

News Analysis of the Fukushima Accident: Lack of Information Disclosure, Radiation Fears and Accountability Issues

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Previous research assessed media reporting on nuclear accidents and risks, whilst studies about the Fukushima accident focused on the impact of the Internet on coverage of the incident. However, little research has addressed news framing or comparisons of the perceptions of journalists in relation to reporting nuclear accidents. The aim of this study is to apply framing analysis to news content in *The New York Times*, the *Los Angeles Times*, and *USA Today* about the Fukushima accident. It explores the question of how journalists view reporting on complex events. Content analysis of these three newspapers shows that conflict, responsibility, and economic consequences were the most frequently used frames. According to the journalists interviewed, the biggest problem was the inability to assess information due to contrary positions held by experts. It is argued that the Fukushima accident was framed as a conflict of experts and officials' opinions, utility and government officials' responsibility, and economic consequences for the United States. Adherence to professional norms of objectivity and impartiality was signified as the best approaches to risk reporting.

Keywords: News framing, Fukushima, journalists' perceptions

Introduction

On March 11, 2011 Japan was hit by the Great East Japan Earthquake, followed by a tsunami that swept across a long stretch of the coastline. The 9.0-magnitude earthquake caused a massive tsunami which set off a nuclear accident at the Fukushima Dai'ichi Nuclear Power Station. This has been a complex accident with hydrogen explosions, meltdowns, problems with the spent-fuel pool and wider consequences for the environment (Funabashi and Kitazawa 2011; Suzuki 2011). The severity and complexity of the situation have led the Japanese Nuclear and Industrial Safety Agency (NISA) to put this accident on par with the disaster in Chernobyl in 1986. On April 12, Japan's nuclear regulatory body declared a Level 7 emergency on the International Nuclear and Radiological Event Scale (INES) (Hippel 2011). Release of radioactive materials, cesium-137 and iodine-131 led to the establishment of an evacuation zone within a 20-km radius of the power plant, and the population was recommended to stay indoors in order to minimize radiation exposure. The crisis at the Fukushima plant, which is operated by the Tokyo Electric Power Co. (TEPCO), was ongoing for months, with complex radiological, psychological, and economic consequences, before Prime Minister Noda declared a cold shutdown in December 2011.

Immediately following the earthquake, the tsunami, and the nuclear explosions, Japanese and foreign media started extensive media coverage. Reporting included coverage of the

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earthquake and the tsunami, death toll, nuclear crisis, radiation contamination, consequences to countries worldwide, etc. According to various critics, nuclear meltdowns at Fukushima have led to “media meltdown,” “media fallout,” or “secondary disaster” (e.g. Brooker 2011; Johnston 2011; Yokota and Yamada 2011). The Fukushima story gained newsworthiness owing to two specific sets of reasons: The first set is related to the nature of nuclear energy; and the second set is derived from the role of media in times of disasters and crises. There are 436 nuclear reactors across the globe operating in 31 countries (Suzuki 2011), some of which are built on sites of possible destructive earthquakes, or vulnerable to tsunamis (Lyman 2011). The accident had a vast impact on the nuclear industry across the globe. Since then, organizations such as the European Union (EU) and particularly countries such as Germany started to reconsider their nuclear policies with the aim to regain the public’s confidence towards the invulnerability of their reactors (Jorant 2011). The second set of news predictors is related to the media’s role during accidents and disasters. In general, during extraordinary events, news media present a primary source of information; serve as an orientation for directly and indirectly affected citizens; connect decision makers and affected citizens, and shape citizens’ knowledge about an accident (e.g. Anderson 1997; Cowan et al. 2002; Major and Atwood 2004; Pantti et al. 2012; Wilkins and Patterson 1987).

The central focus of this paper was to apply news framing analysis on the content related to the Fukushima accident published in U.S. newspapers, and to understand how journalists perceive and report on nuclear events. Research interest was focused on the links between production and content of news, as well as possible implications for public understanding of the issue. Thus, the following research questions were probed: What were the most commonly used frames by *The New York Times*, *USA Today* and the *Los Angeles Times* when reporting on the Fukushima accident? Were there any differences in framing and content among these three outlets? What did the journalists’ discourse say about reporting related to Fukushima? From the journalists’ perspectives, which factors impeded or contributed to reporting?

Answering these questions included employing mixed methods whereby qualitative and quantitative content analyses of 549 news items were undertaken with an aim to assess frames used, as well as to describe the general volume of and differences in reporting. Interviews, which serve “as a useful supplement to analysis of content by connecting the text to actual human actors” (Lewis and Reese 2009:89), were conducted with the objective of delving into journalists’ experiences. In total, four journalists and one scholar participated in the study. It is argued that the aforementioned U.S. newspapers have framed the Fukushima accident in terms of a conflict of opinions between experts and officials, utility and government officials’ responsibility, and economic consequences for the U.S. Japan has been presented as an affluent, tech-savvy country unable to fight nuclear calamities due to incompetent leadership; the U.S. was portrayed as struggling to avert an “American” meltdown. The story about Fukushima has been put in the context of wider debate over safety in the nuclear energy sector and fears of radiation that are a direct consequence of many unknowns within the scientific community. This kind of framing was a result of a lack of information regarding the situation at the Fukushima plant and journalists’ beliefs that the only way to tell a complex story is to adhere to professional norms of objectivity and impartiality. After remarks about theoretical background and methodology, the main findings of this research are presented. The final section of the paper discusses the results and conclusions related to framing of the Fukushima accident in the selected U.S. newspapers.

