

CALIFORNIA STATE UNIVERSITY, NORTHRIDGE

A COMPARATIVE FRAMING ANALYSIS OF THE  
U.S. AND JAPANESE NEWS MEDIA COVERAGE  
OF THE 2011 FUKUSHIMA NUCLEAR CRISIS

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By

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## ABSTRACT

### A COMPARATIVE FRAMING ANALYSIS OF THE U.S. AND JAPANESE NEWS MEDIA COVERAGE ON THE 2011 FUKUSHIMA NUCLEAR CRISIS

By

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This study examined how the nuclear crisis at the Fukushima Daiichi Power Station was framed in the initial reports of a leading Japanese news outlet, *Yomiuri Shimbun* compared with a leading American news outlet, the *New York Times*. Frame analysis was used to assess the articles. The dominant frame in the *Yomiuri Shimbun* was the ‘Inadequate response’ frame, highlighting the government authorities’ insufficient response, absent leadership, lack of plans and failure to inform citizens. The *New York Times*, which was covering the crisis from an external standpoint, used the ‘Fix it’ frame using the crisis to suggest that United States is more prepared and is ready to respond to crises, and that Japan lacks the technology and capability to resolve such crises.

The study also found that the primary source for *Yomiuri Shimbun* were government officials and politicians, whereas the *New York Times* quoted external sources such as nuclear experts and academia in the United States most often.

# CHAPTER 1

## INTRODUCTION

In the afternoon of March 11, 2011, a 9.0 magnitude earthquake occurred off the northeastern coast of Japan, which unleashed a 50-foot tsunami that surged inland six miles and destroyed everything in its path, leaving widespread death and destruction behind (Luke & Karashima, 2012). The tsunami triggered a slow, unrelenting radiation leak from five nuclear power plants located in Fukushima. This has become the so-called “Fukushima Daiichi nuclear crisis.”

The Tōhoku earthquake, tsunami, and the nuclear crisis comprised the largest disaster in Japan since World War II (Hasegawa, 2012). The disaster itself was a devastating event for Japanese citizens as many lives and houses were lost.

After almost two years after the disaster, Reporters Without Borders released “The Annual 2013 World Press Freedom.” In this survey, Japan was demoted from 22nd to 53rd place, falling 31 ranks, recording the biggest drop of any Asian country (Reporters Without Borders, 2013). They noted that the “sharp fall has been affected by a lack of transparency and almost zero respect for access to information on subjects directly or indirectly related to Fukushima Daiichi nuclear power plant” (Reporters Without Borders, 2013, p.3). In addition, they also included the fact that “several freelance journalists who complained that public debate was being stifled were subjected to censorship, police intimidation and judicial harassment”, adding that “this is an alarming fall for a country that usually has a good ranking” (Reporters Without Borders, 2013, p.11).

This study will examine and compare how the United States and Japanese mainstream news media framed the disaster, focusing especially on the Fukushima

nuclear crisis. Additionally, this study will investigate the sources the news outlets relied on when covering the stories.

Research Questions:

1. How did the United States newspaper *New York Times* and the Japanese newspaper *Yomiuri Shimbun* frame the Fukushima nuclear crisis?
2. What sources did each paper rely on?

### **Significance**

This study is important because even three years after the accident, people in Japan are still suffering from the aftermath of the triple disaster. Moreover, the anxiety regarding the radiation and the potential dangers to residents living near the Fukushima nuclear plant who might have been exposed is a long-term issue (Conca, 2013). Although the World Health Organization (WHO) released an interim evaluation in their assessment of Fukushima stating, “the predicted risks are low and no observable increases in cancer rates above baseline rates are anticipated for the general population in Fukushima prefecture, across Japan and beyond” as of March 13, 2014, there are still 263,958 displaced people, who have not returned to their normal lives before the disaster happened. 130,000 were evacuated due to concerns about nuclear radiation. According to Hideki Sasaki, an official at the local prefectural office of JA Group, Japan’s largest farmers’ cooperative, almost 100,000 farmers in Fukushima have lost 105 billion yen since March 2011 and many cannot restart cultivation.

If, as Quarantelli says, “what average citizens come to know of ongoing disasters, and what they learn from disasters that have occurred, are primarily although not exclusively learned from mass media accounts” (Quarantelli, 1990, p.

25) is true, news media have a responsibility to be a reliable source for citizens. In order to serve the public with viable information, what they report, what sources they refer to are crucial factors. Therefore, news media reporting about the accident is an important topic to consider.

## CHAPTER 2

### LITERATURE REVIEW

The first part of the literature review focuses on the background of the disaster that occurred in Japan on March 11, 2011, specifically on the nuclear crisis. Next, previous research about natural and man-made disaster coverage in the news media will be looked at. This will cover how the U.S. and Japanese mainstream news media tend to cover disaster news. The third part focuses on explaining U.S. and Japanese media system ownership patterns as well as the freedom of the press. Furthermore, this section will examine how the media, government, and the citizens reacted to the crisis.

#### **The March 11, 2011 Triple Disaster in Japan**

What is called the “Triple Disaster” or “The 3/11” is comprised of three disasters that happened in Japan on March 11, 2011. First, a giant earthquake struck the northeastern coast of Japan, which triggered the second disaster, a massive tsunami, which in turn, seriously damaged the nuclear power plant in Fukushima that potentially leaked a large amount of radiation into the environment, and became the third disaster.

This was the largest disaster in Japan since World War II, and the third deadliest disaster in modern Japanese history after the Great Kanto Earthquake in 1923, which resulted in an estimated 142,800 dead or missing, and the second largest, the Great Meiji Sanriku Tsunami of 1896, that caused at least 22,000 deaths.

## *Earthquake and Tsunami*

The earthquake occurred 43.5 miles off the northern Pacific coast of Japan's main island of Honshu at 2:46 pm (JST). It measured magnitude 9.0 on the Richter scale, lasted six minutes, and was the largest ever to hit modern Japan and one of the world's five largest earthquakes since 1900. There were a number of foreshocks before the main shock, and hundreds of strong aftershocks inevitably followed. Arase (2012), who studied the impacts of the disaster, found out that the earthquake "shifted the entire planet 6.7 inches off its axis and it moved the coast of Japan's main island of Honshu 2.4 meters (nearly 8 feet) to the east."

The resulting tsunami hit the Pacific coastline of northeastern Honshu, and reached a maximum height of 40.5 meters (133 feet) and a maximum distance inland of 6.2 miles, flooding an estimated 217 square miles. The height of the tsunami that destroyed the Fukushima nuclear plant was 15 meters (49 feet). The tsunami completely or partially destroyed towns and villages, along with their agricultural, industrial, and commercial enterprises along a 435-mile stretch of coast. This element of the disaster caused the most deaths by far.

Japanese officials reported 15,885 dead, 26,992 injured, and 2,623 still missing across 20 prefectures. Furthermore, 129,225 buildings were totally destroyed, 254,204 half destroyed, and 691,766 damaged. Roads and rail lines were heavily damaged, and 4.4 million households in the northeastern Tohoku region of Honshu lost electricity while 1.5 million households lost tap water. The World Bank estimates the total cost of damage resulting from the disaster at \$235 billion, making it the world's most expensive disaster in recent history. Nevertheless, Arase (2012) noted, "excluding the destruction of the Fukushima nuclear plant and its subsequent radioactive fallout, the earthquake and tsunami in comparison with other recent giant

earthquakes and tsunamis resulted in comparatively small losses due to Japan's relatively high level of preparedness" (Arase, 2012, p. 314).

### *Crisis at the Nuclear Power Plant*

The accident in Fukushima Daiichi nuclear power plant was rated level 7 on the International Nuclear Event Scale, which is the highest level, indicating a major accident. This was the same level as the Chernobyl nuclear accident in 1986.

According to a study done by Hasegawa (2012), a sociology professor at Tohoku University, hydrogen that was released from the damaged core filled up the reactor buildings and subsequently caused the meltdown and explosions. In Fukushima Daiichi Nuclear Power Station, there are six nuclear power reactors, all operated by Tokyo Electric Power Company (TEPCO). At the time of the earthquake, only Units 1, 2, and 3 were operating, and Units 4, 5, and 6 were not in operation for regular maintenance. Hasegawa (2012) explains "Units 1 to 3 automatically scrammed at the onset of the earthquake, but external power supplies and almost all in-house AC power supplies were lost due to the earthquake and the tsunami. Reactors and spent fuel pools lost their cooling capabilities" (p. 85). Explosions occurred at Units 1 to 4, and the Japanese government later confirmed that Units 1, 2, and 3 experienced a full meltdown. As a consequence, a large amount of radioactive material was released.

Hasegawa (2012) explains two important characteristics that make the Fukushima nuclear crisis an historical accident. First, it took 4 months from the accident to start the stable cooling function in the reactors again. This means the meltdown continued for more than 9 months. Hasegawa notes that "The crisis of the Three Mile Island (TMI) nuclear accident in the United States in 1978 passed after the

first 6 days. Even in the case of the Chernobyl accident, a large amount of radiation was halted after the first 10 days” (Hasegawa, 2012, p. 85). Next, it was the first severe accident that occurred at a nuclear power plant located on the coast, whereas the TMI and the Chernobyl stations were located inland. Hasegawa (2012) claims that “a large amount of contaminated water was released into the ocean from 4 to 10 April” (p. 85). Fishermen in Japan and the governments of neighboring countries such as Korea, China and Russia criticized this release (Hasegawa, 2012).

Many people who had been living near the Fukushima nuclear station were still in evacuation either by government order or their own choice as of March 2013. Some people were hoping to return to their homes, while others were waiting until they were absolutely sure that they would not be exposed to high radiation. No entry is allowed in the “Access-restricted Area,” which is a zone up to 12.4 miles from the site, unless authorized. Some areas outside the 12.4-mile zone are also designated as “Deliberate Evacuation Areas.” Not only the evacuees but also all Japanese citizens may face risks of exposure to radiation. They are worried about the level of contamination in foods, water, rain, and homes (Hasegawa, 2012). The Japanese government is working on decontamination in more than 100 municipalities in eight prefectures.

Although the trigger for the Fukushima nuclear accident was the huge tsunami, Hasegawa (2012) argues that an “investigation by a committee of the cabinet proved that this accident is a human disaster, with the TEPCO and the national government such as the Japanese Nuclear Safety Commission (JNSC) very much responsible for the incident, due to a series of ‘underestimates,’ such as that of the height of a possible tsunami, the possibility of a “station blackout” and lengthy periods of no AC power” (Hasegawa, 2012, p.86).

## **Disaster Coverage**

How the media respond to disasters is now well established. According to Scanlon (2007), “the media hear about the event, try to obtain more information, use their own files to add background to their stories, dispatch reporters and report what they are told by officials” (p.77). This includes warnings, and keeping the public informed in the aftermath of the disaster. Scanlon (2007) notes that “media often devote all their air time or much of the space available to that single story” (p.77). Additionally, Scanlon cites Lasora’s study (2003) to explain that media also devote some time to correcting rumors and misinformation.

Media play a critical role before (pre-disaster), during and after the disaster. Scanlon (2007) emphasizes that media are the essential and perhaps the most important source to inform the public with warnings in the time of a disaster. In addition, he also writes “mass media may be the glue that binds societies in certain occasions” (p.77). At the same time, media are also responsible for existing misconceptions about the disaster. Scanlon claims that “failure by officials to issue a warning may be a result of the myth that people panic, a myth perpetuated by the media” (p.118).

Journalism scholars have pointed out that today, the public’s first choice of news in times of crises is television (Scanlon, 2007). This matters because news media perform differently in crises. Previous research suggested that print media tend to maintain the traditional gatekeeping functions, whereas electronic media often do not. Yet, television still captures most of the public audience (Scanlon, 2007).

