

**FRAMING INFECTIOUS DISEASES:
A COMPARATIVE ANALYSIS OF CHINESE NEWS COVERAGE OF SARS
AND EBOLA**

by
Jin Li

A thesis submitted to the Faculty of the University of Delaware in partial fulfillment of the requirements for the degree of Master of Arts in Communication

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ABSTRACT

This study consists of a comparative framing analysis about how the leading news agency in China, Xinhua, covered SARS and Ebola—the infectious diseases that originated inside and outside China, respectively. As part of my study, I examined the prevalence of six frames used by Xinhua in its 250 SARS stories and 250 Ebola stories, and I compared the differences in frequencies of each frame. In terms of the popular themes that Xinhua used in the coverage of both SARS and Ebola, SARS stories covered economics, responses by domestic government(s), reassurance, and confidence more frequently than Ebola stories did, whereas Ebola stories covered health effects and responses by international governments more frequently than SARS stories did. In terms of my qualitative results, Xinhua deemphasized the severity of SARS and emphasized the severity of Ebola. Citations from the trusted or powerful sources are often used in Xinhua’s stories about SARS and Ebola. In stories about both diseases, Xinhua casted positive light on the Chinese government in the descriptions about the prevention, control, and management of the government to the diseases. Results are discussed from the perspectives of the news environment, the political context in China, and China’s emerging role in the global political economy. The study also offers a deep look about how a collectivism society foster and protect the public image of the government among citizens and keep the society stable when dealing with a potential crises related to public health.

Chapter 1

INTRODUCTION

Mass media play critical roles in the dissemination of health-related information in China (Peng & Tang, 2010). Chinese citizens depend on TV programs, radio programs, newspapers and magazines to receive health-related information and learn how to manage and prevent diseases effectively (Liu, Yao, Lin, Jia, & Zhang, 2003). Xinhua News Agency is the most powerful mass media outlet within Mainland China, as news in all mainstream media outlets originates from this agency (Liebman, 2005). Thus, all health-related news stories in mainstream media outlets also originate from Xinhua.

China is a collectivist society, and with 1.38 billion citizens (by March 2016), it has the largest population in the world. When an infectious disease breaks out, fear among Chinese citizens can spread fast. In response, the Chinese medical system plays a critical role in providing both medicine and disease education. For example, the State Administration of Traditional Chinese Medicine of China conducted research on the combination of Traditional Chinese medicine and Western medicines to prevent, treat, and rehabilitate the SARS virus (WHO, 2003). Once suspected cases were confirmed, they were isolated, observed by health care professionals, and treated by both traditional Chinese medicine and western medicines (Zhongyaoshijia, 2008). The Ministry of Health in China also educates people about basic information about SARS and ways to prevent the disease. Medical staff receive additional training to increase their ability to provide diagnoses and treatment. Moreover, doctors who are experts at

disease prevention conduct television interviews to increase public knowledge of disease prevention and teach people the correct way to protect themselves from being infected (Gongchandangyuanwang, 2014).

The media help to calm the population, keep society stable, and stabilize the rule of the Communist Party. In particular, Xinhua—the mouthpiece of China’s Communist Party—may select specific perspectives through which to frame news stories about such diseases. People’s emotional stress may be especially high when a disease originates in their country, or when there are suspected, probable, or confirmed cases in their country. Thus, Xinhua may cover diseases differently based on their severity within China.

My study presents a comparative framing analysis of news coverage by Xinhua News Agency of two different infectious diseases—SARS and Ebola. SARS originated in China, whereas Ebola originated in West Africa. Thus, it allows us to examine how Chinese media may frame a disease differently depending on whether it originated in China or outside of China. We can also examine how an official propaganda outlet of a collectivistic society helps to stabilize the population when facing an infectious disease.

SARS, Ebola, and Media Responses

One disease that I examine in this study is Severe Acute Respiratory Syndromes (SARS). The SARS coronavirus is mainly spread by the transmissions of droplet or secretions. Most people do not have immunity to the virus, so they will likely be infected if they come into contact with it (Xinhua News Agency, 2003). The SARS coronavirus may cause fever (temperature higher than 38°C), dry cough, breathing difficulties, headache, discomfort, body aches, chest distress, and even

respiratory failure in some patients (WHO, 2003; CDC, 2004; Xinhua News Agency, 2003). The mortality rate for the disease is between 14% and 15% (WHO, 2003). Among the world's 8000 cases of infection and 774 deaths between November 2002 and July 2003, 5327 infections and 349 deaths occurred in China (WHO, 2003).

SARS was China's first public crisis of the 21st century. On November 16, 2002, the first case of SARS in a human occurred in Foshan, Guangdong province. After receiving information about cases of infection, the government decided to block the passage of information about SARS in a range of media, including newspapers, online forums, and even cell phone messages. Three months later, on February 7, 2003, the official document of the Propaganda Department was delivered, requiring that news about SARS (including a statement about the outbreak and the number of infected cases) be based on unified standards, and that every news story emphasize that the epidemic was under control (Zhu & Liu, 2009). Until February 10, 2003, the official statement of SARS was published by the Information Office of the Guangdong Province. Since then, the Chinese government has published the number of infections and deaths due to SARS. However, it is also true that this information was incorrect, and that official sources tried to minimize the number of cases of deaths and infections (Kaufman, 2005; Zhu & Liu, 2009).

The second disease that my study examines is Ebola. Ebola is a severe and often lethal virus spread among humans (WHO, 2014). Symptoms of Ebola virus, such as fever, fatigue, muscle pain, headache and sore throat, show up two days after infection (WHO, 2015). Soon after, the symptoms may develop into 'vomiting, diarrhea, rash, symptoms of impaired kidney and liver function' (WHO, 2015). The mortality rates of former outbreaks have varied between 25% and 90%, and the

average mortality rates of the disease is around 50% (WHO, 2014). The present outbreak of Ebola in 2014 was the most severe and largest outbreak in history, affecting multiple countries in West Africa and around the world. The outbreak first occurred in March 2014 in Guinea, West Africa, and then spread to Sierra Leone and Liberia, then to Nigeria, and then to Senegal. Since August 2014, countries in the Americas, such as the United States; countries in Europe, such as Spain, United Kingdom, Germany, France, Switzerland; countries in Oceania, such as Australia; and countries in Asia, such as Japan, and North Korea, have all reported infected cases or deaths (Reuters, 2014). Travelers are the main vector through which the disease spread so fast across the globe. On 9 May 2015, WHO officially declared that Ebola outbreak in Liberia was over (WHO, 2015). On 7 November 2015, WHO announced that Ebola virus transmission had been stopped in Sierra Leone (WHO, 2015). On 29 December 2015, WHO announced that Guinea was Ebola-free (WHO, 2015).

