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Framing health risk: How the U.S. and Chinese TV news covered H1N1 influenza

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Framing health risk:

How the U.S. and Chinese TV news covered H1N1 influenza

By

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ABSTRACT

This study examines the framing of the news content on the H1N1 influenza in the *NBC Nightly News* in the U.S. and *CCTV Evening News* in China from April 2009 to October 2010. The content analysis reveals significant differences in news frames and news sources between the two programs. *Attribution of responsibility* and *human interest* are the most visible frames in *NBC Nightly News*, while the *attribution of responsibility* frame is the dominant frame in *CCTV Evening News*. The visibility of the *human interest*, *conflict*, *economic consequence* and the prensence of all the frames in *NBC Nightly News* are higher than those in *CCTV Evening News*. Domestic government officials and citizens are the most popular sources cited by *NBC Nightly News,* followed by scientists and non-government organizations. While in *CCTV Evening News*, the most cited source is domestic government, followed by foreign governments and international organizations. Frames in both programs change through time. There are significant positive correlations between the *attribution of responsibility* frame and the using of domestic government as a source, the *human interest* frame and non-government organizations, citizens and victims in *NBC Nightly News*. There are significant positive correlations in *CCTV Evening News* between the *attribution of responsibility* frame and domestic government, *human interest* frame and both domestic government and citizens, *conflict* frame and scientists.

CHAPTER 1. INTRODUCTION

According to German sociologist Ulrich Beck, given the risks inherent in today's industrialized world, any modern society can be considered a "risk society" (translated by Ritter, 1993). In his conceptual framework, "risk" includes the hazards and dangers posed by natural disasters, epidemics, and other major concerns that have the ability to cause public panic. Risky situations pose a challenge to all sectors of society, including the mass media (Jiang, 2007). Because of these, risk communication plays a significant role.

It has been known that the general public relies on the mass media for information related to risks and risky topics. According to a survey conducted by the Pew Research Center for the People and the Press (2010), people gain information about science and technology mainly from watching television. Of all types of information provided by the mass media, "health news ranks higher than sports, local government, national politics, and international news" (Hayes & Grossman, 2006, p. 33). Such is the case, they argued, because health and medical news directly affects people. Their work illustrated the important role TV plays in people's lives especially related to health risky event, which makes studying TV health related news a significant endeavor.

Influenza A virus subtype H1N1, considered a serious health risk event all over the world, was first known to have spread across the world from June 1918 to December 1919. Known at that time as the Spanish flu, the disease killed about 50 million people worldwide over about a year (Taubenberger & Morens, 2006, p.69).

This pandemic, popularly termed swine flu, resurfaced recently and was caused by a new strain of the influenza A (H1N1) virus, an organism that regularly infects the swine

population. It first broke out in Mexico in March 2009. When a person with this influenza died on April 12, health authorities worldwide were alerted after the Mexican government reported the situation to the World Health Organization (WHO). The first swine flu cases were reported in the United States in the middle of April. The U.S. Center for Disease Control and Prevention (CDC) confirmed and declared a health emergency on April 26. By then, the disease had already caused global concern judging by the media reports. Soon after, incidences of H1N1 flu were reported in other countries. On June 11, the WHO raised the worldwide pandemic alert to its highest level, Phase 6, to illustrate that a global pandemic caused by a novel strain of influenza A (H1N1) was underway (WHO, 2009a). As of April 10, 2010, the total number of infected individuals all over the world reached 61 million; 12,470 people died from the disease (WHO, 2010a).

On August 10, 2010, the WHO declared that the global pandemic was over. "WHO International Health Regulations (IHR) Emergency Committee declared an end to the 2009 H1N1 pandemic globally." The announcement also specified, "It is likely that the 2009 H1N1 virus will continue to spread for years to come like a regular seasonal influenza virus" (CDC, 2010).

Some catastrophic issues attract the attention of the whole world even when the catastrophe and the damages are confined to only one country. The outbreak of diseases such as H1N1, however, poses harm to a number of countries because they can spread throughout the world, threatening to become pandemics.

By August 2010, for example, the total reported laboratory confirmed influenza-associated hospitalizations reached 50,900 and the total reported deaths were 2,710

in the U.S. (CDC, 2010). In China, 128,033 hospitalizations and 805 deaths are reported (Minister of Health of the People's Republic of China, 2010).

The H1N1 outbreak in 2009 also presents a rare opportunity to compare the news frames used by two media systems—that of China and the U.S. Because these two countries have different media systems and different levels of press freedom, it is reasonable to hypothesize that the content of their media about the same issue may vary.

The main objective of this study is thus to examine how the same issue is framed under two different media systems. To guide this study's analysis, the framing theory is used as the theoretical framework.

Scholars have studied several aspects of risk communication specifically related to the H1N1 outbreak (Ibrabim, Mustaffa & Kee, 2010; Wang, Smith & Worawongs, 2010; Chang 2010). Although all three studies used the tenets of framing theory to analyze media coverage, they did not include a comparative analysis of between or among media outlets. Moreover, those studies using framing theory to analyze the media content mostly focused on print media, and none of them involved television news coverage. That makes the current study a worthy endeavor.

CHAPTER 2. LITERATURE REVIEW

News Frames

The concept of framing has become an important theoretic approach in communication research since Goffman and Bateson introduced the concept of framing to social science in 1947. According to Entman (1993), "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" (p. 52). "News frames provide a template that guides journalists in assembling facts, quotations, and other story elements into a news story, as well as orients the interpretations of the audience." (Han, 2007, p. 41)

"Media frames are considered as there is the construction and use of media frames by journalists and others working in news organizations under routine pressures, constantly dealing with sources and applying 'news values' and 'news angles' to event reports" (McQuail, 1983, p. 511). Entman(1993) stated that frames can exist in every part in the communication process----for example, in the news production, news content, and in the receivers. One line of research in framing focuses on news frames or media frames, which examines how frames are present in media coverage, and how such various factors as "social-structural or organizational variables and…individual or ideological variables" affect "the creation or modification of frames" at the media level (Scheufele, 1999, p. 107).

There are a growing number of studies that have examined news frames. For example, Neuman, Just and Crigler(1992) found four dominant frames—*economic*, *human impact*, *conflict* and *morality* frames—in U.S. news coverage of the same topic. Semetko and

Valkenburg (2000) summarized five mostly used news frames, namely generic frames—*attribution of responsibility*, *conflict*, *human interest*, *economic consequences* and *morality*—and examined them in news stories that discussed European politics.

Semetko and Valkenburg (2000) also summarized two possible approaches to analyzing frames in the news. One is the inductive approach that requires analyzing news stories to reveal the array of possible frames. The deductive approach, on the other hand, "involves predefining certain frames as content analytic variables to verify the extent to which these frames occur in the news. " (p. 94) This approach "makes it necessary to have a clear idea of the kinds of frames likely to be in the news because the frames that are not defined *a priori* may be overlooked. This approach can be replicated easily, can cope with large samples, and can easily detect differences in framing between media and within media" (pp. 94-95). In this sense, comparative studies often use the deductive approach.

These five generic news frames and the deductive research may also be used to examine media coverage on sudden risk events. Scholars adopted all of the five or selected some of them to do research on risk topics. Kamhawi's (2002) study examined the *conflict* frame and *blame/responsibility* frame in the coverage of the Israel-Palestine conflict. Li, Lindsay and Mogensen (2002) adopted the *economy* frame and *human* interest frame to analyze the first eight hours of the television news coverage of terrorist attack in September 11. When Aiken (2003) analyzed the coverage of the September 11 event, she used all five of generic news frames. Dimitrova, Kaid, Williams & Trammell (2005) used the *military conflict* frame, the *human interest* frame and the *responsibility* frame in their study of analyzing online news coverage of Iraq War. When it refers to sudden disease related topic,

Luther and Zhou (2005) examined the *responsibility* frame, the *human interest* frame, the *conflict* frame and the *economic consequences* frame on the Chinese and U.S. newspapers coverage of SARS related issue. They found that Chinese newspapers were less likely to present the *responsibility*, the *conflict* and the *economic consequences* frames comparing with the U.S. newspapers, at the meanwhile there was no difference found on the *human interest* frame presenting. While Beaudoin (2007) employed the *attribution of responsibility* frame, the *human interest* frame and the *economic consequence* frame to analyze the comparison of news frames in SARS news coverage from the Xinhua News Agency and the Associated Press. His result illustrated the *attribution of responsibility* frame and the *economic consequences* frames were more obvious in the news from AP. From those previous researches, it can be seen that the generic frames exist in coverage of different risk topics, and, they were presented differently between U.S. and Chinese news media.