### *Disaster coverage in Japan*

Nippon Hosou Kyoukai (NHK), as a public broadcaster, is legally responsible for promptly broadcasting weather forecasts and warnings. Furthermore, the Disaster Countermeasure Basic Law in Japan designated NHK as one of the official emergency agencies in disasters, and assigns to it the role of providing the public with disaster-related information (Hiroi, Mikami, & Miyata, 1985). According to Hiroi, Mikami and Miyata (1985), “The Broadcasting Act prescribes that both NHK and commercial broadcasting companies take the responsibility for broadcasting in order to help mitigate disasters” (p.22). However, “no other laws refer to the legal responsibility of the commercial broadcasting companies in disasters” (p.22). Therefore, in principle, the commercial broadcast companies voluntarily render services to the public during disasters.

The mass media in Japan are generally expected to perform two functions in the times of disasters. One role, as news reporting agencies, is to provide the public with newsworthy information on each phase of a disaster. The other is the role, as an emergency organization, to help in preventing or mitigating disasters. The latter function is especially expected of broadcast media, since they have the capability to warn the audience of the impending danger and transmit directions or advice to the public much more promptly than print media (Hiroi et al., 1985). As for newspapers in Japan, they are all operated as private enterprises. Freedom of the press is guaranteed by the Constitution, and no legal regulations are imposed on them during emergencies or in normal times.

Hiroi et al. (1985) conducted a content analysis of the news broadcast by two stations about the 1983 Nihonkai-Chuubu Earthquake in Japan. The results show that information such as personal messages and damages were most frequently broadcast.

However, they argue this does not always match the public's information needs. They also found that newspapers and broadcast media, in the restoration stage of disasters, "report heavily on disaster-related events, from detailed information on damage or other societal consequences of disasters to critical examination of total disaster prevention plans" (Hiroi et al.,1985, p.23).

According to Hiroi et al., Japanese media tend to exaggerate damages in the disasters, which often leads to distorted perception of hazards (1985). The media also "tend not to report sufficiently the news people want to get" (Hiroi et al.,1985, p.42). Hiroi et al. lists two reasons. The first is the journalist's attitude towards news editing and reporting, and the second reason is the distorted images and myths among journalists (Hiroi et al.,1985).

Hiroi et al. (1985) writes that, in Japan, the crisis reporting by the press sometimes carries gross ambiguities and inaccuracies. According to them, disaster reports in Japanese media have two problems in general, which is coverage comprehensiveness and accuracy. First, "media tend to report only extremely prominent cases" (1985, p.40). Hiroi et al. note that Japanese journalists and broadcasters pay attention to the most prominent cases such as the seemingly most damaged spot, the most miserable victim or the most tragic incident, and are inclined to report them in detail. As a result, Hiroi et al. claim that these emphases might "encourage people to perceive only the most hazardous dimensions of disaster and to promote non-victims' perception of the victim as helpless" (1985, p.40). Second, media tend to not report important news and information the general public want to obtain. Media devote large amounts of space and periods of time on particularly appealing and prominent stories (Hiroi et al., 1985). In general, journalists have to

judge what is valuable to report to the public out of vast amounts of potential news because of the limitations of space and time.

As Hiroi et al. (1985) noted earlier, there are also inaccuracies of content in Japanese media reports. Hiroi et al. notes “Japanese mass media have a tendency to emphasize the extent of the crisis or to exaggerate the incident which in reality is not so serious” (p.40). Japanese media sometimes overdramatize social and individual reactions to disasters or warnings of impending disaster, and overstate the total loss.

### *Disaster coverage in the United States*

For the past several decades, “news coverage of natural and manmade disasters has captured the American public’s attention more than any other issue” (Houston, Pfefferbaum, & Rosenholtz, 2012, p.606). That the public turns frequently to the news media to obtain information about catastrophic events that happen across the United States and around the world is not surprising “given the scope of death, injury, and destruction resulting from major disasters such as the September 11 terrorist attacks, Hurricane Katrina, the Indian Ocean tsunami, the Great East Japan Earthquake” (Houston et al., 2012, p.607).

When a disaster strikes, the general role of the news media in the United States is to communicate whatever warnings are available, provide a description of what has occurred, keep the public informed during and after the event, and to contribute to the community’s recovery and resilience (Houston et al., 2012).

Scanlon (2007) argues that there are two ways the news media cover these events. “There is coverage of the aftermath of the incident, and there is coverage of those who state openly that they caused it and the government reaction to that”

(p.108). He adds that when incidents involving human error occurred in the past, the media “often searched for a scapegoat, for someone to blame” (Scanlon, 2007, p.108).

Moeller (2006) found that media used disasters and crises such as Hurricane Katrina as “an opportunity to report economically on a sensational story of proven interest to their target audience” (p.192). She discusses the role of the media as “choosing where to focus public attention, particularly during times of crisis” (Moller, 2006, p.192).

Houston et al. (2012) conducted a content analysis that examines mass media depictions and framing of the most severe eleven major natural disasters that occurred between 2000 and 2010 in America. The study focuses on mass media news coverage, specifically on national newspapers and broadcast television news, and five tendencies in disaster coverage. First, Houston et al. (2012) found that the time period in which news outlets cover natural disasters are shorter than that of other issues. The second result indicated that “media coverage tends to focus on the current impact of disasters on humans, the built environment, and the natural environment (i.e., who was hurt or killed and what was destroyed). They also found that disaster economics is an important topic for the outlets; that media coverage on disasters generally focus on the state and region related to the event; and that “disaster news is largely about what is happening now” (Houston et al., 2012, p. 619).

According to Houston et al.’s analysis, “the average time span a disaster was covered in the current analysis was 340 days, about 12 months, a time period shorter than the average life span of 18.5 months found for public issues in agenda-setting research” (Houston et al., 2012, p.611). The shortest time span was for the Arkansas floods that were only covered for 3 days, and Hurricane Katrina was marked the longest, being covered for 1,920 days. In addition, they have noted that for all

disasters, significant news stories and media coverage occurred immediately after the event, followed by a rapid decline (Houston et al., 2012).

Factors that are likely to drive news coverage are the number of people injured or killed by the disaster, the number of people affected in other ways, and the amount of destruction and damage (Houston et al., 2012). This can be identified as a descriptive frame, where mass media are providing information on the people who were hurt and what was damaged in the disaster zone.

Houston et al. (2012) also found out that news media usually relies on official sources to gain disaster information, and that news media often focuses more on dramatic descriptions of the events rather than on casual explanations. Additionally, in their previous research, three stages of disaster news have been documented. The first stage was how the disaster tragically disrupted the disaster zone and citizens. Next was people escaping and helping each other, and the third stage was “officials working to restore order and find cause” (Houston et al., 2012, p.608).

## **Media Theory**

### *Framing*

Goffman (1974) suggests that individuals actively organize, classify, and interpret experiences to make sense of them. Goffman defined the term “framing” as “a schemata of interpretation that enables individuals to locate, perceive, identify and label” (p. 21) occurrences or life experiences. Thus, in other words, “framing” constructs meaning for an event or problem (Goffman, 1974).

Framing also plays a significant role in how news stories are produced, such as when news organizations select and highlight a particular aspect of an event (Entman, 1993). According to Entman (1993), to frame is to “select some aspects of a

perceived reality and make them more salient in a communicating text” (p. 52).

Entman (1993) emphasize that media practitioners, such as journalists, reframe events and news stories whether knowingly or unknowingly.

The ways journalists perceive, locate, and portray information in news stories are often shaped by their own values, perceptions, and biases. Hence, even though news stories are being presented based on facts, what was included or excluded, what was emphasized or played down, could be different depending on the journalist who covered the news, and may have a strong impact on the readers’ perceptions of the topic (Entman, 1993). According to Chattopadhyay (2012), “this can be significant in the context of crisis coverage because the audiences’ attitudes towards the crises are shaped by how the crises have been framed” (p. 51).

As a result, this influences individual’s understandings of events to a different degree. In terms of international affairs, Chattopadhyay (2012) claim that “exposure to media reports may help to enhance public understanding of foreign countries, but can cause misperceptions through unbalanced or biased reports” (p. 51).

According to Gitlin (1980), media are the main distributors of ideology that has been created and disseminated primarily through framing, or the way that media messages are organized and portrayed for its audiences. This implies that the ideology of the news source, socially shared norms and reality, and cultural values can actually affect the nature of news production. These dominant frames are persistent over time and embedded inside the culture as common sense perceptions, “sometimes leading to a one-dimensional and somewhat hegemonic take on news stories” (Chattopadhyay, 2012, p. 53).

These common sense perceptions that has been created through frames often gets reflected in the type of problem identified in the news stories, creating “reality”

that needs to be understood. These “reality” turns out to influence societies’ perceptions of crises or implications for public policy. Chattopadhyay (2012), therefore notes that “framing serves as a useful lens to better understand the media coverage of crises” (p. 53).

### *Hegemony*

Hegemony is an indirect form of government of imperial dominance in which the hegemon, which is the leader state, rules beliefs and values within any society.

In early 20th century, the Italian Marxist philosopher Antonio Gramsci developed the theory to include social class. In Marxist philosophy, the term “Cultural Hegemony” describes the domination of a culturally diverse society by the ruling class. This one social class can manipulate the system of values, beliefs, perceptions and mores of a society, in order to create and establish a ruling-class Weltanschauung, a worldview that justifies the status quo of bourgeois domination of the other social classes of the society (Gitlin, 1980).

### *Framing and Hegemony*

In recent decades, research on news frames has sought to provide investigation on the production, reception, and influence of news texts (Carragee & Roefs, 2004). However, Carragee and Roefs (2004) discuss the outlines of new directions in framing research by suggesting that framing and hegemony could be enriched and that “further integration of framing research with scholarship on the media hegemony thesis is one way to examine how power shapes the framing process” (p. 215).

Carragee and Roefs believe that framing processes need to be examined within the contexts of political and social power (2004). However, they criticize recent

researches examining media frames and their influence, suggesting that “a number of trends in framing research have neglected the relationship between media frames and broader issues of political and social power” (p. 214), and that such research tends to explore frames simply as content features that produce media effects (Carragee & Roefs, 2004).

Carragee and Roefs (2004) claim that failure to consider political and social power severely reduces understanding of the investigational approach on the character, production, and influence of media frames. This also “neglects frame sponsorship and the asymmetries in power that influence the ability of sponsors to shape the agenda” (p. 227). Furthermore, it neglects to examine why particular frames dominate news discourse (Carragee & Roefs, 2004).

Carragee and Roefs (2004) point out that researchers should “explore how movements construct collective action frames regarding a particular issue, how elites frame the same issue, and how and why journalists define these frames in their reporting over time” (p. 227). They conclude that framing research needs to be “linked to the political and social questions of power central and media hegemony” (Carragee & Roefs, 2004, p. 214).

## **Media System and Ownership**

### *Japanese media system and ownership, freedom of the press*

In Japan, three major newspapers, “the big three,” control more than half of the national newspaper market. The big three are the *Asahi Shimbun*, the *Yomiuri Shimbun*, and the *Mainichi Shimbun*. The broadcast media in Japan are operated by both public and commercial organizations. Japan’s public broadcaster Nippon Hosou Kyokai (NHK) and the commercial networks Nihon Television, Tokyo Broadcasting

System (TBS), Fuji Television, TV Asahi are the five major players in the broadcasting market. NHK has two television channels and three radio frequencies, which cover the whole country through a microwave network system. Although the law in Japan restricts cross-media ownership, the major newspaper groups hold a stake in their affiliated television networks, either through direct ownership or through various subsidiaries. Japan also has roughly 228 community radio stations. Another report from Freedom House (2012) states that, around 80 percent of the population accessed the Internet in 2011, and the medium remain an important source for news.

