57 percent of respondents reported that they felt like their first-hand experience with Hurricane Katrina was not accurately reflected by the mainstream media storm coverage. This is easily understandable, and the concept of framing explains why many people would not feel a personal connection with the news. Each person may experience the same event, but they see it from their own perspective. They develop their memories from their own reference

points, and naturally, different people will have different perspectives and details that they remember. However, framing was not how the respondents chose to explain the incongruence between their recollection of events and that of media reports. The researchers grouped their responses into three categories. The most common response given by the respondents as to the incongruence was the tendency of the media to sensationalize an event. Other reasons given included the repetitive and endless nature of the coverage, as well as the fact that it would be truly difficult to ever capture an event like this on television. Some things just have to be experienced to be fully understood, they said. In response to these accusations, media personnel responded that they have to choose the stories that would most interest the public. Economically and practically speaking, the media need an audience to exist, or they become obsolete. By running stories that interest members of the public, newspapers and television outlets try to maintain a loyal viewership.

In a study by Barnes, Hanson, Novilla, Meacham, McIntyre, and Ericson (2008), the researchers noted that most front-page articles and editorials assigned the blame for false information being disseminated to all levels of government. Of the 1,590 articles the researchers examined, 40 percent focused on the accountability of government. Other researchers noted that various "frames" were used in stories, the most common being a logical frame followed by an emotional one. This is interesting as the media were criticized for being overly sensational, which would lead one to believe that they had overplayed the emotional coverage and had undercut logical, factual coverage.

One value used to determine newsworthiness is proximity, which means that the closer a certain population is to an event, the more it will probably be covered in the

media. While a tornado that swept through several small towns in Oklahoma might be of interest to the citizens of those towns and possibly in other areas of the state, people living in New York City would not find it a very interesting story. It is often the geographical element that determines proximity, though there are other ways to be "close" to an event. Following with the concept of geographical proximity, one study examined where in the newspaper stories about the hurricane were placed. Out of all the stories in *The Advocate* and *The Times-Picayune*, two prominent Louisiana newspapers, 18 percent of the stories appeared on the front page, while the other 82 percent were placed elsewhere (Barnes, 2008). The same article then examined stories placed in *The New York Times* and *The Washington Post*, two of the four papers recognized as best in the country and found that 13 percent of the stories on the hurricane appeared on the front page, while 87 percent appeared elsewhere. The article also reported that 823 articles were published by the Louisiana papers while the national papers examined published 767 articles. In the broad scheme of analysis, these discrepancies were slight, and this study showed that the hurricane got nearly as much attention nationally as it did locally. The element of proximity did not seem to affect the perceived newsworthiness of the story. The magnitude of Hurricane Katrina was unprecedented in recent history, and affected a very large group of people, and the exceptional circumstances of the situation would have made the story newsworthy without the element of proximity.

Due to the dubious nature of much published material, the media put themselves in a place where the public trust in the information they provided was diminished. The lax nature of the coverage during this natural disaster could mean that any subsequent media coverage of hurricanes would be subject to much harsher scrutiny. Little did

anyone suspect that just a little more than three years later, media critics would be able to have a comparison point when Hurricane Ike hit the Gulf Coast near Galveston, Texas, leaving much destruction in its wake.

Photography in Newspapers

The old adages "a picture is worth a thousand words" and "seeing is believing" certainly come to mind when looking at the photographs newspapers display. What a writer might take hundreds of words to describe in a news story or opinion piece can be communicated in a single photo. Photographs are innately powerful in that they can elicit so many different emotions from those viewing them. While words and photographs each hold their own power, newspapers seek to effectively combine the two, to draw readers in and then educate them about the issue or story at hand. Past research has shown that the first thing that a viewer will look at on a newspaper page is a photograph (Garcia, 1987) and that photographs effectively draw readers to the adjoining stories (Stone, 1987). Garry, Strange, Bernstein and Kinzett (2007) reaffirm this supposition, saying that photographs are usually chosen for the express purpose of drawing readers to the story. These two elements show exactly how crucial photographs are to maintaining an interested readership. From these past studies, it's reasonable to conclude that size of the picture does matter, as the photograph is meant to attract immediate attention, and that the content featured in the photograph is equally as important as it is meant to attract readers to actually read the story text.

Newspapers have long been fighting the trend of declining subscriptions. More people simply choose to watch television or get news from the Internet. This could be due to the fact that television instantly gratifies them with the information they need

quickly, and they have to spend less time searching for the material. The other aspect of the rise in television as a news source is that it is incredibly visual. Reporters are often deployed to the scene of an incident to report live because it gives the viewer a better visual than an anchor sitting in a studio reporting what has taken place. For instance, when Pope John Paul II was on his deathbed, hoards of reporters and television crews camped outside the Vatican with their lenses zoomed in on the outside of the Pope's apartment window. Was there any action going on? No. Did the picture tell the viewers anything that the news anchor couldn't have told them from the studio? No. What reporting live from the Vatican did do is make the viewers feel like they were part of the action, like they were experiencing it with the rest of those physically present. The same can be said for the common occurrence of live reporting outside of a courthouse hours after a verdict has already been passed down. News anchors need a background in order to create a visual, which is similar to how newspapers utilize photographs. Piotrowski and Armstrong (1998) note that "the fact that individuals rely on television viewing to obtain news during a natural disaster is based largely on the public's preference for visual imagery and heightened dramatic impact referred to as the 'vividness' effect" (344). This vividness effect that the researchers describe explains nearly every instance of live reporting. The vividness effect can also be tied to the reference earlier that eyewitnesses often exaggerate their stories when relaying them to the media. Those watching news reports are looking for shocking mental images, and those giving their stories may feel the need to describe more than what they actually saw in order to achieve this effect.

