News Framing of the 1984 Bhopal Gas Leak in India and the 2010 BP Oil Spill in the Gulf of Mexico:

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This thesis titled

News Framing of the 1984 Bhopal Gas Leak in India and
the 2010 BP Oil Spill in the Gulf of Mexico:


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ABSTRACT

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The methyl isocynate (MIC) gas leak from a U.S. multinational corporation Union Carbide's plant killed an estimated total of 15,000 people and injured tens of thousands in Bhopal, India, on December 3, 1984 (“Indian Court,” 2010). A massive oil spill remained uncontrolled for 86 days due to a rig explosion on April 20, 2010 in the Gulf of Mexico, when British Petroleum was the operator and principal developer of the oil drilling platform. Both events caused by multinational corporations were defined as disasters (Gillis, 2010). This study, guided through the theoretical perspectives of news framing and nationalism, examined how The New York Times and The Washington Post framed the two events. It also examined how the news coverage of the two events differed in responsibility attribution, source usage, and headline tone. Through a content analysis, 89 stories of the Bhopal gas leak from December 3, 1984 to May 4, 1985 and 296 stories of the BP oil spill from April 20, 2010 to September 21, 2010 were examined. Findings indicated that the frame for the first event de-emphasized the perpetrating party and emphasized the causal exploration when the wrongdoer was a U.S.-based corporation. On the contrary, the second frame focused on the rescuing efforts and
disaster aftermath while attributing clear responsibility to BP when the U.S. national interest was affected. The results supported and furthered earlier research that a close tie between news framing and nationalism does exist.

Approved: ________________________________

Hong Cheng

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CHAPTER ONE: INTRODUCTION

The Bhopal disaster killed an estimated 15,000 people and injured tens of thousands after a cloud of 40 tons of deadly gases--methyl isocynate (MIC) exploded from a faulty tank in a pesticide plant and spread into the air in Bhopal, India on the morning of December 3, 1984 (“Indian Court,” 2010). Associated Press editors ranked it as the second biggest news event of 1984 (Wilkins, 1987). The pesticide plant in Bhopal operated as a subsidiary owned by Union Carbide based in Danbury, Connecticut, caused what some consider the worst industrial disaster in history (“Greenpeace,” 2011). On April 20, 2010, the oil rig Deepwater Horizon exploded and sank after burning for about 36 hours, and started a massive ongoing oil spill in the Gulf of Mexico. As the operator and principal developer of the Macondo Prospect where the Deepwater Horizon was drilling when the explosion happened, British Petroleum (BP) is defined as the responsible party accountable for all cleanups and other damage (“Macondo,” 2010). The Deepwater Horizon oil spill or the BP oil spill is also considered as a major industrial or environmental disaster in history. By examining the difference between media records of the two major similar disasters in history, this study will shed light to how media presented big disastrous events in human history and how media tried to influence the public.

The worst industrial disaster in history happened in an Indian plant operated by Union Carbide India Ltd., owned by Union Carbide of the United States; the worst environmental disaster was caused by a drilling platform working for the British
Petroleum (BP) (Gillis, 2010), the United Kingdom’s largest corporation based in London. While President Obama displayed outrage at BP officials over the 11 deaths and the massive oil spill, it reminds people of the way Union Carbide and U.S. handled the Bhopal disaster. “US is treating the oil spill, called the worst environmental disaster in a radically different way than they treated the explosion of a US-owned pesticide plant in Bhopal India, which some called the worst industrial disaster in history” (Quigley & Tuscano, 2010). The United States has refused to extradite the chair of Union Carbide Warren Anderson to face charges for the Bhopal disaster and Dow Chemical, which took over Union Carbide in February 2001, is blurring its responsibility (Quigley & Tuscano, 2010).

Across the two similar events, the multinational corporations involved and U.S. federal government displayed different standpoints and solutions. As either the U.S. corporation or the U.S. government was involved in both events, it was thus important to examine the media coverage of both events when national interest was involved in both of them. As Shoemaker and Reese (1996) pointed out, “news is a social product, not merely a reflection of an objective reality” (p. 21). Furthermore, Entman (2004) asserts that the absolutely different frames that the media creates when covering events hardly have anything to do with the inherent reality of the events themselves. During news processing, at least five factors may potentially influence how journalists frame a given issue: social norms and values, organizational pressures and constraints, pressures of interest groups, journalistic routines, and ideological or political orientations of
journalists (Shoemaker & Reese, 1996; Tuchman, 1978).

Because mass media play a significant role in informing the public, it is important to analyze how U.S. media presented these two events to their audience, and also examine whether there were different media narratives of the two similar events. Informed by framing theory and press nationalism, this study compared the news coverage of the Bhopal disaster in 1984 with the BP oil spill to compare how U.S. media framed the two disasters.
CHAPTER TWO: RELATED STUDIES

Framing

Mass media have a strong impact on their audiences by constructing social reality—“by framing images of reality … in a predictable and patterned way” (McQuail, 1994, p. 331). The media frames play a role in affecting the way the audience understand social reality; however, media effects are limited by the interaction of texts and receivers (Entman, 1993).

Entman (1993) holds that framing comprises two essential elements: selection and salience/highlighting, with highlighted elements to construct an argument about problems and their causation, evaluation, and/or solution. “To frame is to select some aspects of a perceived reality and make them more salient in a communication text, in such a way as to promote a particular problem definition, causal interpretation, moral evaluation, and/or treatment recommendation for the item described” (Entman, 1993, p. 52). In other words, frames of issues usually try to define problems, locate causes, make moral judgments, and suggest remedies for those problems.

Also, frames can be composed as two types: media frames and audience frames (Scheufele, 1999). This study analyzed media frames rather than audience frames. According to Tuchman (1978), “[t]he news frame organizes everyday reality and the news frame is part and parcel of everyday reality… (It) is an essential feature of news” (p. 193). Similarly, Gamson and Modigliani (1987) defined a media frame as "a central organizing idea or story line that provides meaning to an unfolding strip of events" (p. 5).
Entman (1991) differentiated media frames as "attributes of the news itself" (p. 7); consistent with what he defined as the concept of framing.

On the other hand, the audience frame is distinguished as "internal structures of the mind" (Kinder & Sanders, 1990), "information-processing schemata" of individuals (Entman, 1991), which guides individuals to interpret and process information. Audience frames "operate as non-hierarchical categories that serve as forms of major headings into which any future news content can be filed" (McLeod, Kosicki, Pan, & Allen, 1987, p. 10). Both media frames and audience frames serve as "the bridge between… larger social and cultural realms and everyday understandings of social interaction" (Friedland & Zhong, 1996, p. 13), and both can downplay or highlight some facets of a news context between the reporters and audience. When it comes to studies on both frames, researchers categorize media frames and audience frames either as dependent variables or independent variables (Scheufele, 1999), and analyze the factors influencing frames and factors influenced. This study focused on media frames and examined how U.S. media portrayed the Bhopal gas leak and the BP oil spill, and determined what frames that journalists used in their coverage.

Furthering the media frame and audience frame categorization, other researchers have classified media frame by its function, either "episodic" or "thematic" (Iyengar, 1991). Iyengar (1991) examined on how the “episodic” nature of media reporting and the “thematic” ones on most issues affect attributions of responsibility: the episodic form, also the more common one, tends to depict public issues by case study or event-oriented
approach with concrete instances; the thematic form emphasizes general outcomes and statistical evidence. Gross (2008) argued that episodic frames tend to get viewers "emotionally engaged" by centering on a specific event. Iyengar (1991) holds that a key to news framing is determining who is deemed responsible for the action of the story. He suggests people tend to attribute responsibility to individuals rather than institutions or broad societal forces when exposed to some specific frames served by the media, and hold society accountable for some general frames or obvious phenomena. This study examined what kind of frames were used in the BP oil spill and Bhopal gas leak, and looked into how responsibility was attributed within those frames in both events.

**Framing Theory and Mass Media Communication**

Harold Lasswell (1948) identified three important functions that media communication serves in our society: the surveillance of the environment, the correlation of parts of society in responding to the environment, and the transmission of social heritage from one generation to another. Moreover, Wright (1986) added an entertainment function to the above three. But media communication is not merely a reflection of social reality or social heritage; the mass media serves the society with information as well as provides frames to the audience. As Shoemaker and Reese proposed, media are both a manifestation of culture and a source of culture, with culture here indicating social reality. That is, media content is a socially created product rather than a reflection of an objective reality. "[M]edia content takes elements of culture, magnifies them, frames them, and feeds them back to an audience. Media impose their
logic in creating a symbolic environment” (Shoemaker & Reese, 1996, p. 60).

Similarly, Gamson (1992) depicted mass media as a system "in which active agents with specific purposes are constantly engaged in a process of supplying meaning” (p. xi). Media’s role of gate keeping, official sources, and the beat system or pack journalism work together in producing acceptable media content delivered to audience (Shoemaker & Reese, 1996). Simply put, media contents are mediated and framed by mass media in a systematic way and delivered to inform the mass audience of social reality.