Xinhua published its first news story about the Ebola virus outbreak in West Africa on 23 March 2014. Following this, Ebola became a major topic in news stories of Xinhua. Throughout the outbreak, Xinhua reported the number of Ebola cases, the status of vaccine development, and events from affected regions.

Chinese Media Environment

Unlike the press in the United States and other democracies, the Chinese press environment is not liberal because ‘the Chinese government continues to place widespread restrictions on freedoms of the press and of expression’ (Freedom House, 2004:78). Mass media in the Chinese Mainland are not allowed to publish any disparaging remarks about the Communist party or any news that might threaten the stability of society. Strict supervision of mass media and stern prepublication

editorial censorship and self-censorship, various profession statutes and regulations on punishment, removal, or even detainment of journalists and anchors are all measures used by the government to protect social and political stability, the growth of the economy, and the development of a harmonious society (Beaudoin, 2007; Chang, Chen, & Zhang, 1993; Chang, Wang, & Chen, 1994; Liebman, 2005; Ma, 2008; Wu, 2006).

Xinhua News Agency is the official national press agency of China. It is also one of the two most authoritative and powerful news outlets (the other one is People's Daily) in China (Liebman, 2005). Xinhua can be seen as synonymous with 'official propaganda' (Balfour, 2003), in that the Communist Party of China is the leader, guide, and controller of its news coverage. In other words, it is the "mouthpiece" of the Communist Party of China and the Chinese government. News resources from Xinhua are prominent within the Chinese Mainland; news for all members of mainstream media, and most websites throughout the country, is dispatched and disseminated by Xinhua (Liebman, 2005).

Xinhua is also powerful when it comes to the dissemination of health information. In 2003, a survey randomly sampled 1,000 residents in Beijing to assess resources for health-related information among the city's residents. The survey found that 89.8% of Beijing residents received health-related news from the mass media. Specifically, 64.6% selected TV programs, 62.7% identified newspapers and magazines, and 43.5% chose radio programs (Liu, Yao, Lin, Jia, & Zhang, 2003). Therefore, mass media are the sources of health information used most frequently among the Chinese people. Given that 2003 was close to the year of the outbreak of SARS, the majority of Chinese citizens likely received SARS-related information

from the mass media outlets, including Xinhua. Given that news from all members of the Chinese mainstream media is affected by Xinhua (Liebman, 2005), news from Xinhua also presumably shaped how people understood and responded to the SARS crisis.

Literature Review

This study examines how Xinhua frames news coverage of the SARS and Ebola crises. According to Goffman (1974), frames are storytelling devices used by people to understand and translate social reality. Specifically, frames are ‘schemata of interpretation,’ through which people ‘locate, perceive, identify, and label’ (Goffman, 1974, p. 21). According to Gamson and Modigliani (1987, p. 143), a frame is a ‘central organizing idea or storyline that provides meaning to an unfolding strip of events, weaving a connection among them.’

Framing, as described by Entman (1993, pp. 52-53), is a process of selecting ‘aspects of a perceived reality,’ highlighting those aspects, and evaluating whether the aspects are ‘noticeable, meaningful, or memorable to audiences’ or not.

Communicators, information context, thoughts of news receivers, and the broader culture are four locations of framing (Entman, 1993). Framing offers specific directions for news receivers to interpret and discuss reality (Tuchman, 1978). Hence, the ways in which news about an issue or event is framed may affect audience members’ perceptions of this issue or event (Iyengar, 1991; Scheufele, 1999). In this way, studying news framing is important to understand the public’s perception of an issue or event.

The concept of framing has been applied in studies of various topics of news coverage, such as technological hazards (e.g., Gamson & Modigliani, 1989),

biotechnology (e.g., Nisbet & Huge, 2006), political issues (e.g., Cappella & Jamieson, 1996, 1997; Iyengar, 1991; Scheufele, 2000), and product safety issues (e. g., Feng, Brewer, & Ley, 2012). Scholars have also conducted analyses to study how mass media in different countries frame public health issues. For example, Abeysinghe and White (2010) studied how Australian newspapers framed the avian influenza pandemic. Sinaceur, Heath, and Cole (2005) studied how Mad Cow Disease was framed by French newspapers. Clarke, McLellan, and Hoffman-Goetz (2006) studied how news about HIV/AIDS was framed by two African American magazines. Shih, Wijaya, and Brossard (2008) examined how print media in the US framed public health epidemics, including mad cow disease, West Nile virus, and avian flu.

Furthermore, numerous studies have focused on the way Chinese media cover health issues. For example, Tong's 2006 study of the framing of AIDS in Chinese newspapers found that the Chinese national elite press paid less attention to human disaster and medical-scientific issues themes and more attention to public health frames. Tong also found that frames used in the news media shaped public opinion toward the epidemic. Similarly, Wu (2006) compared the frames used by Xinhua and the Associated Press to cover HIV/AIDS. The study found that pro-government frames—specifically, the defense frame, the progress frame, and the ambivalence/ambiguity frame—appeared most often in Xinhua's coverage of AIDS. In contrast, the anti-government frames—specifically, the dishonesty/oppression frame, the human rights abuser frame, and the incompetence frame—were more frequently used in AP's stories about HIV/AIDS. Liu, Ley, and Brewer's 2011 study of breast cancer coverage by Xinhua News Agency and the Associated Press, finding that Xinhua tended to cover breast cancer from the perspective of risk reduction and

prevention, early detection, and diagnosis. Meanwhile, the AP coverage emphasized treatment and personal story frames. Peng and Tang's 2010 research found that the majority of coverage in health-related articles published in Chinese newspapers is positive or neutral; negative frames appeared less often in Chinese health-related newspaper coverage.