Much research has been done about whether photographs have the potential to influence the comprehension of issues and the opinions of the people that view the

photographs. Garry, Strange, Bernstein, and Kinzett (2007) quoted a Gallup Poll

spokesman in their article, who said that while story text "can leave people unmoved, a

photo has tremendous impact, because it is evidence" (995). This is the crucial point

between eyewitness and photographic accounts: the photograph is physical proof that a

specific moment in time has occurred. Unfortunately, many people interpret the literal

snapshot of that moment as a representation of the overall situation, which is not

necessarily the case. Kahle, Yu, and Whiteside (2007) suggest that while news

photographs physically only provide a snapshot of an event, their presence helps to

facilitate mental storage of an event. They also assert that the imagery provided by such

photographs is extremely subjective, and the choice of photographs to display in a

newspaper can lead "to false assumptions and conclusions about the group being

portrayed" (76). This idea leads back to the theories of gatekeeping and framing.

Whether consciously or not, each photograph chosen to run in a newspaper conveys a

certain feeling or emotion that attracted the decision-maker. This injection of personal

opinion into the decision-making process is unavoidable, since there is not an effective

method for trying to make the process neutral. Furthermore, newspapers may not wish to

have the process be neutral. In the fight to maintain readership, newspapers know that

they have to appeal to what attracts most audience members. Most readers want to see

human emotion, to feel and experience what they read and see. Newspapers might view

the humanity of their decision makers as an attribute, not a detriment.

　　　　Three past studies on the effects of photographs were particularly intriguing. In a

non-hurricane-related study, researchers Griffin and Lee (2002) analyzed images in three

major news magazines having to do with the war on terrorism. They found that the

images created frames for the events that agreed with the government's stance on the war, which created a sort of symbolic façade rather than providing broad coverage. So, even though whatever is portrayed in the photograph may in fact be a real image, it does not necessarily convey the whole picture and can have an angle. The viewer will not necessarily get the whole picture just by looking at one photograph. This is particularly important in application to the coverage of Hurricane Katrina. Many of the photographs available portrayed the rescuers as being Caucasian and the victims as being black. This infuriated many who insinuated that the media were trying to victimize the black population of New Orleans and give all the credit for aid to the Caucasian population. With how important political correctness is to the United States, it is hard to believe that the media would have consciously made that decision. It's much more likely that the more desirable, better quality photographs happened to feature that ethnic breakdown, but it is a moot point. Perception is what matters, and the perception by many was that the media unfairly portrayed a substantial population that had been marginalized over and over again throughout history.

The second study by researchers Harp and Mayer (1997) looked at how photographs can either add to or take away from understanding the text. They had students read scientific prose, some text with only relevant illustrations and some text with both relevant and irrelevant information. The students who read the text with both types of illustration showed less understanding than those who had seen just the relevant illustrations. Garry, Strange, Bernstein and Kinzett (2007) concluded that the photograph would actually have to enhance the text to improve recall, but may diminish recall if a photo is simply placed for decorative or space-filling purposes. In reference to the media

coverage of Hurricane Katrina, this would be an important thing to note because the photographs may not have necessarily correlated to the content of the story they accompanied. If the photograph is meant to draw the reader to the story, shouldn't the text of the story be describing the same scenario seen in the photograph? It would be misleading the reader to position a photograph next to a story and have the content be from entirely different angles.

Lastly, Zillman, Gibson, and Sargent (1999) examined the effects of news photographs on issue perception and found that if a photograph is partial to one angle of an issue, the viewer's perceptions were also distorted in the same direction. For instance, if the only photographs that a person saw dealing with Hurricane Katrina were those of aid workers dispensing food, water, and other supplies, one might conclude that aid was readily available in the area, and everyone was able to take advantage of the assistance. Another example would be if a person only saw pictures of Iraqi citizens waving at troops and carrying American flags, they might assume that all of the Iraqis were glad to have the United States Armed Forces in their country. The power of suggestion is very real in relation to photographs newspapers choose to run. Touting the principle of neutrality in newspapers, publications in the United States have an ethical duty to try their hardest to make sure that the reader has the opportunity and the information to make up their own minds about an issue, and to not have the newspapers lead them subconsciously in another direction.

Story text was not the only issue that readers and viewers had with the media coverage of Hurricane Katrina. Many reacted vehemently to how blacks were portrayed in the photographs printed in newspapers. Many studies have since discussed how blacks

were always shown as the victims in the photos while Anglos were shown as the rescuers

or those coming to the aid of the victims. The public felt that it reinforced negative

stereotypes of the black population. The following case study, described by Kahle, Yu

and Whiteside (2007) described perfectly one of the scenarios that people objected to:

> Shortly after the devastating hurricane hit, two press services moved two very
> similar photos on the wire. Both photos showed people wading through chest-
> high water carrying food and belongings. The first photo, taken by an Associated
> Press photographer, showed an African-American male while the other photo,
> taken by a photographer shooting for Getty Images and distributed by Agence
> France-Presse, showed two Anglos. The first photo's caption described the
> African-American as looting. The caption for the second photo, however,
> described the two Anglos as looking for food" (76).

This is not to say that those captions were not accurate. Perhaps they were. What

critics became so concerned with was the fact that there were a plethora of instances like

this, and the likelihood would be that all races would have participated in any sort of

crime wave that had been present. This goes right back to the idea of framing, and how

the media can portray a situation in whatever light they see fit. Subconsciously or not,

the staff that chose the photographs to display on the front pages of newspapers did

choose an overwhelming number of photographs that reinforced this negative stereotype.

Critics specifically mentioned the issue they took with the valence of the photos, also

known as the imbedded meaning or reaction elicited from those viewing the photos.

Some might also try to make the argument that there were a very limited number of

photographs to choose from, and that the images in the photographs could not be

interpreted in many ways, but Fahmy, Kelly and Kim's study (2007) found differently.