There are also several scholarly elaborations that place "frame" in a broader field of communication. For example, Goffman (1974) defined “frame” in an extensive scope that underlies anything we do, and members of different organizations have different primary topics to “locate, perceive, identify, and label” concrete occurrences (p. 21). That is, frames are to help people make sense of the information around them. To Goffman (1974), there are two broad classes of primary topics: natural and social. Natural frameworks describe purely physical occurrences, like weather reports (p. 22). “Social frameworks provide background understanding for events that incorporate the will, aim, and controlling effort of an intelligence, a live agency, the chief one being the human being” (Goffman, 1974, p. 22). Apparently, what should be the main focus in research are the social frameworks, especially media frames.

Under a certain communication system, some media frames will prevail in interpreting the world to the public, so it is necessary to have a look into how the
prevailing media frames are produced. Entman (2004) formulated a theoretical model of cascading activation to explain how ideas supporting a frame cascade down each level of the system to the public: the administration, other elites, news organizations, the media content, and the public opinion resting at the bottom (p. 9). Applying the cascade model to explain how the media frame events, Entman (2004) uses the contrasting news frames for KAL and Iran Air as an example. Consistent with the U.S. government’s foreign policy and elite sources’ standpoints at the time, “the frame of KAL identified the problematic event as murder and the cause as the Soviet government. This produced harsh moral condemnation and the remedy of heightened diplomatic and military opposition to the Soviets” (Entman, 2004, p. 29). For the Iran Air event, however, the frame defined the problem “as a tragic accident, the cause as human and technological fallibility” (Entman, 2004, p. 29), thus making the question of morality irrelevant and only promoting changes in operating procedures as the solution.

Besides the cascading model for the production of prevailing news frames, there are other perspectives provided by researchers such as the propaganda model. Herman and Chomsky (1988) made a series of comparative analyses of mass media’s coverage of similar events, such as Takin Jerzy Popieluszko, a Polish priest murdered by the Polish police in 1984, and priests in another five cases murdered within U.S. ally countries (Herman & Chomsky, 1988). Popieluszko was humanized by the mass media with detailed physical characteristics and personality, and news coverage called for justice and searched for responsibility for his murder (Herman & Chomsky, 1988). On the other
hand, the coverage of unworthy victims was “low-keyed, designed to keep the lid on emotions and evoking regretful and philosophical generalities on the omnipresence of violence and the inherent tragedy of human life” (Herman & Chomsky, 1988, p. 39).

In this thesis, the difference between the prevailing frames of the two events delivered to the public by the media was examined. Based on Entman's (1991) content analysis of news frames and earlier framing research, this study focused on how two *The New York Times* and *The Washington Post* framed two similar events. Comparing the prevailing frames by two elite national newspapers could suggest a distinct picture of media narratives.

**Research on Media Coverage of Disasters**

The two events on which this study focuses are two major disasters: the Bhopal gas leak in 1984 and the BP oil spill in 2010. According to Fritz (1961), a disaster is "an event, concentrated in time and space, in which a society or a relatively self-sufficient subdivision of a society undergoes severe damage and incurs such losses to its members and physical appurtenances that the social structure is disrupted" (p. 655). News coverage of disasters attracts a considerable audience, "grips people's imagination, heightens the sense of importance of human action, and facilitates emotional identification" (Dynes, 1970, p. 90).

Considerable research on how media cover such disasters as oil spill, toxic gas leak, or nuclear radiation has been done. Daley and O'Neill (1991) found that the dominant frame of the Exxon Valdez oil spill by news media drew the public's attention
away from corporate responsibility and the issue of whether systematic problems exist in the oil industry and toward the abnormality of the specific event, though the Exxon Valdez oil spill "raised politically sensitive questions about the environment, national energy policies, and the roles of multinational corporations in environmental/energy matters" (Daley & O'Neill, 1991, p. 42). Just as Tuchman (1978) holds, reporters often symbolically represent reality as the product of forces outside human control; in other words, for the sake of the ruling coalition's political and economic interests, journalistic practice shaped the accident as abnormal and deflected public attention away from production-driven systemic problems or corporate responsibility (pp. 213-214). Similarly, Farrell and Goodnight (1981) found media tend to advance the power of technical reason over social concerns in general and nuclear power in particular after the Three Mile Island nuclear power accident. Luke (1987) examined how the East and West framed an episode of high-tech disaster and assigned appropriate meanings to Chernobyl. Superpower states such as the U.S. and the Soviet Union at that time naturalized the tremendous nuclear disaster to maintain nuclear support.

Based on framing theory and framing-related disaster research, this study looked for the prevailing frames in the two events. To ascertain the specific frame served by the media in each of the events, different elements supporting frames had to be examined. Besides the responsibility attribution and the primary topic, source usage in the news coverage is another factor that has to be considered.

Source Usage. As determined in earlier research, news sources influencing the
selection of the news topic and content is part of the framing process (Berkowitz & Beach, 1993). Goffman (1974) mentions that quotation marks are “one of the less gentle framing devices available to the press (p. 109).” Reporters choose their sources on several standards such as past suitability, productivity, reliability, authoritativeness, and articulateness, which means reporters tend to use sources that have been proven appropriate, provide enough information, accurate, and easily understood with authority (McLeod & Hertog, 1998). Based on this, governmental official sources are usually the easiest to find. Newspaper coverage of the 1989 Exxon Valdez oil spill in Alaskan waters included a majority of official sources, either from government or the oil industry, which resulted in a media narrative that framed the event as an accident rather than other points of view (Daley & O'Neill, 1991, p. 42).

Quarantelli (1971) characterizes most disaster reportage as presenting an uncritical "command post point of view" (pp. 57-73). In an examination of a national sample of newspapers' coverage of the Santa Barbara oil spill in 1969, Molotch and Lester (1975) found that federal officials and business spokesmen have greater access to news media than conservationists and local officials, which enables them to define the situation for the American public. Among the media coverage, the president of the United States served as the most cited source. From the political economy angle, federal executives and large corporations have routine access to the news-creating process that will be favorable to their interests. "What is covered is the 'official view' of the disaster, and the activity of formal, traditional emergency organizations"(Wenger, 1985, p. 12).
The predominant government and corporation source usage could be explained as “government and corporate sources have the great merit of being recognizable and credible by their status and prestige” (Herman & Chomsky, 1988, p. 19). By selecting and highlighting these sources that media have an easier access to, news are also framed from their standpoints. Media can reduce investigative expense by using credible sources from government and corporations, and may avoid potential “criticisms of bias and the threat of libel suits” (Herman & Chomsky, 1988, p. 19). Actually the large business entities that subsidize the media will turn “‘routine’ news sources and have privileged access to the gates” (Herman & Chomsky, 1988, p. 22). In this way, these sources can manipulate the mass media to follow a specific agenda and framework by providing mass media routine news (Herman & Chomsky, 1988, p. 23). In addition to these two types of sources, there are expert sources, and highly respectable sources like experts are said to change government and business giants’ agenda in shaping media, but the objectivity of experts’ sources may be “skewed” for government and corporations’ sake through being funded by them (Herman & Chomsky, 1988, p. 23).

From the above literature, it is evident that prior researchers have done a great deal in terms of whether the media transform a specific social or historical event into a tale of natural or technological inevitability. However, it is unclear that when a major disaster was caused by multi-national corporations in other countries (such as the Bhopal gas leak) or on the U.S. territory by international corporations from other countries (as was the oil spill in the U.S. caused by the U.K.-based BP), how media would frame them.
Is there any significant difference when covering both disasters? This study examined such media coverage when the United States was put into contrary roles in two similar events.

**Tone of Headline.** So, apart from the variables such as primary topic, responsibility attribution, and source usage to determine the prevailing frame in each of the event, another factor, the headline tone of the news stories, may bolster the framing studies, which can be classified as emotional or non-emotional. As Entman (1991) determined, the way in which headlines depicted different agencies could bolster respective frames. So, this thesis is also intended to shed light on how the news stories appeal to the audience's feelings with different tones, through an examination of their headlines.

Earlier research on detecting news contents' tone provided a useful tool for this study: Bennett (1980) defines two types of symbols to decide whether words appeal to audience's emotions or not.

“[r]eferential symbols are economical, concrete, and not prone to attract emotional baggage. They are made in specific and precise terms. Condensational symbols, on the other hand, appear in abstract contexts that are often ambiguous or have powerful emotional concerns for the audience.” (Bennett, 1980, p. 256)

For example, a headline such as “Gas Leak in India Kills at Least 410 in City of Bhopal” states the fact in concrete language and therefore employs a referential symbol. On the other hand, “Cold, Dark and Teeming with Life” is an example of a
condensational symbol. Here, such terms as “cold,” “dark” and “teeming with” are ambiguous. Bennett (1980) found that words appealing to people's emotions could affect people's understanding and perception of a certain thing and even change the nature of that thing. Wang (1992) also argues that how news events that are symbolized influence the public's reactions to these events. So, this study was also designed to detect whether news articles' headline tones were emotional or non-emotional.

Lastly, the placement and number of words of each article were also examined in order to determine the perceived importance attributed by the two newspapers to the two events. Borrowing studies on agenda-setting: the newspaper articles’ placement and amount of coverage are the exemplary indicators of importance placed by the media (McCombs & Shaw, 1972). Longer, front-page stories are commonly assumed to be more important than shorter, inside stories. Therefore, readers perceive stories to be more important from front-page news placement than from placement on other pages (Shaw & McCombs, 1977). Relying on agenda-setting findings, this study also took the minor findings of placement of the story and words of stories into consideration.