Numerous scholars have also examined how mass media outlets around the world cover SARS and Ebola. Wallis and Nerlich (2005) and Washer (2004) studied how British newspapers covered SARS. The former study found that militaristic language and 'killer' were the most frequently used metaphors in the British newspapers' coverage of SARS. Similarly, Washer found that SARS was described as a "dangerous threat to the UK public" in British newspapers. Television news coverage of SARS has also been studied. For example, Tian and Stewart (2005) studied how SARS was covered by CNN (the United States) and BBC (the United Kingdom). They found that CNN and BBC both focused on the worldwide spread of SARS and the influence of the disease on public health, but also that CNN and BBC paid different levels of attention to the economic impact of the disease, the role of Taiwan, the usage of 'control,' and the position of Toronto. Looking across a wide range of media, Berry, Warf-Higgins and Naylor's 2007 study on the framing of SARS in Canadian print, radio, television, and Internet news media outlets found that news frequently described health risks by using strong language and credible source citations.

When it comes to news coverage of Ebola, Fung, Tse, Cheung, Miu, and Fu (2014) analyzed how news about Ebola was disseminated on Twitter. The study found that Twitter users' negative emotions toward Ebola reflected exaggeration and

observation of experiences of other people on social media. Relatedly, Househ (2015) studied the use of Twitter and electronic news media outlets in disseminating news and information about Ebola. The study found that news media outlets influenced social media the most. Studies of Ebola coverage in other news outlets have included a focus on print media, such as Joffe and Harrhoff's 2002 study analyzing how British newspapers covered Ebola. This study found that Ebola was described as a menace in some British tabloids and broadsheets. Ungar's 1998 study of news coverage of Ebola in Zaire newspapers and magazines found that the term "mutation-contagion" was quickly replaced by "containment" to relieve the public's stress.

Of particular relevance, numerous studies have examined SARS and Ebola coverage in Chinese media, including newspapers, Internet sources, Chinese official media outlets, television, website, print media, and social media. For example, Beaudoin (2007) studied how Xinhua covered SARS and found that Xinhua paid less attention the attribution of responsibility frame, severity frame, and story frame than did AP. Also, Xinhua used word frames more frequently in covering economic consequences, whereas AP used story frames more frequently for this dimension. Luther and Zhou (2005) conducted a comparative analysis of how various newspapers in China and the US covered SARS, finding that news frames for economic consequences, responsibility, conflict, leadership, and human-interest were less frequently used in Chinese newspaper articles compared to US newspaper articles. Hong (2007) compared how a Chinese commercial website, a Chinese national newspaper, and a Chinese regional newspaper covered SARS, finding that the China-based websites were more likely than the newspaper outlets to use the economic frame and cite powerful sources. Lee (2005) studied Chinese online news coverage of SARS,

finding that during the outbreak of SARS, news about the disease was combined with global and local reporting, so that the SARS epidemic was described “glocally” in the coverage. Zhang and Fleming (2005) examined the characteristics of news coverage of SARS in newspapers. Their analysis found that the content of Chinese news coverage was under the control of the Communist Party and government. Dirlikov and Jiang (2014) studied responses of various Chinese media, including Xinhua, the Guangdong-based Southern Weekly, and Southern Metropolis Daily, to Ebola. The authors found that the Chinese media’s news coverage of China’s responses to Ebola’s 2014 outbreak emphasized a positive perspective.

Although these studies collectively provide important information about how media in many countries—including China—cover public health issues, they are limited in important ways. Almost all of them concentrate only on news coverage of one specific disease (e.g. SARS or Ebola) by various media outlets within one country, or by similar media outlets (e.g. newspapers) in different countries. Relatively little research has examined coverage of different diseases by a single media outlet. Thus, my study fills a research gap by examining how one news agency covers infectious diseases that originate inside or outside of China. Specifically, it presents a comparative analysis of news coverage of SARS and Ebola by a Chinese mainstream media outlet—Xinhua News Agency—from the theoretical foundation of news framing. Given that these infectious diseases are health-related issues that have significant human impact, the analysis here can help to illuminate how national media under the control of the government in a collectivist society frame diseases that may threaten citizens’ well being to promote social stability and manage a potential social health crisis. Additionally, the comparison between news frames used in covering

diseases that originated inside and outside China will help us better understand how a Chinese news media outlet covers the ways in which national and local governments manage potential global health crises.

Research Questions and Hypotheses

To conduct my framing study, I first had to determine the salient frames that I wanted to examine. To do this, I took a grounded theory approach. As described by Strauss and Corbin (1998), grounded theory is a “general method of constant comparative analysis” (Glaser & Strauss, 1967, p. vii) based on an inductive method that encourage researchers to develop theories from empirical data. In particular, I developed my frames by following the data management process laid out Ritchie, Spencer, and O’Connor (2003). For the data management process, the first stage involves examining a number of texts (Ritchie, Spencer, & O’Connor, 2003). As part of this stage, I chose 15 randomly selected articles for each disease (SARS & Ebola) published by Xinhua during the peak period of the news coverage. Then, I identified the primary themes in each article (Ritchie, Spencer, & O’Connor, 2003). Finally, I categorized themes describing similar objects into groups to determine the media frames. Ultimately, I found 6 frames and grouped them into 3 types (problem frames, actor frames, and tone frames).

The problem frames are frames used by Xinhua News Agency to describe the nature of disease and its effects on the public. The problem frames that I identified include the Health Effects frame (the news story discusses the level of the threat that the disease poses or may not pose to human health) and the Economics frame (the news story discusses the positive, negative, or neutral impact of the disease on the economy of the originating nation(s) or other countries).

The actor frames are frames that focus on how an institution, organization, corporation, or individual takes action to address the disease. The first actor frame that I identified is the Responses by Domestic Government(s) frame (the news story discusses the responses by domestic government(s) in the originating nation(s), such as central government, regional governments, state/provincial/city governments, the govern party, and army, to resist, prevent, control, or manage the disease). The second actor frame that I identified is the Responses by International Governments frame (the news story discusses responses by governments outside the originating nation(s) to resist and prevent the disease from out breaking to a wider area, help the originating nation(s) to manage and control the dispersion of the disease, or provide clinical help to develop vaccines against the virus).