According to Sirkkunen, Cook and Tanaka (2012), “the Japanese media environment is richer than other countries” (p. 29), in a way that it continues to gaze at world trends, but at the same time it is structured inside a peculiar and isolated system.

Au and Kawai (2012) argue that giant corporations and politicians have pressured Japanese news media from reporting unfavorable or critical news regarding their business or the government. Au and Kawai identify “the common thread running through this criticism is that the media is almost identical in its reportage, selection of news, and even in its headlines, make-up, and format” (2012, p.131). Furthermore, the same news items are often selected across many different types of news media, sometimes emphasizing the same things (Au & Kawai, 2012). The lack of independence, originality, and diversity in news stories still remain as a concern, especially in political news. Freedom House (2012) identifies substantial homogeneity in Japanese news.

One of the main reasons for this homogeneity is believed to be the “kisha club system,” a Japanese press club system which can be translated as a “reporters’ club.”

The kisha clubs are managed and organized by news media associations. A kisha club consists of a formal association of journalists and reporters assigned to one beat. Depending on the agency and its importance, each kisha club has a dozen to 300 or more journalists and reporters covering the beat. When any government agencies or major Japanese companies have news to release, they hold a press conference collecting the journalists and reporters who are responsible for covering the news for their news organizations in one large room. The room serves as the operation room and base for the journalists and reporters to gather and organize information, confirm, and write the news. All journalists and reporters in the kisha club share the same access to all resources in general. They receive the same handouts, witness the exact same event, and are exposed to news sources at the same time regarding their assigned beat (Au & Kawai, 2012). Au and Kawai note that “critics point to the kisha club as the symbol of media captured by the government, and collusion within the media” (2012, p.131).

Au and Kawai write “the membership in the club is limited to an exclusive group of news organizations and mainstream media journalists (including major newspapers, broadcast stations, and wire services) that belong to the associations of Japanese media and hold a virtual monopoly over news sources” (p.131). There are strict rules for members in order to limit independent activities and investigative reporting (Au & Kawai, 2012). There are also strong punishments against those who violate the rules, including exclusion from the club (Au & Kawai, 2012). Therefore, journalists tend to avoid writing critical stories about the government, reducing the media’s ability to pressure politicians for greater accountability and transparency. Au and Kawai (2012) claims that “this self-censorship is one of the most noteworthy aspects of the kisha club system” (p.133).

Thus, Japanese news media have built a unique press-political relationship between politicians and news outlets in Japan. Primarily, the Japanese news media respond to an agenda that has been already set by the political leaders instead of shaping emerging news and predicting stories. While the existence of the system makes it easier for the Japanese government to control journalist's access to information regarding political events and control them from disseminating the information, the government is limiting competition and rivalry among the news media organizations. Therefore, is beneficial for both politicians and news media in Japan.

Meanwhile, many observers have criticized the kisha club system. In fact, Japan ranks 37<sup>th</sup> in the press freedom rankings by Freedom House (2012) which explains:

Through Japan's kisha kurabu, or press clubs, major media outlets maintain cozy relationships with bureaucrats and politicians, resulting in an arrangement under which journalists are granted access in exchange for refraining for writing critical stories. The March 2011 earthquake and tsunami, and the resulting disaster at the Fukushima Daiichi Nuclear Power Plant, magnified this problem. Members of kisha kurabu were among the few journalists admitted to official press conferences, and admission was often granted in exchange for foregoing tough questions regarding the disasters. Additionally, freelance journalists and foreign and online media were excluded from reporting on the nuclear threat and were not allowed into official press conferences. There were accusations of official censorship in the aftermath of the disaster, but the Japanese government denied that it had attempted to withhold negative information. Self-censorship remains a problem in Japan and was further highlighted after the disaster (p. 1).

Furthermore, in "The Annual 2013 World Press Freedom Index", a survey done by Reporters Without Borders, they also explained that Japan "plummeted because of censorship of nuclear industry coverage and its failure to reform the "kisha club" system" (p. 11). They found a "lack of transparency and almost zero respect for

access to information on subjects directly or indirectly related to Fukushima” (Reporters Without Borders, 2013, p. 3).

As described above, Japan’s unique press clubs have long been criticized for their contribution to the government’s propaganda, however, now freelance journalists have set up their own associations to support a more free and open journalism system (Sirkkunen, Cook, & Tanaka, 2012). Sirkkunen et al. (2012), note that “most of Japan’s investigative journalism is conducted by reporters outside the press club system” (p.31). Yet, most Japanese freelance journalists, online writers, and magazine reporters are still barred from observing the press conferences or accessing club briefings (Sirkkunen et al., 2012).

*Aftermath and Chaos of the Nuclear Crisis; the reaction of the Japanese government and mainstream media*

After the earthquake and tsunami occurred, both the Japanese government and the Japanese mainstream news media were in an uncertain situation. The government declared the first nuclear emergency on March 11 at 7:03 pm (JST), approximately four hours after the earthquake hit Japan’s mainland. Initially, the government declared an evacuation order to people within a 1.2-mile radius from the nuclear station. Soon after, it was extended to 6.2 miles. Later, Kan, the Prime Minister at that time, issued an announcement stating people within a 12.4 mile zone of the nuclear station must evacuate immediately, and urged those who were living between the 12.4 and 18.6 mile zone from the site to stay indoors or evacuate voluntarily. On April 22, which was 41 days after the incident, the government announced that the evacuation zone would now be 12.4 miles circling the site. According to Hasegawa (2012), “around 100,000 residents within these zones, 2,020,000 people, which is 5% of the

whole population of Fukushima Prefecture, were ordered to leave their houses” (p. 87). Only 20% of the residents in Fukushima knew about the accident when the evacuation was ordered on the evening of March 11.

Hasegawa claims that “a lot of confusing and misleading information, along with deliberate concealment and the delay of information disclosure occurred after the accident” (p. 87). The System of Prediction of Environmental Emergency Dose Information (SPEEDI), which is a system that the government spent over 11 billion yen to establish, had been expected to play a crucial role in preventing radiation exposure and publicizing the evacuation route for the local population. Although information regarding the best evacuation route had been calculated by this system, it was not publicly shared. Thus, “many people near the site rushed to even more highly contaminated areas, due to the shortage of information” (Hasegawa, 2012, p.87).

As soon as the incident happened, many reporters and journalists from Japanese mainstream media went to the affected area, the government, and related agencies for information. The Japanese news media across the country were covering the disaster 24/7.

Although newspaper organizations and television stations sent many reporters to the affected areas, the news media repeated the official line from the government and TEPCO (Ito, 2012). Ito (2012) argues there is a high chance that news media were unaware of the potential danger at the nuclear plants. Similarly, Sirkkunen et al. (2012) claim that “the mainstream news became conservative, protective, which resulted as a lack of vital information” (p. 32).

Ito (2012) compared the news coverage of the disaster by the key Japanese television stations, Nippon Hosou Kyoukai (NHK), Nippon Television, Tokyo Broadcasting System (TBS), Fuji Television, and TV Asahi. Ito claims that even

NHK, the respected public broadcaster, did not report the crisis thoroughly, but only covered what the Japanese government and TEPCO said. He writes “Despite such an enormously dangerous situation, NHK consistently failed in reporting the real crisis” (2012, p. 47).

On the other hand, Ito gives an example of a news program that was broadcast on Fuji Television at 8:07 p.m. on the day of the disaster. They aired a comment by physicist Yuko Fujita, former associate professor at Keio University, where she addresses the possibility of a meltdown in the reactor cores. Ito notes that Fujita was the only expert who spoke critically about the danger of a nuclear accident and forecast the meltdown on television that day. However, Ito found out that Fujita was never invited to any television stations after that comment.

According to Freedom House (2012), many reporters did not question TEPCO about the radiation leaks until two weeks later. The disaster also highlighted the amount of influence TEPCO has in Japan’s advertising industry. Freedom House (2012) argues that the fact that TEPCO reportedly spends \$120 million annually on advertising might have contributed to the media’s conservative reporting on the company.

While television stations failed to report the severity of the disaster, Ito notes that “alternative media on the Internet succeeded, to some extent, in reporting useful information related to the accident” (2012, p.51). Many freelance journalists from alternative media and some individuals or citizen journalists published comments from scientists or experts who were skeptical towards government’s official reports on the Internet. Some of them also published their own predictions on what was going to happen next or translated and posted news that was published in foreign news media. Sirkkunen et al. (2012) says “the media environment itself was shaken by the

disaster as people started to gather information about incoming aftershocks, what was happening at the nuclear reactors, and what radioactive material was blowing out of the reactors” (2012, p.32). Research by Nomura Research Institute (2011) found that the Japanese public’s trust in the Internet and social media increased significantly after the incident (Sirkkunen et al., 2012).

#### *U.S. media system and ownership, freedom of the press*

The media in the United States are mostly under private ownership. Major newspapers include *New York Times*, *Los Angeles Times*, *USA Today*, *The Wall Street Journal*, *Washington Post*, and *The Dallas Morning News*.

Hallin and Mancini (2004) compared media systems in 18 countries in Western Europe and North America. In their research, they developed three models for media systems and defined the United States media as the “liberal model” (Hallin and Mancini, 2004). In the liberal model, they found that “the newspaper circulation is substantial, the press has commercial roots, the broadcast is governed by the professionals, the journalistic profession is non-institutionalized, and the role of the state is weaker” (p. 32), meaning the media is more market oriented (Hallin & Mancini, 2004). McChesney notes that U.S. media are essentially the domain of the "free market" and that the modern commercial media system resulted from an informed debate. Thus, McChesney argues that the U.S. media system has been set up to serve the interests of those who make the policies such as large profit-driven media corporations, while the vital and broad interests of the public audience have been neglected.

As the popularity of Internet as a news medium has increased over the past couple of years, McChesney (2004) argues that traditional news media, including both

print and broadcast outlets, has been suffering financially. The newspaper industry in the United States, including even the most prestigious and largest newspapers, is undergoing a severe decline and readjustment. McChesney argues that this trend has particularly affected news media outlets' ability to conduct investigative reporting and to cover international news (McChesney, 2004).

## CHAPTER 3

### METHODOLOGY

This chapter consists of four sections. In the first section, framing analysis, which was chosen as the study's methodology, will be described and defined. Next, the sampling method such as the selection of media outlets and articles that were used for this study will be explained. Then the data analysis is discussed including an explanation of the coding sheet. Finally, the research limitations of this study will be discussed in the end of the chapter.

This study posed the following research questions:

How was the Fukushima nuclear crisis framed by the United States newspaper *New York Times* and the Japanese newspaper *Yomiuri Shimbun* in the first three weeks after the accident occurred? What sources did each paper rely on?

#### **Comparative Framing Analysis**

In order to address the research question posed by this study, comparative framing analysis was chosen as the methodology for analysis.

Comparative analysis is comparing and contrasting two things: two texts, two theories, two historical figures, etc. In this study, United States news media coverage and Japanese news media coverage were compared.

Framing analysis is a research method used to analyze how people interpret situations and activities in the world around us. Framing is a meaning-making activity; frames help us understand an event or problem (Goffman, 1974). In other words, this analysis provides a lens for how people make sense of what they experience and encounter. "Frame" as a noun refers to selection of information or

what was displayed. As a verb, it refers to the process of building and creating frames, such as a news organization defining and constructing a political issue or a public controversy.