In short, based on the framing theory and earlier research, major variables of framing, such as article topic, responsibility attribution, source usage, headline tone, were examined in this study to determine the prevailing frames in the news coverage of the two events. Also, placement of the story and words of stories were also examined as minor findings.
Researchers have identified many factors that influence the selection and creation of news frames, arguing that news content is dependent on political, social, ideological, or socio-psychological influences (Gans, 1979; Herman & Chomsky, 1988; Shoemaker & Reese, 1996). Among those factors, Yang (2003) asserts that national interest is a variable that could influence the framing process, especially in the international news-framing process. Similarly, Rachlin (1988) concluded that the meaning of world events is colored by the host country's national interests, as well as political and cultural perspectives. Furthermore, Henry (1981) has stated that ultimately journalism is related to patriotism, and in a time of crisis, reporters could all become nationalists.

According to Nye (1999), national interests are the fundamental building blocks in any discussion of policy— they are "a set of shared priorities regarding relation with the rest of the world" (p. 25). Brands (1999) furthers the definition as a "concept of an overriding common good transcending the specific interests of parties, factions, and other entities smaller than the nation as a whole" (p. 239). According to the concept of national interest and the determined relationship between national interest and news framing in earlier studies, media also uses national interest as another vital filter in producing international news besides the intrinsic media practice of selection and highlighting to create frames. Especially in producing influential world news, journalists present media narratives by either emphasizing or downplaying some facets of news on the basis of their own country's interest.

Previous research provided numerous examples of how national interest played a
powerful role in news framing. Two famous examples are the Soviet Union's downing of Korean Airline Flight 007 and the U.S downing of Iran Air Flight 665 incidents. The same U.S media held different attitudes and contrasting frames toward similar issues (Entman, 1991, 2004). Also, in a study of U.S. and Japanese coverage of a Chinese student movement, Lee and Yang (1995) reported that national interest serves as an important factor in filtering international news to the audience.

Likewise, Barranco, and Shyles (1988) observed that The New York Times' Middle East news mentioned Israel twice as many times as any other single Arab country in 1976 and 1984 except Lebanon, which was in a civil war then. They argued the unbalanced amount of coverage of Israel was due to its ally relationship with the United States which shared a similar ideology. What's more, based on the news frames of the NATO air strike on Kosovo across countries, Yang (2003) argued that national interest has a considerable influence on media frames, especially in international news reportage, "by transcending partisan rifts, factional differences and gaps between groups, national interest unites all the people under one flag including news organizations" (p. 247) and national interest often outweighs other factors to play an active role in framing media contents.

Herman and Chomsky apply a political economy approach to analyzing media coverage, which also reveals “a systematic and highly political dichotomization based on serviceability to important domestic power interests” (p. 35). During the U.S. media’s coverage of elections in El Salvador, Guatemala, and Nicaragua, framed by the media
coverage, “Guatemala and El Salvador were ‘new democracies’ with ‘elected presidents.’ Nicaragua, in contrast, is a Marxist-Leninist dictatorship that does not have an ‘elected president’ and would never permit elections unless compelled to do so by U.S. force” (Herman & Chomsky, 1988, p. 141). As Herman and Chomsky concluded (1988), such news frames with a propaganda goal would follow the state perspective and agenda. That is, “the favored elections will be found to legitimize, no matter what the facts; the disfavored election will be found deficient, farcical, and failing to legitimize—again, irrespective of facts” (p. 88). News framing with a propaganda goal itself is based on state interests during international relationships with other countries.

Also, Herman and Chomsky (1988) analyzed media’s frames of the pope's shooting in 1981 via a KGB-Bulgarian plot (p. 143). In this cold war era, the dominant U.S. media framed it as a Soviet Union-related assassination to weaken NATO (p. 146). Despite a lack of close examination and convincing evidence, the U.S media coverage turned out to be totally “a U.S. government view” with biased sources and disinformation as “news” (p. 167). On May 13, 1981, Mehmet Ali Agca, a Turkish rightist and assassin associated with the Gray Wolves, an affiliate of the extreme right-wing Nationalist Action party, shot and wounded Pope John Paul II in St. Peter's Square. At that time, anti-communism was a centerpiece in the West. In July 1979, a large Western political and media contingent including George Will, Claire Sterling, and Robert Moss, attended the first meeting of the Jonathan Institute in Jerusalem. The main theme emphasized by Israeli Prime Minister Menahem Begin in his opening address, echoed by many others at
the conference, was the importance and urgency of controlling the terrorism issue and of tying terrorism to the Soviet Union (p. 145). In particular, Clarié Sterling's journalistic reporting of Soviet bloc involvement in international terrorism and the attempted assassination of Pope John Paul II was politically influential in the Reagan administration ("Clarié Sterling," 1995).

Moreover, some seeming links between Agca and Bulgarians existed, like Agca had stayed for some time in Bulgaria, and the Gray Wolves participated in the drug trade in Bulgaria were adopted by U.S. media for their frames of this shooting. Furthermore, CIA officer Paul Henze and Clarié Sterling furthered the investigation of the topic, with Sterling's September 1982 article in the Reader's Digest, titled "The plot to kill the Pope," and on a NBC-TV program, called "The man who shot the Pope—A study in terrorism," embodying Paul Henze's ideas and aired on September 21, 1982 (p. 145).

Driven by Western interests to tie the Soviet Union to international terrorism, the conviction of Agca as an agent of the Bulgarians (and, indirectly, of the Soviet Union) quickly became the dominant frame of the mass media (p. 146). Mass media in Herman and Chomsky (1988)'s examples, such as Newsweek, Time, The New York Times, and CBS News, all accepted and used this conviction from the beginning to the end of the Rome trial in March 1986. Based on biased evidence and national interest, mass media did not express alternative frames and also refused to examine the premises, logic, or evidence supporting this conviction. This shooting was used by the Reagan Administration to seek support of increasing planned arms, placement of new missiles in
Europe, and interventionist policies in the Third World (p. 145). “The trial in Rome was awkward for the Western media, as Agca quickly declared himself to be Jesus and, more important, failed to produce any supportive evidence backing up his claims of Bulgarian involvement” (p. 166). The U.S media never provided an answer to the question of why there was not enough evidence to sustain their previous conviction of Agca as an agent of the Bulgarians. The view supplied by U.S media from the very beginning to end was a "U.S government view," a frame dedicated to boost national interests (p. 167).

All these contrasting frames of similar events provided by the media demonstrate an ethnocentric bias or press nationalism. As the United States and U.S national interests were involved in both of the Bhopal gas leak event and the BP oil spill, this study examined how national interests played a role in framing U.S media's coverage of two similar disasters.

Research Questions and Hypotheses

To detect a specific news frame, researchers could find a clear problem definition of the event, a remedy of the issue, and a moral assessment of an actor, but the coverage might fail to provide evaluations of the related event or issue (Entman, 2004, p. 23).

As discussed before, in this thesis, several main dimensions of framing were examined: topics focused, attribution of responsibilities, source usage. Taking Entman’s (2004) content analysis as an example, the U.S. media coverage provided contrasting news frames and responsibility attribution for KAL and Iran Air incidents. The findings showed that the U.S. media framed KAL as a murder by the Soviet government along
with harsh moral condemnation and diplomatic opposition to the Soviets, while it framed
the Iran Air event as a tragic accident due to human and technological fallibility. In the
first case, the frame emphasized the moral bankruptcy of the perpetrating nation; in the
second, the frame focused on the complex high technology during the causal exploration.

Also, for the tone of the headline variable, Entman (1991) found that headlines in
*Time* and *Newsweek* depicted agency in different ways—either appealing to emotion or
not—bolstering the respective frames of KAL incident and Iran Air incident news.
Similarly, in an examination of news stories' headlines in his news framing study of the
NATO air strike on Kosovo, Yang (2003) found that Chinese newspapers' headlines used
more condensational symbols than their U.S. counterparts. It meant that U.S. newspapers
tended to phrase the headline in plain and straightforward language most of the time.
However, Chinese newspapers tended to construct the headlines in vague and emotion-
charged words.

In light of these main dimensions used to detect frames, two hypotheses for this
study were formulated as follows:

H1: The prevailing topics in the overall news coverage of *The New York Times*
and *The Washington Post* of the 1984 Bhopal gas leak in India and the 2010 BP
oil spill in the Gulf of Mexico would be different: the Bhopal coverage would
focus on the disaster’s causal exploration whereas BP news’ prevailing topic
would be related to rescuing efforts

H2: The two elite U.S. newspapers would attribute clear responsibility to BP in
their coverage of the BP oil spill, whereas being ambiguous when addressing responsibility for the Bhopal gas leak.

H3: The pattern of source usage in the two newspapers’ coverage would be different, of which the BP oil spill coverage would rely more on the U.S. governmental and expert sources.