Theoretical Overview

Previous research on disaster and media, framing, and journalistic behavior in times of crises provides the theoretical underpinnings for this study. As mentioned previously, the news media play a significant role during disasters and their aftermaths. Cottle (2009) suggested that global crises are framed, narrativized, publicly defended or contested through media. The way the disasters, including nuclear accidents, are portrayed has an impact on how the public perceives these events, especially such distant ones. How issues are framed in the news media has important consequences on audiences' understanding of the same (Scheufele and Tewksbury 2007). Furthermore, the way in which the news media represent an event has a pronounced impact on policies and decision-making processes (Entman 2004), where "focusing events" can lead to changes in policies and institutions (Tierney et al. 2006). Regardless of the large-scale consequences produced by extraordinary events and global attention, media often frame these news items within national contexts (e.g. Clausen 2010).

Previous studies on framing covered a wide array of issues: Two airplane accidents (Entman 2004), the war on terror (Lewis and Reese 2009), 9/11 (Edy and Meirick 2007), European politics (Semetko and Valkenburg 2000), introduction of the Euro (Vreese 2001), and corporate crisis communication (An and Gower 2009). Research related to nuclear power and public opinion has rarely employed framing analysis. Gamson and Modigliani (1989) extracted five frames prevalent in American-centered discourse on nuclear policy, whereby framing occurred at the level of the media and among individuals at a cognitive level. Even though there is no unique conceptualization of framing, some main traits may be found in the literature. Framing includes selecting, defining, and presenting an issue; it incorporates an emphasis, inclusion or exclusion of certain aspects of an event, and it presents an organizing core idea which implies what an issue is. Furthermore, it is able to define the main issues in a debate (Vreese 2005). Framing is based either on salience, which makes some part of information more noticeable (Entman 1993), or on invoking interpretive schemas that influence interpretation of information (Scheufele 1999). For the purpose of this study Entman's definition has been used:

To frame is to select some aspects of a perceived reality and make them more salient in communicating text, in such a way as to promote a particular problem definition, causal interpretation, moral evaluation, and/or treatment recommendation for the item described (1993:52, emphasis in original).

Moreover, it is important to look at frames either as issue-specific or as generic, and this study utilized the latter set of frames. Generic frames can transcend time and cultural contexts, and can be identified in relation to different topics (Vreese 2005:54). Vreese (2001) studied generic frames in a cross-cultural setting and found that conflict or economic consequences frames were the two most used frames in reporting on EU introduction in British, Danish, and Dutch television news. Similarly, Semetko and Valkenburg (2000) used a deductive approach to framing analysis in the case of EU issues appearing in Dutch media by applying predefined frames as content analytic variables.

Previous studies on nuclear power, predominantly content analyses of newspapers and TV in the cases of Chernobyl and Three Mile Island, explored how well media did or did not report on nuclear accidents (see Friedman et al. 1987, 1992; Rubin 1987; Westerståhl and Johansson 1991). They have probed the role of expert opinion in changing attitudes toward nuclear energy and specifically asked whether reporting helped audiences to understand the radiation-related risks. These studies concluded that the news media did not adequately inform the public about these events and its risks. Research on the Fukushima accident focused

on the impact of the Internet in nuclear disaster coverage. The main conclusion of Friedman's exploratory study (2011) is that the media used creative approaches to reporting which resulted in extensive and in-depth representation of the event by a number of media. However, the study led to a conclusion that the main problem was sourcing. Comparison of Japanese newspapers and foreign media websites (Tkach-Kawasaki 2012) demonstrated that the media played a constructive role in helping the public understand safety risks associated to nuclear accidents and reminding the nation about the ongoing situation

Carstarphen and Coman (2011) reviewed studies on journalists' behavior in crises. They concluded that crises bring about changes in normal media functioning; a reduction in the editor's gate-keeping role, and an increased use of unverified information while official sources or high-status persons are pressured to confirm or comment on the event. Olsson (2010) demonstrated that all crisis events are similar – they present risks and opportunities for the organization while media workers draw comparison with previous similar events. This is done by typification (Berkowitz 1992) where news media improvise around established procedures and use metaphors and other tools that are known to the public. Another important aspect that limits journalists' work is the event itself (Schudson 2007). The event limits the narrative frames to be used; that is, journalists socially reconstruct crises and narrate them in already known terms and metaphors (Schudson 2007:254).