The concept of framing in the field of communications originated with the study of Erving Goffman (1974), "Frame Analysis: An Essay on the Organization of Experience." Goffman defined the term "framing" as "a schemata of interpretation that enables individuals to locate, perceive, identify and label" (p. 21) occurrences or life experiences. Other researchers applied this idea to communication and more specifically journalism studies. Today, this method is often used in studies of news, politics, and social movements among other topics. Framing is also "a suitable lens used to examine media coverage of crises, particularly across cultures, and has been used extensively in the past" (Chattopadhyay, 2012, p. 52).

Frame analysis assists researchers to understand how people construct events, and understand the observations made from interactions between respondents. It can also be useful when attempting to understand the dominant framing between and within social movements and social institutions. Pan and Kosicki (1993) explain framing analysis as a constructivist approach in order to "examine news discourse with the primary focus on conceptualizing news texts into empirically operationalizable dimensions so that evidence of the news media's framing of issues in news texts may be gathered" (p. 55).

Therefore, using this method, researchers are able to examine how news stories are reported, how pieces of information are selected and organized in order to produce stories, what stories are highlighted, the importance of the angle, and what the "story focus" is, since this angle or focus is actually what creates a frame.

Entman (1993) identified four functions of frames. A frame will “identify and define the problem, diagnose the cause, evaluate it, and suggest remedies” (p. 52). Thus, the frame “defines the cause(s) of a problem, evaluates the problem and its cause, and finally identifies who is responsible for the problem and proposes a solution to the problem” (Chattopadhyay, 2012, p. 53).

However, there are also limitations regarding the method of “framing” itself. This is because we frame events and experiences based on our cognition and culture. As Gamson et al. (1992) writes, “we are active processors and however encoded our received reality, we may decode it in different ways” (p. 384). This indicates that my reception of the frame might be somewhat personal related to my own background.

Entman (1991) suggests that comparing media coverage of events “helps to reveal the critical textual choices that framed the story but would otherwise remain submerged in an undifferentiated text” (p. 6). He notes that unless media narratives are compared, many of the frames devices can appear natural and the choices of words and images will not be noticed.

## **Sampling**

### *Selection of Newspapers*

This study examines how two elite national newspapers, which have the largest circulation in the United States and Japan, covered the Fukushima nuclear crisis. For the United States news media, *New York Times* was selected. As for the Japanese news media, *Yomiuri Shimbun* was selected.

The *New York Times* was chosen as the United States news media to analyze not only because of the readership numbers in the United States, but because of its leading presence in the nation and across the world. In Entman’s (2004) “Projecting

Power in the News,” he writes that the *New York Times*’ cues are followed by the rest of the news media. Herman and Chomsky (1988) also note that *New York Times* serves as a main source of international news for U.S. citizens.

The *New York Times* is owned by The New York Times Company, which also publishes 18 other newspapers (About the Company, n.d.). The company describes itself as providing consistently deep coverage of the world from more than 1,000 *Times* journalists based in 39 cities across the globe. The *New York Times* has been awarded 112 Pulitzer Prizes and citations; more than any other news organization (About the Company, n.d.). These facts make the *New York Times* one of the most highly regarded and influential media outlets that sets the agenda for other news media. The *New York Times* is also the most widely read digital newspaper, with 807,026 online subscribers. Following industry trends, its weekday circulation has fallen to fewer than one million daily since 1990. The *New York Times* was selected because its website is America's most popular news site, receiving more than 30 million unique visitors per month (Chattopadhyay, 2012).

While the printed newspaper industry across the western world is currently overseeing slowly dwindling circulations, the demand remains strong in Japan. Figures from the World Association of Newspapers reported by the AFP in 2012 revealed that after Iceland, Japan has the second-largest newspaper readership in the world with 67 million copies sold daily (approximately 1.4 papers per household). The home delivery rate is more than 94%. The world's three top-selling newspapers are all based in Japan. These facts make the newspaper the most credible and supported medium in Japan.

*Yomiuri Shimbun*, a twice-daily newspaper, was selected because it has the largest circulation in Japan. It is part of the Yomiuri Group, which is Japan's media

giant. The broadcast channel Nippon Television Network Corporation is also part of this group. The newspaper was established in 1874 and is currently the world's only newspaper with a circulation above 10 million. The circulation of *Yomiuri Shimbun* is greater than that of the *New York Times*, *Washington Post* and *Wall Street Journal* combined. With a readership of more than 13.5 million (Japan Audit Bureau of Circulation), this newspaper is considered as Japan's most influential newspaper. The newspaper also publishes an English language edition, *The Daily Yomiuri*. The editorial stance is considered conservative or right leaning.

Although the English version of their stories exist in *The Daily Yomiuri*, only Japanese language articles from the *Yomiuri Shimbun* were examined in this study. This is because articles written in Japanese are the ones primarily read by Japanese citizens living in Japan.

#### *Selection of Time Period*

A time period of three weeks, from March 12, 2011 to April 1, 2011 was selected for examination. March 12, 2011 marks the day after the earthquake took place. Although it is most likely that frames change over time, this time period was selected because I assumed that in a disaster or crisis that is highly time sensitive, the first three weeks will be enough for the news outlets to establish a frame and influence the public's perception and public's understanding of the crisis. At the same time, I anticipated the initial coverage was much more crucial in creating the public's perceived reality.

### *Selection of Articles*

In this study, 162 articles were examined, 82 articles from the Japanese newspaper *Yomiuri Shimbun* and 80 articles from the U.S. paper *New York Times*.

Since Lexis/Nexis academic does not carry Japanese language newspaper articles, the 82 articles for *Yomiuri Shimbun* were assembled through the Yomidasu Rekishi-kan database. The terms used for the search were “Fukushima” and “nuclear.” Only the national edition articles were selected. This resulted in 819 articles, where I sorted the list to the oldest to the newest. To narrow down the number of articles, I used the tool Research Randomizer Form v4.0 (<http://www.randomizer.org/form.htm>) and randomly selected 10% of the articles. The Randomizer generated 82 numbers.

Since the Yomidasu Rekishi-kan database cannot conduct an advanced search, exclusion of articles had to be done after generating numbers to select random articles. If the number generated fell into an article that was a regional edition, a sports/entertainment or an art/culture category, or articles with more than 6,000 characters which are mostly message boards and emergency boards, I went on to the next article.

Articles for the *New York Times* were collected through Lexis Nexis Academic database. Using Advanced Search, articles that were published in the date range of March 12, 2011 and April 1, 2011 and those that included the term “Fukushima AND nuclear AND Japan” were selected. There were a total of 164 articles, including blogs and Web articles published on [nytimes.com](http://nytimes.com). Then, I excluded blogs; this eliminated 2 articles and narrowed down the number to 162 articles. Next, I downloaded the results in Microsoft Word file and listed from oldest to the newest. After the search results were downloaded, I followed a few more steps to assemble the articles to examine for this study by going through the list one by one and

determining the articles that did not match my criteria for this study. The first step was to go through the entire list and eliminate articles that were only published on the Web nytimes.com. These were the articles that did not have a page number listed. There were 9 articles on this sort. Next, I eliminated 2 articles from Inside the Times. Then, I eliminated articles that included “German\*” because there were articles that were about Germany or the German government in nuclear related issues that were not relevant to this study. This step eliminated 7 articles. The fourth step was to sort out and exclude the irrelevant or less relevant articles such as business/finance category, letters to the editor, corrections, duplicates or stories focusing on other countries. This step eliminated 24 articles. This four- step process narrowed down the articles to 120. The final process was to generate an equivalent number of articles to the *Yomiuri* newspaper sampling. Again, using Research Randomizer Form v4.0 (<http://www.randomizer.org/form.htm>), 80 articles were randomly selected.

### **Data Analysis**

To understand the frames that dominate the media coverage of the Fukushima nuclear crisis, a total of 162 articles were examined. The articles for this analysis were read and coded according to the code sheet developed originally. The code sheet allows for a reduction of data to specific categories, which in turn enabled me to find the most relevant information in order to answer the research questions. The code sheet (See Appendix A) asked of each article the following questions:

1. Newspaper and Article #:
2. Title/Headline of article:
3. What is the subject/focus of the story?
4. Who are the sources used in the article?

5. What is identified as problem (or danger) in the news article?
6. What is the cause of the problem?
7. What is suggested as a solution to the problem?
8. What would be the overall moral judgment of the article?

To examine what sources each paper relied on, I went through each article on both newspapers to count the direct and indirect quotes cited by the journalist. The sources fell into to seven categories.

- Government officials and politicians. This excluded the nuclear regulators, Nuclear and Industrial Safety Agency (NISA) and Nuclear Safety Commission (NSC) in Japan, and Nuclear Regulatory Commission (NRC) in the United States.
- Nuclear regulators, NISA and NSC of Japan
- Fukushima Daiichi nuclear plant operator Tokyo Electric Power Company (TEPCO)
- Nuclear regulator, NRC of the United States
- Citizens/public
- Nuclear experts and academia
- Others (e.g., media companies, businesses and international organizations)

### **Limitations**

For this study, only one news outlet per country was examined in this study. Other mainstream newspapers may have posed different frames and story selections. Also, only printed news articles were used in the research. If broadcast media or perhaps, social media were also included in this research, the results and findings

could have been different. Additionally, the time period was limited to only three weeks. The frame might change after some period of time.

In this study, articles written by the *New York Times* journalists and *Yomiuri Shimbun* journalists, all of whom who work for mainstream news media in their country, were compared. Should the study have included articles written by freelance journalists, citizens and other non-traditional journalists, findings may have been different. Therefore, the results and findings of this study cannot be generalized to all journalists.

## CHAPTER 4

### FINDINGS

In this chapter, the results from the original data analysis are presented. First, sources that appeared and were quoted in both outlets, the *New York Times* and *Yomiuri Shimbun*, are presented. Next, the frames that were dominant in each paper are analyzed and discussed within the following functions of “framing” suggested by Entman (1993): problem, cause, moral judgment and solution.

#### **Source**

The number of sources listed in Table 1.1 below indicate that the primary source for *Yomiuri Shimbun* were government officials and politicians, followed by Japanese citizens. Nuclear experts and academia were the primary source for the *New York Times*. The *New York Times* quoted more sources in their articles than *Yomiuri Shimbun*. Although TEPCO was an important first party in the crisis, both papers did not quote them as much. *Yomiuri Shimbun* quoted approximately the same amount of government officials and citizens. Quotes from government officials and politicians were mostly from the press conference and briefings, and what was announced publicly. The citizens and public were mostly evacuees or Fukushima residents and farmers who were directly affected by the nuclear crisis and sharing their fear and struggles.

The *New York Times*, on the other hand, can be seen that they relied more on the words that came from the experts and academia. While it is understandable that *New York Times* quoted citizens much less than *Yomiuri Shimbun* since they may have less contact with the Japanese citizens and also had a language barrier to

interview them, the difference in the number or quotes from the experts and academia are quite interesting.

Table 1.1 Sources quoted in *Yomiuri Shimbun* and *New York Times*

	<i>Yomiuri Shimbun</i>	<i>New York Times</i>
Government Officials/Politicians (non-NISA/NSC/NRC)	34% (n=115)	23% (n=99)
NISA/NSC (JPN regulators)	6% (n=20)	4% (n=18)
TEPCO (plant operator)	6% (n=19)	7% (n=28)
NRC (U.S regulator)	1% (n=4)	3% (n=14)
Citizen/Public	31% (n=105)	16% (n=67)
Experts/Academia	14% (n=48)	35% (n=147)
Other (UN, IAEA, Media, Companies, etc.)	8% (n=27)	12% (n=49)
Total	100% (n=338)	100% (n=422)

The result indicates two things. First, it is most likely the *New York Times* had less access to the Japanese government and citizens than *Yomiuri Shimbun*, and thus relied on sources that were more accessible for them, such as nuclear experts or knowledgeable professors in the United States. Secondly, this may suggest that *New York Times* was trying to do more investigative reporting than *Yomiuri Shimbun*, and was trying to include voices from the third party in the story to reveal anything that could answer the questions rising from the public on what is going on in Japan, or if there is any possibility that the crisis may effect the United States. On the contrary, sourcing fewer experts and academia may suggest *Yomuri Shimbun* did not want to develop investigative stories or the sources were not willing to speak out because of self-censorship. Most of the quotes that come from experts and academia in *Yomiuri*

were suggesting how to deal with radiation exposure, or giving general advice on what food or products may be public health hazards.