Some scholars have studied several aspects of risk communication specifically related to the H1N1 outbreak and most of them focused on the news coverage in print media or online. For example, Ibrabim, Mustaffa & Kee (2010) examined the five generic frames in the H1N1 coverage by four Malaysian mainstream newspapers. They found that the *responsibility* frame was used most often, followed by the *morality*, *human interest*, *conflict* and *economic consequences* frame, in that order. This result helps the current study to make hypothesis about dominant frame with one program. Their research implied the existing of five generic frames in the coverage of H1N1 issue. Wang, Smith & Worawongs (2010) analyzed online news stories to determine how five self-defined frames (*individual prevention*, *severity transmission* and *stigmatizing international students*, *stigmatizing*

Mexicans and infected region threat) were used during the different phases of the evolution of this health threatening issue. They found changes of the visibility of frames used across the identified phases: A greater percentage of news stories in early weeks adopted *individual prevention*, *severity* and *stigmatizing Mexicans* frames than in later weeks. *Infected region threat* was most visible in the second and fourth weeks. Meanwhile, the visibility of *transmission and stigmatizing international students* frame was not significantly changed during the time span. Chang (2010) conducted a qualitative research to study how four U.S. leading newspapers framed the H1N1 vaccine and found the preponderance of two frames (*vaccine-supporting* and *vaccine-opposing* frame) in the "anticipation of the vaccine," "the shortage of vaccine" and "the vaccine became widely available" phase of coverage. No published literature, however, have been found analyzing broadcasting coverage of H1N1-related issues.

The current study takes a deductive approach by adopting four generic frames----*attribution of responsibility*, *human interest*, *conflict* and *economic consequence*. Then it defines one issue-specific frame----*humanity* frame.

The *attribution of responsibility* frame refers to "the manner in which news portrays a problematic event or issue by focusing on blame and responsibility" (Beaudoin, 2007, p. 511).

The *human interest* frame "brings a human face or emotional angle to a reported news event or issue" (Beaudoin, 2007, p. 512). In this study, this frame refers to whether the news story portrayed people's emotions, their condition, and their everyday lives.

The *conflict* frame emphasizes the discrepancy between people or organizations. In

this study, this frame refers to the argument about some policies made by government officials and the current prevention situation.

The *economic consequences* frame focuses on the impact of the risk event on the economy (Semetko & Valkenburg, 2000). In the current study, this frame refers to the financial and economic implications of H1N1.

The *morality* frame, originally included in the five generic frame "puts the event, problem, or issue in the context of religious tenets or moral prescriptions." (Semetko & Valkenburg, 2000, p.95). In Ibrahim et al.'s study (2010), according to the specific issue, morality related topic was highly visible in humanity aid and sympathies. The current study creates an issue specific frame "humanity frame", which mainly refers to the humanity aid and sympathies related theme, instead of the morality frame.

Mass Media in the U.S. and China

In the current study, the two television news programs to be analyzed are produced in the U.S. and China. The two countries have different cultural, political and media systems. The differences between two media can be seen as the reason of the hypothesized differences in the news frames and sources cited between two countries.

In Siebert, Peterson and Schramm's opinion, "The press always takes on the form and coloration of the social and political structures within which it operates. Especially, it reflects the system of social control" (Siebert et al., 1956, p. 1).Cognizant of this, Siebert and his colleagues proposed the following four theories of the press: authoritarian, libertarian or free press, social responsibility, and Soviet-communist theory.

Before the late 1970s, Chinese media were tightly controlled by the central

government and used by loyal and orthodox party members. At that time, "the dominant framework for analyzing the Chinese media was a mass propaganda and persuasion model" (Zhao, 1998, p.4). The news media in China were required to disseminate the ideas and policies the central government made to inform the public and control the thought of the public, playing a role as "the bridge between the Communist party and the people" (Yin & Payne, 2004, p.73). The Chinese press closely cleaved toward the Soviet-communist theory, which developed in the Soviet Union at that time.

After the Chinese government carried out the reform and opening-up policy in the late 1970s, many intellectuals became advocates of democracy and press freedom, and the media were able to be affected by more social frameworks than only the ruling party. In sum, nowadays, "the Chinese Communists are most hostile to press freedom out of the fear of losing their grip on power," but "the net and cumulative effect of increased media diversity in particular will continue to grow and be strongly felt" (Lee, 1990, p. 18).

Nowadays, the government still has the most power of authority. The Propaganda Department of the Communist Party of China regulates all news media organizations. Its affiliate department, the State Administration of Radio Film and Television (SARFT), has rights to regulate all the film producing groups, radio and television stations. SARFT's function includes drawing up the publicity and creation policies, grasping the correct orientation of public opinion and creative direction, issuing or cancelling the radio, film and television programs producing organizations, and censoring the content of all films, radio and television programs. (SARFT, 2008) Therefore, Chinese media also cleave to authoritarian theory, which suggests, among others, that "the media should do nothing which could

undermine established authority," this is the reason why "the media should always (or ultimately) be subordinate to established authority"(Siebert et al., 1956, p. 77).

However, "commercialization of the media has led to a loosening of control over media content" (Liebman, 2005, p. 9). Multiple social frameworks, such as the commercially focused, had their own authority of media. Since the state cut funds to the media, some media were "transformed into state-owned corporate media groups with a wide range of commercial interests" and had more "commercially focused" (Liebman, 2005, p.24).

When a risk issue comes out, there is always a dilemma between information diffusion and the control of public opinion. To avoid potential social contradictions, restrictions on reporting are imposed. In some cases, this supervision successfully alleviates public fear and anxiety; in other cases, it raises more serious problems (Ding & Liu, 2004). Fang's study of the Chinese media's performance in their reporting of SARS (2003) showed how the ruling party controlled the Chinese media. That particular epidemic first emerged in Guangdong province in November 2002, but it spread like a wildfire to Beijing and caused many deaths in early March 2003. However, news reports were limited and so were the angles used to report on the issue. The government tried to appease the public by restricting media actions, with severe consequences. After March 20, 2003, the government changed the communication policy by lifting the restrictions on investigative reports.

On the other hand, the American press is based on the ideas of "the act of publication and distribution should be open to any person or group without permit or license" and that "There should be no restriction on the export or import or the sending or receiving of messages across national frontiers" (Siebert et al., 1956, as cited in Oloyede, 2005, p.102).

"Everyone who has something to say" can use the media; media cannot be owned or controlled by the government unless under some special situations which require the government to take the media over to insure public service. Their role is to serve democracy: "The press in the United States benefits from a legal environment that has consistently supported journalists in their pursuit of stories," it also "limited the right of public officials to deny journalistic access to information," and in addition, "narrowed the grounds on which officials can bring libel cases against the press" (Freedom House, 2004: 178, as cited in Beaudoin, 2007, pp.513-514). The American press can be seen as based on the libertarian theory, which implies that publications should be free from any prior censorship by any third party. Nowadays it tries to operate under the social responsibility model.

Sourcing

The differences in media systems can be seen as the determinants of news content. Herman and Chomsky (1988) identified five "news filters," which include ownership of the medium; the medium's funding sources, sources and sourcing, flak, and anti-communist ideology. Owners, sponsors, and the sources of news exercise great power in controlling the reporting process and media content. Consequently, feedback from powerful people and/or organizations can lead to severe biases in the choice of news items to report and how they are reported.

The sources cited is one of the five "filters" (Herman and Chomsky, 1988) which can be quantitatively measured and analyzed. According to Beder (2004), the people whom journalists choose to interview for research, quotes, and on-air appearances shape the news. A source is "A person or document that provides information for a story" (Harrigan, 1993 p.

422). According to Gitlin (1980) and Tuchman (1978), sources can be seen as the determinant of news content due to the fact that news routines relying on what they say.

Fishman (1980), Paletz and Etman (1993) found that news media heavily depend on official sources for information. Under some special conditions, for example risk situations, government officials become the main sources due to the fact that they have reliable information and they are in position to make decisions. McLeod and Hertog (1998) argued that official sources can add prestige to the story and increase the efficiency of news production. And the efficiency is very important in risk communication. Greenberg, Sachsman, Sandman and Salomone(1989) found that high-quality risk news is heavily related to reliable sources, which are considered the scientists and representatives from government and industry.