Methodology

This study applied framing theory and mixed methods with the aim of corroborating its findings. First, it examined the prevalence of four frames: conflict, human interest, economic consequences, and responsibility identified in previous studies (see Neuman et al. 1992; Semetko and Valkenburg 2000). The second part included semi-structured interviews with four journalists and a scholar who were all involved in newsgathering and production processes related to events ongoing in Japan after March 11. Articles from *The New York Times* and *USA Today* were retrieved from the LexisNexis database in August 2012, while the *Los Angeles Times* items were retrieved from the hard-copy edition in July 2012. All articles were retrieved by using a combination of the words: "Japan," "Fukushima," "radiation or nuclear," "accident or disaster," and a date range of March 11, 2011 to December 18, 2011. Due to the nature of the research project, purposive sampling (see Riffe et al., 1998, p. 86) was used. The study was not limited to news articles, but also included editorials, comments, op-eds, features, and interviews, given that they all contributed to the salience of the issue in the newspapers and represented general discourse about the Fukushima accident.

The New York Times and the *Los Angeles Times* were chosen because they are defined as national newspapers with an international influence (Carpenter 2007). In addition, these newspapers are more likely to have even-handed reporting about controversial issues. *USA Today* has been chosen for the analysis because it represents "a prototypical national newspaper" and is "one of the nation's most popular newspapers" (Lewis and Reese 2009:86,89). In current research, qualitative analysis is used first with an attempt to discover the most prominent topics, which also served as frame indicators. Close reading of news items published in the *Los Angeles Times* was employed to identify recurring topics; these topics, as a variable, were later applied to other newspapers. Given that the situation in Japan after March 11 was multifaceted, most of the articles reflected this fact. Namely, journalists presented different aspects of the complex calamities in Japan within one news item, which was coded for up to three topics. Additionally, news items were read to identify four frames: conflict, human interest, economic consequences, and attribution of responsibility. In order to recognize frames, apart from topics as indicators, different sets of questions were asked. The study applied and

adapted questions designed by Semetko and Valkenburg (2000) for their study on European politics.

Four journalists, veterans in the profession, were interviewed with an aim to support findings of the conducted content analysis and to give voice to “frame-shapers” (Lewis and Reese 2009:86). A member of the research community was contacted with an intention to gain an understanding of the institutional constraints that might have affected reporting and newsgathering in Japan. Sampling was purposive, and mainly led by journalists’ availability and willingness to participate in the study. This study applied semi-structured interviews; the same set of questions was asked to all respondents along with other unstructured questions that emerged during the interview processes which reflected the unique experience of each respondent.

News Framing in U.S. Newspapers and Journalists’ Perceptions

Table 1 presents the number of news items published in *The New York Times*, *USA Today*, and the *Los Angeles Times*, and addresses the general volume of reporting in regard to the Fukushima accident

Table 1 Number of Articles Published in Three Newspapers per Month

| Month | <i>The New York Times</i> | <i>USA Today</i> | <i>Los Angeles Times</i> | Total |
|----------------|---------------------------|------------------|--------------------------|-------|
| March 2011 | 165 | 32 | 74 | 271 |
| April 2011 | 64 | 10 | 27 | 101 |
| May 2011 | 37 | 2 | 6 | 45 |
| June 2011 | 28 | 1 | 6 | 35 |
| July 2011 | 17 | 0 | 4 | 21 |
| August 2011 | 25 | 3 | 5 | 33 |
| September 2011 | 9 | 4 | 1 | 14 |
| October 2011 | 9 | 0 | 0 | 9 |
| November 2011 | 4 | 0 | 1 | 5 |
| December 2011 | 9 | 2 | 4 | 15 |
| Total | 367 | 54 | 128 | 549 |

The highest number of stories was published in March and April, and *The New York Times* had the highest number of stories at 165. A decrease in volume of reporting for all three newspapers can be seen before the end of March. However, the *New York Times* continued to have an interest in the situation in Japan up until August. It may be inferred that this accident was on the media radar in accordance with the news cycle: it took an event as big as a military operation involving the U.S. (e.g. the Libya crisis) to take over media attention (Johnson 2011). The high media interest for the Fukushima accident does not come as a surprise. Previous research has demonstrated that even nuclear events which are rated as zero on the INES generate significant media attention (Perko et al. 2012).

Volume, Frames and Topics

All four frames were used at the beginning of the crisis, with the most dominant frame being the conflict frame. It was applied in 37% of the stories from *The New York Times*, 22% from