### **The Dominant Frame**

The dominant frame in the *Yomiuri Shimbun* was the ‘Inadequate response’ frame, highlighting the government authorities’ insufficient response, absent leadership, lack of plans and failure to inform citizens. The *New York Times*, which was covering the crisis from an external standpoint, used the ‘Fix it’ frame using the crisis to suggest that United States is more prepared and is ready to respond to crises, and that Japan lacks the technology and capability to resolve such crises.

### **Problem**

The *Yomiuri Shimbun* and *New York Times* both identify the problem as the Japanese authorities, both the government and Tokyo Electric Power Company (TEPCO), the plant operator, failing to respond to the nuclear crisis adequately or in a timely manner. Many articles published by *Yomiuri Shimbun* indicate that Kan administration, which is the office of the Prime Minister, “has not been able to sufficiently respond to the chain of disasters, the earthquake, tsunami, nuclear accident and the support for victims” (“Political leadership,” 2011, ¶ 1). The *New York Times* also writes that numbers of experts in the field of nuclear power and crisis management believe that “TEPCO and the government were woefully unprepared to deal with the explosions at the plants” (Belson, 2011, ¶ 6), criticizing the Japanese authorities’ ad hoc response.

### *Yomiuri Shimbun*

The *Yomiuri Shimbun* coverage emphasizes two factors, the Japanese authorities' slow response to the accident and failing to communicate clearly to the public.

### *Slow Response*

Many times in the *Yomiuri Shimbun* articles, the journalists accuse the authorities of not dealing with the problem or informing the public swiftly and soon enough. This coverage helped frame the problem as the inadequate response by the Japanese authorities. For example, the paper writes, "The government has been slow in action on problems such as radiation leaks and planned blackouts that directly affect the citizens' safety" ("Government has no plan," 2011, ¶ 1).

Another story notes that many companies are supplying aid and relief goods to the affected areas, and some companies are even increasing production for the supplies that are scarce. However, *Yomiuri Shimbun* writes, "because of the disruption of the logistics and the slow response from the government, these companies' goodwill has not been fully delivered to the people in those areas" ("Goodwill from businesses increases," 2011, ¶ 1). Similarly, in another article, the journalist writes that a network of international aid has been growing all over the world ever since the disaster occurred. However, the offers "are up in the air because of the government's slow response" ("Support and aid," 2011, ¶ 1).

*Yomiuri Shimbun* also wrote about TEPCO's slow response to the accident, suggesting that TEPCO also delayed taking quick enough action. The paper wrote, "TEPCO told the government that the cooling system was functioning and they did not work on the operation until 3 days later" ("NSC official Madarame," 2011, ¶ 3),

suggesting the company waited too long. Interestingly, the journalist seeks to take some of the blame away from the government, writing, “In essence, the government ordered TEPCO to filter the vent as soon as possible but they did not do it” (“NSC official Madarame,” 2011, ¶ 4).

While the criticism in the articles above all comes from the reporters themselves (who do not directly source most of their claims), *Yomiuri Shimbun* did source criticisms from outsiders. For example, they quote a South Korean crisis management expert saying “it is a shame that there is a delay in receiving relief goods at the affected areas” (“International community concerned,” 2011, ¶ 24). He is further quoted as saying, “Japan might be known for its preparedness towards disasters but does not have the readiness and promptness to deal with a disaster once it has happened” (“International community concerned,” 2011, ¶ 24).

#### *Lack of Information and Communication*

The *Yomiuri Shimbun* coverage also highlights the lack of information, government and TEPCO officials’ ambiguous explanations, conflicting information, and the delay in communicating important information to the public about the crisis.

Many articles argue “Citizens are confused by the lack of information” (“Political leadership,” 2011) and that “TEPCO has not given enough information to the residents who live near the nuclear plant” (“TEPCO’s delay in response,” 2011, ¶ 1). One article notes that, “government should have alerted the residents to evacuate or given them directions on how to react immediately after the explosion was heard at the nuclear plant” (Tanaka, 2011, ¶ 16). Another article also reinforces this by stating, “since information coming from the government is not enough, there is confusion,

anxiety and suspicion increasing among citizens” (Government has no plan, 2011, ¶ 1).

A journalist writes that the press conferences are not helpful, as “Edano, the Chief Cabinet Secretary, keeps mentioning that they are analyzing the cause of the explosion and whether the reactors are damaged, and did not give a detailed explanation of the accidents until the next briefing which was almost three hours later” (“Evacuation order,” 2011, ¶ 8). Ultimately, “the explanation of the explosion was only given to the public five hours after the explosion had occurred (“Evacuation order,” 2011, ¶ 1),” the journalist writes. This article makes it quite noticeable to the readers that there was delay in the government conveying crucial information to the public.

This was the same for TEPCO. A journalist writes, “When TEPCO holds a press conference, they keep declining to specify the situation and mention they could not give an answer without analyzing the data” (“Failure also in reactor No. 2,” 2011, ¶ 13). According to the journalist, “TEPCO’s spokesman left the conference saying ‘first please let us get our work done, then we will explain to all of you later with further details’” (“Failure also in reactor No. 2,” 2011, ¶ 16). In another example, a journalist writes, “all TEPCO does is to repeat everything is still under investigation” (“Government frustrated,” 2011, ¶ 8), suggesting a failure to release information to help the public respond to the crisis. *Yomiuri Shimbun* also noted that there was conflicting information between the government and TEPCO given in the press conferences that confused the public.

One article states that there is a “shortage in essential information for the residents on what is going on and how they should act” (“Evacuation order,” 2011, ¶ 10). Another article writes that the government should “release information as much

as they can to the public in a timely manner unless they want the public to think the government is withholding information” (Tanaka, 2011, ¶ 18).

In addition to the delay in communication and lack of information, *Yomiuri Shimbun* writes, “since the information that comes out gets retracted or changes over time, the Japanese citizens are not sure what information to trust” (Tanaka, 2011, ¶ 1). Similarly, a journalist writes, “Most residents have to rely on the information coming from the authorities’ press conferences on TV, however, since what TEPCO says keeps changing, residents are saying that they can no longer trust TEPCO” (“Failure also in reactor No. 2,” 2011, ¶ 9).

When there was a report of high-radiation near the plant on March 15th, the government requested residents who live within 12.4-18.6 mile radius to shelter indoors. However, according to an article “since they did not give any details on the level of radiation, there was confusion among residents” (“Nuclear crisis,” 2011, ¶ 1).

One article report that some cities such as Minami-soma-shi, which is within the 12.4 mile radius from the plant, was first set as an evacuation zone but soon changed into a shelter indoor zone. Furthermore, the journalist writes that “access to this city was shut down because of this government’s announcement and cars that are carrying supplies from supporters could not get to the city” (“Whole city taking shelters,” 2011, ¶ 2).

Interestingly, one of the few critical voices in the *Yomiuri Shimbun* coverage comes from the local government. In this article, local officials complain, “it is difficult to accommodate the residents when there is no detailed information from the authorities, and that the staffs are agitated” (“Whole city taking shelters,” 2011, ¶ 4). They claimed that “the government should be more responsible to provide accurate information to the affected areas and support the local government and residents”

(“Whole city taking shelters,” 2011, ¶ 1). The local governments also argue that “since the authorities do not inform the public with enough and true information, the media tend to exaggerate the accident and that they are seen as a contaminated area by the public” (“Whole city taking shelters,” 2011, ¶ 3).

While the lack of information is noted as a deficiency that needs to be corrected, *Yomiuri Shimbun* uses foreign sources and reactions to provide more direct criticism. For example, the paper writes about the “dissatisfaction from the international community towards the information provided to them from the Japanese authorities” (“International community concerned,” 2011, ¶ 1). An article notes, “this distrust is one of the causes that led the foreign governments to advise their own citizens to evacuate from a larger area, a further distance than that set by the Japanese government, or urging them to leave Japan” (“International community concerned,” 2011, ¶ 1). The journalist writes, “the United States has been frustrated since they could not get the data regarding the fires at the nuclear reactors from the Japanese authorities, and they were not provided enough information” (“International community concerned,” 2011, ¶ 2). Using foreign criticism and dissatisfaction, the article also mentions that the “Japanese government is not informing the public about the facts of what has happened at that explosion at nuclear reactor No. 1” (“International community concerned,” 2011, ¶ 4). The article continues, suggesting that “it is essential for the Japanese authorities to provide speedy and accurate information in time and rebuild the trust from the international community as this crisis cannot be ended without their help and support” (“International community concerned,” 2011, ¶ 1).

### *New York Times*

The *New York Times* coverage emphasizes two factors: the Japanese authorities' slow response and their negligence in dealing with the potential problems that led or created the nuclear crisis. Of these, the *New York Times* more strongly emphasizes outright negligence in handling the crisis.

### *Slow Response*

The Japanese authorities' slow response to the crisis was an important element of the problem in the *New York Times* coverage just as with *Yomiuri Shimbun*'s coverage, stating that the Japanese government "has seemed unable to make sense of the fast-evolving crisis" (Tabuchi, Belson, & Onishi, 2011, ¶ 21). The *New York Times*, however, is much more direct in its criticism and relies more on sources making these criticisms than *Yomiuri Shimbun*.

For example, an article quotes Nils J. Diaz, a nuclear engineer who led the United States Nuclear Regulatory Commission (NRC) in the past, saying, "a quick alternative source of water for cooling the destabilizing core should have been immediately available" (Onishi, Fountain, & Zeller, 2011, ¶ 13). Diaz claims that "the Japanese might have acted too slowly to prevent overheating." Similarly, another article also questions whether "TEPCO executives wasted precious time in the early hours of the nuclear crisis" (Belson, Bradsher, & Wald, 2011, ¶ 1), arguing "they waited too long before pumping seawater into the plant, a measure that would ruin a valuable investment" (Belson et al., 2011, ¶ 4). Journalists also write that "nuclear experts are saying that executives may have not realized the risk posed by spent fuel rods soon enough" (Belson et al., 2011, ¶ 3). Other articles indicate that "the timing was crucial because if the executives have done the right thing earlier, the radiation

level might not have gotten so high and would not have been hampering the worker's ability to enter the plant like it is right now" (Belson et al., 2011, ¶ 2), and that "the caution and delay increased the risk of a serious accident" (Belson et al., 2011, ¶ 29).

Kuni Yogo, a former atomic energy policy planner in Japan's Science and Technology Agency, says TEPCO executives were not in a panic Friday afternoon on March 11, after the first explosion occurred, implying that they failed to become concerned quickly enough. Yogo further claims that "TEPCO failed to cool the reactors on the day of the earthquake and even after the explosion, and they did not attempt to start dousing the reactors with seawater" (Belson et al., 2011, ¶ 5). He also said that TEPCO "did not put water into the spent fuel pools for several days" (Belson et al., 2011, ¶ 5), and pointed out that they were focused on the reactors rather than the spent fuel pools. Interestingly, Yogo never appears in the *Yomiuri Shimbun* coverage.

### *Negligence*

In addition to the slow response of the Japanese authorities, the *New York Times* coverage also highlights the Japanese authorities' negligence and disregard of the potential problems before and after the accident at the Fukushima plants, that may have caused, played a role or led to a more serious and severe nuclear crisis.