In order to find more information about the two U.S. elite newspapers’ coverage of these two disasters, the following research question was also raised:

RQ1: How did the tones of the headlines in the two newspapers' coverage of the two events differ?
CHAPTER THREE: RESEARCH METHOD

In the theoretical context of framing and nationalism, this study set out to examine whether the media had different frames for two similar events and whether nationalism affected responsibility attribution in each of the events. Two U.S. national newspapers, *The New York Times* and *The Washington Post*, were selected for this study because of their prominence and influence (Kim, 2000). *The New York Times* is considered the most influential media outlet in the United States, which can reach social elites and influence news coverage of overseas and regional newspapers (Malek, 1997; McCombs, Einsiedel, & Weaver, 1991). The *Times*, considered as the U.S. newspaper of record, has a large contingent of foreign correspondents and science writers. Along with *The New York Times*, *The Washington Post* is one of the largest dailies in the United States ("Washington Post," 2011), which carries the political perspective of Washington, D.C. (Friedman, Gorney, & Egolf, 1987). As the two most influential newspapers, *The New York Times* and *The Washington Post* provided a nearly daily, or more frequent coverage of the two events.

The analysis was based on five months’ of news coverage from the day after the two events happened and evolved. Extensive news coverage of the Bhopal gas leak disaster dropped out five months later in both newspapers; accordingly, the ensuing five months' news coverage of BP oil spill were analyzed. For *The New York Times* and *The Washington Post*, the time period of Bhopal disaster starting on December 3, 1984 and ending on May 4, 1985, and of BP oil spill from April 20, 2010 till September 21, 2010
were selected. This timeframe of five months for this study was selected in order to give the researcher as clear a picture as possible of how U.S. national media framed two events when national interest was involved.

**Data Collection**

The news story was the unit of analysis. Opinion columns, editorials, op-ed, statistics, news analysis/summaries, and news item of fewer than 100 words were excluded from this study, because they are not typical news stories with fair, balanced news coverage, or too short to have clear indications about the variables examined. Stories were downloaded from the Lexis-Nexis database and selected by searching the term “Bhopal or methyl isocyanate or Union Carbide or gas leak” within the Bhopal news coverage in the full text, and “BP or oil spill or Deepwater Horizon or Gulf of Mexico or oil rig” in the BP oil spill news coverage. This study analyzed stories related to each event from the two newspapers. Extensive news coverage of the Bhopal gas leak disaster dropped out five months later in both newspapers; accordingly, the study examined the ensuing five months' of news coverage of the BP oil spill. From December 3, 1984 to May 4, 1985, 46 stories from *The Washington Post* were collected on the Bhopal gas leak, and 131 stories from *The New York Times*; from April 20, 2010 to September 21, 2010, 254 articles were collected from *The Washington Post* on the BP oil spill, and 337 from *The New York Times*.

All of the stories were numbered in a chronological order, and 50% of them were randomly sampled by computer program Matlab.

About the Bhopal
gas leak, 89 articles were coded from the two newspapers, and 296 stories related to the BP oil spill were coded.

For each story, the tone of headline, primary topic, attribution of responsibility, source usage, placement of story, and words of story were identified. Source usage in each article was coded into the following categories: state governmental officials, local governmental officials, experts, survivors and/or family members of victims, BP or Union Carbide representatives, and "others."

**Coding Instrument**

Three independent coders, all graduate students at Ohio University, two from the journalism and the third from electrical engineering, were trained with a code book (see Appendix A). Coders were first asked, among others things, to determine each article's primary topic. The primary topic was the main theme in each article. Primary topics such as “disaster aftermath,” “background information and causal exploration,” “assistance and guidance,” “lawsuit and compensation,” “corporation financial matters,” and “other” were used as categories after a pilot study of the articles in two newspapers covering both events. Each article had only one primary topic. For example, when one article covered survivors' suffering such as physical injuries, and mental disorder, and environmental damage like polluted water, air, poisoned animals, and its primary topic was coded as “disaster aftermath.” The “background information and causal exploration” frame tended to dig deep into what caused these events, what it was like before it happened, and provides background information about people and corporations involved. “Assistance
and guidance” articles focus on rescuing efforts made by rescuers, governments, corporations, and information guidance provided by experts and others. Topics that could not be decided were coded as “other.”

Coders were also asked to examine source usage in this study. A source was defined as "a person, or organization, which gives information to news reporters" (Riffe, Lacy & Fico, 1998, p. 112). Sources are either quoted directly or paraphrased in news stories. There are six different kinds of sources coded for this thesis. For each news article, every source was coded as one of the six categories: “state/federal governmental officials (India/USA/UK/Other),” “local governmental officials (India/USA/UK/Other),” “corporate representatives,” “experts (India/USA/UK/Other),” “survivors/victims,” and “others.” For example, the “state/federal governmental officials” category for U.S. sources included senators, representatives, Coast Guard officials, President Obama, prime minister, White House policy advisers, etc.

Also, newspapers’ responsibility attributions were examined. The attribution of responsibility by the media could be attributed to the following objects: company involved in both events—Union Carbide and BP, the Indian local government that regulated the hazardous chemicals’ production (the U.S. government that regulated the deepwater drilling), technical misconduct such as operating errors/procedural violations, or maintenance/management neglect. As in the Bhopal disaster, the company’s official report on the accident cited “operating errors” and “procedural violations,” and defined safety procedures as “a local issue.” Union Carbide India, Ltd. was responsible for the
accident, not the parent company (Brooks, 1985; Diamond, 1985). The Union Carbide Corporation tried to reassure the American public that the Bhopal plant had the same safety standards and facility structure as its counterparts in the United States, such as the facility at Institute, West Virginia (Diamond, 1984; Hornblower, 1984). They tried to deny the charge that the Indian facility was substandard compared to its counterparts in developed countries, and asserted “compliance with safety procedures is a local issue” (Diamond, 1985). As a result, the Union Carbide Corporation tried to justify that the Bhopal accident was an isolated one due to Indian subsidiary facility’s own procedural fault. In the BP oil spill in the Gulf of Mexico, the majority of the news coverage pointed fingers at BP as the responsible one who would pay all the cleaning fees and compensation claims.

The headline of each news article was examined to determine its tone as either emotional or non-emotional. The headlines that have no appeal to emotions used economical, concrete, and precise words. Examples are: “Gas Leak in India Kills at Least 410 in City of Bhopal” from The New York Times on December 3, 1984, “Search discontinued for 11 missing after oil rig explosion in the Gulf of Mexico” from The Washington Post on April 24, 2010. On the other hand, headlines appealing to emotional concerns tend to use abstract, ambiguous terms, and often have emotional concerns for the audience, such as “Cold, Dark and Teeming with Life” from The New York Times on June 22, 2010, or “Man in the News; An Embattled Chairman” from The New York Times on December 8, 1984. Headlines that were ambiguous were coded as “unclear.”
Coders were also asked to record the number of words and the placement of each story so that a comparison of stories' length and position could be determined. The stories’ word means in each event’s coverage were compared and the story placement frequency in each event’s coverage was listed in the results.

**Inter-coder Reliability**

Coders included the researcher and two master’s students at Ohio University. In order to determine inter-coder reliability, 39 articles, about 10% of the total samples from the two newspapers, were randomly selected. Inter-coder reliability was based on percentage of agreement, which Stempel and Westley (1989, p. 133) called “an accepted way of reporting reliability” (p. 133). The overall agreement in coding was 92.95% in this study. Complete agreement was achieved on the following variables: story date, words in story, and placement of story. The agreements on the source of story variable and tone of headline variable were 98.29% and 81.20%, and the responsibility attribution variable had an agreement of 85.47%. The agreements for the primary topic and the source usage were 86.33% and 92.31%. All these percentage agreements are regarded as satisfactory for a content analysis (Riffe, Lacy, & Fico, 1998).
CHAPTER FOUR: RESULTS

In this thesis, how two U.S. elite newspapers, *The New York Times* and *The Washington Post*, framed two similar events – the Bhopal gas leak in India in 1984 and BP oil spill in the Gulf of Mexico in 2010 – were examined. The study also examined to whom the news stories attributed responsibility in each of the two events. Also, it analyzed the tones of the news stories as indicated by their headlines.

The media granted the BP oil spill disaster far more coverage than to the Bhopal disaster. As shown in Table 1, the two newspapers devoted more than three times’ the coverage to the BP oil spill than to the Bhopal gas leak in five months, with 177 news stories on the Bhopal gas leak and 591 on the BP oil spill. *The New York Times* published 131 news stories about the Bhopal gas leak and 337 articles about the BP oil spill, and *The Washington Post* published 46 news stories about the Bhopal gas leak and 254 stories about the BP oil spill. With 50% of the stories randomly sampled, there were 385 stories examined for this study, with 89 stories related to the Bhopal gas leak and 296 stories related to the BP oil spill.
Table 1 Coverage of Bhopal gas leak vs. the BP oil spill

<table>
<thead>
<tr>
<th></th>
<th>Bhopal Gas Leak Stories</th>
<th>BP Oil Spill Stories</th>
</tr>
</thead>
<tbody>
<tr>
<td>New York Times</td>
<td>131</td>
<td>337</td>
</tr>
<tr>
<td>Washington Post</td>
<td>46</td>
<td>254</td>
</tr>
<tr>
<td>Total</td>
<td>177</td>
<td>591</td>
</tr>
</tbody>
</table>

**Prevailing Topics**

H1 posited that the primary topics in the overall news coverage of *The New York Times* and *The Washington Post* of the 1984 Bhopal gas leak in India and the 2010 BP oil spill in the Gulf of Mexico would be different. Also, the H1 hypothesis asserted that the Bhopal gas leak news coverage would focus on the event’s causal exploration while the BP oil spill coverage would be related to rescuing efforts.