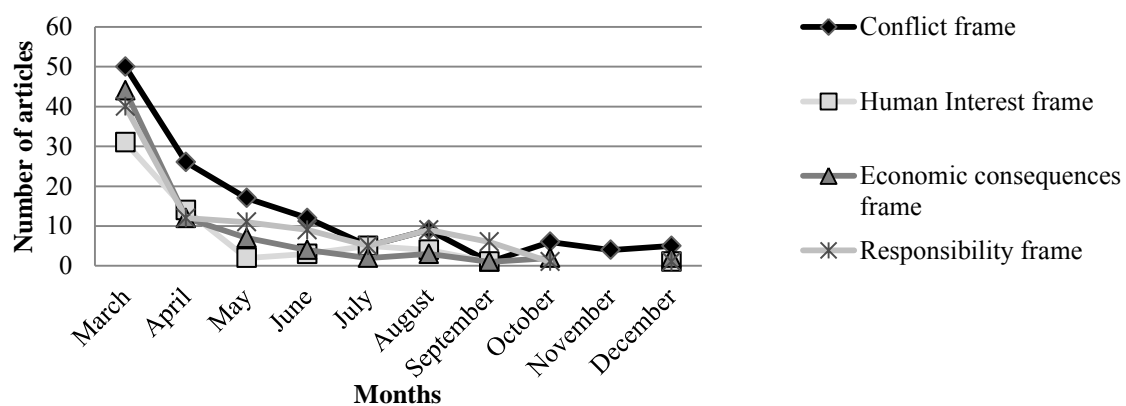
USA Today, and 31% of the stories in the *Los Angeles Times*. Conflict and responsibility frames had their peaks in August. The complete overview of frames used is shown in Table 2.

Table 2 Number of Frames per Newspaper

| | Conflict (%) | Human interest (%) | Economic consequences (%) | Responsibility (%) | Total (N) |
|---------------------------|--------------|--------------------|---------------------------|--------------------|-----------|
| <i>The New York Times</i> | 37% | 17% | 21% | 26% | 367 |
| <i>USA Today</i> | 22% | 22% | 37% | 19% | 54 |
| <i>Los Angeles Times</i> | 31% | 20% | 7% | 41% | 128 |

For the purposes of this article, only detailed results for *The New York Times* are presented. The conflict frame was used over a 10-month period. The responsibility frame was mostly used in March and April, immediately after the accident, with an evident “jump” in August, as shown in Figure 1. This may be attributed to the events ongoing in Japan in 2011, e.g. Prime Minister Kan’s resignation due to the nuclear accident, and post-3/11 recovery issues. The human interest frame was mostly used in the first weeks after the accident up to May. A possible explanation is that *The New York Times* made efforts to have journalists in Tohoku, the region hosting the Fukushima plant, in order to convey the affected citizens’ side of the story. From the very beginning *The New York Times*’ reports focused on accountability and distrust issues, as well as speculations over whether a meltdown occurred. It may be assumed that the high number of conflict stories came as a consequence of the lack of information provided to journalists and to the public by different actors. Additionally, this framing may be attributed to disputes between the U.S. and Japanese nuclear safety agencies over what was actually happening at the plant. Given the complexity of the situation and economic losses caused by the accident, emphasis was also placed on the economic consequences, and thus economic framing.

Figure 1 Use of Frames over Time in *The New York Times* Coverage of the Fukushima Accident



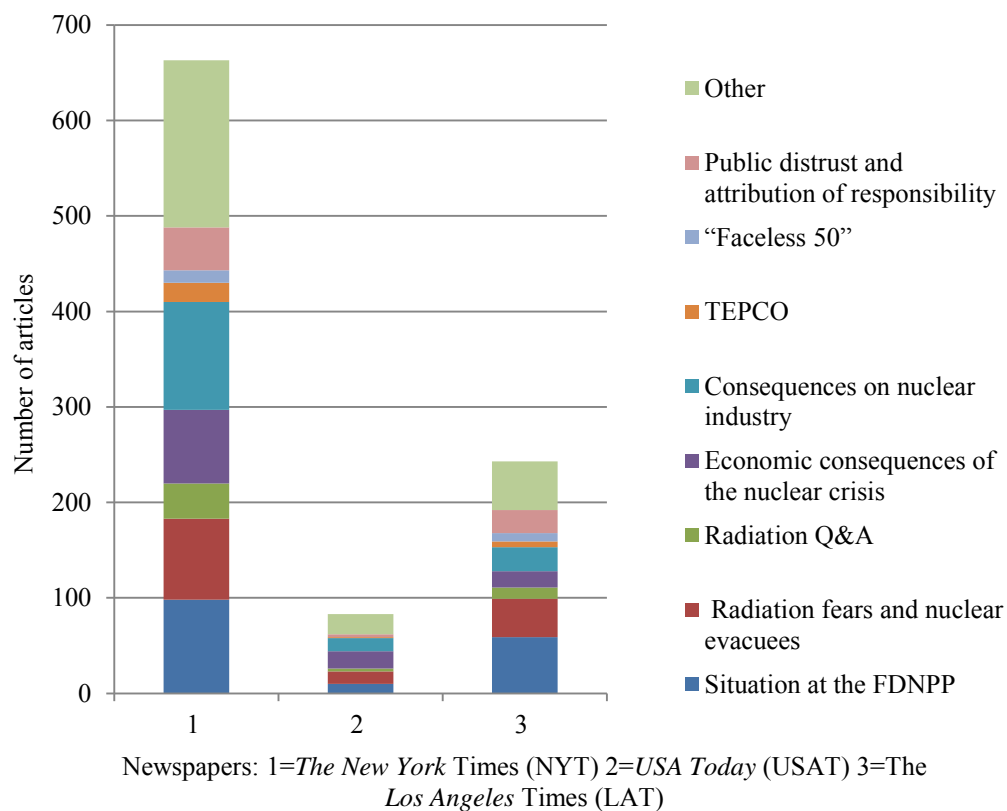
The most prominent topics in the selected newspapers were: (1) The situation at the Fukushima Dai'ichi Nuclear Power Plant, (2) Radiation fears, including concerns over food/water safety, and nuclear evacuees; (3) Radiation Q&A - stories about the technical aspects of nuclear technology, the disaster, and radiation, (4) Economic consequences of a nuclear crisis; (5) Consequences facing the nuclear industry that include consequences on U.S., Japanese, or other nuclear industries; debates over the future of the nuclear industry, cover-ups in either the Japanese or U.S. nuclear industry, safety issues related to the earthquake, tsunami, design flaws, or economic costs of nuclear energy, etc., (6) TEPCO, (7) "Faceless 50", (8) Public distrust and attribution of responsibility, (9) Earthquake/tsunami-hit areas, and (10) Other. One of the interviewees in the study, a scholar who specialized in Japanese mass media, observed that the foreign media focused on finding information about topics such as the meltdown and the cover-ups; information about what TEPCO was saying, doing, or did not do; the SPEEDI story; the Japanese government's responsibility and constant downplaying of the situation; and the "amazing social cohesion of Japan." A detailed overview of topic frequency per outlet is presented in Figure 1.