They asserted that the photographs published on the front pages of newspapers were

framed differently than the photographic offerings of wire services. The study specified

that there was a much greater variety of photographs offered by the wire services for

newspaper use, but newspapers chose just to use a select few of those photographs. The study did not specify, however, the quality of the photographs. It would be a hard thing to judge, but perhaps the photographs that most newspapers tended to gravitate towards were just more dramatic and of a better quality. Aside from the issue of race in the photographs, Fahmy's study also noted that photographs were far more focused on victims and their survival stories in the first week than the text accompanying those articles, which had many more statements made by public officials.

Rationale

The scholarship on the media coverage of Hurricane Katrina is plentiful and easily accessible. There are endless studies about issues with race, incorrect statements, who to blame, and what went wrong in every stage of the disaster. What is lacking, however, is a comparison between two similar storms. Hurricane Ike, which in 2008 hit the Gulf Coast as a Category 3 storm (the same as Katrina) just a few hundred miles away, provides an excellent comparison point. Ike devastated Galveston and crippled much of Houston, the fourth largest city in the country, for days and even weeks in some areas. While not as catastrophic as Hurricane Katrina, Ike inflicted significant damage in many parts of the country. Remnants of the storm moved in a northeast direction, and much of the Midwest and the north experienced flooding due to rains produced by the remnants of Ike. Memorable photos graced the covers of newspapers, such as the photograph of only one house still standing in the midst of the rubble of all the other houses in one coastal region.

Not nearly as many people died as a result of the storm however, and that could lead one to wonder if it was because the media changed their coverage methods or just

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because the public was prepared for the possibility of devastation having been in such close proximity to Katrina just three years earlier. Houston also is home to a lot of minorities as is New Orleans– would the newspapers make sure to use more photographs that showed victims and rescuers of all races? Should this even be a consideration when newspapers choose photographs? If the photograph could reinforce a negative stereotype, does it mean that it no longer has merit? These were all interesting questions that Ike as a comparison point might be able to provide an answer to.

Due to how recently Hurricane Ike made landfall, there is an obvious lack of scholarship about the storm. The length of time it takes for writing, editing and peer-review of articles is longer than the time period available since the storm took place. As far as scholarship is concerned, there are no current studies examining the photographic media coverage of Hurricane Ike, which this study would seek to start. Much more discussion about other types of coverage, and more in-depth studies about photographic coverage will take place in the future, but starting with a comparison point to another deadly storm will provide perspective and perhaps inspire other questions to examine in the future.

With circulation declining and staff cuts being made, are newspapers really relevant and worthy of study? In the research by Piotrowski and Armstrong (1998) who have been cited by many other researchers, the pair found that a third of their sample did read the local newspaper to get information about disasters such as hurricanes. Also, how much would people rely on the media for their information about such a disaster? Garfield (2007) maintained that for most people, the mass media are the primary source of public information. Fahmy also notes that previous gatekeeping research has focused

on newspaper stories, but not photographs, and specifically says that more research is needed on photographic reporting in general, but particular in the area of covering devastation.

Research also shows that newspapers do publish what editors consider the most important information on the front page (Fahmy, Kelly, Kim, 2007), so examining front pages of newspapers should provide a good picture of how important a newspaper deemed coverage of a certain event. Casual observers will notice that in most instances, their eyes will be immediately drawn to one photograph on the page, possibly before they notice any headlines. The researchers used the term "visually dominate" (550) to describe how editors wish for photographs to appear on the front page, so it would be reasonable to assume that the larger a newspaper chooses to make a picture, the more important they wish to make it seem. Having the majority of the picture above the fold of the newspaper would also be important for drawing the reader in as well. Having established that the public is visual, it is important to provide them with photos that they can easily see. When purchasing a newspaper out of a stand, all the reader is usually able to see before buying the paper is the top half of the page. That is why there are usually teasers for inside stories at the top of the page—to give readers a taste of what they might find on the inside. The same is true for photographs placed on the front page. Most of the time, newspapers will try to place the most important photograph as high up as possible in order to get the most people to view it.

<center>*Hypotheses and Research Questions*</center>

Hypothesis One: There will be more photos of Hurricane Katrina featured on the front pages of the newspapers than there will be of Hurricane Ike.

With the number of quality photographs to choose from, detailing both the personal and physical impact of the storm, newspapers probably wanted to showcase more than just one photograph on their front pages.

Hypothesis Two: Photographs of Katrina will take up more area on the front page than photographs of Ike.

Hypothesis Three: Dominant photographs will take up a larger percentage of the front page in Katrina coverage than in Ike coverage.

Because no one had been through a storm of this magnitude in a while, Katrina probably was considered bigger news than the arrival of Ike. Also, Katrina did cause a greater loss of life and destroyed a well-known area of the country. Ike, while leaving terrible destruction, did not cause nearly the number of deaths or widespread suffering that Katrina did, partly because the area of the country was prepared for the consequences of a storm with great magnitude.

Hypothesis Four: More dominant photographs will feature strictly storm damage in Ike than in coverage of Katrina

In an effort to not sensationalize the news as much, and hopefully not receive as much criticism, the media will probably showcase more physical damage in Ike coverage than they did in Katrina. After all, it was the "people" element that so many subjected to in the coverage of Hurricane Katrina, be it the unsubstantiated witness statements or the elements of race in the photographs.

Hypothesis Five: More photographs will display minorities as victims in Katrina coverage than in Ike coverage

Due to the backlash journalists received from the racial implications of their Katrina photographic coverage, it would be reasonable to assume they might try to make it more balanced in another storm. As a general rule, media outlets prefer to report the news, not make the news, so it would be reasonable to assume that they would pay particular attention to any perceptions people might have of their coverage in order to shy away from scrutiny similar to what they received after Hurricane Katrina.

Hypothesis Six: More photographs will display anglos as victims in Ike coverage than in Katrina coverage

Newspapers had several options as to how to avoid more criticism of photographs in subsequent natural disasters. First, they could avoid printing photographs with victims all together (which hypothesis four tests). Secondly, they could make sure that the subjects of their photos were more racially representative. This hypothesis tests if they incorporated that philosophy into choosing photographs for Hurricane Ike newspaper coverage.