Several former studies coded and analyzed the sources cited in the news, such as Sigal's (1973) research on *Washington Post* and *The New York Times* which found that three quarters of the news sources were American and foreign government officials. Han, Shoemaker, Lee, Zhang and Wang (2010) analyzed sources cited in the news to compare the terrorism coverage in China and the U.S. They found that Chinese newspapers used domestic government officials as the dominant news source. American newspapers also used domestic government more frequently than any other sources and used more sources than Chinese newspapers did in total. Aiken (2003) also found that *The New York Times* and *Le Monde* (a French newspaper) both used elite sources as dominant sources during the first ten days after the attacks of September 11. Among the elite sources, government official departments are the top one for two newspapers. These studies help the current study to raise hypothesis about

sourcing.

Sourcing research and framing research being combined in one study has been seen before. Li, Lindsay & Mogensen (2002), Aiken (2003), Yang (2003), Dimitrova & Strömbäck (2005) and Peng (2008) all employed sourcing analysis with their framing analysis on their news topic. Aiken (2003) stated that when reporting the 911 attacks, *The New York Times* employed the *human interest* frame more than the French newspaper *Le Monde* did, while using fewer elite sources. At the same time, *Le Monde* presented the *economic consequences* frame more than *The News York Times* did. She generally described that the *human interest* frame did not require elite sources(such as presidents of companies and engineers), which was the reason for these phenomena. On the other hand, the *economic consequence* frame did require elite sources. Yang (2003) argued that when covering the NATO strikes on Kosovo, the U.S. newspapers used Americans and NATO as dominant sources, which lead the U.S. newspapers to stand for Serbian and stated pro-strike terms. On the other hand, Chinese newspapers presented viewpoint of Albanian and anti-strike terms since they adopted sources of Chinese and Russians most. Peng (2008) found that Chinese newspapers presented *legitimate a protest* frame as the dominant frame. Meanwhile the newspaper used protesters as the main source when covering the anti-war issue. Scholars who were mentioned above only matched the sources used in one news story and the frames presented in it, without involving in statistical method.

Li, Lindsay & Mogensen (2002) tried to find out whether there were certain sources relied upon in certain frames by examining descriptive statistics (checking the percentage of all sources used when one certain frame was presented), such as *political* frame was

associated most with government sources, *disaster* frame used witnesses as the major source and government officials and experts were most used sources when the *criminal and terrorism* frames were presented. Dimitrova & Strömbäck (2005) introduced the chi-square test to employ the sources' and frame's usage. For instance, they found that the articles with *human interest* frame were less likely to use government officials. The articles with *military conflict* frame cited military sources more frequently.

The current study tries to use another statistical method----Pearson Correlation to test the significant relationship between the frame usage and the sources cited.

The Two National News Programs

The current study chooses the news content of television news programs due to the importance of television news in daily communication. Wanta, Golan and Lee (2004) consider television news programs as very important news sources. "Television news programs serve as an important source of information for most Americans about events that occur around the world every day" (p. 365). These programs often feature news stories that are often short, quick, and simple.

In the U.S., the *Nightly News* of the National Broadcasting Company (NBC) is the highest rated broadcast news program (Carter, 2010). On weeknights, it is broadcast live over most NBC stations from 6:30 to 7:00 pm Eastern Time. For the U.S., the internationally renowned *NBC Nightly News* is analyzed on the basis of its importance as national agenda setter.

In China, the *CCTV Evening News* (*Xinwen Lianbo*) of China Central Television Station (CCTV) is considered the premiere TV news program and the most politically

important TV news show in the nation. First aired on January 1, 1978, this news program is considered as a propaganda front of the China Communist Party. CCTV unites with other province leveled TV stations, collects the national news from everywhere in China, and broadcasts the *Evening News* program in all province leveled TV channels and in 2 channels of CCTV at the same time (7:00-7:30pm) every evening. In China, the *CCTV Evening News* is considered the national TV program of record. It is China's most influential and authoritative program that informs the country about the policies of the Communist Party.

These two TV news programs are all national daily news programs; each one episode is thirty minutes and they both broadcast in the evening. They can be seen as comparable. These two programs were chosen because they are generally seen as the most important national news programs in their home country. Their content influences local television news, wire services, news magazines radio news, and has a big impact on public opinion. The current study takes these two TV programs as the representatives of news programs of two countries.

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Hypotheses and Research Questions

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Considering the normative difference between two media systems of two countries, this study expects that the producers of *NBC Nightly News* will try to make their program more diverse and more attractive to audiences due to the free market competition. On the other hand, the *CCTV Evening News* mainly needs to meet the China Communist Party propaganda and ideological requirements. Based on this difference, the following hypotheses are made:

The media in the U.S. should find more angles to report one news issue to attract

more audiences due to free market competition since "competition among media firms assures that voters and consumers obtain, on average, unbiased and accurate information." (Djankov, McLiesh, Nenova & Shleifer, 2001, p.2) Meanwhile, the media in China's responsibility is to propaganda for the ruling party and to be representative of incumbent government's interests. Based on this, the first hypothesis is proposed:

H1: The average visibility of all five frames in each daily news story of *NBC Nightly News* will be higher than that in *CCTV Evening News*.

According to Luther and Zhou (2005) and Beaudoin (2007), H2a is raised:

H2a: The *responsibility* frame will be more visible in *NBC Nightly News* compared with those in *CCTV Evening News*.

According to Ibrahim et al. (2010), the *responsibility* frame was used the most frequently in four newspapers they examined. Based on this idea, H2b and H2c are raised.

H2b: The *responsibility* frame will be more visible in *NBC Nightly News* than other frames.

At the same time, Chinese media are the propaganda tool of government. Embellishing the image of government, disseminating the decisions the government make and appeasing the citizens are Chinese media's important jobs. According to Chen & Zhang (2008), when it comes to the coverage of risk events, the Chinese media always focus on positive publicity as part of their role as organs of the Communist Party. This is why H2c is developed.

H2c: The *responsibility* frame will be used more frequently in *CCTV Evening News* than other frames.

The media in the U.S. are officially independent from any government departments or social organization, so it is reasonable to consider that *NBC Nightly News* is freer to show the conflict between some government departments (or other social organizations) and the public. Based on this idea, which is supported in previous studies (Luther and Zhou, 2005; Beaudoin, 2007), H3 is developed.

H3: The *conflict* frame will be more visible in *NBC Nightly News* than in *CCTV Evening News*.

The media in the U.S. only depend on the market. It is reasonable to consider that *NBC Nightly News* is more eager to apply some angle focused on the ordinary people just as their audiences----and the audiences are their market.

H4: The *human interest* frame will be more visible in *NBC Nightly News* than in *CCTV Evening News*.

Based on the normative difference between the two media, *NBC Nightly News* directly connects to the free market. Journalists of this program are reasonably thought as more sensitive about economy and market. In addition, free market competition requires more angles about one story, and the economic consequence is a good angle. While China, although a communist country，has became the second largest world economy and functions similarly to the U.S. since it joined the world trade organization in 2001. These are no former studies about this frame analyzing can be relied on, so the research question was developed:

In addition to the horizontal comparison of the two television news programs, the current study also discusses how the frames changed during the 19 months of study period. Two research questions are thus developed:

RQ1: How have the news frames varied from April 2009 to October 2010 in *NBC Nightly News*?

RQ2: How have the news frames varied from April 2009 to October 2010 in *CCTV Evening News*?

The next research question compares the level of relying on sources. The following research question is raised.

RQ3: What is the difference between the sources of information cited in both *NBC Nightly News* and *CCTV Evening News*?

Some former studies (Fishman ,1980; Paletz and Etman, 1993; Sigal, 1973; Han *et al*, 2010) found that especially under the risk situation, the official sources are always the top sources cited in news programs. In the current study, considering the particular news event, the author classified the official sources into more elaborate parts. So the following research question is raised.

RQ4: Which are the most frequently cited sources by *NBC Nightly News* when reporting H1N1 related issue?

RQ5: Which is the most frequently cited source by *CCTV Evening News* when reporting H1N1 related issue?

Some former studies did content analysis related to sources cited in the news item (Chu, 2010; Guzman, 2008; Peng, 2008; Liu, 2008; Li, 2007). But few of them related sources cited to the difference of frames presented. In the current study, the author tried to make a connection between these two variables.

Since the former studies related to this relationship are rare, it is hard to make

hypothesis. The last research question is developed:

RQ6: Is there any relationship between the sources two programs used and the frames used in the two programs?