Accordingly, the first research question addressed how the main topics in *The New York Times’* and *The Washington Post’s* coverage of the 1984 Bhopal gas leak in India and the 2010 BP oil spill in the Gulf of Mexico differed from each other. The most frequent topic for the Bhopal gas leak was “background information and causal exploration,” and the most used topic in BP oil spill stories was “assistance and guidance.”

As reported in Table 2, in 33.7% of the Bhopal gas leak news stories, the primary topic was “background information and causal exploration” (see Appendix A), and in
34.1% of the BP oil spill stories, the primary topic was “assistance and guidance.” The second largest number of Bhopal gas leak stories focused on “lawsuits and compensation,” which accounted for 27.0% of the total 89 stories. The BP oil spill's second largest number of stories focused on the disaster's aftermath, which comprised 25.7% of the total 296 stories. The Bhopal oil spill news devoted 14.6% of its coverage to “disaster aftermath” frame and 9.0% of news stories to “assistance and guidance” frame.

As for the BP oil spill articles, 22.6% of them went to “background information and causal exploration” frame accounted for 7.4% of them to “lawsuit and compensation” frame. The “corporation financial matters” frame accounted for 5.6% of the total Bhopal gas leak stories and 2.7% of the total BP news. Fully 10.1% of Bhopal news stories had a primary topic coded under the “other” category, and 7.4% of BP oil spill news stories had a primary topic coded under the “other” category. These results showed a statistically significant difference ($X^2 = 46.408; df = 5; p < .001$) in the primary topics in news coverage of the two events.

As the H1 stated, the primary topic of Bhopal gas leak news coverage was related to the disaster's causal exploration and background information supply. Accordingly, rescuing efforts were covered most often in the BP oil spill news stories (34.1%), and the next most frequently covered topic (25.7%) was “disaster aftermath.” The prevailing topics of news coverage of the two events differed from each other significantly, and the H1 was supported.
Table 2 Primary topics of the Bhopal gas leak and the BP oil spill

<table>
<thead>
<tr>
<th>Frames</th>
<th>Bhopal Gas Leak Stories</th>
<th>BP Oil Spill Stories</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Freq. (%)</td>
<td>Freq. (%)</td>
<td>Freq. (%)</td>
</tr>
<tr>
<td>Disaster aftermath</td>
<td>13 (14.6)</td>
<td>76 (25.7)</td>
<td>89 (23.1)</td>
</tr>
<tr>
<td>Background &amp; causal</td>
<td>30 (33.7)</td>
<td>67 (22.6)</td>
<td>97 (25.2)</td>
</tr>
<tr>
<td>Assistance &amp; guidance</td>
<td>8 (9.0)</td>
<td>101 (34.1)</td>
<td>109 (28.3)</td>
</tr>
<tr>
<td>Lawsuits &amp; compensation</td>
<td>24 (27.0)</td>
<td>22 (7.4)</td>
<td>46 (11.9)</td>
</tr>
<tr>
<td>Corporation financial</td>
<td>5 (5.6)</td>
<td>8 (2.7)</td>
<td>13 (3.4)</td>
</tr>
<tr>
<td>Other</td>
<td>9 (10.1)</td>
<td>22 (7.4)</td>
<td>31 (8.1)</td>
</tr>
<tr>
<td>Total</td>
<td>89 (100)</td>
<td>296 (100)</td>
<td>385 (100)</td>
</tr>
</tbody>
</table>

\[ X^2 = 46.408; df = 5; p < .001 \]

**Responsibility Attribution**

The H2 held that the two newspapers' coverage would attribute clear responsibility to BP whereas being ambiguous when addressing responsibility for the Bhopal gas leak.

Results showed that the BP oil spill news coverage by *The New York Times* and *The Washington Post* attributed clear responsibility to BP in the majority of their stories, while most of the stories on Bhopal gas leak did not mention the responsible party. As
shown in Table 3, 29 of 89 Bhopal gas leak stories attributed responsibility to Union Carbide, which comprised 32.6% of the total Bhopal news coverage. In the BP news coverage, 93.9% of the 296 stories framed BP as the responsible party. The Bhopal stories did not mention the responsible party in 61.8% of its coverage, and the BP stories did not mention the responsible party in 4.4% of coverage. Technical misconduct, India local government, multiple parties, or “other” was blamed in 5.6% of the Bhopal news stories, while technical misconduct, U.S. government, multiple parties, or “other” was assigned responsibility in 1.7% of the BP oil spill news coverage. A significant difference was found between the two newspapers' coverage of the two events' responsibility attribution ($\chi^2 = 164.02; df = 2; p < .001$).

The results supported the H2: the Bhopal coverage held ambiguous attitude when addressing responsibility for the Bhopal gas leak whereas BP news attributed clear responsibility to BP and framed BP as the guilty one.
Table 3 Responsibility attribution

<table>
<thead>
<tr>
<th>Responsibility</th>
<th>Bhopal Gas Leak Stories</th>
<th>BP Oil Spill Stories</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Freq.(%)</td>
<td>Freq. (%)</td>
</tr>
<tr>
<td>Unclear</td>
<td>55 (61.8)</td>
<td>13 (4.4)</td>
</tr>
<tr>
<td>UC/BP**</td>
<td>29 (32.6)</td>
<td>278 (93.9)</td>
</tr>
<tr>
<td>Other*</td>
<td>5 (5.6)</td>
<td>5 (1.7)</td>
</tr>
<tr>
<td>Total</td>
<td>89 (100)</td>
<td>296 (100)</td>
</tr>
</tbody>
</table>

\[ X^2 = 164.02, df = 2, p < .001 \]

* indicates that “Other” includes “Technical misconduct,” “Indian local government/U.S. government,” and multiple answers for the responsibility attribution category.

** indicates that “UC” (Union Carbide) is responsible for the Bhopal gas leak stories, “BP” for the BP oil spill stories.

**Source Usage**

The H3 proposed that a difference existed between the source usage in the two newspapers' coverage. It is found that the Bhopal gas leak stories and the BP oil spill stories relied on significantly different patterns of sources \( (X^2 = 471.21; df = 6; p < .001) \). There were 390 sources in total for the Bhopal gas leak news coverage, and 1,617 for the BP oil spill coverage. In coverage of the Bhopal gas leak, Union Carbide representatives represented the largest number of sources (27.4%). In coverage of the BP oil spill, U.S. federal official sources represented the largest number of sources (26.1%) (see Table 4).

There were significant differences between the two newspapers' source usage in
terms of the “U.S. federal official,” “India/British State officials,” “U.S. experts,” “India/British experts,” and “survivors/victims” categories. As shown in Tables 4 and 5, in the Bhopal gas leak coverage, 5.6% of the sources were U.S. federal officials, with an average of 0.25 sources ($SD = 0.80$) per story; for the BP news, 26.1% of the sources were U.S. federal officials with an average of 1.43 sources ($SD = 1.65$) in every story. An Independent - Samples $t$ Test was used to compare the means of sources used in each event’s coverage. The two disasters’ news coverage demonstrated a significant difference between U.S. federal official source usage ($t (383) = -6.525, p < .001$), and the mean of the U.S. federal official sources in the BP news was significantly higher ($m = 1.43, sd = 1.65$) than the mean of the Bhopal news ($m = 0.25, sd = 0.80$). The difference between the India/British State government official source usage in the two disasters' news coverage was also statistically significant ($t (383) = 7.769, p < .001$). For the Bhopal disaster stories, 8.7% of their sources were from the India State governmental level ($M = 0.38, SD = 0.78$), and the BP news stories used 0.2% British State governmental level sources of the total 1,617 sources ($M = 0.01, SD = 0.14$).

For the corporation representative source usage, the Bhopal gas leak news coverage had 27.4% sources from Union Carbide of the total 390, with a mean of 1.20 ($SD = 2.11$), and the BP oil spill coverage used 19.2% sources from BP ($M = 0.94, SD = 1.09$). Results showed no significant difference between their corporation representative source usage, $t (383) = 1.543, p = .124$. Among the sources used by the Bhopal news stories, 13.3% of them, were U.S. experts ($M = 0.58, SD = 0.99$), and 15.9% were Indian
experts ($M = 0.70$, $SD = 1.42$). The U.S. experts sources amounted to 24.1% in the BP news coverage ($M = 1.31$, $SD = 1.72$), and 0.2% British expert sources were mentioned in the BP stories ($M = 0.01$, $SD = 0.13$). Results showed statistically significant differences between the U.S. experts source usage ($t (383) = -3.827, p < .001$) and India/British experts usage ($t (383) = 8.243, p < .001$) in the news coverage of the two disasters. In the Bhopal news stories, 8.2% of the total sources – survivors/victims sources were mentioned ($M = 0.36$, $SD = 1.14$), and 16.6% of the total sources were survivors/victims in the BP oil spill coverage ($M = 0.91$, $SD = 1.91$), which showed a statistically significant difference between the coverage's survivors/victims source usage at the .05 alpha level, $t (383) = -2.562, p = .011$. As for the “others” source, there were 20.8% of the Bhopal news coverage with an average of 0.91 ($SD = 1.18$) per story, and 15.6% in the BP news stories with an average of 0.85 ($SD = 1.31$) per story. No significant difference was found between the “others” source usage in two events' news coverage, $t (383) = .379, p = .705$.