One article notes "there might have been Japanese officials' missteps in handling reactor No. 1 after the explosion" (Onishi et al., 2011, ¶ 13), which suggests the Japanese mistakes were not intentional. However, other articles are more forceful in blaming the Japanese authorities and corporations for the response to the disaster. For example, in one article, Costas Synolakis, a civil engineering professor, called Japan's underestimation of the tsunami risk "a cascade of stupid errors that led to the

disaster” and said that relevant data was virtually impossible to overlook by anyone in the field (Onishi & Glanz, 2011, ¶ 28). Another source in the story notes that “Japanese nuclear officials largely disregarded the potentially destructive force of the walls of water” (Onishi & Glanz, 2011, ¶ 1). Likewise, the Japanese nuclear power plants are not following proper safety procedures, according to *New York Times*: “Its plants are designed to withstand earthquakes, which are common, but experts have long expressed concerns about safety standards, particularly if major quake hit close to a reactor” (Wald, 2011a, ¶ 19).

In another article, Michael Friedlander, a former senior operator at a Pennsylvania power plant with General Electric, was quoted saying, “Japanese officials may have neglected to follow G.E.’s emergency operating procedures that have a ‘crystal clear’ explanation on how to determine when reactors be flooded” (Belson et al., 2011, ¶ 7) and that “operators at the plant should have practiced many times over the years how to flood them with seawater” (Belson et al., 2011, ¶ 9). This is an interesting quote because it both blames the Japanese and suggests that such disasters are preventable if one simply follows the procedures. Such a suggestion helps convey the idea that the disaster was preventable and thus not a global concern about nuclear energy.

The *New York Times* criticizes Japanese officialdom in other ways as well, writing that, “they have failed to make use of advances in seismology and assess the risk,” and “did not take into account serious uncertainties like faults that had not been discovered or earthquakes that were gigantic but rare” (Onishi & Glanz, 2011, ¶ 7) since the 1970s. The paper writes, “years of procrastination in deciding on long-term disposal of highly radioactive fuel rods from nuclear reactors are now coming back to

haunt Japanese authorities as they try to control fires and explosions at the stricken Fukushima nuclear power station” (Bradsher & Tabuchi, 2011, ¶ 1).

These examples suggest that the Japanese were not scientifically or technologically up-to-date and again seems to imply safety concerns with nuclear energy overall are not an issue that needs to be addressed. In another story, a former TEPCO nuclear engineer who was the director of Fukushima Daiichi in the late 1990s was quoted saying, “We can only work on precedent, and there was no precedent” (Onishi & Glanz, 2011, ¶ 5), which again indirectly says that the Japanese were not forward thinking with their safety procedures.

Continuing the theme that the Japanese were simply not current in their thinking an article notes that an advisory group issued recommendations to TEPCO in 2002, however, the company did not respond to that very well. The reporter writes that, “Over the decades, preparedness against tsunamis never became a priority for Japan’s power companies or nuclear regulators” (Onishi & Glanz, 2011, ¶ 15). The *New York Times* directly blames TEPCO which “only made few changes to their aging facilities although tsunami simulations offered new ways to assess the risks of tsunamis” (Onishi & Glanz, 2011, ¶ 15). The paper believes “power companies were focused on completing the construction of reactors and resisted adopting tougher standards” (Onishi & Glanz, 2011, ¶ 19).

A very small number of op-ed pieces do question nuclear technology. In an opinion editorial, a contributor writes, “People have acquired a desire for technology that surpass human comprehension, yet the bill that has come due for that desire is all too clear” (Saeki, 2011, ¶ 9). Similarly, in another opinion editorial, Satoru Ikeuchi writes “Humans have become increasingly arrogant, believing they have conquered nature” (Ikeuchi, Takahashi, & Numano, 2011, ¶ 2). He continues, “Scientists and

engineers think that they are responding to the demands of the society, but they have forgotten their larger responsibilities to society, emphasizing only the positive aspects of their endeavors” (Ikeuchi et al., 2011, ¶ 2). He also criticizes the fact that some 54 nuclear reactors were built along the coast, where tsunamis are vulnerable in a country like Japan that has earthquakes quite frequently (Ikeuchi et al., 2011, ¶ 3).

## **Cause**

The *Yomiuri Shimbun* provides less of an explanation for the cause of the slow response and lack of information, other than to suggest a lack of leadership led to poor planning and response. In part, they de-emphasize the cause because this would require them to more clearly frame the government and TEPCO as negligent, which they in general fail to do. In contrast, the *New York Times* suggests that the cause was a result of corruption seen in the collusion between the Japanese government and the nuclear industry including TEPCO and the regulators.

### *Yomiuri Shimbun*

Articles emphasize the Japanese governments’ lack of crisis management skills, especially leadership and planning, in dealing with the nuclear crisis.

### *Lack of Leadership and Planning*

In terms of planning, articles suggest that the government and TEPCO have wasted precious time because they failed to have an adequate plan. For example, some headlines state, “Government Has No Plan” and “Government Enters Day 6 With No Plans.” One article notes that “TEPCO will be questioned if they had an estimated plan for when a disaster like this will happen” (“TEPCO’s delay in

response,” 2011, ¶ 2), suggesting that the reporter believes there was no plan. Typical of this sort of coverage is a story that criticizes the government’s insufficient effort in delivering daily supplies and food to the affected areas. The journalist writes “there is no specific or concrete plan from the government on normalizing the flow” (“Government enters day 6,” 2011, ¶ 3). Likewise, the paper implies a lack of planning led TEPCO to “underestimate the crisis,” and to fail to “handle it as an emergency in the beginning” (“Political leadership,” 2011, ¶ 10), again suggesting a lack of planning and crisis leadership was the cause of the problem.

An article argues that the administration needs “to fundamentally rebuild their government and clearly state the estimated schedule on when they are going to bring the nuclear plant under control” (“Political leadership,” 2011, ¶ 1). The lack of an ability to project when tasks will be completed or even when people may return safely to areas that have been evacuated further reflect this lack of planning. In another article, the reporter claims, “what Prime Minister Kan should do more than anything is to provide a concrete overall plan of efforts to rebuild the disaster areas and exercise strong leadership to make the government and public to come together as a whole to overcome the crisis” (“Government has no plan,” 2011, ¶ 1).

In terms of leadership, *Yomiuri Shimbun* writes “many people are concerned that there is a lack of leadership” (“Prime Minister never seen,” 2011, ¶ 1). An article reports that “Kan has been trying to deal with the crisis on his own which is not helping to share roles among the other” (“Political leadership,” 2011). Other articles report that “Kan is developing new units and appointing new nuclear experts outside from TEPCO and Nuclear and Industrial Safety Agency (NISA) to deal with the crisis because he is frustrated with TEPCO and NISA, and does not trust them anymore” (“Prime Minister never seen,” 2011, ¶ 10). The article argues, “Instead, the paper

suggests he should exercise his leadership and utilizes the existing bureaucratic structures and work as unity in order to overcome this crisis” (“Prime Minister never seen,” 2011, ¶ 11). This suggests that there is a both a lack of planning concerning whose responsibility it is to deal with the crisis and that working without clear lines of authority for the government and the industry are damaging the response. “Edano, the Chief Cabinet Secretary, is too busy explaining the data from the plants and does not have the capacity to help the victims” (“Political leadership,” 2011, ¶ 1). Again, this suggests a failure of leadership to delegate work to the most appropriate authority. After all, there are many government officials who could contribute to the effort to solve the crisis. The newspaper suggest that authorities “are being too cautious” (“Evacuation order,” 2011, ¶ 9).

*Yomiuri Shimbun* also writes about the Prime Minister Kan’s visit to the Fukushima power station on day after the accident. This is one of the few direct criticisms of the government leadership attributed to sources. In the article they write,

“The Prime Minister may have been trying to appeal to the public showing that he was taking the lead and proving the safety of the nuclear plants but there are voices that say this may have caused a major delay in the initial response to the accident since the executives of TEPCO were showing the Kan around and were not dealing with the possibility of radiation leak” (“Evacuation order,” 2011, ¶ 3).

Here, opposition parties are the “voices” quoted stressing, “Kan’s selfish visit was the reason the accident ended up worse” (“NSC official Madarame,” 2011, ¶ 1).

*New York Times*

*Corruption of the Japanese Government and the Nuclear Industry*

The *New York Times* writes that “Just a month before a powerful earthquake and tsunami crippled the Fukushima Daiichi plant at the center of Japan’s nuclear crisis, government regulators approved a 10-year extension for the oldest of the six

reactors at the power station despite warnings about its safety” (Tabuchi, Onishi, & Belson, 2011, ¶ 1), adding that the company admitted that it had failed to inspect 33 pieces of equipment related to six of the reactor’s cooling system. Notably, the *Times* cites the Japanese Nuclear Industrial Safety Agency (NISA) website for this information, which means it would also have been available to Japanese reporters, who chose not to use it or did not know that it existed.

The *Times* further quotes from the report that “regulators said that ‘maintenance management was inadequate’ and that the ‘quality of inspection was insufficient’” (Tabuchi et al, 2011, ¶ 5). The decision to extend the reactors life despite the warnings, and the inspection failures, all highlight the “unhealthy ties between the plant operators and the regulators” (Tabuchi et al, 2011, ¶ 7). According to the article, the committee and the inspectors only spent three days assessing the No. 1 unit, which critics and industry experts say was far too brief. The experts were quoted saying “assessing the earthquake risk to a nuclear plant is one of the most complex engineering problems in the world” (Tabuchi et al, 2011, ¶ 11). According to the article’s source, Mitsuhiro Tanaka, who is an engineer who worked on the design of the reactors at the Fukushima Daiichi plant, the reactors were extremely outdated. Again, the coverage suggests that following proper updated procedures would prevent such a disaster from happening anywhere in the world and that the Japanese are simply behind the times.

Another source, Chihiro Kamisawa, a nuclear safety researcher at the Citizen’s Nuclear Information Center, Japan’s most vocal nuclear watchdog, says, “the approval process for extending the lifespan of reactors is fraught with problems and limited amounts of information are disclosed before approval is granted” (Tabuchi et al, 2011, ¶ 27). Kamisawa is quoted saying, “The government reviews

only reports submitted by utilities, and does not conduct its own tests to determine whether those reports are true” (Tabuchi et al, 2011, ¶ 27).

The *New York Times* claims “the regulators’ attempts to cover up and manipulate data, particularly by Tokyo Electric, the country’s biggest utility, underscored not only the problems of the nuclear industry but also Japan’s weakness in regulating it” (Tabuchi et al, 2011, ¶ 15). Sato, governor from 1988 to 2006 was quoted saying, “an organization that is inherently untrustworthy is charged with ensuring the safety of Japan’s nuclear plants, so the problem is not limited to TEPCO, which has a long history of cover-ups, but it’s the whole system that is flawed” (Tabuchi et al, 2011, ¶ 20).

The *New York Times* also explains the hierarchy of Japan’s nuclear industry. The Nuclear and Industrial Safety Agency, which is supposed to act as a watchdog, is under the Ministry of Economy, Trade Industry, which has a general policy of encouraging and the development of Japan’s nuclear industry. Critics of Japan’s nuclear industry is quoted saying “The ministry and the agency, in turn, share cozy ties with Tokyo Electric and other operators” (Tabuchi et al, 2011, ¶ 22), thus, the agency is ineffective. According to the paper, the second layer of scrutiny, Japan Nuclear Energy Safety Organization, is understaffed and largely an advisory group, and is nothing like the Nuclear Regulatory Commission in the United States where they have full-time engineers who should check the safety of power plants.