CHAPTER 3. METHOD

To gather data for the study a content analysis of *NBC Nightly News* in U.S. and *CCTV Evening News* in China was conducted.

Data

TV news programs were selected for analysis because their longevity as a mass communication medium assures that they carry the traditions of a country's media system. A representative national TV news programs from each of the two countries were examined. *NBC Nightly News* of the U.S. and the *CCTV Evening News* of China were chosen as the representatives of the news programs of two countries.

The example included episodes of news programs broadcast from April 25, 2009 (when CDC confirmed and declared H1N1 flu as a health emergency) to August 10, 2010 (when CDC pronounced the end of the 2009 H1N1 pandemic globally), a total of one whole year and three months. (In fact, the last episode with the H1N1 news in *NBC Nightly News* was in January 11, 2010, in *CCTV Evening News* was in December 31, 2009.)

The unit of analysis is the news story with the main topic of H1N1 flu, including the news lead spoken out by hosts. Hosts' main topics introductions in the very beginning of every news episode are not included. In the *LexisNexis* database and China Central Television Station official website, the daily news programs were searched by broadcasting dates and the key word "H1N1" and "NBC Nightly News." In the total for 467 days' programs, there are 116 news stories with H1N1 flu and related issues as main topic were found in *NBC Nightly News* (found from LexisNexis database). For *CCTV Evening News*, 203 stories were found (CCTV official website). The total sample size is n=319.News that discussed the issue in

tangential ways was discarded from the sample. For example, in the news story titled "Local Governments Are Formulating Policy to Maintain the Price of Hog, Preventing from the Price Depreciation" (Broadcasting in May, 23, 2009), the main topic of it is about policies the local governments are making. When the reasons of the price depreciation are discussed, one of the reasons is H1N1 flu's semantic relation to the hog. The news stories like this were omitted from the sample.

Coding

According to the former studies, five frames were examined in this study according to their visibility. The measurement of news frames are adopted from Semetko and Valkenburg's (2000) study.

1. *Attribution of responsibility* frame:

This frame involves those considered to be responsible for protection and prevention. Government department or non government organizations that made decisions, applied new policies all can be seen were responsible.

2. *Human interest* frame:

This frame refers to whether the news story portrayed people's emotions, their condition, and their everyday lives.

3. *Conflict* frame

This frame refers to disagreeing with or questioning the relevant departments' impolitic approaches to the issue, including investigating process.

4. *Economic consequences* frame

This frame refers to the financial and economic implications of H1N1.

5. *Humanity* frame

This frame refers to "putting the event, problem, or issue in the context of moral prescriptions" Ibrahim et al., (2010, p.11) Considering the specific characteristics of the particular event, the current study did not adopt the questions Semetko and Valkenburg (2000) used to measure the very frame but developed five questions building on Ibrahim et al.'s (2010) work, and changed the name of the frame to "humanity."

Each of the five frames above was measured by five corresponding questions (Appendix I & II). During the coding, the coders were not aware of the correspondence between the questions and the frames. The questions were given to coder in broken sequence. They evaluated the news item by giving a yes (1) or no (0) to each question. For example, one news story reports "How to handle cases of swine flu in schools" (*NBC Nightly News*, August 7, 29, 2009); coders answered "yes" to all five questions mentioning the *attribution of responsibility* frame, two questions concerning the *human interest* frame, two questions concerning the *conflict* frame and two questions concerning the *humanity frame*, whereas they give "no" to the rest of the questions. To give another example, for the story entitled "The scientists of our country have already developed a specific and sensitive diagnosis method of H1N1 flu" (*CCTV Evening News*, April, 30, 2009), the coders answered "yes" to two questions corresponding with *attribution of responsibility* frame, two questions corresponding with *human interest* frame, and one question corresponding with *humanity frame*, whereas they gave "no" to the rest of questions.

The sources of information cited refers to individuals, groups and organizations that provided data and interpretation to help the public understand the unfolding strip of events.

Based on previous studies (Aiken, 2003; Guzman, 2008; Zhang & Chen, 2008) and the

particular topic, numbers of each nine types of sources were coded in this study:

1. Domestic government officials, departments, offices, and bureaus, at the central,

    provincial, and local levels.

2. Government officials, departments, offices, and bureaus, at the central,

    provincial, and local levels of the foreign countries.

3. International official organizations

4. Media organizations and people who work in the media.

5. Scientists, researchers and experts from universities, research institutions, and

    health administration agencies

6. Non-governmental organizations, including the Red Cross or other global and

    local organizations that focus on lending assistance during crisis situations

7. Victims of the H1N1 flu (including the patients and the families or friends of the

    patient)

8. Ordinary citizens who were not victims of H1N1 flu

9. Other sources not listed above

All sources were coded for each story. The frequency with which the sources were

used in each news program was counted.

Inter-coder Reliability

In the current study, coding was conducted by the author and another graduate student

who was trained according to the coding protocols. Both coders are fluent in the Chinese and

English languages. Twelve news stories from *NBC Nightly News* and twenty-three news

stories from *CCTV Evening News* were coded by two coders to check.

The inter-coder reliability in current study was reported by both the percent of agreement which was estimated at an average of .95 and the Cohen's kappa which was estimated at an average of .91(.75 or above is acceptable; Wimmer & Dominick, 2004).

To examine whether each 25 framing questions can cluster into five distinguishable frames, a principal component analysis with varimax-rotated factor solution is used. Ten questions, including all 5 correspondence questions of *humanity frame*, with low loading values (lower than .40) cannot be clustered into each frame, so they were omitted. Table 1 shows the final factor solution of the 15 questions left. Thus, multi-item scales which were adopted from Semetko & Valkenburg (2000) were employed. The value of frame visibility was calculated by summing up the values of each corresponding question and averaging the number of them.

Data Analysis

To examine if there are significant differences between the *NBC Nightly News* and *CCTV Evening News* in terms of average numbers of frames, the average score of each frame of each program was calculated and added together, and be compared using independent samples t-test.

To examine if there are significant differences between the two programs in terms of frames and sources, the mean score of each frame and source was compared using independent samples t-test.

To examine if there are significant differences within the *NBC Nightly News* and *CCTV Evening News* in terms of frames and sources, General Linear Model (repeated

measures) was used. Tukey (Tukey-Kramer if unequal group sizes), Scheffé, Bonferroni and

Newman-Keuls methods are provided for all pair wise comparisons when dealing with

multiple comparisons (Armitage & Berry, 1994; Wallenstein, 1980). The current study

employed Bonferroni grouping methods.

Pearson Correlation was used to examine the relationship between the dependent

variables.

CHAPTER 4. RESULT

This section presents results as they related to the hypotheses and research questions for the current study.

Comparison of Frame Visibility

The first hypothesis (H1) predicted that the visibility of all the frames used in *NBC Nightly News* would be higher than that in *CCTV Evening News*. The result in Table 5 shows that the sum-up of all four frames' scores of the *NBC Nightly News* (M=1.01, SD= .38) is higher than the value of the *CCTV Evening News* (M=.38, SD=.40). The independent samples t-test shows that this difference is significant statistically (*t*=11.05, *p*<.001, df=317). The first hypothesis is supported.

H2a expected that the *responsibility* frame would be used more frequently in *NBC Nightly News* compared with those in *CCTV Evening News*. In the contrast, the result in Table 5 says that the mean value of responsibility frame of *NBC Nightly News* (M=.46, SD=.32) is higher than the value of *CCTV Evening News*. But the independent t-test indicated the difference is not statistically significant. H2a is rejected.

H2b and H2c predicted the most visible frame of both *NBC Nightly News* and *CCTV Evening News* is the *attribution of responsibility* frame. Table 3 and Table 4 show the statistical description of the visibility of frames in both samples. The General Linear Model (repeated measures) was employed to demonstrate whether there is statistically difference between the visibilities of either two frames within one program.

Within *NBC Nightly News*, Bonferroni grouping method shows results with the same grouping letters showing no significant difference between or among the variables (table 6). The scores of *responsibility* frame and *human interest* frame has no significant difference as

they were both grouped by A. Also, the scores of *conflict* frame and *economic consequence* frame has no significant difference as they were both grouped by B. The scores of *responsibility* frame and *human interests* frame are significantly higher than the scores of the other two. ($p<.01$) H2b is partially supported.