The New York Times had the highest number of topics coded as "Other" (175 in total). These topics range from information about the design of the nuclear power plant, drawing comparisons with previous accidents in the nuclear industry or other disasters (e.g. 9/11), portrayal of the Japanese people in distress and their calmness amid multiple calamities, lack of information and "dearth of candor," to safety issues especially in relation to the Indian Point Plant near New York City, the nuclear establishment in Japan, the "political fallout" of the Obama and Kan political administrations. The second most pursued issue for *The New York Times* journalists was the issue related to topic (5); the paper published 113 stories in total regarding the consequences of the disaster. These articles included reporting on repercussions or problems which emerged in both the U.S. and Japanese nuclear industries and cover-ups, as well as safety issues related to seismic activities or tsunami. Of the noteworthy number of stories, 85 articles addressed the concerns of affected citizens regarding radiation effects, and radiation fears and living conditions of nuclear evacuees.

USA Today focused on the U.S. nuclear industry and its safety record (a total of 14 stories) in addition to the economic consequences of calamities in Japan (18). Many stories were coded as "Other" (21) given that *USA Today* journalists covered all aspects of the 3/11 events in Japan in a fewer number of articles, thus combining multiple aspects of Japanese disasters into one.

The situation at the plant, radiation fears and concerns over food and water safety were the most prominent topics in the *Los Angeles Times*, with 99 stories in total. Significant attention was paid to topic (5): consequences for nuclear industry and debates over safety. This does not come as a surprise given that the Los Angeles County hosts a nuclear power plant, San Onofre, while at the same time being one of the most seismically unstable regions in the U.S. The *Los Angeles Times* journalists emphasized questions of accountability and blame, giving the opportunity for concerned and affected citizens to express their anger and distrust. In total there were 24 stories related to these issues.

Figure 2 Main Topics Reported in Three Newspapers



Note. Figure 2 highlights the main topics covered during the reporting on the Fukushima accident in three newspapers. The overall number of articles exceeds 549, the total number of analyzed articles, because the coder coded up to three different topics per news item.

Journalists' experiences: issues, topics and accountability

The main focus of the interviews, which were conducted throughout October and November 2012, was the interviewees' personal experiences, their choice of topics, their sources, and how they reported radiation issues. Interviewees in this study will be referred to as Participant 1 and Participant 2 (two foreign journalists), Participant 3 and Participant 4 (two Japanese journalists) and Participant 5 (a scholar). One of the foreign journalists was a U.S. citizen and the other was a U.K. citizen, and both have worked in Japan as freelancers or correspondents for different English-speaking publications published in the U.S. and the U.K. They also have worked for Japanese TV broadcasters as journalists for news programs. The Japanese journalists have worked for one of the five big Japanese newspapers and possess extensive professional background in journalism. At the time of the 3/11 events in Japan, one was stationed in a prefecture bordering Fukushima prefecture, and the other was abroad serving as a bureau chief. Some of the main similarities regarding reporting of the event are presented in Table 3, and the differences are shown in Table 4.

Similar perceptions

Participants agreed that the biggest story coming out of Japan at the time was the “nuclear story,” which immediately became the lead story. According to Participant 1, the nuclear situation was most important because the damage arising from the nuclear accident was long term and not readily visible, whereas the quake and tsunami damage was clearly noticeable. Another important topic and the biggest issue in reporting on the Fukushima accident was the lack of information, “information gap” (Participant 1), or “nobody knows” type of situation (Participant 3). However, the reasons behind the wording might vary; for instance foreign journalists assigned blame to the Japanese government for trying not to cause panic, as well as TEPCO for trying to protect its interests.