Research Question One: What is the most commonly identified source of dominant photographs on the front pages of Hurricane Ike and Hurricane Katrina newspapers?

Research Question Two: Will the placement of photographs on the page differ between the Hurricane Katrina and Hurricane Ike newspapers?

CHAPTER THREE

Methods

The front pages of 131 newspapers were obtained using the online database
available through the Newseum, located in Washington, D.C. The Newseum online
database archives the front pages of newspapers on days of historical significance,
including presidential inaugurations, pivotal days during the war in Iraq, and on days of
natural disasters. The Newseum offered six days of coverage related to Hurricane
Katrina, from the day the storm made landfall (August 30, 2005) through September 4,
2005. For Hurricane Ike, the day the storm made landfall was the only archived day. For
this reason, comparison of coverage was limited to the days that both storms had in
common: the day of landfall.

After excluding the archived international newspaper pages and eliminating
newspapers that the Newseum did not have issues archived for both Hurricane Katrina
and Hurricane Ike, 176 newspapers were available to explore. Each front cover was then
evaluated to see if it displayed at least one photograph of each hurricane. All of the
Hurricane Katrina sample featured photographs, but 45 of the corresponding newspapers
did not feature any photographs of Hurricane Ike. Those 45 newspapers were eliminated
from the sample.

The front pages of each newspaper were coded according to a coding sheet
previously developed to test the hypotheses (see Appendix A). All of the questions dealt
with the photographs featured on the front page of the newspaper. The researcher
defined a "photograph" as an image taken with a camera. Any illustration or other image

on the page was ineligible to be included the coding process. This included satellite images, or any sort of illustration taken from a weather service. The researcher did not come across any combination of graphics and photographs, but she had previously determined that if the photograph was larger than 50 percent of the overall image, it could be included in the sample.

Also excluded from the samples were photographs displaying people filling their vehicles with gasoline or other gasoline paraphernalia. These photographs all appeared to be staged, and they were not hurricane-specific. It would have been impossible for the researcher to determine if the people were acting in preparation for the hurricane, or if they were just going about their daily lives. All of the photographs coded in this study were undeniably hurricane-specific.

The first question the researcher asked was how many photographs having to do with the hurricane were featured on the front page. Every subsequent question the researcher asked had to be answered for each separate photograph. The researcher identified the primary photograph (the one that was the largest on the page), and noted it was the dominant photograph on the coding form. All the other photographs on the page were coded as "secondary" and were noted as such. The researcher then examined the photograph's placement on the page, noting whether it was completely above the fold, majority above the fold, majority below the fold, or completely below the fold. The researcher then measured both the full page and the photograph, calculated the square area of each, and divided the square area of the photograph by the square area of the page to attain the percentage of the page the photograph covered. Lastly, the researcher placed

each photograph in one of four possible thematic categories. Coding protocol was made to ensure that the inter-rater reliability would be above the desired 0.9.

For the coding protocol, four thematic categories in which to place the featured hurricane pictures were thoroughly defined:

- *Preparations beforehand:* these pictures would show any preparations taken before the storm. These might include people leaving town, buying supplies, etc. No violent weather would be in the pictures as the storm would not yet have hit.

- *Storm in action*: these pictures would show the violent weather in progress. This category is reserved exclusively for pictures of the weather only and would not feature any victims. Rescue workers might be present if they were working while the storm was still happening.

- *Victims*: these pictures would show those affected by the hurricane. These might include rescues that take place during the storm, dispensing of aid afterwards, cleaning up afterwards, etc.

- *Aftermath- physical destruction*: these pictures would feature just the physical destruction that the hurricane caused. Pictures of flooded cars, or dismantled houses would fall in this category. People might be present, but they would not be the focus of the picture.

The race of each person in a picture on the front page will also be noted (Anglo or a minority) and if they were portrayed as a victim. The races of those photographed as rescuers were not coded as the most extensive media criticism came from the negative stereotyping of minorities in Hurricane Katrina coverage. It was important to be able to differentiate between a victim, a rescue worker, and a "neutral" person in a photograph.

An example of a neutral person would be someone standing on the street viewing the damage or wading through water to get to his or her car. A victim would have to be someone receiving some sort of aid or very visibly upset in the photograph. The second coder coded 18 sets of newspapers randomly selected from the total sample and differed with the original coder on only one item, making the intercoder reliability .994.

Once the coding was complete, all hypotheses and research questions were subject to various tests of statistical significance, including chi square analysis and paired t-tests.

CHAPTER FOUR

Results

Hypothesis One

There will be more photographs of Hurricane Katrina featured on the front pages of the newspapers than there will be of Hurricane Ike. Overall, there were, in fact, more pictures used of Katrina than there were of Ike. While picture counts ranged from 1 to 5 for photographs of Katrina, with a mean of about 2, for Ike the range was 1 to 3, with a mean of about 1. A paired samples t-test was used to determine if the difference was statistically significant, as is shown in Table 1.

Table 1: Differences between the number of photographs of Katrina and Ike in the same newspapers

Statistical Analysis	Katrina	Ike
Mean	1.9236641	1.366412214
Variance	0.8710511	0.341632413

$p<.001$

As is evident from Table 1, there was a statistically significant difference, even at the relatively stringent $p<.001$ level. Newspapers can indicate prominence by how many photographs they choose to feature of an event on the front page. Space on the front page is at a premium; the newspaper wants to take full advantage of every opportunity to attract readers. So, by placing more photographs on the page and taking up more space, the newspaper tells the reader that this issue is or should be important to them.

Hypothesis Two

Photographs of Katrina will take up more area on the front page than

photographs of Ike. The difference in the means show that photographs of Katrina did, in

fact, take up more area on the front pages of newspapers than Ike did. The largest

percentage of a front page occupied by Katrina photographs was 75.2 percent (*Newsday*)

while the smallest percentage of space occupied by Katrina photographs was 2.56 percent

(*The News Virginian*). The largest percentage occupied by photographs of Ike was 36.99

percent (*Virginian-Pilot*) with the smallest percentage of 0.8 (*The Modesto Bee*). A

paired samples t-test was performed to see if the differences between the percentages

were statistically significant, as shown in Table 2.