Another articles also suggest that this possible meltdown at the Fukushima plant underscores the Japanese nuclear industry’s troubled history. The unfolding crisis at the Fukushima Daiichi Nuclear Power Station has raised doubts about nuclear energy’s safety. According to James M. Acton of the Carnegie Endowment for International Peace, who was quoted in the article, says the nuclear industry would be

shaken. Mr. Acton mentions “Japan’s status as the only target of nuclear attack, in Hiroshima and Nagasaki in 1945, adds to the public’s sensitivity, and while Japan’s nuclear industry may try to point to the safety of its newer facilities, concerns may run too deep” (Onishi et al., 2011, ¶ 6).

The *New York Times* explains the minor radiation leak that had occurred in 2007 at the Kashiwazaki plant and another reactor with a troubled history being allowed to reopen after 14 years. “The operator of that plant, the Monju Prototype Fast Breeder Reactor, located along the coast about 220 miles west of Tokyo, tried to cover up the extent of the fire by releasing altered video after the accident in 1995” (Onishi et al., 2011, ¶ 11). The article notes that plant operators always try to cover up accident at the plant, then fights criticism from the public. In this process, they write, “the government gives power companies wide discretion in deciding whether a site is safe” (Onishi et al., 2011, ¶ 18).

As all these articles indicate, *New York Times* is framing that the close links between politicians and business executives have played a major role in further complicating the management of the nuclear crisis. They write, “Perhaps no sector had closer relations with regulators than the country’s utilities; regulators and the regulated worked hand in hand to promote nuclear energy, since both were keen to reduce Japan’s heavy reliance of fossil fuels” (Tabuchi, Belson, & Onishi, 2011, ¶ 26).

### **Moral Judgment**

The moral judgment framed by *Yomiuri Shimbun* was the idea that in dealing with the Fukushima nuclear crisis, Japanese authorities failed their own citizens. The *New York Times* in contrast judged the Japanese citizens as part of the underlying problem because of their sensitivity toward nuclear energy.

### *Yomiuri Shimbun*

The moral judgment for the readers of *Yomiuri Shimbun* was that the nuclear crisis resulted in behavior that terrorized the public.

### *Japanese Authorities Do Not Protect Citizens*

Articles repeatedly pointed out that citizens were not given enough information or guidance on how to respond to the crisis and this lack of leadership left victims confused and afraid. Articles noted “citizens are unsure whether they should evacuate or stay indoors, causing confusion and fear whether they are doing the right thing” (“Whole city taking shelters,” 2011, ¶ 4). The journalist wrote, “residents were in fear that they tried to escape as far as they can from the plants and rushed to the shelters causing bad traffic in the highways” (“Nuclear crisis,” 2011, ¶ 1). Reports suggest that the lack of accurate and transparent information increased fear: “When residents do not know what the explosion actually was, their fear increases” (Tanaka, 2011, ¶ 4).

### *Favoring industry over safety*

Although much more subtle and less frequently noted than with the *New York Times*, *Yomuri Shimbun* did indicate that the government relationship with industry was partly to blame for how the disaster was handled. For example, an article reported that “it is believed that TEPCO did not want to decommission the nuclear plants and the government accepted their opinion” (“Political leadership,” 2011, ¶ 13). This implies that keeping the plants operating was a priority over safety or other considerations.

An article noted that “the government has been focusing on exporting . . . believing nuclear energy could contribute largely to the economic growth of Japan, so they may have thought second about doing something which might destroy and decommission the nuclear plants” (“Evacuation order,” 2011, ¶ 11). Reporters further note that nuclear energy is considered “one of Japan’s leading technolog[ies].”

Another article highlighted TEPCO neglecting their responsibilities. The article describes the press conference when TEPCO announced that they have neglected to verify that a fire in the plant has been completely died down, and this caused a second fire at another reactor. They quoted the spokesman announcing, “The staff did not go check and confirm that the fire was put out and just took a quick look and assumed it has been put out. The staff called the fire department but since it did not get connected they left it as it is. They reported for the first time when they saw the second fire” (Kagemoto, 2011, ¶ 8). Interestingly, this suggests the newspaper allowed TEPCO to decide when to accept responsibility and how, rather than the newspaper seeking accountability more forcefully before this press conference.

One article writes about the oppressive working conditions for the TEPCO workers, who are often subcontractors. The article writes “They are only offered biscuits for breakfast, canned food for dinner and sleeping on the floor with only one blanket” (“Plant workers working,” 2011, ¶ 2). Another article writes “with the excuse of the limited numbers of radiation meters, TEPCO allowed the workers to work without having meters on and only gave them to those who are responsible of the operation (“Dosimeters are in short,” 2011, ¶ 1). These articles imply that TEPCO is disrespectful toward the workers although they are risking their lives to clean up TEPCO’s mess.

*Yomiuri Shimbun* also directly identifies information as untrue reporting that “TEPCO also provided the public and experts with false information” (“Misidentification of cesium,” 2011, ¶ 1). When TEPCO told the public that they found water in the plants that contained high radioactive material, it happened to be a different type of radioactive material than the one they initially reported. “This is significant since this is not a matter of mistaking numbers, which may have caused one's assessment or judgment of the situation” (“Misidentification of cesium,” 2011, ¶ 4).

A few days later, the *Yomiuri Shimbun* published another significant article about a TEPCO press conference, noting the public (and the media had waited) “17 long days” to hear from the company (“TEPCO executive holds,” 2011, ¶ 2). The article quoted TEPCO’s head saying that he apologized and admitted “there were some mistakes in the information they provided and that there was delay in informing the public, however, we deny that we are withholding any information” (“TEPCO executive holds,” 2011, ¶ 2). This is significant because the paper in essence waited for TEPCO to declare this information, while only hinting at it in their coverage prior to this event, which took place more than two weeks after the meltdown.

### *New York Times*

#### *Blaming Japanese Culture and History*

One of the ways the *New York Times* cast moral judgments was to blame Japanese culture and history. The journalist quotes an expert saying, “They would rather wait and do things in a perfect manner instead of doing it as good as it needs to be now – a problem arising in part from the country’s larger nuclear regulatory

culture” (Onishi et al., 2011, ¶ 15). This clearly blames Japanese culture for their response.

For example, the *Times* noted that fear among Japanese regulators over public reaction “may have delayed plant operators from acting as quickly as they might have” (Onishi et al., 2011, ¶ 14). Another story notes that “years of grass-roots objections from a people uniquely sensitive to the ravages of nuclear destruction” (Onishi et al., 2011, ¶ 1), while still another report suggests “Because public opposition to nuclear power makes it hard to build new power plants, nuclear operators are lobbying to extend their reactors’ use beyond the 40-year statutory limit, despite uneven safety records” (Tabuchi, Belson, & Onishi, 2011, ¶ 8).

Ironically, the *New York Times* elevates pieces of information that Japanese citizens are excessively sensitive to radiation. The paper writes, “In a country where memories of a nuclear horror of a different sort in the last days of World War II weigh heavily on the national psyche and national politics, the impact of continued venting of long-lasting radioactivity from the plants is hard to overstate” (Sanger & Wald, 2011, ¶ 6). A journalist of even goes further and writes, “With Hiroshima, Nagasaki and above-ground testing, everything nuclear began to take on a more sinister air. But the threat seemed distant and surreal” (Johnson, 2011, ¶ 13), although the Americans were the ones responsible of dropping the bomb in Japan and made the whole nation fearful of nuclear and radiation.

Another article quoted James M. Acton of the Carnegie Endowment for International Peace, saying “the nuclear industry would be shaken” (Onishi et al., 2011, ¶ 5), as the increasingly dangerous nature of the problems at Fukushima Daiichi nuclear plant became clear. “While Japan may try to point to the safety of its newer facilities, concerns may run too deep” (Onishi et al., 2011, ¶ 5), he said. Elaborating

on Acton's words, the journalist writes, "Japan's status as the only target of nuclear attack, in Hiroshima and Nagasaki in 1945, adds to the public's sensitivity" (Onishi et al., 2011, ¶ 6), and that they are "extremely uneasy with nuclear power" (Onishi et al., 2011, ¶ 9).

In an article in which the headline read "Fears and Distrust Push Thousands From Home" (Fackler, 2011a), the *New York Times* features a 70-year-old resident who lives close to the plant escaping and running for her life. The journalist writes, "Neither last week's earthquake, nor the tsunami that followed, nor the days without electricity, water or heat could drive 70-year-old Sadako Shiga from her home" (Fackler, 2011a, ¶ 1). The journalist continues, "What finally cause her to flee was something invisible, but to her mind far more sinister: radiation" (Fackler, 2011a, ¶ 1). The article writes she was "a part of a swelling exodus who have been spurred by a spreading panic caused in part by distrust that the government is telling the full truth about the nuclear accidents and how widespread the danger is" (Fackler, 2011a, ¶ 3). The article describes the residents that "they are driven not just by suspicion of the government but also by a deep fear of radiation, in a nation where the word conjures images of the atomic devastation at Hiroshima and Nagasaki" (Fackler, 2011a, ¶ 7).

Similarly, the *New York Times* reports, "Some residents of Fukushima asked their names not be used as interview sources because they feared discrimination in the future because of the nuclear crisis, just as the survivors of the 1945 atomic bombings were ostracized out of a misplaced fear that they could spread radiation sickness" (Fackler, 2011b, ¶ 21).

In a different article, the journalist quotes the chief of the International Atomic Energy Agency (IAEA), Yukiya Amano, saying "his agency was struggling to get timely information from Japan about its failing reactors, which resulted in agency

misstatements” (Tabuchi, Belson, & Onishi, ¶ 11). Readers may think, why has not much information provided to the public? The *New York Times* writes three reasons for this. As the first reason, they write, “the less-than-straight talk is rooted in a conflict-averse culture that avoids direct references to unpleasantness” (Tabuchi et al., 2011, ¶ 14). For the second reason, they mention that there are also political considerations in Japan, especially because it is “the only nation that as endured an atomic bomb attack, acute sensitivity about radiation sickness may be motivating public officials to try to contain panic —and to preform political damage control” (Tabuchi et al., 2011, ¶ 15).

Finally, they explain that the tendency of the media reports have made the Japanese officials to control the flow of information. The article writes, “Left-leaning news outlets being skeptical of nuclear power and of its backers, and the mutual mistrust led power companies and their regulators tightly control the flow of information about nuclear operations so as not to inflame a spectrum of opponents that includes pacifists and environmentalists” (Tabuchi et al., 2011, ¶ 15). The article adds, a former nuclear power planner at Japan’s Science and Technology Agency, Kuni Yogo, said that the government and TEPCO “try to disclose only what they think is necessary, while the media, which has an antinuclear tendency, acts hysterically, which leads the government and TEPCO to not offer more information” (Tabuchi et al., 2011, ¶ 16).

The journalist are in some way, blaming the Japanese citizens for their sensitivity, overreaction and fear toward radiation, and writing as if it was not the United States that has dropped the bomb in Japan, but some third party had done the horrific act.

## **Solution**

Although there were not as much written about solutions by either newspapers, the journalists for *Yomiuri Shimbun* tended to suggest that the Japanese authorities should have asked for and accepted more help from the international community to end the crisis. The *New York Times* coverage argued that that the Japanese need to become more technically sophisticated and become as prepared as the American nuclear industry.

### *Yomiuri Shimbun*

The *Yomiuri Shimbun* framed the solution as the Japanese authorities and Japan as a nation should ask for more help from the international community.

### *International Partners and Community*

*Yomiuri Shimbun* articles note that there is “dissatisfaction from the international community with how the Japanese authorities are handling the crisis” (“International community concerned,” 2011) and that the government needed to gain the “trust” of the international community” (“International community concerned,” 2011, ¶ 1) if it expected to receive help and guidance in dealing with the crisis. In particular, the newspapers seem to use the international community as a means of asking for the release of additional, accurate information. For example, the paper suggests, “In order to maximize the support from U.S. and other foreign countries, Japanese authorities must communicate with them more closely and explain clearly about the existing situation. If there are certain things the Japanese need help, they should make the decision quickly and inform them with the needs” (“International community concerned,” 2011, ¶ 13).