...A huge information gap between everybody...So you have TEPCO who does not know what is going on, who wants to protect its own interests. You have got the Kan administration that is partially in dark. You have all these other nuclear regulatory agencies who were also, of course, trying to protect their own interests. You have got the United States, who is another major actor in whole play, who also has huge influence and who was also left in the dark in certain situations (Participant 1).

Participants in the study agreed that expert opinion counts the most in this type of reporting. Nevertheless, there are differences in their perceptions concerning what was a good or qualified source, and which sources they actually used while reporting in this particular case, as will be shown later.

Main topics

The topics covered by journalists differed depending on the location of participants at the time and what their editors wanted them to cover. Foreign correspondents agreed that focus was placed on three strains of the Fukushima story: One related to Tokyo’s reaction, one to the consequences for the U.S., and the other related to the citizens of Tohoku, who were directly affected by the accident and concerned about their safety. Japanese journalists focused on the reaction of the French government to the situation in Japan, the history of nuclear power in France, other contentious issues such as nuclear nomads (Participant 3), and on topics related to nuclear evacuees from the Fukushima prefecture as well as damage in neighboring prefectures (Participant 4).

Risk reporting and sourcing

Participants agreed that expert opinion is crucial for this type of reporting. “In this kind of case, you have to present both sides, especially if scientific findings are varied” (Participant 1). However, their perceptions vary on what makes a good or qualified source, as well as what sources they used. Participant 1 stated that the most impressive source was an NPO in Tokyo which presented the anti-nuclear side of the story. Participant 2 stated that reporting on radiation safety and risks stresses the importance of quoting all opinions, Japanese and international, although this did not come without problems:

...I would say that is the most difficult part of this story, because it continues. I mean, nobody knows long-term impact of radiation. They guess, they estimate, they really do not know. So there is no compass for you as a journalist [as to] how to work, who

to speak to, who to ignore...And if you amplified the wrong people, the pro-nuclear side or antinuclear side, you do a lot of damage. (Participant 2)

Table 3 Similarities in Journalists' Perceptions about Fukushima Reporting

| Topics covered during interviews | Journalists observations/impressions/quotes |
|--|--|
| General impressions/emotions about covering the Fukushima accident | "...once in a life story," rich and complex, adding that there was always a new angle to take and report on (Participant 2) Fear (Participant 2), amazement and shock (Participant 3), "bad" (Participant 4) |
| First information source about the accident | <i>Other media:</i> "NHK radio was saying that there was a nuclear accident and that people around the power plant are being advised to stay indoors" (Participant 2); NHK radio (Participant 1); Internet media-a lot of information coming from internet was rumors (Participant 3) |
| The biggest media story after March 11, 2011 | "...nuclear story" (Participant 1) "Because that had the most drama, the most uncertainty, the most [information that] people wanted to read...And that was the story that had the most unknowns, that had people riveted...that had the longest and most dramatic repercussions outside Japan..." (Participant 2) Radiation story with possible consequences across the globe (Participant 3) |
| The biggest issue/problem in reporting | Lack of information, "information gap" (Participant 1), "nobody knows" type of situation (Participant 3) |
| Radiation and risk reporting | Expert opinion counts the most in this type of reporting (Participant 1, 2, 3); "You present both sides. In this kind of case you have to present both sides. Especially if scientific findings are varied." (Participant 1) |

For Participant 3, the answer to the question related to risk reporting is simple: "If you have some questions, you want to check with the specialists." According to him, there is no difference in reporting radiation risks, traffic accidents, or corruption-related scandals. However, the problem with experts in the case of the Fukushima accident was that nobody actually knew what happened or was happening at the time of the interview:

So all you have to do is writing, measuring some sources. A says that, B says that, C says that. I do not think there is no other way to explain what happened in Fukushima. (Participant 3)

Participant 3 contacted Japanese, international and French experts. However, when the issue included complicated scientific matters, he preferred Japanese sources, as long as they were "good sources," which he identifies as those coming from academia or government. He em-

phasized that it was important not to take sides and to be careful about sourcing, because one side might be very conservative (e.g., the government), and the other might be very negative about the Fukushima accident (e.g. anti-nuke specialists).

Table 4 Differences in Journalists’ Perceptions about Fukushima Reporting

| Topics discussed during interviews | |
|--|--|
| Foreign journalists | Japanese journalists |
| Impediments and problems during reporting | |
| <p>“Well we could not get access to TEPCO administrators. They would not talk to us.”; “Finding people who are credible“; lack of previous experience about the nuclear accident reporting. (Participant 2)</p> <p>How to get the “truth” among all controversies— “Who do you trust?” (Participant 1)</p> | <p>Access to sources in France is somewhat problematic, but during press conferences or after, journalists are able to do interviews or ask questions. (Participant 3)</p> <p>Press clubs in Japan are more open nowadays, and present no obstacle in reporting. (Participant 4)</p> |
| Attribution of responsibility | |
| <p>Responsibility for the situation in relation to the Fukushima accident, but also in relation to reporting, attributed to both the Japanese government and TEPCO, as well as sources; “Who can you trust?” (Participant 1, Participant 2)</p> | <p>Lack of leadership is problem in Japan, but reporting “turned out as it turned” because there was no clear information, and sources are to be blamed for this. (Participant 3)</p> |
| Newsgathering process | |
| <p>“...at the heart of that is a very different way of newsgathering”...Japanese journalists rely on official sources, and are part of the system; foreign reporters are more free to do investigative reporting. (Participant 2)</p> <p>Foreign journalists did not trust the government or any authority...“That’s journalist’s job, to question authority.” (Participant 1)</p> | <p>“And your job is to write a story so that your reader would be able to understand. So you are kind of a translator of things. A journalist has this kind of job by which you take complicated things and use easy writing ...” (Participant 3)</p> |