Table 2: Differences between the square area of photographs of Katrina and Ike in the same newspapers

Statistical Analysis	Katrina	Ike
Mean	24.323664	14.565191
Variance	94.03007	99.316684
		p<.001

As seen in Table 2, there was a statistically significant difference between the

percentage means at the p<.001 level. While the correlation is not particularly strong at

.26, the t-test results do demonstrate that a greater percentage of space on the front pages

was allotted to photos of Hurricane Katrina rather than Hurricane Ike. Just the same as

the reasoning behind hypothesis one, space on the front page of newspapers is at a

premium, and newspapers want to feature the most visually appealing and attractive

stories possible. By dedicating space to a photograph, they are telling the reader that the

newspaper staff anticipates that the public will find the event depicted to be important.

Hypothesis Three

Dominant photographs will take up a larger percentage of the front page in Katrina coverage than in Ike coverage. Very similar to what was surmised by the researcher in hypothesis two, the analysis of hypothesis three sought to examine square area taken up by just the dominant photographs on the front pages of the newspapers. The researcher chose to look at both the total area used by all photographs and the area used by dominant photographs due to one of the elements of newsworthiness: prominence. The dominant photograph is meant to be the most striking visual representation that the newspaper has on that day. If a newspaper chose to feature a photograph of Hurricane Katrina or Ike as its dominant photograph that would mean that the staff deemed the photograph even more important than the other photographs on the page. Examining just the data in hypothesis two or just the data set of this hypothesis would not have provided as comprehensive of a picture.

Table 3: Differences between the square area of the dominant photographs of Katrina and Ike in the same newspapers

Statistical Analysis	Katrina	Ike
Mean	20.56855	11.35969466
Variance	106.35285	107.9968568

p<.001

As shown in Table 3, the differences between the means were similar to the differences between the means in hypothesis two and were supported at the statistically significant level of p<.001. The variance, however, in this hypothesis was markedly better than that of hypothesis two as the statistical tests used assume equal variances. Therefore, the closer the variances are together, the more accurate the test is deemed. The results of the analysis of this hypothesis have many of the same implications

expanded upon in the hypothesis two section. Newspapers dedicated more dominant

photograph area on the front page to photographs of Katrina than to that of Ike. This

could mean that they considered Katrina more newsworthy than Ike, making a statement

on its importance to society as a whole.

Hypothesis Four

More dominant photographs will feature strictly storm damage in Ike than in

coverage of Katrina. In hypothesis four, the researcher speculated that the media would

shy away from using many photographs of storm victims in the coverage of Hurricane

Ike, preferring to use photographs of storm damage instead. This would perhaps be due

in part to the vehement backlash the media saw from the public after the unfair racial

portrayal of hurricane victims during Katrina coverage. This hypothesis uses the theories

of framing and gatekeeping. Even if no victims were displayed in the photographs, there

were clearly those who faced devastating results from both storms. The lack of

photographs would not mean that those people did not exist, but rather that the media

chose not to tell the public or that the photographs simply were not available due to the

limited access to the area. The lack of victims might also frame the event in a light that

would insinuate that people were less affected by the destruction.

Table 4: Differences between the subject categories (If the photograph featured storm damage or a different topic) of the dominant photographs of Katrina and Ike in the same newspapers

Photo Subject Categories	Other (Ike)	Storm Damage (Ike)	Total (Ike)
Other (Kat)	47	52	99
Storm Damage (Kat)	18	10	28
Total (Kat)	65	62	127

Table 4.1 Chi Square Analysis

Statistical Analysis	Value	Exact Sig. (2 sided)
McNemar Test		.000a
N of Valid Cases	127	

a. Binomial distribution used
p<.01

As seen in Table 4.1, which displays the data set before analysis, there were 52 instances when a newspaper's dominant photograph displayed Storm damage in Ike, but not in Hurricane Katrina. There were only 10 instances when both sets of newspapers displayed storm damage dominantly and only 18 instances when newspapers displayed storm damage in Katrina coverage but not in Ike. The difference was found to be significant at a value of p<.001.

The data showed that the media did choose to feature strictly storm damage more prominently in coverage of Ike than of Katrina. While this could have been attributed to any number of factors, the results of this hypothesis analysis open up the possibility that the editors remembered the backlash from the public after Hurricane Katrina, and chose to avoid any further controversy they could possibly cause by avoiding picturing victims all together. While the researcher cannot be sure of the reasoning behind the decision the editors made to exercise their gatekeeping abilities and display more storm damage in their photographs, these results combined with subsequent analysis may provide a clearer picture of all framing decisions made in regard to front-page photographs of these two storms.

Hypothesis Five

More photographs will display minorities as victims in Katrina coverage than in Ike coverage. With hypothesis five, the researcher seeks to explore the same concept she

introduced in hypothesis four: that the editors made decisions about photographic coverage of Hurricane Ike due to the consequences they faced after their coverage of Hurricane Katrina. Perhaps one of the biggest criticisms the media faced after Katrina was critics implying that the media unfairly portrayed a vast majority of Katrina victims as poor and black. Generally, the media likes to tell the stories, not be in the stories, so it would make sense that editors and producers would do what they could to avoid further criticism and controversy.

Table 5: Differences between the number of dominant photographs displaying minority victims during coverage of Katrina and Ike in the same newspapers

Statistical Analysis	Katrina	Ike
Mean	0.8244275	0.106870229
Variance	0.4535526	0.142337052

$p<.001$

As shown above in Table 5, minorities were displayed in an average of one photograph in coverage of Katrina while they were displayed close to zero times on average in coverage of Ike. The variance is important to note; in Katrina coverage, the number of photographs featuring minorities seemed to vary much more than the number of similar photographs in Ike coverage. This would mean that the Ike data sample consistently featured a very low number of photographs with minorities while the Katrina data set fluctuated more.