Similarly, in another article, the journalist mentions, “The government needs to give a detailed response to the countries that are trying to support our nation” (“Support and aid,” 2011, ¶ 15), so that the international partners that are offering aid will be able to help the affected area and know what to send in order to “match the needs of the people in the affected areas” (“Support and aid,” 2011, ¶ 15). By emphasizing the international community, the paper seems to imply that the Japanese government are being watched and judged by outsiders for their actions during the crisis. The further implication is that the international community is primarily the United States, one of Japan’s closest allies.

*Yomiuri Shimbun* reported that “some people believe the Japanese government declined support from the U.S., which was offering help in the aftermath of the nuclear accident, and that was a poor choice that ending up to escalate the severity of the crisis” (“Political leadership,” 2011, ¶ 11). The journalist writes that “the government should accept the help and support from the United States as soon as possible to deal with the current situation and put the crisis to an end (“Political leadership,” 2011, ¶ 12),” indicating the support from the “United States, France, China and other foreign countries is the key to bring the plant under control” (“World’s collective effort,” 2011, ¶ 1).

In the third week of *Yomiuri Shimbun*’s coverage, the paper runs headlines such as “France to send experts of radiation-tainted water,” “Top commander of U.S. Naval Forces offers full cooperation to respond to nuclear accident,” and “U.S. offers long-term support in top-level telephone conference.” Clearly, these sorts of statements indicate that the reporters believe a solution lies with outsiders, particularly the Americans.

*New York Times*

*Japan Should Be as Sophisticated and Well-Prepared as the United States*

The catastrophe at Japan's nuclear plants raised doubts about the safety of nuclear energy not just in Japan, but also in the United States. This is especially because the reactors in the U.S. are very similar to the ones in Japan, as they are all designed by the American company, General Electric. However, the American plant operators, such as Exelon, and the regulators such as the U.S. Nuclear Regulatory Commission (NRC) made clear that they were operated differently from the Japanese plants, with higher levels of oversight and transparency. The articles repeatedly emphasize that such crisis will not happen in the United States, suggesting "Japan's nuclear sector was not as advanced as our own" (Wald, 2011b, ¶ 15) and not "technologically sophisticated as us" (Wald, 2011b, ¶ 15). The *Times* makes clear that the Japanese should have upgraded or followed "G.E.'s emergency operating procedures that have a 'crystal clear' explanation on how to determine when reactors be flooded" (Belson et al., 2011, ¶ 7), thus throwing the blame not onto the industry or the American creators of the system but the Japanese government and nuclear industry.

The *New York Times* writes, "For a country that is known for its industrial robots, advanced cellphones and hybrid vehicles, Japan's effort to cool the hobbled nuclear reactors in Fukushima Prefecture have seemed, at least to a world watching on television, to be decidedly low-tech" (Belson, 2011, ¶ 1), suggesting that the most recent technology is the real solution to preventing crises such as this. Moreover, the article asks, "With all of Japan's technological prowess, was this the best it could do?" (Belson, 2011, ¶ 4). This essentially points out that the Japanese authorities are lacking crisis management skills and are not doing their best to bring the plant under

control. They are not up to the responsibility required of managing nuclear power, despite the extensive usage and history in that country.

Similarly, The *New York Times* writes that although Japan is known for its technical expertise, “for whatever reason –whether cultural, historical or simply financial – Japanese engineers working on nuclear plants clung to older scientific precepts for protecting nuclear plants, and continued to predict what they believed were maximum based on records” (Onishi & Glanz, 2011, ¶ 22).

This further suggests that the solution is newer ways of using nuclear energy and news systems of management such as those used in the United States.

In one article, titled, “Nuclear Agency Tells a Concerned Congress That U.S. Industry Remains Safe,” the chairman of NRC, Gregory Jaczko, is quoted pledging that “U.S. nuclear facilities remain the same, and we will continue to work to maintain that level of protection” (Wald, 2011b, ¶ 3). Again, the solution is not to back away from using nuclear energy but to use it properly. Thus, Jaczko explains that reactors are designed to meet the challenges of the most severe natural phenomena historically reported.

Jaczko is quoted again in another article published four days later, explaining “the spent fuel pools at American nuclear reactors are less vulnerable than the ones in Japan because of steps ordered by his agency after the attacks of Sept. 11, 2001” (Wald & Berger, 2011, ¶ 1). Furthermore, the articles quotes U.S. Energy Secretary Steven Chu, a Nobel Prize winner in physics, when he appeared on television news saying “the 23 American reactors that use the same Mark 1 design as was used in Fukushima Daiichi Nuclear Power Station are constantly being upgraded to improve their safety” (Wald & Berger, 2011, ¶ 5) and that he believes the reactors in the U.S. are safe. Thus, the solution is to follow the American example of how to safely use

nuclear energy. Broader questions about the safety of the industry in general are not applied to the Americans.

## CHAPTER 5

### CONCLUSION

This study examines how the nuclear crisis at the Fukushima Daiichi Power Station was framed in the initial reports of the two elite newspapers: The U.S. newspaper, *New York Times*, and the Japanese newspaper, *Yomiuri Shimbun*.

The research found that each newspaper had an overarching frame in their coverage. The two newspapers had different approaches and focuses within the articles to build the frames. The frame that dominated the *Yomiuri Shimbun* coverage was the ‘Inadequate response’ frame, highlighting the government authorities’ insufficient response, absent leadership, lack of plans and failure to inform citizens. The *New York Times*, which was covering the crisis from an external standpoint, used the ‘Fix it’ frame using the crisis to suggest that United States is more prepared and is ready to respond to crises, and that Japan lacks the technology and capability to resolve such crises. The way each news outlet selected, highlighted or emphasized content in their stories was different. There were also differences between the tones and language of the stories and the use of sources. Thus, the *New York Times* and *Yomiuri Shimbun* portray the same events and facts differently. These differences may possibly be because of each country’s media system, cultural norms and contexts, as well as the different audiences they serve. And most importantly, each country’s standpoint on the Fukushima crisis is different, with the *New York Times* was reporting about a crisis happening in another country, whereas *Yomiuri Shimbun* was reporting on a crisis happening in its own country.

## Summary of Findings

### *Source*

The primary source for *Yomiuri Shimbun* was government officials and politicians, followed by citizens, which were approximately the same number as government officials. Quotes from government officials and politicians were mostly public announcements from the press conferences and briefings. The Japanese citizens quoted in the articles shared stories of their fears and struggles.

The *New York Times* relied more on external sources such as experts and professors in the United States, which may suggest they were more accessible to the *New York Times* journalists than the Japanese government and citizens. But it might also indicate that the crisis was viewed as not connected to the United States and thus could be reported with less emotion and more context.

### *Problem*

The *Yomiuri Shimbun* and *New York Times* both identify the problem as the Japanese authorities' inadequate response to the nuclear crisis. The *Yomiuri Shimbun* coverage emphasizes two factors, the government and TEPCO officials' slow response and their failure to communicate clearly and promptly about the nuclear crisis to the public. The paper pointed out the conflicting reports, ambiguous language and a constant refusal to confirm the most basic facts, and citizens suspecting officials of withholding or fudging crucial information about the risks posed by the Fukushima Daiichi plant. While the *New York Times* also emphasizes the Japanese authorities' slow response, the paper more strongly emphasizes their negligence in dealing with the potential problems that led or created the nuclear crisis.

### *Cause*

The *Yomiuri Shimbun* provides less of an explanation for the cause of the slow response and lack of information, other than to suggest a lack of leadership led to poor planning and response. In part, they de-emphasize the cause because this would require them to more clearly frame the government and TEPCO as negligent, which they in general fail to do. In contrast, the *New York Times* suggests that the cause was a result of corruption seen in the collusion between the Japanese government and the nuclear industry including TEPCO and the regulators.

### *Moral Judgment*

The moral judgment framed by *Yomiuri Shimbun* was the idea that in dealing with the Fukushima nuclear crisis, Japanese authorities failed its own citizens and terrorized them. The *New York Times* in contrast, judged the Japanese citizens as part of the underlying problem because of their sensitivity toward nuclear energy. One of the ways the *New York Times* cast moral judgments was to blame Japanese culture and their nuclear history.

### *Solution*

Although there were not as much written about solutions by either newspapers, the journalists for *Yomiuri Shimbun* tended to suggest that the Japanese authorities should have asked for and accepted more help from the international community in order to handle the crisis. The *New York Times* coverage argued that that the Japanese need to become more technically sophisticated and become as prepared as the American nuclear industry.

## Discussion

Since the *New York Times* is covering a crisis that happened in another country, whereas *Yomiuri Shimbun* was covering their own country's disaster, the *New York Times* was less controlled using more strong language and journalists reported more critically. Besides citing the facts released from the Japanese government, sources that were directly quoted were mostly Americans nuclear officials, nuclear experts from business or academia who were also people who spoke critically about the events. Table 1.1 in the previous chapter shows that the *New York Times* used a large number of nuclear experts and academia for their source. This suggests that *New York Times* was trying to do more investigative reporting, and was attempting to include voices from the third party in the story to reveal anything, such as whether any fault of the Japanese government officials or the nuclear industry, including the plant operator and regulators, had played a role in the nuclear crisis, or whether there is any possibility that the crisis may effect the United States and its citizens. The *New York Times* has also emphasized implied that nuclear regulators and plant operators in United States would have never let such a crisis happen, and bring up the failure of dealing with the Chernobyl nuclear incident as well. Their coverage, in short, was essentially ethnocentric.

In contrast, *Yomiuri Shimbun* was rather more controlled in its coverage. The news stories were much shorter and aside from the Japanese officials, and some directly affected citizens, not a variety of people were used as sources. The findings shows that Japanese officials and citizens were their primarily source, and experts were not quoted as much. Experts, when quoted, were mostly talking about how citizens should deal with radiation or what was safe to eat, rather than speaking more broadly about the crisis and who was responsible for it. The journalists appear to have

had less of a critical voice and were simply writing about facts that the officials announced in the press conferences. This suggests the norms of the kisha club were influencing coverage where journalists trade independence in their reporting for access to official events such as press conferences. Although some articles criticize the Japanese authorities, it was often brief and vague. *Yomiuri Shimbun* also stayed away from relating this crisis or reminding the readers about the sensitive nuclear bombings in Hiroshima and Nagasaki, while the *New York Times* mentioned it repeatedly in their coverage. Additionally, compared to the *New York Times*, *Yomiuri Shimbun*'s journalists wrote less about the Japanese regulators and their troubling history of past cover-ups. Their coverage seemed to be self-censored and less investigative. The *Yomiuri Shimbun* coverage is an example of how social elites and “power shapes the framing process” (Carragee & Roefs, 2004, p. 215).

### **Future Research**

The Fukushima nuclear crisis is still covered in the media although 3 years have passed. This study could be expanded to look at the patterns of frames in several different phases as a longitudinal study. Research could investigate how the coverage is affecting or playing a role in shaping the future of each country's nuclear policy. Additionally, research could compare the coverage of Fukushima nuclear crisis with the coverage done by freelance journalists or various media that involve citizens.

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## APPENDIX A — CODE SHEET

1. Newspaper and Article #:
2. Title/Headline of article:
3. What is the subject/focus of the story?
4. Who are the sources used in the article?
5. What is identified as problem (or danger) in the news article?
6. What is the cause of the problem?
7. What is suggested as a solution to the problem?
8. What would be the overall moral judgment of the article?