Constraints

The above stated excerpts also illustrate some of the main constraints journalists faced while reporting. Foreign journalists agreed that accessing officials and deciding on how to get the “true” or right story among all controversies were the biggest limitations. According to Participant 2, several issues caused constraints during reporting: The first being the fact that the Japanese government was not forthcoming; and the second about the novelty of the event—the majority of journalists have never reported about nuclear accidents. “We never heard of becquerels or sieverts or how to measure radiation...We did not know what was involved. There was a lot of guess work” (Participant 2). The biggest constraint for Participant 1 was getting the truth, especially at the beginning, given that the experts on Japanese TV offered comments that were all pro-nuclear, and a lot of them were connected to the nuclear industry in Japan. As expected, Japanese journalists did not find any problems with the Japanese press club system, to the extent to which it presented an obstacle while collecting the information and reporting. Participant 4 emphasized that the press clubs are now more open to Japanese

and foreign journalists alike, even if members of these clubs do not follow the same line of reporting.

Lack of information and accountability, issues of paucity of information, lack of trust and accountability have been directly or indirectly mentioned by the participants. Participant 1 attributed responsibility for the situation at the Fukushima plant and reporting on it to the Japanese government, TEPCO, and the sources. Participant 2 similarly attributed a lot of problems to sources and added that “at the heart of that is a very different way of newsgathering.” According to him, Japanese journalists relied unquestionably on information coming from TEPCO officials, NISA, and the Japanese government. However, he added that foreign journalists who did not belong to press clubs were more free to speculate without worrying whether they were causing panic. Participant 3 finds the lack of leadership to be a problem in the ongoing situation in Japan. While people in Japan reacted calmly, there was a problem with leaders:

Japanese society is a very organized society...Lack of leadership could be influencing [it] in bad way, in bad manners. And this happened. If you have seen the Japanese political scene, there are no Clintons, no Obama, no Tony Blair. So I was afraid of a lack of leadership...So total mess [sic], at least if I can say from the very beginning until the first two weeks. Not only with Mr. Kan, but at the top of the government as well as the Tokyo TEPCO, Tokyo Electric Power Company. And among some specialists and professors. (Participant 3)

Participant 5 found that the main difference was the fact that Japanese media are pack oriented and risk averse, while international media “felt comfortable acting as journalists trying to get at the truth.”

Concluding Remarks

This study analyzed the content of three U.S. newspapers and interviewed four journalists and a scholar in order to explore how U.S. newspapers framed the Fukushima accident, to reveal journalists’ experiences while reporting on this event, and to make inferences on what facilitated or impeded reporting. Framing theory provided the basis for understanding how an international event or, more specifically, a nuclear accident, was communicated in the U.S. and what were the underlying reasons for such representation.

Framing analysis of media content in *The New York Times*, the *Los Angeles Times*, and *USA Today* demonstrated that the three most used frames are conflict, responsibility, and economic interest. These newspapers focused on several aspects of the accident, making them more salient and thus promoting certain problem definition, causal interpretation, and treatment of the issues (Entman 1993). These findings were in line with previous studies (e.g. Neuman et al. 1992; Semetko and Valkenburg 2000; Vreese 2001), suggesting that a certain universality in news representation exists, regardless of the country and issues covered. Though, it must be acknowledged that journalists and the news media, which were part of the analysis, still used a domestic angle to present different issues by choosing certain topics over others or by prioritizing one set of experts instead of others.

This study investigated the topics that the three newspapers used in reporting, and these thematically reinforcing clusters (Entman 1993:52-53) served as frame indicators. Selected news outlets differed in how they have chosen topics for their stories, with less difference between *The New York Times* and the *Los Angeles Times*, and greater difference between these two outlets and *USA Today*. As described above, *The New York Times* and the

Los Angeles Times focused on various aspects of this complex accident in an attempt to put the accident in a wider perspective in terms of U.S. and Japanese societies.

The New York Times and the *Los Angeles Times* exhibit differences in the details with which they covered the Fukushima accident not only according to the number of stories published, but also due to the market niche of these newspapers. *The New York Times* is known for more extensive international coverage with bureaus in Tokyo and elsewhere in the world. The *Los Angeles Times* formerly had a large correspondents' network but is now shrinking due to "limited resources" (Participant 5). The same outlet did not have correspondents in Japan even prior to the Fukushima accident. In addition, there is a difference in the readership. Participant 5 pointed out that the *Los Angeles Times* readership prefers human interest stories to "the crunchy, who-knew-what-about-the-tsunami story." As a result, the *Los Angeles Times* had less "local knowledge" and relied more on human interest stories, which were easier to assemble due to the availability of sources. Similar reasoning may be applied to *USA Today*, which does not have a bureau in Japan and tends to generally focus more on national news, given its national circulation in the U.S.