The data does indeed show a marked decline in minority victims pictured in photographs between Hurricane Katrina and Ike coverage. This supports the researcher's supposition about making changes in coverage tactics to avoid backlash.

Hypothesis Six

More photographs will display Anglos as victims in Ike coverage than in Katrina coverage. Newspapers had several options as to how to avoid more criticism of photographs in subsequent natural disasters. First, they could avoid printing photographs with victims all together (which the data from hypothesis four examines in a round-about manner). Secondly, they could make sure that the subjects of their photos were more racially representative. The researcher formulated this hypothesis to test if the media incorporated the latter philosophy into choosing photographs for Hurricane Ike newspaper coverage.

Table 6: Differences between the number of dominant photographs displaying Anglo victims during coverage of Katrina and Ike in the same newspapers

Statistical Analysis	Katrina	Ike
Mean	0.160305344	0.290076336
Variance	0.135642983	0.222900763

p<.01

As displayed in Table 6, Ike featured more Anglos on average in photographs of victims than Katrina did and was supported at the statistically significant level of p<.01. This hypothesis had the least significant p-value, which means it had the greatest likelihood of the difference being caused by researcher error. It is still significant as the typical value is usually set at p<.05. These findings further contribute to the overall picture the researcher wished to create by looking at the results from the testing of hypotheses four, five, and six. All the significant results gathered from the analyses of these hypotheses paint a very clear picture that the media did deliberately change their tactics for choosing photographs to publish on the front pages.

It is important to note that for the hypotheses regarding dominant photographs (hypotheses three through six) that the highest mean possible would have been a value of 1 because there was never more than one dominant photograph per front page.

Research Questions

The two research questions that the researcher posed were written as research questions in order to avoid confusion by calling them hypotheses. Hypotheses usually test for differences between two means, but the researcher's initial reaction when thinking about these subject areas was that there probably would be no difference in the choices made between Hurricanes Katrina and Ike.

What is the most commonly identified source of dominant photographs on the front pages of Hurricane Ike and Hurricane Katrina newspapers?
As seen in Table 7 below, the p values are clearly above the .05 level of significance, which is what the researcher predicted. There is no statistical difference between the attribution given to photographs in the Katrina and Ike newspapers, which answers the research question. This means that the newspapers probably did not attribute any of the confusion or misinformation from Hurricane Katrina to the source of the photographs as they continued the same practice during Hurricane Ike.

Table 7: Differences between attribution of photographs

Newspaper Attribution	None (Kat)	Staff Photo (Kat.)	Wire Service (Kat)	Other Newspaper (Kat)	Total
None (Ike)	4	2	38	8	52
Staff Photo (Ike)	0	1	2	1	4
Wire Service (Ike)	2	2	47	10	61
Other Newspaper (Ike)	0	1	9	4	14
Total	6	6	96	23	131

Table 7.1: Chi Square Analysis

Test	Chi Square	Prob>ChiSq
Likelihood Ratio	6.786	0.6594
Pearson	8.128	0.5213

p>.01

Will the placement of photographs on the page differ between the Hurricane Katrina and Hurricane Ike newspapers?

Hurricane Katrina would have been considered important news seeing as how unprepared the area was for a disaster of this magnitude. With the plethora of detailed, heart-wrenching photographs available to be run by newspapers along with the fact that such a large number of people were adversely affected by the hurricane from the very beginning, there would be no conceivable reason to not run a large photograph in a prominent position on the page. Hurricane Ike would have been considered important news regardless of the magnitude of Hurricane Katrina. While some might suspect that the media would be less likely to place an emphasis on Hurricane Ike because of the backlash they received from some of the Hurricane Katrina coverage, Ike left a rather large path of destruction, making the event newsworthy by itself. While Galveston did not have nearly the population size as New Orleans, the several major oil refineries were projected to be in the direct path of Hurricane Ike. If hit, the entire nation would have felt the impact of drastically reduced oil production.

As seen in Table 8, the data showed no significant difference between the placement choices made by editors for both the coverage of Katrina and Ike. Both chose to feature photographs above or mostly above the fold. This could mean several things, but the most likely explanation is that most newspaper layouts try to feature the photograph as high on the page as possible to attract immediate attention. This research

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question showed that editors did not make any sort of layout change between the

coverage of Hurricanes Katrina and Ike.

Table 8: Differences between page placement of photographs

Categories	None (Kat)	(Mostly) Above (Kat)	(Mostly) Below (Kat)	Total
None (Ike)	4	40	8	52
(Mostly) Above (Ike)	2	48	14	64
(Mostly) Below (Ike)	0	13	2	15
Total	6	101	24	131

Table 8.1 Chi Square Analysis

Test	Chi Square	Prob>ChiSq
Likelihood Ratio	3.726	0.4443
Pearson	3.187	0.527

p>.01

CHAPTER FIVE

Discussion

As seen in the results section, the data analysis for every hypothesis indicated statistical significance. The researcher had expected that perhaps some of the hypotheses specifying dominant photographs only would not have been significant because those hypotheses did not take into account all the other places on the page where there might have been photographs used.

Before the results of the hypotheses focusing on the race of the "victims" in the photographs is discussed, it is important to note the racial demographic breakdowns of both New Orleans and Houston. According to the U.S. Census Bureau, the 2000 census reported 135,956 white people living in New Orleans (28.5 percent of the population) and 962,610 living in Houston (44 percent of the population). In New Orleans, there were 325,947 members of the black population (68.4 percent of the total population) and 494,496 living in Houston (22.6 percent of the population). The Hispanic population varied greatly, with only 14,826 living in New Orleans (3.1 percent of the population) and 730,865 living in Houston (33.4 percent of the population).