The tone frames are frames that may arouse people's emotions about the disease. The tone frames that I identified include the Reassurance frame (the news story includes expressions that may make readers feel safer within China), and the Confidence frame (the news story includes expressions that may promote Chinese citizens' faith or trust in the Chinese government)¹. For more details about each frame, see the coding scheme in Appendix I.

Frames revolving around health effects, economics, responses by the Chinese government, and reassurance of a disease have been studied by other researchers (see Beaudoin, 2007; Feng, Brewer, & Ley, 2012; Hong, 2007; Shih, Wijaya, & Brossard, 2008). I developed the Responses by Domestic Government(s) frame based on Feng, Brewer, and Ley's 2012 study, which analyzed framing the Chinese baby formula

¹ I also identified a third tone frame—the Fear/Worry frame. However, I found that only 5 of 500 stories included this frame, so I discard it from the analysis.

scandal by Xinhua and AP. In this study, the authors found the “Responses to the contamination” topic was frequently used frame in both Xinhua and AP’s coverage about the scandal. In addition to these four previously studied frames, I have identified two other frames for my study. They are responses by international governments and confidence.

For my project, I conducted a comparative analysis of news coverage of SARS and Ebola. SARS is believed to have originated in China, whereas Ebola originated in West Africa. Thus, the comparative analysis of news coverage of Xinhua News Agency on SARS and Ebola could also be seen as the comparison between news coverage of health diseases that originated within or outside of China. I have two general research questions about the frames used to cover the two diseases:

RQ1: What frames did Xinhua News Agency use in its stories about SARS and Ebola?

RQ2: Did Xinhua News Agency frame SARS and Ebola differently? If so, what were the differences?

I am especially interested in comparing the differences in Xinhua’s coverage of both diseases. The Health Effects frame and the Economics frame help to construct the nature of the disease problem. Whereas the Health Effects frame introduces the disease from the perspective of human health, the Economics frame introduces the disease from an economic perspective. These two frames may play a critical role in helping the public understand the problem of the disease. The Responses by Domestic Government(s) frame and the Responses by International Governments frame may help to shape the positive or negative public image of the government among the Chinese citizens. Thus, these two frames may directly affect the public’s satisfaction

and confidence in the government. The Reassurance frame and the Confidence frames work as stress-lessening frames, and may help calm public fears and promote faith in the government.

SARS originated in China, and spread throughout the country. Hence, the psychological stress of Chinese citizens in response to it may be strong (Ma, 2008). In order to lessen the stress among the public, Xinhua may portray SARS as a less threatening disease through less frequent use of the Health Effects frame (as found by Beaudoin, 2007; Luther & Zhou, 2005), and more frequent use of the Reassurance frame and the Confidence frame. In order to encourage the Chinese public to place faith in the Chinese government, Xinhua may use the Economics frame more frequently, particularly from a positive or neutral perspective (as found by Beaudoin, 2007; Luther & Zhou, 2005). As the official propaganda of the Communist Party, Xinhua needs to protect the positive image of the party and the Chinese government (Wu, 2006; Feng, Brewer, Ley, 2012). Presented with such positive portrayals of the Chinese government, its people may believe in the government and society may remain stable. Thus, Xinhua may frequently use Responses by Domestic Government(s) frames that highlight the actions by the Chinese government to manage or prevent SARS from infecting more people. Serving as a foil to the contributions of the Chinese government, Xinhua may use the Responses by International Governments frame less frequently.

Given that Ebola originated outside of China, Xinhua might frequently describe the disease as a worse one. In order to portray Ebola as a severe disease, Xinhua might frequently use the Health Effects frame, and less frequently use the Economics frame—especially from the positive or neutral perspective. In order to

emphasize the threat of the disease, the Reassurance frame and the Confidence frame may be used less frequently. China is not an originating country of Ebola, but it is an international rescue force. As the official propaganda of the Communist Party, Xinhua may be more likely to present positive coverage of the role of the Chinese government in controlling the disease (Feng, Brewer, & Ley, 2012; Wu, 2006). Hence, Xinhua may frequently use the Responses by International Governments frame for this disease, as this would help to build the positive image of China. Serving as a foil to the contributions of the Chinese government, the Responses by Domestic Government(s) frame might be mentioned less frequently.

HP1: Xinhua News Agency used the Health Effects frame more frequently in news stories about Ebola than in news stories about SARS.

HP2: Xinhua News Agency used the Economics frame more frequently in news stories about Ebola than in news stories about SARS.

HP3: Xinhua News Agency used the Responses by Domestic Government(s) frame less frequently in news stories about Ebola than in news stories about SARS.

HP4: Xinhua News Agency used the Responses by International Governments frame more frequently in news stories about Ebola than in news stories about SARS.

HP5: Xinhua News Agency used the Reassurance frame less frequently in stories about Ebola than in news stories about SARS.

HP6: Xinhua News Agency used the Confidence frame less frequently in news stories about Ebola than in news stories about SARS.

Method

This project consisted of a quantitative analysis and a qualitative analysis. The quantitative analysis examined the differences in the frequency of frames used by

Xinhua to cover each disease. In all, 500 stories—250 news stories about SARS and 250 news stories about Ebola—were randomly selected from the official website of Xinhua News Agency (www.xinhuanet.com). News stories were selected during the peak periods of each of the two diseases. The peak period is the time frame in which the number of news stories covering each disease is at the highest. Figure 1 and Figure 2 show the monthly number of news stories about SARS and Ebola. As figures 1 shows, the peak period of news stories about SARS is the months between April 2003 and October 2003. As Figure 2 shows, the peak period of news stories about Ebola is from July 2014 to January 2015. Representative samples were randomly selected through stratified sampling by month during the peak periods. For each disease, the number of the selected news stories in each month was based on the ratio of the number of monthly stories to the entire population of 20,152 stories (SARS) and 12,026 stories (Ebola). Of the SARS stories sampled, 67 of them were published in April 2003, 102 in May 2002, 33 in June 2003, 31 in July 2003, 3 in August 2003, 9 in September 2003, and 5 in October 2003. Of the Ebola stories sampled, 8 of them were published in July 2014, 55 in August 2014, 22 in September 2014, 61 in October 2014, 33 in November 2014, 22 in December 2014, and 49 in January 2015.