The H3 was supported: the pattern of source usage in the two newspapers’ coverage was different. In the Bhopal gas leak coverage, Union Carbide representatives represented the largest number of sources (27.4%), and U.S. federal official sources represented the largest number of sources (26.1%) in the BP news.
Table 4 Comparison of sources in the news coverage of the Bhopal gas leak and the BP oil spill

<table>
<thead>
<tr>
<th>Sources</th>
<th>Bhopal Gas Leak</th>
<th>BP Oil Spill</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Freq. (%)</td>
<td>Freq. (%)</td>
<td>Freq. (%)</td>
</tr>
<tr>
<td>U.S. Federal officials</td>
<td>22 (5.6)</td>
<td>422 (26.1) **</td>
<td>444 (22.1)</td>
</tr>
<tr>
<td>India/British State officials</td>
<td>34 (8.7)</td>
<td>4 (0.2)</td>
<td>38 (1.9)</td>
</tr>
<tr>
<td>UC/BP</td>
<td>107 (27.4) **</td>
<td>279 (17.3)</td>
<td>386 (19.2)</td>
</tr>
<tr>
<td>U.S. experts</td>
<td>52 (13.3)</td>
<td>389 (24.1)</td>
<td>441 (22.0)</td>
</tr>
<tr>
<td>India/UK experts</td>
<td>62 (15.9)</td>
<td>3 (0.2)</td>
<td>65 (3.2)</td>
</tr>
<tr>
<td>Survivors/victims</td>
<td>32 (8.2)</td>
<td>268 (16.6)</td>
<td>300 (14.9)</td>
</tr>
<tr>
<td>Others*</td>
<td>81 (20.8)</td>
<td>252 (15.6)</td>
<td>333 (16.6)</td>
</tr>
<tr>
<td>Total</td>
<td>390 (100)</td>
<td>1,617 (100)</td>
<td>2,007 (100)</td>
</tr>
</tbody>
</table>

*Note. $X^2 = 471.2$, df = 6, $p < .001$

* indicates that “Others” includes “U.S. local official” sources, “India/British local official” sources, and “Other” sources for the variable of source usage.

** indicates the largest number of sources used in the news coverage of the two events.
Table 5 Comparison of sources’ means in the news coverage of the Bhopal gas leak and the BP oil spill

<table>
<thead>
<tr>
<th>Sources</th>
<th>Bhopal Gas Leak Mean (SD)</th>
<th>BP Oil Spill Mean (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S. Federal officials**</td>
<td>0.25 (0.80)</td>
<td>1.43 (1.65)</td>
</tr>
<tr>
<td>India/British State officials**</td>
<td>0.38 (0.78)</td>
<td>0.01 (0.14)</td>
</tr>
<tr>
<td>UC/BP</td>
<td>1.20 (2.11)</td>
<td>0.94 (1.09)</td>
</tr>
<tr>
<td>U.S. experts**</td>
<td>0.58 (0.99)</td>
<td>1.31 (1.72)</td>
</tr>
<tr>
<td>India/UK experts**</td>
<td>0.70 (1.42)</td>
<td>0.01 (0.13)</td>
</tr>
<tr>
<td>Survivors/victims*</td>
<td>0.36 (1.14)</td>
<td>0.91 (1.91)</td>
</tr>
<tr>
<td>Others</td>
<td>0.91 (1.18)</td>
<td>0.85 (1.31)</td>
</tr>
<tr>
<td>Total</td>
<td>390</td>
<td>1,617</td>
</tr>
</tbody>
</table>

* = .05 alpha level of significance;
** = .001 alpha level of significance based on Independent-Sample t Test.

**Tone of Headlines**

The RQ1 addressed how headline tone of the stories in the two newspapers' coverage of the two events differed. As shown in Table 6, the headline tone of coverage of the two events significantly differed from each other ($\chi^2 = 49.75; df = 1; p < .001$). Among the 89 stories on the Bhopal disaster, 13.5% of their headlines were emotion appealing, and 86.5% were either non-emotional or unclear. However, 56.8% of the total
296 stories on the BP oil spill used headlines that were emotional, and 43.2% of the headlines used were either non-emotional or unclear.

The headline tone of two events’ coverage differed significantly from each other, of which the majority of the BP oil spill stories used emotional headlines and the Bhopal gas leak news adopted non-emotional ones.

Table 6 Tone of headlines

<table>
<thead>
<tr>
<th>Tone</th>
<th>Bhopal Gas Leak Stories</th>
<th>BP Oil Spill Stories</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Freq. (%)</td>
<td>Freq. (%)</td>
</tr>
<tr>
<td>Emotional</td>
<td>12 (13.5)</td>
<td>168 (56.8)</td>
</tr>
<tr>
<td>Non-emotional/unclear</td>
<td>77 (86.5)</td>
<td>128 (43.2)</td>
</tr>
<tr>
<td>Total</td>
<td>89 (100)</td>
<td>296 (100)</td>
</tr>
</tbody>
</table>

\[ X^2 = 49.7; df = 1; p < .001 \]

After comparing the news coverage of the two events' primary topic, source usage, and headline tone, there were other variables which would shed light on this study's findings as well.

As reported in Tables 7 and 8, the average number of words per story for the Bhopal gas leak news coverage was 817.48 ($SD = 710.89$), but the BP oil spill stories averaged 948.06 words per story ($SD = 458.33$). Results showed a significant difference
between the stories' length in coverage of the two disasters at the .05 alpha level, \( t (383) = -2.049, p = .041 \). The placement of the stories on the two disasters also significantly differed from each other \( (X^2 = 9.68; df = 3; p = .0215) \). Among the Bhopal gas leak stories, 59.6% were placed on the first section's other pages of the newspapers, 20.2% on first section's front pages, 7.9% on other section's front pages, and 12.4% on other section's other pages. For the BP oil spill stories, 62.8% of them appeared on the first section's other pages, 24.3% on first section's front pages, 9.1% on other section's front pages, and 3.7% on other section's other pages.

Newspaper stories are either written by staff writers or borrowed from news agencies. As shown in Table 9, the news source for the stories on the two disasters showed a significant difference \( (X^2 = 7.15; df = 1; p = .008) \). Among the Bhopal stories, 92.1% were staff written, 7.9% from news agencies, but 98% of the BP oil spill stories were staff written, and 2.0% came from news agencies.

<table>
<thead>
<tr>
<th>Table 7 Means of story words</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
</tr>
<tr>
<td>M (SD)</td>
</tr>
<tr>
<td>Words*</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

*indicates statistically significant differences between two newspapers’ words in the Bhopal gas leak and BP oil spill at the .05 using Independent-Sample t Test.
Table 8 Placement of story

<table>
<thead>
<tr>
<th>Placement</th>
<th>Bhopal Gas Leak Stories</th>
<th>BP Oil Spill Stories</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Freq. (%)</td>
<td>Freq. (%)</td>
</tr>
<tr>
<td>First section front page</td>
<td>18 (20.2)</td>
<td>72 (24.3)</td>
</tr>
<tr>
<td>First section other page</td>
<td>53 (59.6)</td>
<td>186 (62.8)</td>
</tr>
<tr>
<td>Other section front page</td>
<td>7 (7.9)</td>
<td>27 (9.1)</td>
</tr>
<tr>
<td>Other section other page</td>
<td>11 (12.4)</td>
<td>11 (3.7)</td>
</tr>
<tr>
<td>Total</td>
<td>89 (100)</td>
<td>296 (100)</td>
</tr>
</tbody>
</table>

\[X^2 = 9.68, df = 3, p < .021\]

Table 9 Source of story

<table>
<thead>
<tr>
<th>Source</th>
<th>Bhopal Gas Leak Stories</th>
<th>BP Oil Spill Stories</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n (%)</td>
<td>n (%)</td>
</tr>
<tr>
<td>Staff news</td>
<td>82 (92.1)</td>
<td>290 (98)</td>
</tr>
<tr>
<td>Wire news</td>
<td>7 (7.9)</td>
<td>6 (2.0)</td>
</tr>
<tr>
<td>Total</td>
<td>89 (100)</td>
<td>296 (100)</td>
</tr>
</tbody>
</table>

\[Note. X^2 = 7.15, df = 1, p < .01\]
CHAPTER FIVE: DISCUSSION

This study examined the coverage of the Bhopal gas leak in India in 1984 and the BP oil spill in the Gulf of Mexico in 2010 on *The New York Times* and *The Washington Post*. News stories from the two newspapers were examined five months after the disasters happened, from December 3, 1984 to May 4, 1985 for the Bhopal gas leak, from April 20, 2010 to September 21, 2010 for the BP oil spill. This research was guided by framing theory and nationalism to see how the two events were framed by the two newspapers. Results showed what topics, what types of sources, and what kind of the headline tone dominated the news coverage and how the responsibility was attributed in coverage of each event.