As a result, this study argues that the Fukushima accident was framed as a conflict of experts and officials' opinions, utility and government officials' responsibility, and economic consequences for the U.S. Furthermore, the Fukushima accident was placed within the broader context of the renewed debate over nuclear energy, its safety, and its real costs and benefits. The analysis indicates that regardless of the differences between outlets in the number of stories and the details with which the Fukushima accident was reported, sufficient information was presented to the readerships. This conclusion is somewhat in line with Friedman's study (2011), which mentions that media organizations, such as the *Wall Street Journal*, the *Los Angeles Times*, and the *Washington Post*, provided more in-depth reporting. Similarly, content analysis of the Fukushima coverage in Japanese newspapers and CNN web pages showed that media played a constructive role in helping the public understand safety risks (Tkach-Kawasaki 2012). It may be assumed that differences stem from the changes in news ecology (see Pantti et al. 2012) that happened in the years after the Three Mile Island and Chernobyl nuclear-plant accidents.

Interviews with journalists led to the conclusion that even though journalists tried to routinize events by applying professional ethics of objectivity through quoting a number of different sources, the biggest obstacles to reporting were the communication gap between the main actors in this accident and the paucity of data. In their work, foreign journalists tried to routinize the unexpected event by applying the same newsgathering techniques as usual, however only the volume of work increased. Furthermore, analysis showed that both groups agreed that the Fukushima accident was a "once-in-a-lifetime story," or what was previously identified in literature as "what a story" (Berkowitz, 1997). All interviewed journalists relied heavily on sources to convey the Fukushima accident to their audiences, thus the divide in opinions among sources might have affected their reporting. In addition, their reporting was a result of their positions in relation to the accident: for some it was a domestic event with immediate consequences, for others it was simply foreign news to report. It may be said that the media systems, which both groups belong to, also affected how they perceived the event, and consequently how they reported and framed the accident.

Common to both groups is that they adhered to the objectivity norm in journalism, according to which journalists are supposed to present both sides of the story. This approach to journalism would be consistent with the liberal news model that emphasizes objectivity, fact-centered reporting, and information provision, where the reader or the audience is left to make conclusions (Wahl-Jorgensen 2007). A noteworthy difference is how they perceive themselves and, indirectly, their profession. Foreign journalists observed that due to their position and the fact that they did not belong to a press club enabled them to do their job and

look for information in a less restricted manner; for example, by going to the Tohoku region near the stricken plant. On the other hand, Japanese journalists were following their company's internal regulations which stipulate that journalists are not supposed to go to the site of a nuclear accident. That was, at least, the case at the media outlets where the two interviewed journalists work. Both groups found that the incompatible and incomplete information, the many unknowns, and the divide among scientific communities about nuclear issues were the main factors that affected journalists' writing. The biggest problem in reporting these events was the inability to assess information due to contrary positions held by experts when it comes to nuclear and radiation issues. Both groups expressed the opinion that the media still serve a gate-keeping role and is responsible for amplifying some views while neglecting others. The number of journalists interviewed was too few to generalize conclusions, but it may be said that this discourse on reporting partially comes as a direct consequence of changes in the market, where even major news media organizations cannot afford to have correspondents in major hubs like Tokyo.

In conclusion, the analyzed U.S. newspapers provided enough information, but a potential problem might have arisen from the fact that news related to the Fukushima accident was framed as conflict by quoting experts and involved actors who had opposing opinions about the consequences of radiation. In addition, this might also have affected how people understood the news and made sense of it. This research also indicates that the great number of conflict-framed stories, as well as disagreements within the scientific community and other stakeholders as to what happened during, after, and prior to the Fukushima accident, had an impact on what the audiences learned from the event, in a sense that blame for inconsistent information was assigned to journalists and media.

This study showed several limitations. First, the language issue was an obstacle during the interview phase. Due to the language barrier, the researcher had limited access to Japanese journalists. Second, the content analysis used purposive sampling, focusing on specific newspapers and a specified time period. Consequently, the results of the content analyses cannot be generalized beyond the select newspapers. Additionally, this study was a partial requirement for a Master's program and as such, presented other limitations such time constraints.

Findings in this study indicate that a significant portion of reporting was focused on the resilience of the Japanese people amid the devastating events and the lack of disorder due to the "Japanese spirit." Having this in mind, as well as findings of previous research on incidents such as Hurricane Katrina (Tierney, et al. 2007), which put forward the argument that media creates "disaster myths," it would be interesting to probe how news media represented "Japanese and Japaneseness" in distress. This study has addressed the issues of framing on two levels, the text and the communicator (Entman 1993). However, it would be useful to apply framing theory at the individual level (Scheufele 1999) and to explore the impact of these frames on the audience.

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