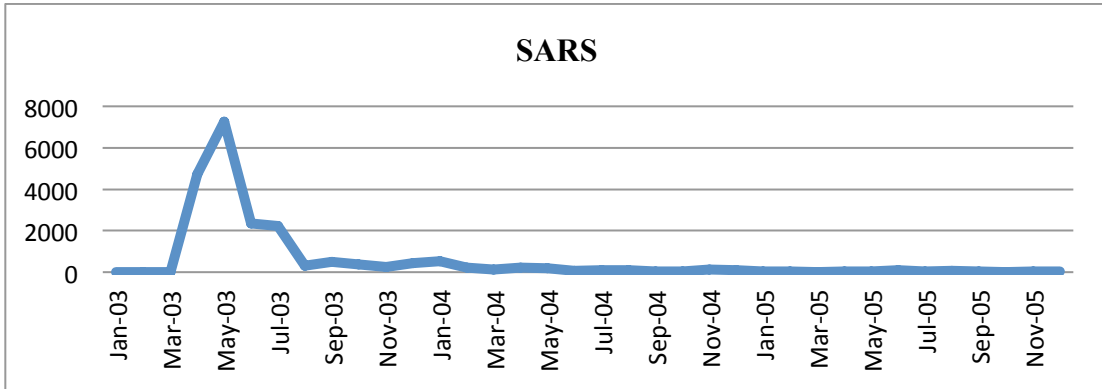


Figure 1 Monthly Number of News Stories about SARS

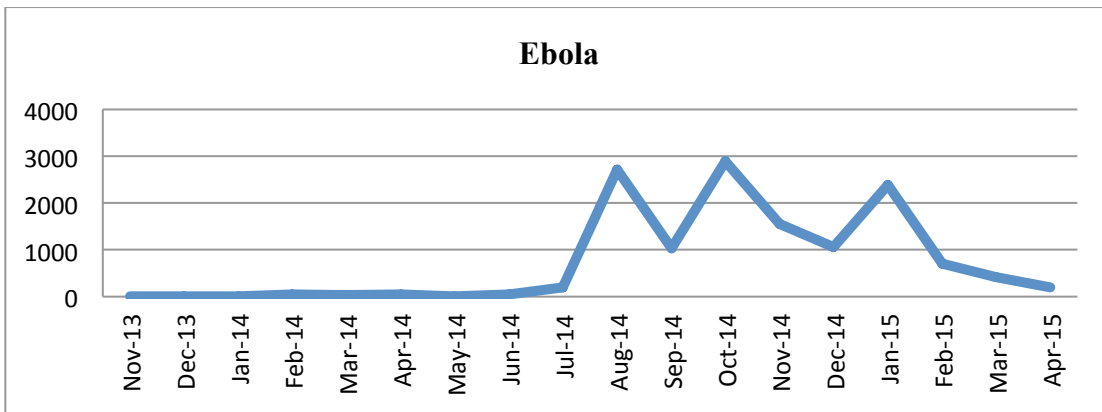


Figure 2 Monthly Number of News Stories about Ebola

Given that the news stories were written in Chinese, the coding was conducted by two coders who are fluent in Chinese (see Appendix I for the full coding scheme). The primary coder, myself, coded all 500 news stories, whereas the secondary coder coded 125 news stories (63 stories about SARS and 62 stories about Ebola) randomly selected from the sample of 500 news stories. As Table 1 show, the level of intercoder reliability was high across all six frames.

Table 1 Intercoder Reliability Results: Percentage agreement and Cohen’s Kappa for each frame (N=125)

Frames	% Agreement	Kappa
Health Effects	96.8%	.935
Economics	99.2%	.977
Responses by the Domestic Government(s)	98.4%	.965
Responses by the International Governments	100%	1.000
Reassurance	92.8%	.817
Confidence	97.6%	.921

For the qualitative part of this study, I examined how the frames were construed in more depth. In order to conduct this qualitative analysis, I used Pan and Kosicki’s 1993 study as the model. As part of their qualitative framing analysis, they examined four structures of news content: ‘syntactical structures,’ which consist of the use of headlines and sources; ‘script structures,’ which include the ‘drama, actions, characters, and human emotions’ used by journalists to tell news stories; ‘thematic structures,’ which include mentions of causal representations; and ‘rhetorical structures,’ which include images, metaphors, catchphrases, and other written or visual elements (Pan & Kosicki, 1993, pp. 59-61). In my study, I focused on syntactical and script structures. To conduct my qualitative analysis, I took notes on every news story about SARS and Ebola to capture how Xinhua News Agency used specific frames to describe the problems posed by each disease, the roles played by governments when addressing each disease, and the emotions aroused by the news stories about each disease.

In the next chapter, I present my results. The quantitative analysis compares the frequency of each news frame in stories about SARS and Ebola. The qualitative

analysis explores how Xinhua used each of the news frames to describe the diseases and examines the similarities and differences in these disease descriptions.

Chapter 2

RESULTS

In this chapter, I present my quantitative and qualitative results from analyzing the data set of the 500 Xinhua news stories about SARS and Ebola (250 news stories for each disease). The quantitative results reveal differences in how frequently Xinhua used each frame across SARS and Ebola. The qualitative results reveal how Xinhua News Agency used each frames to characterize the problems posed by the diseases; the roles played by governments in preventing, controlling, and managing the diseases; and the emotions conveyed by the agency's news stories.

In the quantitative part of the study, I found that the Responses by Domestic Government(s) frame was used the most frequently (67.6%) among the SARS stories, followed by the Reassurance frame (19.2%), the Health Effects frame (17.2%) and the Economics frame (17.2%), the Confidence frame (16.8%), and the Responses by International Governments frame (8.8%). In the 250 Ebola stories, the Responses by International Governments frame was used most frequently (69.6%), followed by the Health Effects frame (42.4%), the Economics frame (6.4%) and the Reassurance frame (6.4%), the Responses by Domestic Government(s) frame (6%), and the Confidence frame (2.8%). When it comes to the relative frequency of each frame across coverage of both diseases, I found that Xinhua used the Economics, Responses by Domestic Governments, Reassurance, and Confidence frames more frequently in SARS news stories than Ebola stories. However, Xinhua used the Health Effects and

Responses by the International Governments frames more frequently in Ebola news stories than SARS stories.