There were three key findings in this study. First, the frames in the overall news coverage of *The New York Times* and *The Washington Post* of the two events were different. For the first disaster, the frame de-emphasized guilt and focused on the disaster’s causal exploration; for the second one, the frame emphasized BP as the perpetrating party. Second, the two disasters' news coverage showed different patterns of source usage, with the Bhopal gas leak news stories using the largest number of the Union Carbide sources, and the BP oil spill coverage relying heavily on U.S. federal official sources and U.S. expert sources. Third, most of the Bhopal gas leak stories' headlines were non-emotional using plain words; while the majority of the BP stories' headlines were emotional, appealing to the audience.
Focus of Frames

This research found that the most frequently used topic in the two newspapers' coverage of the Bhopal gas leak was background information supply and causal exploration, but the largest number (34.1%) of stories' topic went to rescuing efforts and updates in the BP oil spill coverage. The second largest number of stories' topics were “lawsuit and compensation” in the Bhopal gas leak coverage (27.0%) and “disaster aftermath” in the BP oil spill coverage (25.7%). The difference of each event’s primary topic could be partly attributed to the type of the disaster, which means it was easier, in a sense, to clean up an oil spill than a chemical leak.

This finding supported earlier research of framing and nationalism. As Entman (1991) determined, the newspapers de-emphasized the guilt and focused on the complex high technology as well as causal exploration in framing the Iran Air incident caused by the U.S. Navy ship. The Bhopal news coverage focused on providing background information and causal exploration without clear guilt attribution. When it came to the BP oil spill coverage, it can be explained why the most covered topic was rescuing efforts and updates. The oil leak went uncontrolled after the Deepwater Horizon drilling rig explosion on April 20, 2010 till July 15 and caused the largest deep water oil spill in U.S. history (Brown, 2010). Almost three months of the five month's coverage examined in this study dealt with the fact of the nonstop spilling oil and the efforts made by all of those rescuing people.

Among the Bhopal gas leak coverage, the second most frequently covered topic
was lawsuits and compensation news following the disaster, which comprised more than one fourth of the total coverage.

Accordingly, more than 25% of the BP oil spill stories focused on the survivors' suffering and loss, as well as the environmental damage due to the spill. As shown in the responsibility attribution findings, the majority of the Bhopal stories were ambiguous when addressing the responsible party, while more than 90% of the BP coverage attributed clear responsibility to BP. So it is understandable that the second primary topic of the BP coverage was not related to lawsuits and compensation provided that BP was cast as the wrongdoer and had promised to pay for everything from the very beginning. Moreover, for the coverage of BP’s disaster aftermath, it promoted moral judgment, even outrage from a humanity perspective of news reporting, which also echoed what Entman (1991) found in comparing the framing of two similar events.

Accompanying the different primary topics, the news coverage attributed distinct responsibility to BP while being ambiguous about Union Carbide's responsibility. In the coverage of the Bhopal gas leak, Union Carbide and its chairman received sympathy and guilt was de-emphasized. The news coverage placed the disaster in the category of incident that “raised broad ethical, legal, social and technical questions for multinational corporations” (Diamond, 1984). Also Union Carbide's chairman Warren M. Anderson was repeatedly quoted as saying that “they will fight right to the end” if the Indian government and survivors “tried to prove the company was at fault” (“Carbide,” 1985). Union Carbide agreed to a settlement but not “an admission of legal liability,” because
the corporation did nothing that either caused or contributed to the accident” (Lueck, 1985). It was obvious that the U.S. media coverage of the Bhopal gas leak tried to distance the U.S.-based parent company Union Carbide from further moral condemnation or guilt, also avoiding the potential impairment of U.S. national image on the international stage. However, in the coverage of BP oil spill, President Obama and the newspapers consistently blamed BP for what happened, and insisted that “BP is responsible for this leak—BP will be paying the bill” (Robertson & Wald, 2010). BP was accused of “incompetence” and its chief executive, Tony Hayward, of callousness. Hayward was ridiculed for saying “I'd like my life back” by the U.S. media and people (Bosman, 2010). The prevailing news framing placed BP in the category of evil with little compassion?. President Obama called the oil leak “the worst environmental disaster America has ever faced” on July 18, 2010 (Gillis, 2010), and some analysts stated that the government “ignored all the shades and complexities to make a dramatic point” (Gillis, 2010). As for the “blame-game” played by the government (Phillips, 2010), it can be explained that Obama administration was seeking to redefine an issue that threatened to tarnish government competence (Robertson & Rosenthal, 2010) when the BP oil spill was constantly reminding the U.S. citizens of the Hurricane Katrina in August, 2005. The U.S. government was condemned for its mismanagement and delayed response at that time. Furthermore, besides the potential reasons mentioned above, it was apparent that national interest was playing a powerful role in the news framing when the oil spill was endangering the ecology, fishery, tourism, and other aspects in the gulf area of America.
The differences in the two disasters’ news framing supported earlier research on nationalism: the media tend to frame the media texts to their country's interests (Gan, 1979, p. 37). Yang (2005) also found that national interest was the most critical factor in framing international news, especially influential world events. This thesis has contributed to the literature in this area by identifying a close tie between national interest and international news framing. The findings showed that news media framed facts when there was national interest involved, even in domestic news like the BP oil spill.

**Source Usage**

The source usage findings of this study supported earlier research on news framing. The Bhopal gas leak coverage mainly relied on Union Carbide sources, “others”, and Indian expert sources. The BP oil spill coverage relied heavily on U.S. federal official sources and U.S. expert sources. In the Bhopal stories, reliance on the India State official sources was far less than reliance on the U.S. federal official sources in the BP oil spill stories. The local government official sources from different countries involved in both disasters were too small a share to be counted and were incorporated into the “others” category. In other words, the BP oil spill coverage relied heavily on U.S. federal sources and U.S. expert sources, while the Bhopal gas leak relied mainly on Union Carbide sources and “others” sources, although the Bhopal gas leak coverage used considerable Indian expert sources.

The findings largely echoed earlier research on source usage in framing, as Molotch and Lester (1975) found that federal officials and business spokesmen have
greater access to news media than conservationists and local officials, which enables them to define the situation for the American public in the Santa Barbara oil spill coverage in 1969. For the Bhopal and BP disasters, the most frequently used sources in the first disaster were from Union Carbide, and the second disaster used the largest number of U.S. federal official out of its total source usage. It provides new evidence that “government and corporate sources have the great merit of being recognizable and credible by their status and prestige” (Herman & Chomsky, 1988, p. 19). As said before, from a political economy perspective, federal executives and large corporations have routine access to the news-creating process to make the coverage favorable to their interests (Wenger, 1985).

Moreover, Yang (2003) determined that newspapers in China and U.S. relied on their own people and their own allies as the main information sources in framing the NATO air strike on Kosovo. Similarly, in the BP oil spill coverage, by relying heavily on U.S. federal governmental sources and U.S. experts, the newspapers covered the BP oil spill from the U.S. standpoint frequently. Only four British State officials and three British experts were cited in the coverage examined. As for the Bhopal coverage, while it used the second largest number of “others” sources and considerable Indian expert sources, it can only be explained that still the news stories relied first on the corporation sources to get information.

The BP oil spill coverage used more “survivors/victims” sources than did the Bhopal gas leak coverage. As the results showed, the BP coverage had more stories
focusing on “disaster aftermath” than the Bhopal coverage so it could be assumed that the reporters approached the BP oil spill event more from a human standpoint, which appealed to readers' emotion more than in the coverage of the Bhopal gas leak event.

In general, the source usage pattern in the news coverage of the two disasters supported earlier research and contributed to the information-processing in the news framing.

**Tones of Headlines**

Entman (1991) determined that headlines could depict agency in ways bolstering frames when he examined the different frames in two similar events. This study looked into the tone of headlines to determine whether they were emotional or non-emotional. The findings showed that the BP oil spill news stories predominantly used emotion-charged headlines, while the majority of the headline for Bhopal stories were non-emotional. In the BP news stories, emotional headlines tended to use abstract and ambiguous words which had a more powerful appeal to readers' emotions to either blame BP as the perpetrator or sympathize with the victims, such as “BP Pays Out Claims, but Satisfaction Is Not Included” (Brown & Cooper, 2010), “Rate of oil leak, still not clear, puts doubt on BP” (Gillis & Fountain, 2010), and “Spill may have taken its largest victim yet” (Kaufman, 2010). As for the Bhopal coverage, most of headlines used plain words to give facts without appealing to emotions, such as “Gas leak in India kills at least 410 in city of Bhopal” (Hazarika, 1984), “The Bhopal disaster: How it happened” (Diamond, 2010), or “$830,000 fund is set up in India by Union Carbide” (Reinhold,
First, the different pattern of headline tone in each event happened partly due to the different nature of the disasters, because the BP oil spill went on after the explosion and the Bhopal gas leak happened instantly. So it could be assumed that most stories’ headline about the BP oil spill tended to frame the responsible party and the Bhopal gas leak stories’ headlines would mostly focus on aftermath facts. Second, news has changed in the intervening years to more emotional headlines in all coverage. It is a way to attract attention in a crowded information marketplace. Third, the Bhopal gas leak didn’t happen on U.S. soil, so it could be explained that nationalism did not play as big a part as it did in the BP oil spill coverage.

These results also supported Entman's findings. Emotional headlines used by the BP coverage bolstered its guilt framing and responsibility attribution, while the Bhopal coverage mostly used non-emotional headlines that did not contribute to moral condemnation.