These demographics are important to note because, if the photographs in Katrina were truly representative of the overall population, then there should have been roughly twice as many photos of black victims than white victims. Instead, there were 21 photographs picturing white victims and 108 picturing black victims. One could make the argument that these photograph numbers could be more representative of the population stuck in New Orleans during Hurricane Katrina if compared to the number of

people of each race living in poverty. However, up until the day of the storm, the story being broadcast by news organizations was that New Orleans had dodged a bullet, and that the worst of the storm would not hit them. Some who probably had the means to get out simply did not have the warning, meaning that there could have been people still in New Orleans that would not be counted in any poverty population.

The results of this study have several implications. In terms of discussion, the researcher groups the first three hypotheses together in an examination of the assigned importance of the photographs. The last three hypotheses are also grouped together in an examination of the media's power of gatekeeping and visual framing.

Hypotheses One, Two, and Three

Hypotheses one, two, and three all examined the issue of prominence. A reader can tell how important a newspaper thinks a certain situation or event is by how it features the photograph of that event on the front page. If the photo takes up a vast majority of the page, the editor clearly thought it was worth the space to print the photograph, making it important. If the photograph occupies less than one square inch, the newspaper probably deemed it fairly unimportant. The issue of area occupied coupled with the number of photographs examined in hypothesis one showed the reader that most newspapers gave a greater emphasis to Hurricane Katrina than they did to Hurricane Ike. Newspapers generally try to publish information that the editors anticipate the public to find interesting, so this would mean that newspapers anticipated that the public would be more interested in Hurricane Katrina than in Hurricane Ike.

Hypotheses Four, Five, and Six

There is no doubt that the media faced a substantial amount of criticism over their photographic representation of victims from Hurricane Katrina. The researcher thought that the media would want to avoid a similar situation with a subsequent hurricane, which is why she hypothesized that more emphasis would be given to white victims in Hurricane Ike (hypothesis six), more would have been given to minorities during Hurricane Katrina (hypothesis five), and more non-victim photographs would be featured in Ike coverage (hypothesis four). All of the hypotheses differences were at a statistically significant level, which means that the hypotheses were supported. The media did make changes in who they chose to feature in the photographs.

Extraneous Factors and Alternative Explanations

Several extraneous factors and alternative explanations for the results need to be explored in order to provide a full picture for what the data analysis really means. As mentioned above, news organizations told the public that New Orleans really had dodged a bullet with Katrina. This shows just how little time, if any, the citizens of New Orleans had to prepare for this ultimately catastrophic storm. Houston, on the other hand, had much warning about the approach of Ike, and had learned another lesson from Hurricane Rita, which approached the Texas Gulf Coast only weeks after Hurricane Katrina devastated Louisiana. While Rita ended up fizzling and not making much of an impact, people in Houston still panicked at the thought of a big storm heading their way in the wake of Katrina, and many tried to evacuate. Houston officials were able to see where the problem areas were, where evacuation routes failed, and the timelines that were needed to make such an evacuation work in the future. They did make the necessary

changes, and the mandatory evacuations that they issued for Galveston as Hurricane Ike approached went much more smoothly. Time and planning was on Houston's side as Ike built up strength and speed, while New Orleans really had neither.

The researcher also chose to only feature information about New Orleans (for Hurricane Katrina) and Houston (for Hurricane Ike) because those were the areas that were photographed on the day of landfall. Technically, Hurricane Ike made landfall in Galveston, Texas, a small island to the southeast of Houston, but the eye of the storm was so large and the island was so flooded that photographs were not taken immediately. For the purpose of this study, demographics were only examined for the areas pictured in the photographs.

Warnings

After the lessons learned from Hurricane Katrina, government officials started planning and communicating with the public earlier, and many people paid more attention to the warnings than they might have otherwise. Even the National Weather Service spiced up its warnings, saying for those in Ike's path, "Persons not heeding evacuation orders in single family one-or-two-story homes will face certain death." In the equivalent warning issued before Hurricane Katrina, the weather service said, "Hurricane Katrina… a most powerful hurricane with unprecedented strength… most of the area will be uninhabitable for weeks…" The severity of the warning for Hurricane Ike was clearly more potent than the one for Katrina. Perhaps that could provide at least part of the explanation for why Hurricane Katrina turned out to be more deadly—there were more people around to be affected.

Geography

Also, consider the geography of the major cities affected by each hurricane. New Orleans suffered a direct hit while Houston did not. Hurricane Ike technically made landfall in Galveston, an island which is located to the southeast of Houston. Since the eye of Hurricane Ike was more than 100 miles wide, the vast majority of Houston still experienced the worst parts of the storm, but not the initial impact. New Orleans received Katrina's entire wrath without any sort of land buffer. Since Galveston is an island, the area was inaccessible for quite some time after the hurricane made landfall, making photographing the situation harder than photographing the aftermath of New Orleans. Because of this difficulty, many of the photographs for Ike coverage were taken of the affected areas in Houston, which were not as severe as the Galveston area.

Other Regional Stories

Another factor to take into consideration is other national news stories that seem to monopolize much of the photographs on the front pages of newspapers. This was particularly noticeable during Hurricane Ike. A commuter train had crashed in California, killing many people, so many of the West Coast newspapers devoted their dominant photographs to pictures of the train wreck. The Midwest was being deluged by a storm, and Illinois and Ohio were already experiencing severe flooding, so much of their news coverage was concerned with that. This goes back to the idea of newsworthiness—Ike had not caused the loss of life that Katrina had, people were forewarned about the storm's potential, and stories with a closer regional proximity took precedence over coverage of Ike.

Iconic Photographs

As one of the research questions indicated, most newspapers used photos from the wire service, which meant that there was much repetition of photographs throughout the sample size. One photograph in particular was used quite frequently in Hurricane Katrina coverage. It showed approximately 21 people carrying belongings over their head, trying to make their way down a street in New Orleans through neck-deep waters. Two photographs were often used in coverage of Ike. The first was of the JP Morgan Chase building in downtown Houston, which was pictured with all of its windows shattered. The second was of people walking between overturned cars and other debris strewn across Interstate 45. Notice that the iconic photographs in Katrina were largely of victims, while those in Ike coverage were mainly of the physical destruction caused by the storm. This fits with the findings that coverage of Ike shifted to publishing photographs of mainly physical storm damage.