In the *CCTV Evening News*, Bonferroni method (table 7) found that, the score of *responsibility* frame is significantly higher than the other three frames. ($p<.01$) The value of *human interest* frame is significantly higher than the *economic consequence* and *conflict* frames, but there is no significant difference between the scores of the last two frames. H2c is supported.

H3 forecasted that the visibility of the *conflict* frame in the *NBC Nightly News* would be higher than it in *CCTV Evening News.* The result shows that the mean values of this frame of *NBC Nightly News* (M=.07, SD=.19) is higher than the value of the *CCTV Evening News* (M=.01, SD=.02). The independent samples t-test shows that this difference is significant statistically (t=-5.24, $p<.001$, df=317). H3 is supported. H4 predicted the same situation for the visibility of the *human interest* frame. Since the value is higher in the *NBC Nightly News* (M=.43, SD=.37) than it is in the *CCTV Evening News* (M=.10, SD=.21) and the independent samples t-test shows the difference is significant (t=-10.23, p=0.001, df=317), H4 is supported.

Time Trend

From Figure 1 it can be seen that before October, the visibility of the *attribution of responsibility* frame and the *human interest* frame and the *conflict* frame was in a certain range in volatility. After October 2009, the usage of the three frames dropped. After

December 2009, the visibility of these three frames was almost zero. On the other hand, the *economic consequence* frame only can be lightly seen in the April, May and September and October 2009.

From Figure2 it can be seen that visibility of the *attribution of responsibility* frame was always the top visible frame through the reporting time cycle. Visibility of *human interest* frame was higher in May and December 2009. Visibility of *economic consequence* frame was higher visible in October. The *conflict* frame reached its visible top on November 2009. The visibility of all the frames tended to zero on January 2010.

Sources

RQ 3 asked about the difference between the sources cited in the two programs. Table 8 shows that besides the domestic government officials, all the other sources cited in one program are significantly different from the ones used in the other sample. From table 8 it can be seen that *CCTV Evening News* relied on foreign government officials and international official organizations more than *NBC Nightly News* did. For media, scientists, non-government organizations, victims and citizens, the scores of *NBC Nightly News* are significantly higher than those in *CCTV Evening News*.

RQ4 and RQ5 asked about the most frequently cited source by the two programs. From Table 9 and Table 10, it can be seen that both programs cited domestic government officals more than other sources. But the hierarchy of sources is different. For *NBC Nightly News,* the second most cited source is citizens, followed by scientists, non-government organizations, victims, media, foreign governments and international official organizations. But for *CCTV Evening News,* the second most frequently used source is the foreign

governments, followed by international organizations, scientists, non-government

organizations, media and citizens. *CCTV Evening News* used none of victims as their source

of information when reporting on H1N1.

RQ 6 asked whether there is a relationship between certain sources and the frames'

visibility. A Pearson Correlation Coefficient was employed. In the *NBC Nightly News*, the

attribution of responsibility frame has significant positive coefficient when correlated with

the source of domestic government (r= .35, *p*<.001). Meanwhile, the *human interest* frame

has significant positive coefficient with the sources of non-government organizations (r= .25,

p<.01), victims (r=.45, *p*< .001) and citizens (r=.39, *p*<.001). In the *CCTV Evening News*,

there are significant positive coefficients between *attribution of responsibility* frame and the

source of domestic government (r= .24, *p*<.001), *human interest* frame and the source of

domestic government officials (r= .24, *p*<.001), *human interest* frame and the use citizens as

a news source (r= .21, *p*<.01), the *conflict* frame and the source of scientists (r=.23, *p*<.001).

Summaries

- The first hypothesis was supported.

- H2a was not supported since there was no significant difference between the

  visibilities of *responsibility* frame in two programs.

- H2b was partly supported. The visibilities of *responsibility* and *human interest* frame

  were both the top in *NBC Nightly News.*

- H2c was supported, so was H3 and H4.

- The first research question asked about the frame usage monthly changes in *NBC*

  Nightly News. The four frames kept dropping after October 2009, while the four

frames reached their top in different months.

- The third research question asked about the difference between the sources used in the two programs. With the exception domestic government officials, which were at the top, there are significant differences between all other sources cited in both programs.

- The fourth research question was about the dominant sources used in *NBC Nightly News.* Domestic government officials and citizens were the top used sources.

- The fifth research question was about the most frequently used sources in *CCTV Evening News.* Domestic government officials were the top used source.

- The last research question was raised to see the correlation between frame using and the sources cited. The *Attribution of responsibility* frame and domestic government officials, the *human interest* frame and non-government organizations, citizens and victims in *NBC Nightly News; Attribution of responsibility* frame and domestic government officials, *human interest* frame and both domestic government and citizens, *conflict* frame and scientists in *CCTV Evening News* had significant positive correlations.

CHAPTER 5. DISCUSSION

The current study conducts framing analysis to examine the television news content in two polar media outlets. It reveals the difference in the frame visibility and source usage within and between the programs and finds a statistical relationship between certain frame visibility and source usage. The study presents empirical evidence that there were differences in frames' visibility and source usage between the U.S. and China premier TV news programs in H1N1 coverage. It also provides evidence that some frames' visibility can be affected by one of the five filters ----the source usage (Herman & Chomsky, 1988).

Framing of H1N1 in the U.S. TV News Programs

The content analysis confirms that the average visibility of all five frames in *NBC Nightly News* is higher, which indicates the news coverage of H1N1 related issues was more diverse and comprehensive in the U.S. media. Specifically, the *attribution of responsibility* frame and the *human interest* frame can be seen as the top visible frames when U.S. television news made reports on the H1N1 related issue. Even the *conflict* frame occupied twice the percentage of the economic consequence frame; their means do not have significant differences since they were adopted much less than the other two.

When the risk event first broke out, just like in Graber (1980) found in similar past situations, media tried to obtain accurate information, relieve uncertainty and calm the public. The visibility of the *attribution of responsibility* frame was high during the first three months while the government officials provided information about the epidemic all over the world and announced decisions they made to prevent the spreading of the disease. After June 2009, the astonishment and panic due to H1N1 that first emerged was eased to some level, the news

content tended to be filled with routine reports and the frames' visibility tended to decline. In September to November 2009, the vaccine of H1N1 disease was nit issued as the U.S. government promised because of the virus' unexpected slow laboratory growth. Government officials kept explaining and apologizing in front of the public, which made the visibility of the *responsibility* frame grow again. Unsatisfied citizens showed up in the daily news program more than usual with their disappointment and anger, which caused the visibility of the *conflict* frame to reach the peak in October. After the first half of November, the vaccines arrived and met the needs of citizens. From then on, the contradictions were alleviated, news reporting tended to fall into a routine again and visibilities of all frames were dropping.

As Beaudoin (2007) argued about the SARS news coverage in the past, the change of frames' usage in *NBC Nightly News* was a result of "breaking news being innately focused on answering the 'what', 'when' and 'where'," while when the news coverage became longer-termed, the reporters tended to "add depth and a human touch in attempting to answer the 'how' and 'why'" (p.522).

The *human interest* frame, in *NBC Nightly News*, had high visibility the whole time. Human interest is "considered one of the major aspects of news value and a key frame of news coverage involving human activity" (Li *et al*., 2002, p.19). *NBC Nightly News* highly focused on the civilians' situation during the crisis.

NBC Nightly News was concerned about the problems, contradiction and side effects related to this issue. The whole H1N1 coverage can be seen as "discovering and solving the problem." This point was also found by Ding (2010) in his study of comparison of Wenchuan earthquake coverage between Chinese and American newspapers. *NBC Nightly News* paid

more attention to the civilians' feelings, suffering and desires. Ordinary citizens' and victims' names, families' names and what they had been through were seen in most news items. The severity of the disease, policies the officials made and the life changes due to the situation were showed from the civilians' perspective. The reports reached a balance in the number officials and civilians cited.

Framing of H1N1 in the Chinese TV News Programs

The *Attribution of responsibility* is the most visible frame in *CCTV Evening News*. This is typical for a media system that is propaganda tool of the domestic government. Differing from *NBC Nightly News*, when referring to the domestic situation, the news items referring to this frame were concerned about the positive actions of official governments such as "The Ministry of Health's Mechanism of Treatment of H1N1 Came Out" (April 30, 2009), "Premier Wen Jiabao Hosted the Standing Committee of State Council, Deployed the Mechanism of Flu Prevention and Control" (May 11, 2009) and "Our Efficient Mechanism of Flu Prevention and Control Was Highly Praised by Other Countries" (August 21, 2009). When the news topics were related to foreign countries, some of the content also referred to the "methods the government took," stating that they "were effective". However, most of the reports were just a description about the policies and movements the foreign governments made. These findings build on previous research that alow that "In international news reporting, (Chinese) mainstream media are strictly adhering to the government's stance" (Han, 2011).