As for the story length and placement of story variables, the findings showed that the average BP gas leak news stories were longer than the Bhopal news stories, and more BP stories were placed in the first section either on front page or other pages, and other sections’ front pages than were the Bhopal stories. Based on earlier research (Shaw & McCombs, 1977), it can be concluded that the two newspapers placed more emphasis on the BP oil spill than on the Bhopal gas leak. Besides the framing theory, there are two potential reasons that cannot be ignored: one is that BP news stories were considered as
more newsworthy and deserved more coverage due to geographical proximity (Martin, 1988); the other is the Internet enables media to gather and update information faster than in the past, so more news feeds on the BP oil spill were created than on the Bhopal gas leak.

The findings also showed that the two newspapers published more staff news in covering the BP oil spill and used more wire news in covering the Bhopal gas leak. The obvious explanation for the difference here is whether it was difficult for the reporters to gather information in each of the two events.

To sum up, by comparing the different frames used by The New York Times and The Washington Post in two similar events, this study supported, as well as extended, earlier research on news framing and nationalism. It further documents that national interest is one critical factor in the pattern of framing news events.
CHAPTER SIX: CONCLUSION

This research examined how two similar events were covered with different frames by The New York Times and The Washington Post. Based on the theoretical structure of news framing and nationalism, the findings of this study indicated that national interest affected the way the two U.S. newspapers framed similar events. The frame for the first event de-emphasized the perpetrating party and emphasized the causal exploration when the wrongdoer was a U.S.-based corporation, and the second frame focused on the rescuing efforts and disaster aftermath after the event while attributing clear responsibility to the perpetrating corporation when U.S. national interest was affected.

Through content analysis, this study compared two similar events. The findings supported earlier studies that there were close ties between news framing and nationalism, and it furthered the previous research and determined that national interests played a powerful role in framing not only international news events, but broader news types when national interest was involved.

Echoing previous research on how media cover such disasters as oil spill, toxic gas leak, or nuclear radiation, the findings of this study showed that the two newspapers' coverage of the two events relied heavily either on federal governmental sources or the corporation sources, and used more expert sources from their own country in an event involving two nations. Though the two events raised “politically sensitive questions about the environment, nation energy policies, and the roles of multinational corporations in
environmental/energy matters” (Daley & O'Neill, 1991, p. 42), the dominant media narratives framed the events to the public in ways that shunned the key questions. In the Bhopal gas leak coverage, the frame drew the public's attention away from corporate responsibility toward the abnormality and causal exploration of the specific event, as well as potential lawsuits. In the BP oil spill coverage, the dominant narrative focused the public's attention on the perpetrating party – BP, the rescuing efforts, and aftermath pictures from the disaster, which still lost the chance to inform the public about the potential problems within national offshore/deepwater drilling regulation, federal agencies with watchdog roles, or national energy policy.

In general, though different frames were provided in the two events, they both drew the public's attention away from the deeper causal exploration of the systematic problems toward the abnormality of the two specific events.

As the news industry evolved with increasingly more contents and more timely updates of news around the world, it could be predicted that the media guided by similar national interest may report news with similar frames, and will continue to have similar patterns of source usage, responsibility attribution, and focus of coverage.

**Limitations and Future Research**

This study has its limitations, however. First, there were intrinsic differences between two similar events' proceedings. As extensive news coverage of the Bhopal gas leak disaster largely disappeared five months after it happened in both newspapers, a sample of five months' of news coverage following each of the events was selected. For
the Bhopal gas leak, it happened on December 3, 1984, killing thousands of people overnight; for the BP oil spill, the spill went on uncontrolled for 86 days before engineers capped it on July 15. So based on the five months' news coverage, the Bhopal gas leak was a short and complete event. The BP spill was an ongoing one. The news coverage had to deal with the updates on capping the spilling well in the first three months of BP coverage, which would affect the primary topic of the total coverage of BP oil spill to some extent, as displayed in the results of this study. There was no such problem with the Bhopal news coverage. Future studies could extend the data-collecting period to a longer one to have a more complete observation of both events.

Another limitation of this study is the time gap between the two happenings. From 1984 to 2010, the Internet technology has been contributing to expand the media landscape in a digital way, which enables media workers to circulate and process information with unprecedented speed, so it could be predicable that more news coverage would be devoted to the BP oil spill due to the overall media development, which may offset part of the huge difference between the total coverage of the two events.

Moreover, this study compared only The New York Times and The Washington Post's coverage of the two events. Future research on framing and nationalism should include more media outlets to provide more comprehensive comparisons. Instead of being limited to two national elite newspapers, future studies could include TV and news magazines to see if the findings could be generalized to different forms of mass media.

This study also raised questions that should be addressed in future research.
National interest was a critical factor in the different framing of the two similar events, but there was no line defining which part of the differences between two frames should be attributed to national interest and which part of the difference should be explained by the events' intrinsic traits. Future studies could include a neutral country's news coverage to do more comparative examinations, and test on more international news outlets to determine if the findings could be generalized to more similar events in different political, cultural, or economic context.

Further, beyond examining news coverage's framing of such as “man-made” accidents as the Chernobyl nuclear meltdown (Luke, 1987; Friedman, Gorney, & Egolf, 1987), the Exxon Valdez oil spill (Daley & O'Neill, 1991), and the Three Mile Island nuclear power incident (Farrell & Goodnight, 1981), further comparative studies could also be conducted to explore the news framing of such “natural disasters” as earthquakes and hurricanes.

Future research could also examine man-made disasters influenced by natural disasters. For instance, the recent Japan nuclear radiation leak from the Fukushima Daiichi plant was caused by an earthquake and the ensuing tsunami. Similarly, the faulty levee protecting New Orleans burst in 2005, and it has been shown that the federal government was aware of the potential for such as disaster. However, it could be predicted that the majority of the coverage (at least early on), focused on the technical problems and plight of the people involved as opposed to the lack of support from the federal government in maintaining the integrity of the levee. Such occurrences highlight
the continued importance of studies such as this in the progression of critical content analyses.
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APPENDIX A: CODEBOOK

Procedure
The following steps should be taken when using the following code sheet. All of the sampled stories from the four media outlets are to be read and analyzed for each variable (v) below.

V1. Story Date (Month/Day/Year)
The day and date when the story was published.

V2. Source of Story
The newspaper, news magazine, or agency where the story came from.

V3. Story Words
The total number of words in the story.

V4. Placement of Story
Where the report appeared on the newspaper (section & page).

V5. Tone of Headline
1. Emotional content
   *It has no emotional appeal. Headlines use economical, concrete, and precise words, and are not prone to appeal to the audience's feelings.*
2. Non-emotional content
   *It has emotional Appeal. Headline use abstract, ambiguous terms, and often have emotional concerns for the audience.*
3. Unclear.

V6. Attribution of Responsibility
Subject that each article held accountable for the disaster, there are four categories for each of the two events:
1. Unclear
2. Union Carbide ("American-owned insecticide plant")
   - BP (sometimes mentioned with its partners, mostly BP)
3. Technical misconduct (management/maintenance/operating errors/procedural violations)
4. Indian local government (where the Bhopal plant resides)
   - U.S. government
5. Other
V7. Primary topic
The dominant topic in the story, facet of the disaster one article mainly focuses on. There are several topics discussed in most of the stories:

1. Disaster aftermath
   It includes two parts: victims’ or survivors' suffering, like injuries, stress, and death; environmental damage, which includes destruction on neighboring natural environment, like air, water, plantation, animals. Also including how oil it spilled

2. Background information and causal exploration
   Broad discussion of what caused the event, what was it like before this, or other information related to people involved or companies involved

3. Assistance and guidance
   Rescuing efforts made by rescuers, government, charity communities, and information guidance by experts, media, corporations, etc.

4. Lawsuit and compensation
   Such as relief fund, lawsuits brought by the disasters

5. Corporation financial matters

6. Other

V8. Source Usage
Sources used in each article, which may come from different regions (India/U.S.A./British/other) and have the following categories:

1. National/federal governmental officials
2. Local governmental officials
3. Corporation representatives (Union Carbide/BP)
4. Experts
5. Survivors and/or family members of victims
6. Other
APPENDIX B: CODING SHEET

Case Number _____

V1. Story Date (M/D/Y) _____/_____/_____

V2. Story Words _____

V3. Source of Story _____
   1= Staff news
   2= Wire news (AP, Reuters, or other)

V4. Placement of Story (section & page) _____
   1= First Section front page
   2= First Section other pages
   3= Other Section front page
   4= Other Section other pages

V5. Tone of Headline _____
   1= Emotional
   2= Non-emotional
   3= Unclear

V6. Attribution of Responsibility _____
   1= Unclear
   2= Union Carbide
   3= BP
   4= Technical misconduct
   5= Indian local government
   6= U.S. government
   7= Other

V7. Primary topic _____
   1= Disaster aftermath
   2= Background information and causal exploration
   3= Assistance and guidance
   4= Lawsuit and compensation
   5= Corporation financial matters

67
6 Other

**V8. Source Usage (# of Mentions)**

**National/federal governmental officials**
- India  
- USA  
- British

**Local governmental officials**
- India  
- USA  
- British

**Corporation representatives**
- Union Carbide  
- BP

**Experts**
- India  
- USA  
- British

**Survivors and/or family members of victims**

**Others**