Limitations of the Study

Some limitations of this study include the sample and the researcher's narrow definition of "photograph." The sample was obtained from the Newseum online archives. However, that archive is not all-encompassing, and it is likely that some newspapers that did have front-page photographic coverage of the hurricanes were not catalogued on the archive. As far as the definitions of photographs went, if the researcher had broadened it to "visual elements" and included weather service photographs of the storm or other illustrations, the breakdown of categories might have been different. If the researcher had looked also at the inside pages of the newspapers featuring photographs, the categories and racial breakdowns of the victims might have also changed. If the

researcher had included "visual elements" such as illustrations, there could have been

different results. In the future, researchers could narrow down the sample focus either on

regional or national newspapers and could look at the entirety of the photographic

coverage of the two hurricanes. It would also be interesting to compare the text or even

to analyze the photo captions to see if the tone of the writing differs between coverage of

the two storms.

Also important to note for the purpose of hypotheses two and three (both dealing

with the square area used by photographs on the front page of the newspapers) is the

potentially inconsistent reductions made by the Newseum when they converted the

newspaper front pages into PDFs to store in their database. The researcher physically

measured all page elements after selecting the "fit to print" option given by the computer.

This course of action has the possibility of possibly altering original proportions slightly

and should be taken into account when looking at the results.

APPENDICES

APPENDIX A

Coding Sheet

Hurricane Katrina	**Hurricane Ike**

Hurricane Katrina

- Photograph present?   Y   N
- How many photographs? _____

- Photograph 1:   Dominant   Secondary
  - Placement: A   MA   MB   B
  - Percentage
    LPh _____ x WPh _____ = _____ SAPh
    LF _____ x WF _____ = _____ SAF
    SAPh/SAF_x 100 = _____ %
  - Thematic Category: PB   SA   V   A
    Other: _____
  - Photo Source: S   W   ON

- Photograph 2:   Dominant   Secondary
  - Placement: A   MA   MB   B
  - Percentage
    LPh _____ x WPh _____ = _____ SAPh
    LF _____ x WF _____ = _____ SAF
    SAPh/SAF_x 100 = _____ %
  - Thematic Category: PB   SA   V   A
    Other: _____
  - Photo Source: S   W   ON

- Photograph 3:   Dominant   Secondary
  - Placement: A   MA   MB   B
  - Percentage
    LPh _____ x WPh _____ = _____ SAPh
    LF _____ x WF _____ = _____ SAF
    SAPh/SAF_x 100 = _____ %
  - Thematic Category: PB   SA   V   A
    Other: _____
  - Photo Source: S   W   ON

- Photograph 4:   Dominant   Secondary
  - Placement: A   MA   MB   B
  - Percentage
    LPh _____ x WPh _____ = _____ SAPh
    LF _____ x WF _____ = _____ SAF
    SAPh/SAF_x 100 = _____ %
  - Thematic Category: PB   SA   V   A
    Other: _____
  - Photo Source: S   W   ON

Hurricane Ike

- Photograph present?   Y   N
- How many photographs? _____

- Photograph 1:   Dominant   Secondary
  - Placement: A   MA   MB   B
  - Percentage
    LPh _____ x WPh _____ = _____ SAPh
    LF _____ x WF _____ = _____ SAF
    SAPh/SAF_x 100 = _____ %
  - Thematic Category: PB   SA   V   A
    Other: _____
  - Photo Source: S   W   ON

- Photograph 2:   Dominant   Secondary
  - Placement: A   MA   MB   B
  - Percentage
    LPh _____ x WPh _____ = _____ SAPh
    LF _____ x WF _____ = _____ SAF
    SAPh/SAF_x 100 = _____ %
  - Thematic Category: PB   SA   V   A
    Other: _____
  - Photo Source: S   W   ON

- Photograph 3:   Dominant   Secondary
  - Placement: A   MA   MB   B
  - Percentage
    LPh _____ x WPh _____ = _____ SAPh
    LF _____ x WF _____ = _____ SAF
    SAPh/SAF_x 100 = _____ %
  - Thematic Category: PB   SA   V   A
    Other: _____
  - Photo Source: S   W   ON

- Photograph 4:   Dominant   Secondary
  - Placement: A   MA   MB   B
  - Percentage
    LPh _____ x WPh _____ = _____ SAPh
    LF _____ x WF _____ = _____ SAF
    SAPh/SAF_x 100 = _____ %
  - Thematic Category: PB   SA   V   A
    Other: _____
  - Photo Source: S   W   ON

APPENDIX B

Coding Abbreviations and Protocol

Classification
Dominant: The first photograph the eye is drawn to on the page; usually the largest.
Secondary: Any other photograph that is not the dominant one.

Placement
A: The photograph is entirely above the fold of the newspaper.
MA: Greater than or equal to 50 percent of the photograph is above the fold of
             the newspaper.
MB: More than 50 percent of the photograph is below the fold of the
             newspaper.
B: The photograph is entirely below the fold of the newspaper.

Percentage
LPh: Length of the photograph.
WPh: Width of the photograph.
SAPh: Square area taken up by the photograph.
LF: Lenth of the newspaper front page.
WF: Width of the newspaper front page.
SAF: Square area of the newspaper front page.

Thematic Category
PB: A photograph of any preparations before the storm arrives.
SA: A photograph of the storm in action.
V: Any photograph where the subject is the victim. They may look upset,
             being rescued, etc.
A: A photograph where the subject of the photo is the destruction or other
             aftermath of the hurricane. May have people present, but are not the focus
             of the photograph.

Photo Source
S: Photo credited to a staff member of the newspaper
W: Photo credited to a wire service
ON: Photo credited to a staff member of a different newspaper.

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