Trying to console one billion and three hundred million people is what the Chinese government is most concerned about when a crisis event breaks out. For their own national

interest, stability during the crisis needs the top attention. Domestic government's over reassurance of the public, on one hand, falsely reduces the severity of reality, but on the other hand, builds the confidence of the public.

The *Human interest* frame had the second highest visibility in *CCTV Evening News.* The visibility of *human interest* frame, however, is much lower than it is in *NBC Nightly News.* Chinese media are always criticized by "caring less about civilians" (Sun, 2001). This can be seen as another attribute of government-controlled media. When the propaganda function works as the media's main duty, the media's focus is reasonably on the government rather than civilians. For the same reason, the visibility of the *conflict* frame was lower. In Beaudion's opinion (2007), not only the state's censorship but also the journalists' self-censorship plays a very important role in the news making process in China. Self-censorship means that journalists tend to avoid digging and reporting the sensitive issues, contradictions or conflicts in order to avoid punishment from their superiors in the censorship department(p.521). Even though the supervisory function of Chinese media has been improved a lot in recent years, what was less obvious than that of western media (Wang, 2003).

The visibility of the *economic consequence* frame was not highly visible in *CCTV Evening News*. As in *NBC Nightly News*, the routine news stories on H1N1 did not focus much on the related financial problems.

From these results, it can be seen that *CCTV Evening News* cared more about the general H1N1 pandemic as a whole picture and less about the problems, contradiction and side effects related to this issue. The whole H1N1 broadcasting process can be seen as a

"general description." During the reporting process of the general event, many guarantees were made by the government to release the public's fear of the new, unknown disease. In the first three months, *CCTV Evening News* had a daily routine report to provide the public general information such as the number of suspected and confirmed cases. Virtually almost every national mainstream medium, no matter newspapers or radio programs, followed this play-by-play trend of coverage.

It can be seen that the free market competition leads news media to try to make news more comprehensive and attractive. On the other hand, media that are under the government's control tend to have the "straight line type" news reporting style. The "straight line reporting type" was defined by Chen (2009), which means that the straight news is the most common news reporting type in one news program, and the media just disseminate some general information. News stories are flat without setbacks just like a straight line.

Sources

Domestic government officials can be seen as the dominant information source of both programs. During disasters, both the media and citizens are eager to have access to fast, important and reliable information. Domestic government officials, under this situation, undoubtedly met the requirement.

Average citizens got the second highest percentage of all sources used in *NBC Nightly News*. On the contrary, *CCTV Evening News* cited information from citizens only once, making it the least used source.

Compared to *NBC Nightly News*, in the news stories referring to the particular event that broke out in the homeland or abroad, *CCTV Evening News* adopted more institutional

sources with rare alternative information sources. The top three sources of this program were domestic government officials, foreign government officials and International official organizations. Zheng(2009) argued that because of the SARS crisis in 2003, Chinese government and media realized the importance of reporting the health event in the beginning. They adopted the official information from home and abroad and disseminated it as soon as possible even before the first transported case emerged in mainland China.

The Correlation Between Frames and Sources

In *NBC Nightly News*, the use of government officials had a positive correlation effect only with the visibility of the *attribution of responsibility* frame. The *human interest* frame's visibility has significant positive coefficients with the sources of non-government organizations, victims and citizens.

For instance, in the news story titled "People Cautious in Face of Swine Flu" (May 1, 2009), President Obama made a speech to ensure the citizens of the U.S.: "I want to make clear to everybody, and the reason I brought this Cabinet meeting together, is that we are taking this very seriously, and we will take every single step that's necessary to make sure that the American people are safe." In addition, another person from public service announcement said: "We are taking aggressive action to combat this public health threat". In this news story, the score of *responsibility* frame's visibility is .75 (three corresponding questions were coded as "Yes"); the frame was presented all by government official sources (The president of the U.S. and the officer from public service announcement).

Humans' voices and faces appeared a lot in *NBC Nightly News*. For example, in the news story titled "President Obama Speaks on Swine flu" (September 1, 2009), the man who

died from the disease was given as a victim example and his mother said: "Ryan was nothing but smiles and love. He really--he was the happiest, most caring, gentle soul ever." The visibility of *human interest* score was 0.75 and the frame was presented by victims. In the story with the title "Most of the Group of US Students Stuck in China with Swine Flu Able to Go Home" (July 30, 2009), since one student in the traveling group to China was identified as a confirmed case, the whole group was quarantined for more than 10 days. Finally they can go home. Student No. 1 said: "It feels good to get our mask off and everything", student No. 2 said: "They did a lot to make us comfortable, but it was quarantine, and I am ready to go home." The *human interest* frame got a score of 0.75 and it was presented by the source of "citizens".

"Everyone who has something to say" can be seen in the media and basically the people or organizations in the U.S. presented for themselves. The government officials showed up to reassure and comfort the people, meanwhile the citizens and victims were interviewed to introduce their situations and express their feelings.

The interesting finding here is the correlation between the use of domestic government official sources and certain frames. In *CCTV Evening News*, this source has a positive correlation not only with the *attribution of responsibility* frame (same with the *NBC Nightly News*), but also with the *human interest* frame. For example, in the news story titled "Hong Kong Officially Announced the Emerging of First H1N1 Confirmed Case" (May 2, 2009), the news content is "As Chief Executive Zeng Yinquan of Special Administrative Region of Hong Kong announced last night, the first H1N1 confirmed case appeared in Hong Kong…The patient is a twenty-five-year-old male Mexican. He took the AM098 flight from

Mexico to Shanghai on April 29th, and transported to the MU505 flight to Hong Kong…The situation of the patient is optimistic." The visibility of *human interest* frame score is 0.75, but differing from *NBC Nightly News*, the frame was presented by domestic government officials.

This finding indicated that when Chinese media focused on the citizen-related issues, the speaker was a domestic government official. This represents another point that can be seen as s characteristic of the government-controlled media. Through the particular source of information, the Chinese government can potentially influent the citizens' attitudes of the risky event and build the confidence of the public.

"Framing theory examines the ways in which news media organize reality" (Dimitrova & Strömbäck, 2005, p. 413). Media select some aspects of the whole picture and ignore some. What part of the reality the media choose depends on the political and media system and the national interests (Dimitrova & Strömbäck, 2005). In the current study, both *NBC Nightly News* and *CCTV Evening News* choose the action of government and responsible individuals for the important aspect of reality due to the crisis situation. *NBC Nightly News* dabbled in different aspects more than *CCTV Evening News* did, especially in the human interest's side.

The western news press, which is represented by the U.S. press, is strongly against news tendentiousness. In their opinion, "tendentiousness" equals to "bias'"and "prejudice." "Tendentiousness" is against objectivity, and by using it in news stories even democracy and freedom will be violated (Zhu 2009, p.630). This point, based on the normative attributes of U.S. media, was supported in the current study.

In Chen's study (2009), even though the Chinese media system and news reporting

has been changing a lot since the "new China" was established, there are still many problems with the Chinese news system. It can be seen that through more than 60 years, the news became more colorful and the news circumstance became freer. Chinese government has also been changing their propaganda measures from being blank such as "the government with their people can conquer any disaster" to real concerns about the truth, the real damage the disaster made, the government's ability and the lives of the civilians (Sun, 2001). When disseminating risk-related news, the news media changed from focusing only on Chairman Mao, to focusing only on the Communist party, then to the present, focusing more on the individuals and other affections (Yang, 2009; Wang, 2011). Even though Chinese media are still propaganda tools of the Communist party of China, the press and speech environment became much freer than it was when the nation was established. The current study supports this point by showing the visibility of all four frames in the news content and the sources' diversity.

CHAPTER 6. CONCLUSION

Comparative research can provide insights into different media and political, marketing systems. Scholars and journalists consider that crisis news coverage is a very important aspect of the news production system and think the news coverage of crisis events can be typically representative of the larger news gathering efforts. Crisis news reporting became a window for people to evaluate news routines, news systems, and the changes in other media, even to understand the national image of other countries(Herford, 2008; Zhou, 2008; Sun, 2010).

The current study conducts a content analysis to reveal the visibility of generic frames and sources of information cited in two extreme mainstream media----that of China and the U.S. to get the empirical support to the theory that differences in media systems can impact risk-related issue coverage. The media in the free market and free speech environment made more comprehensive reports on the risk-related issues with higher visibility of frames and widely used sources and highlight the disagreement, problems, and problem-solving process. The study also supported that the state-owned media was almost descript, straight-line style with the lower frames' visibility and the narrowly used sources. The U.S. media played the role of a supervision mechanism more than Chinese media did. The Chinese media played the role of a propaganda tool more than the U.S. media did.

Contribution of the Study

The result of the current study, firstly, enriched the studies on news content of H1N1 coverage, and secondly, highlighted the differences in media systems that can exert influence on media performance.

For the first time, some significant statistical correlations were built between several sources' types and frames' visibilities. Clearer relevancy between some sources' types and visibilities of some frames were established in this research. This conclusion partially quantitatively reinforced the news propaganda model theory (Herman & Chomsky, 1988); that is, sources' usage does influence the news frame and news content.

The positive correlation between *human interest* frame and domestic government officials in Chinese media is one important finding in the current study. The sources' deficiency of state-owned media can be seen as usual (Siebert et al., 1956); meanwhile the propaganda strategy of the Communist Party was presented. The government portrayed their citizens as satisfied and comfortable to ensure and comfort the public. The study indicates that the ruling party of China is focusing on their civilians in their own way.

The hypotheses in this study were formulated based on previous studies. Since most of the hypotheses in the current study were supported, the former studies on the U.S. and Chinese news content or media systems can be seen as broadly reflecting the reality. The phenomenon implies that the books and articles which were used in this study can also help further research to make hypotheses.

Technically, the current study shows the necessity of the factor analysis when the same method was employed on the content of different news events. When the framing analysis was employed, the basic method was adopted from Semetko and Valkenburg's (2000) study. The original valid corresponding questions developed by Semetko and Valkenburg of the five frames were all adopted but some of them were omitted due to low correlations in the factor analysis. The final valid questions are fewer than the original ones, which makes the

from each other on the presidential election. Even though there is no particular study on the same topic on health-risk-issue reporting, using only *NBC Nightly News* as a representative of U.S. TV news has potential weakness. Further research can enlarge the sample of market-controlled media systems by choosing more than one program, or conducting a comparison study among more than three programs.

Finally, due to the limitation of the databases, the video materials of the two news programs were not completely found. Due to this, the current study only examines the news text of television news program. Frames can also exist in the video material. Further studies can be conducted to analyze both textual and video materials at the same time to reach more comprehensive results.

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APPENDIX I.

Content Analysis Coding Sheet

1. Item ID Number: _____

2.   Coder: _____

3.   Source: news from_____ (1=*NBC Nightly News* , 2=*CCTV Evening News*)

4.   Date(year): _____

Frames: mark each question as yes (1) or no (0).

 Attribution of Responsibility

5.   Does the story suggest that some level of government has the ability to alleviate the problem? _____

6.   Does the story suggest that some level of the government is responsible for the issue/problem? _____

7.   Does the story suggest solution(s) to the problem/issue? _____

8. Does the story suggest that an individual or a group of people in society is responsible for the issue-problem? _____

9. Does the story suggest the problem requires urgent action? _____

Human Interest frame

10.   Does the story provide a human example or ―human face‖ on the issue? _____

11. Does the story employ the relationship between two or more individuals? _____

12.   Does the story show or discuss how individuals and groups are affected by the issue/problem? _____

13.   Does the story go into the personal or private lives of the actors? _____

14. Does the story employ adjectives or personal vignettes that generate feelings of outrage, empathy- caring, sympathy or compassion? _____

 Conflict frame

15. Does the story reflect disagreement between parties/individuals-groups-countries? _____

16. Does one party-individual-group-country criticize another? _____

17. Does the story refer to two sides or to more than two sides of the problem or issue? _____

18. Does the story refer to winners and losers? _____

19. Does the story mention the reason of the conflict/disagreement? _____

Economic consequences frame

20. Is there a mention of financial gains now or in the future? _____

21. Is there a mention of financial losses now or in the future? _____

22. Is there a mention of the cost/degree of expense involved? _____

23. Is there a reference to economic consequences of pursuing a course of action? _____

24. Is there a reference to economic consequences of not pursuing a course of action? _____

Humanity frame

25. Does the story using some words such as "cooperate" or "resolve" to inspire the public and built the confidence of the public? _____

26. Dose the story suggest some advises for the susceptible population or citizens to show care? _____

27. Dose the story treat the patients or regular citizens with dignity? _____

28. Dose the story show sympathy or supportive to the family of patients/ the dead?

_____

29. Dose the story show disagreement with some unfair or anti-morality issue? _____

Sources:

30. Government officials, departments, offices, and bureaus, at the central, provincial, and

local levels of the home country. _____

31. Government officials, departments, offices, and bureaus, at the central, provincial, and

local levels of the foreign countries. _____

32. International official organizations_____

33. Media organizations and people who work in the media. _____

34. Scientists, researchers and experts from universities, research institutions, and health

administration agencies_____

35. Non-governmental organizations, including the Red Cross or other global and local

organizations that focus on lending assistance during crisis situations_____

36. Victims of the H1N1 flu_____

37. Ordinary citizens who were not victims of H1N1 flu_____

38. Other sources not listed above _____

Table 1. Inter-coder reliability

	Percentage of agreement	Cohen's Kappa
Attribution of Responsibility		
Does the story suggest that some level of government has the ability to alleviate the problem?	0.88	0.76
Does the story suggest that some level of the government is responsible for the issue/problem?	0.94	0.88
Does the story suggest solution(s) to the problem/issue?	0.91	0.82
Does the story suggest that an individual or a group of people in society is responsible for the issue/problem?	0.91	0.82
Does the story suggest the problem requires urgent action?	0.91	0.82
Human interest		
Does the story provide a human example or ―human voice on the issue?	0.94	0.88
Does the story show or discuss how individuals and groups are affected by the issue/problem?	0.85	0.70
Does the story go into the personal or private lives of the actors?	0.94	0.88
Does the story employ adjectives or personal vignettes that generate feelings of outrage, empathy-caring, sympathy, or compassion?	0.97	0.94
Does the story employ the relationship between two or more individuals?	0.91	0.82
Conflict		
Does the story reflect disagreement between parties/individuals-groups-countries?	1.0	1.0
Does one party-individual-group-country criticize another?	1.0	1.0
Does the story refer to two sides or to more than two sides of the problem or issue?	0.97	0.94
Does the story mention the profit winners and losers?	1.0	1.0
Does the story mention the reason of the conflict/disagreement?	0.97	0.94
Economic consequences		
Is there a mention of financial losses now or in the future?	1.0	1.0
Is there a mention of financial gains now or in the future?	1.0	1.0
Is there a mention of the cost/degree of expense involved?	0.94	0.88
Is there a reference to economic consequences of pursuing a course of action?	1.0	1.0
Is there a reference to economic consequences of not pursuing a course of action?	1.0	1.0
Humanity		
Does the story using some words such as "cooperate" or	0.88	0.76

"resolve" to inspire the public and built the confidence of the public?		
Dose the story suggest some advises for the susceptible population or citizens to show care?	0.91	0.82
Does the story mention humanity help between countries or people?	1.0	1.0
Dose the story show sympathy or supportive to the family of patients/ the dead?	0.85	0.70
Dose the story show disagreement with some unfair or anti-morality issue?	1.0	1.0
Source		
Government officials, departments, offices, and bureaus, at the central, provincial, and local levels of the home country.	1.0	1.0
Government officials, departments, offices, and bureaus, at the central, provincial, and local levels of the foreign countries.	1.0	1.0
International official organizations	0.94	0.88
Media organizations and people who work in the media.	0.97	0.94
Scientists, researchers and experts from universities, research institutions, and health administration agencies	0.94	0.88
Non-governmental organizations, including the Red Cross or other global and local organizations that focus on lending assistance during crisis situations	1.0	1.0
Victims of the H1N1 flu (including the patients and the families or friends of the patient)	1.0	0.94
Ordinary citizens who were not victims of H1N1 flu	0.97	0.94
Other sources not listed above	1.0	1.0

Table 2. Varimax-Rotated Factor Solution for Framing Questions

	Frames			
	Respon-sibility	Human Interest	Conflict	Economic Consequence
Does the story suggest that some level of government has the ability to alleviate the problem?	**.520**	-.066	.008	-.025
Does the story suggest that some level of the government is responsible for the issue/problem?	**.484**	.122	.266	.010
Does the story suggest solution(s) to the problem/issue?	**.512**	.228	-.055	.199
Does the story suggest the problem requires urgent action?	**.591**	.213	-.071	.031
Does the story employ the relationship between two or more individuals?	.158	**.638**	.132	.028
Does the story employ adjectives or personal vignettes that generate feelings of outrage, empathy-caring, sympathy, or compassion?	.171	**.442**	.290	.113
Does the story go into the personal or private lives of the actors?	.026	**.767**	.081	.110
Does the story provide a human example or —human voice on the issue?	.140	**.838**	.087	.005
Does one party-individual-group-country criticize another?	.157	-.037	**.711**	-.017
Does the story refer to two sides or to more than two sides of the problem or issue?	.026	.078	**.515**	-.003
Does the story reflect disagreement between parties/individuals-groups-countries?	-.098	.243	**.463**	-.058
Does the story mention the reason of the conflict/disagreement?	-.059	.172	**.939**	-.042
Is there a mention of financial losses now or in the future?	.007	-.039	.012	**.956**
Is there a reference to economic consequences of not pursuing a course of action?	.019	.007	-.008	**.400**
Is there a mention of the cost/degree of expense involved?	.065	.150	-.051	**.424**

Table 3. Frequencies and Percentages of the Presence of News Frames in *CCTV Evening News* and *NBC Nightly News*

Frames	NBC Nightly News		CCTV Evening News	
	N	% within the program	N	% within the program
Attribution of Responsibility	99	85.34	121	59.61
Human interest	81	69.83	43	21.18
Conflict	17	14.65	1	0.49
Economic consequences	9	7.76	7	3.45

Table 4. Mean and Standard Deviations for the Visibility of News Frames in *CCTV Evening News* and *NBC Nightly News*

Frames	NBC Nightly News		CCTV Evening News	
	Mean	SD	Mean	SD
Attribution of Responsibility	0.27	0.29	0.46	0.32
Human interest	0.10	0.22	0.43	0.37
Conflict	0.00	0.02	0.07	0.19
Economic consequences	0.01	0.73	0.04	0.15

Table 5. The independent samples t-tests of news frames between two news programs

	NBC Nightly News	CCTV Evening News			
	Mean (SD)	Mean(SD)	T-value	df	significance
Attribution	0.46(0.32)	0.27(0.29)	-5.717	317	ns
Conflict	0.07(0.19)	0.00(0.02)	-5.240	317	$p<0.001$
Human	0.43(0.37)	0.10(0.21)	-10.235	317	$p<0.001$
Economic	0.04(0.15)	0.01(0.07)	-2.136	317	$p<0.001$
Total	1.01(0.62)	0.38(0.40)	11.046	317	$p<0.001$

Table 6. Bonferroni test result within *NBC Nightly News* and *CCTV Evening News*

Factors	Mean	N	Grouping
Responsibility	0.46	116	A
Human interest	0.43	116	A
Conflict	0.07	116	B
Economic	0.04	116	B

$p<0.01$

Note: The high to low means are marked with alphabetical order. Means with the same letter are not significantly different

Table 7. Bonferroni test result within *CCTV Evening News*

Factors	Mean	N	Grouping
Responsibility	0.26	203	A
Human interest	0.10	203	B
Conflict	0.01	203	C
Economic	0.00	203	C

$p<0.01$

Note: The high to low means are marked with alphabetical order. Means with the same letter are not significantly different

Table 8. The independent samples t-tests of sources cited

	NBC Nightly News	CCTV Evening News			
	Mean(SD)	Mean(SD)	T-test	DF	Sig.
Domestic government officials, departments, offices, and bureaus, at the central, provincial, and local levels.	0.97(0.98)	0.60(0.81)	3.581	317	ns
Government officials, departments, offices, and bureaus, at the central, provincial, and local levels of the foreign countries.	0.12(0.55)	0.56(1.61)	-2.817	317	0.000
International official organizations	0.09(0.29)	0.26(0.53)	-3.104	317	0.000
Media organizations and people who work in the media.	0.25(0.63)	0.02(0.16)	4.845	317	0.000
Scientists, researchers and experts from universities, research institutions, and health administration agencies	0.50 (0.79)	0.08(0.28)	6.843	317	0.000
Non-governmental organizations, including the Red Cross or other global and local organizations that focus on lending assistance during crisis situations	0.49(0.89)	0.04(0.23)	6.785	317	0.000
Victims of the H1N1 flu (including the patients and the families or friends of the patient, and the people whose lives are negatively affected by the flu)	0.37(0.75)	0.00(0.00)	7.030	317	0.000
Ordinary citizens who were not victims of H1N1 flu	0.75(1.32)	0.00(0.07)	8.005	317	0.000

Table 9. Bonferroni test result within *NBC Nightly News*

Factors	Mean	N	Grouping
Domestic governments	0.97	116	A
Citizens	0.75	116	A B
Scientists	0.50	116	B C
Non-government organizations	0.49	116	B C
victims	0.37	116	C D
media	0.25	116	C D
Foreign governments	0.12	116	D
International organizations	0.09	116	D

$p<0.01$

Note: 1) The high to low means are marked with alphabetical order. Means with the same letter are not significantly different

2) Since the score of the classification of "other" is 0, this classification is not t ested in this system.

Table 10. Bonferroni test result within *CCTV Evening News*

Factors	Mean	N	Grouping
Domestic governments	0.60	116	A
Foreign governments	0.56	116	A B
International organizations	0.26	116	B C
Scientists	0.08	116	C
Non-government organizations	0.04	116	C
media	0.02	116	C
Citizens	0.00	116	C

Note: 1) The high to low means are marked with alphabetical order. Means with the same letter are not significantly different

2) Since the scores of the classification of "Other" and "Victims" are 0, the two classifications are not tested in this system.

Figure 1. Frames over time in *NBC Nightly News*
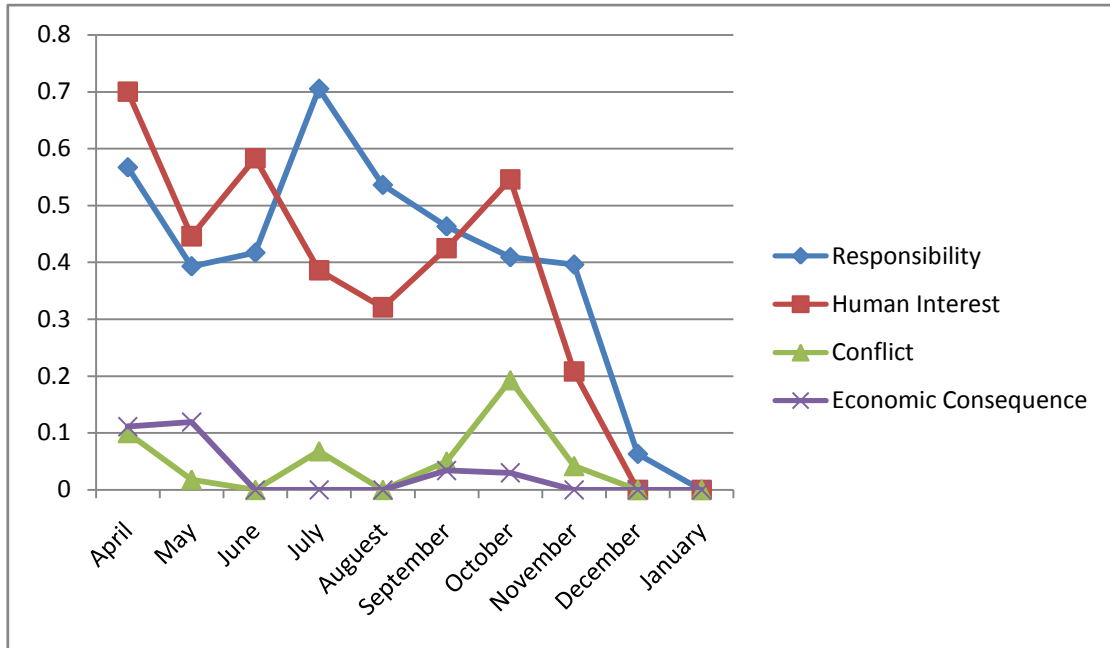
Figure 2. Frames over time in *CCTV Evening News*