Table 2 Frames in Coverage of SARS and Ebola, by Disease

Frames	SARS (250 Stories)	Ebola (250 Stories)	Chi-Square
Health Effects	43 (17.2%)	106 (42.4%)	37.945 (p<.01)
Economics	43 (17.2%)	16 (6.4%)	14.009 (p<.01)
Responses by Domestic Government(s)	169 (67.6%)	15 (6%)	203.942 (p<.01)
Responses by International Governments	22 (8.8%)	174 (69.6%)	193.878 (p<.01)
Reassurance	48 (19.2%)	16 (6.4%)	18.349 (p<.01)
Confidence	42 (16.8%)	7 (2.8%)	27.716 (p<.01)

Note: Stories could include multiple news frames or none of these frames; hence, percentages do not sum to 100.

In the qualitative part of the study, I found that Xinhua described SARS and Ebola differently. It described the health and economic effects of SARS and Ebola from different perspectives. It presented the domestic government—the Chinese government for SARS versus the domestic governments for Ebola (Guinea, Sierra Leong, and Liberia) as playing different roles in the prevention and management of the diseases. The contributions made by international governments against SARS and Ebola are similar. In using the Reassurance frame, Xinhua reassured people in different ways: it downplayed the severity of SARS while emphasizing its controlability and the peaceful lives of people, whereas for Ebola, it emphasized China’s ability to prevent the disease. Xinhua also promoted confidence in defeating the diseases in different ways: for SARS, it highlighted the curability of the disease

and stories of rehabilitated clients, whereas for Ebola it highlighted the capability of the Chinese government to protect its citizens.

Health Effects

Xinhua used the Health Effects frame more frequently in Ebola coverage (42.4%) than in SARS coverage (17.2%). This finding supports Hypothesis 1. Moreover, of the news stories that used the Health Effects frame, only four of them emphasized the severity of SARS's threat to human health, and even here only through relatively short statements (two sentences or less). Instead, SARS was frequently described as a preventable, curable, controllable, and normal infectious disease with low fatality rates and a moderate speed of dissemination.

Xinhua also deemphasized negative health effects of SARS by using script structures (Pan & Kosicki 1993)—stories of rehabilitating clients, and emphasizing that the disease is curable:

Luo Meiying is waiting for her family to finish the discharge procedure. She happily told the journalist, "I only want to arrive at home and meet my little grandson as soon as possible. I never thought I could recover so quickly from such a severe condition. Thanks to doctors and nurses for giving me so much help and comfort. I believe the overwhelming majority of the infected clients could all be cured successfully." (From scare to the belief in the disease is curable, rehabilitated clients talk about their mental state, 9 April 2003)

The symptoms of the aunt and nephew are not terrible, but there were rumors in society saying that there was no cure for this disease. They were sad after hearing the rumors. Doctor Liu, who is responsible for the treatment of the aunt and nephew, tried to encourage and comfort them, telling them the disease is curable from a scientific perspective... With the help of the medical staff, the aunt and nephew established confidence to defeat the disease, were cured, recovered, and left the hospital. (The recovered patients told their treatment experience: SARS is not terrible, 19 April 2003)

In contrast, Ebola was frequently described as a severe disease and a disaster that threatens the health of humans. In news stories that used the Health Effects frame, Xinhua frequently used at least a whole paragraph with strong language to introduce Ebola: it is a lethal and severe virus; the speed of dissemination is high; people will easily be infected; people's lives and health are seriously threatened by Ebola virus; the fatality rates of Ebola is very high. For example:

Ebola is a horrible and lethal virus...there are no effective treatment measures so far, and the fatality rates are as high as 60% to 80%. (The American infected doctor went back to homeland for treatment, the condition improved, 5 August 2014)

Parirenyatwa said that, except for the confirmed Ebola cases reported in Congo (DRC), no other SADC countries report confirmed cases. However, this round of Ebola lasted for a long time and threatened people's health extensively. (Southern Africa strictly controls communications with people from the Ebola epidemic area, 11 September 2014)

One commonality between Xinhua's coverage of SARS and Ebola, however, is that in both cases, it used Pan and Kosicki's 'syntactical structures' by citing the perspectives of trustworthy people or powerful sources to bolster its points. For example:

Irene Plante, the leader of the international team of experts stationed in Vietnam from the World Health Organization, said "This is not a profound rocket science, but rather a typical infectious disease. What you need to do is to find who was infected, and stop them from infecting others." (Vietnam's experience to overcome the SARS: the open government and the rapid isolation measures, 30 April 2003)

On behalf of his instructor and the chief scientist of China CDC, Dr. Ni Daxin said that...existing knowledge has shown that the strength of SARS is much lower than influenza; from the perspective of power of spread, it is much weaker than flu, measles, and whooping cough; its lethal extension is much lower than tuberculosis and other infectious

diseases. (What to do if SARS and influenza come together? 800 SARS experts consulting in Yangcheng, 13 September 2003)

On August 3rd, Dr. Tom Frieden, the director of the US Center for Disease Control and Prevention, said that Ebola is a horrible and lethal virus...there's no effective treatment for the disease so far, the fatality rates reaches 60% to 80%. (The American infected doctor returned to the US, the condition was improved, 5 August 2014)

The United Nations Children's Fund said that this year's outbreak of the Ebola epidemic in Western African is severe, the duration and scope are unprecedented, the Ebola epidemic has become the main health threat in the Western African area. (UN agencies: the widely misunderstanding of Ebola fueling the spread of Ebola, 12 July 2014)

News stories about SARS and Ebola construct knowledge about the diseases as both certain and uncertain. However, certainty and uncertainty are depicted in different ways for the diseases. In SARS coverage, certainty is emphasized in relation to the characteristics of people infected; the specific groups of people who have higher risk to acquire the disease; the genetics of the virus that caused the diseases; the progress toward the creation of a vaccine; and specific medicine that may prevent or control the diseases. For example:

The special points of SARS are: strong infectiousness, high warm through the whole body, joint sore, dry cough, chest distress, and potential to develop into a obvious dyspnea. (No SARS spreading and diffusion in Shanghai, 7 April 2003)

The *International Herald Tribune* of the United States published answers to frequently asked questions on April 21. Question: Is there any progress in fighting SARS? Answer: There's great progress. Even though the number of infected people is still increasing, the causative virus has been found; its gene order has been detected. This shows doctors have dependable diagnostic techniques, and scientists found the correct way to vaccine creation. (An American Newspaper talks about SARS: the death rate of SARS is only 4 percent, which is much lower than Ebola and tuberculosis, 23 April 2003)

In contrast, the certainty in Ebola coverage relates to the characteristics of people infected; and the methods of transmission of the virus. Consider the following examples:

The characteristics show up at the start period of the infected patients are: sudden febrile illness and headache, then emesis, diarrhea, and renal dysfunction, and finally vitreous bleeding. (Aiming at the Western African Ebola, the U. S. issued the highest travelling alert, 1 August 2014)

Health experts emphasized numerous times that, the virus cannot be transmitted by water, air, nor food, or can people without symptoms transmit it. The only transmission method is by the body fluid of the patients or dead people, or the polluted needles or other tools. (Worldwide counterattack Ebola, new medicine is on the way, 12 August 2014)

SARS coverage discusses uncertainty in relation to how the virus is transmitted; where the virus came from; the range/extent and persistence of the disease; medical cures for the disease; which specific animals have the virus; and how the virus spread from animals to humans. Consider the following examples:

The first question: how is the SARS virus transmitted? This is the first question we need to pay attention to. When Acting Mayor Wang Qishan answered the questions asked by the CCTV “Face-to-face” program host Wang Zhi, Wang Qishan said that the question he greatly fears is how to break down the transmission route, because people do not know how SARS is transmitted. (Ten questions of SARS, the scientific questions in SARS coverage, 8 May 2003)

Bekedam said that the medical field around the world is intensifying research on SARS virus. However, so far, answers to some important questions such as “which animal carries the SARS virus,” “how SARS virus transmitted to humans by animals,” etc. are still not clear. (WHO officials say: We should be prepared well for SARS, 11 September 2003)

The uncertainty in Ebola coverage relates to how to diagnose the disease in its early stages, and whether any effective therapy exists. Consider the following examples:

Ebola is the virus with the highest fatality rate ever found; so far, no effective therapy has been found. (WHO officials: Western African countries can learn from China's experience to defeat Ebola, 9 August 2014)

Last August, among the 7 patients who used the medicine for treatment, 5 survived and 2 died, but soon manufacturers announced that the stock has been exhausted. So far, no effective medicine and vaccines for Ebola have ever been found. (Western Africa will be start the large-scale test of the Ebola vaccine, 23 January 2015)

Economics

Xinhua used the Economics frame more frequently in SARS coverage (17.2%) than in Ebola coverage (6.4%). This finding did not support Hypothesis 2. However, my hypothesis was partially supported by the qualitative findings because Xinhua described the economic impacts caused by the diseases from different perspectives. Among the 43 SARS stories that used the Economics frame, 33 of them described the influence of SARS on economy from a positive or neutral perspective, 16 of them from a negative perspective. Among the 16 Ebola stories that used the Economics frame, all of them described the economical influence brought by Ebola from a negative perspective.

In the SARS stories that described the influence of SARS on economy from a positive or neutral perspective, Chinese economy was portrayed as not being affected by SARS and maintaining a relatively high growth rate. The Chinese stock markets, GDP, capital market, the economic development trend were all depicted in positive terms. In addition, some stories highlighted how SARS stimulated the development of

the Chinese pharmacy, microwave oven business, and other business programs.

Consider the following examples:

Shen Bainian: the first quarter economy performed better than imagined, mainly in three aspects—growth is fast. The GDP increased 13.9% more than in the same period last year, and this is the highest level in the same period of the recent two years; economic growth is strong. The growth of investment, exports, and consumption is good. Growth of fixed asset investment is 26.1%, and this is the highest level in recent years over the same period; the quality is good. Growth of the first, second, and third industry is 1.7%, 15.3%, and 13.5%. (6 measures protect the economical development of Guangzhou, 7 May 2003)

The leading businesses of the popular consumption age benefit from SARS to differing extents. The most immediate is the health care industry. There are also the waves of the privatization of automobiles, and modern websites and wireless communication industries and some other bull market sectors. (Special opportunities in SARS period, 19 May 2003)

In stories covering the negative impact of SARS on the economy, the relevant sentences were short, the statements were general, and there were few numbers to show economic losses either for the whole country or for a single family, although some news stories mentioned that the tourist industry and the civil aviation industry were negatively affected by SARS. Consider the following examples:

The challenges brought by SARS have various aspects, besides the health of human beings, the first come to economics. So far, some industries have been impacted. (Brought out the Shenzhen spirit, 21 April 2003)

On May 6, a person in charge of the department of tourism in Singapore told us that by the impact of the SARS outbreak, in April, the number of tourists arrived at Singapore has been decreased for around 70%. (The momentum of the control of SARS in Singapore is good, tourism turned out right, 6 May 2003)

All stories covering the economic impact of Ebola on West Africa were negative. Among the 16 stories that used the Economics frame, 8 of them were long stories and only focused on the negative economic influence of Ebola on West Africa and the entire world. They analyzed the economic losses in detail with specific numbers to show financial deficits; high rates of joblessness; decreasing GDP; decreasing government revenue; increasing prices of goods; the amount of money lost by individual families; the estimated amount of money the originating countries needed to restore their economies; the clear decrease in economic growth rate; the economic losses of infrastructure construction, tourist industry, mining industry, grain yield and the agricultural production; and import and export trade activities. Some of these stories used the ‘syntactical structures’ (Pan & Kosicki, 1993, p. 59)—sources from some international third party organizations. Consider the following examples:

The latest UNDP research report shows that the epidemic destroyed the ability of the three Western African countries to increase government revenues, increasing the risk of dependency and debit assistance. The three governments will require a total of 328 million dollars to restore the operating level as before the outbreak. This gap is mainly for the epidemic as well as to increase spending tourism, mining, and trading activity caused by the reduction. The report told us that, in order to deal with the epidemic, the average spending of the three governments is around 30%, with rising budget deficits. In addition, Liberia and Sierra Leone in infrastructure development also lost 20 million and 16 million dollars. Therefore, these three countries have begun to borrow money from international governments. At the same time, it was reported that the outbreak of Ebola led to a slowdown in economic activity. For example, half of Liberian mining and agricultural companies have reduced activities. The export of fruit from northeast Guinea to the neighboring countries declined by 90%. Nearly all restaurants, bars, and nightclubs in Sierra Leone were closed, the production of the country’s wine industry was forced to sharply cut, and this resulted in 2.4 million unemployed, and this is just for a microcosm of how the epidemic led to mass unemployment. In the past six months, respectively, the average family income in Liberia, Sierra Leone, and

Guinea was roughly reduced by 35%, 30%, and 13%. (The UN report said that the Ebola epidemic terribly hit the economy of the three countries in Western Africa, 6 November 2014)

The report shows that the close of border, quarantines, hunting bans, and other restrictions caused by Ebola epidemic severely hampered the way people obtain food, while undermining the food market and the industrial chain caused the crop losses and severe food shortages. Meanwhile, the deaths caused by the Ebola outbreak diminished the productivity and household incomes in the three countries mentioned earlier (Guinea, Sierra Leone, and Liberia). People stopped working because they are scared of being infected, and less number of the workers severely affected planting and weeding, and other agricultural activities. (Food and Agricultural Organization: the Ebola epidemic will cause millions of people in the three Western African countries facing starvation, 17 December 2014)

Xinhua also frequently used the ‘syntactical structures’ in Pan and Kosicki’s 1993 study by using information from powerful, trustworthy, and dependable sources to exhibit evidence of the stable development of the Chinese economy under the pressure of SARS, and of the decrease of economic development in West African countries under the stress of Ebola. Consider the following examples:

Some major international economic organizations, leading global investment banks, and internationally renowned economists think the impact of SARS on the Chinese economy is limited and the Chinese economic future is still bright. (Will economical development in China slow down? Measures from 6 major international organizations. 15 May 2003)

On the 14th, UNDP Regional Director for Africa Abdoulaye Mal Rachidia in Dakar said at a news conference that Ebola hemorrhagic heat has caused the most serious epidemic in Guinea, Sierra Leone and Liberia, creating about \$13 billion in economic losses...Ebola hemorrhagic fever is not just a disease, it is a path to the collapse of the national economy (Ebola outbreak caused \$13 billion damage in three West Africa countries, 15 October 2014)

Nabarro, the UN Special Envoy of Ebola said the Ebola epidemic weakened the government’s tax ability in Guinea, Liberia, and Sierra Leone. At the same time, government spending has increased for

around 30% because of the epidemic. To deal with the unemployment, tax reduction, low productivity, low growth, and other problems in countries mentioned above, a stronger, powerful, and more coherent international support is needed from now on. The World Bank recently released data showing that, because of the Ebola epidemic, the forecast of growth rates in GDP for Guinea, Liberia, and Sierra Leone are 0.5%, 2.2%, and 4.0%, far below the data forecasted before the epidemic: 4.5%, 5.9%, and 11.3%. (The United Nations called attention to the reconstruction of economic and society in the Ebola epidemic countries, 6 December 2014)

Responses by Domestic Government(s)

Xinhua used the Responses by Domestic Government(s) frame more frequently in SARS coverage (67.6%) than in Ebola coverage (6%). This finding supports Hypothesis 3. All stories about SARS that used the Responses by Domestic Governments frame depicted the Chinese government positively. In those stories, the Chinese government is portrayed as transparent in that it announced infected cases and suspected cases accurately and in a timely way; the government put the people's benefit first in that it spent a lot of money on vaccine creation and tried its best to save the lives of patients; the government took efficient measures to reduce the number of deaths and infections, increase the cure rate and survival rate, and educate general citizens about SARS; and the government was busy creating and publishing new commands, orders, regulations, laws, rules, and policies to prevent and control the disease from spreading outside China or to a wider area within China. However, there are no descriptions of effects of those orders, regulations, or laws. Consider the following examples:

In the speech, Wu Yi told us that after the outbreak of SARS, the Chinese government treated the epidemic very seriously. Premier Wen Jiabao put SARS prevention and control work as the priority among all the work of the government. According to the government affairs that were published recently, much work of the government was closely

related to SARS: such as chaired a meeting of the Standing Committee of the State Council, inspected the Chinese Center for Disease Control and Prevention, and visited and comforted faculty and staff in schools. (The April of Wu Yi, 28 April 2003)

Since SARS cases were found in China, the Communist Party Committee in Shanghai and the municipal government paid high attention to the SARS cases, the Department of Health positively deployed the work to prevent the disease. The city's health system went all out, implemented at all levels, created a strict prevention plan to protect people's health, and the stability of the society. (Prevent SARS, ensure stability, 3 April 2003)

Stories covering the responses by the Chinese government focused on the central government and its branches, such as the State Council, Ministry of Health, Ministry of Foreign Affairs, and Ministry of Communications². Local and regional governments were also included, such as street community governments, district governments, city governments, and province governments. The Government of the Hong Kong Special Administrative Region, and Government of the Macao Special Administrative Region were included as well, along with Central Committee of the Communist Party, the Central Military Committee, major state banks, state/public schools and universities, and state-owned enterprises.

The 15 stories covering the responses by the domestic governments of West African nations (more specifically, the governments of Guinea, Liberia and Sierra

² The branches of the central government covered by SARS stories are: the State Council, Ministry of Health, Ministry of Culture, Ministry of Foreign Affairs, Ministry of Justice, Ministry of Communications, Ministry of National Defense, Ministry of Agriculture, Ministry of Education, Ministry of Land and Resources, Ministry of Commerce, Ministry of Finance, General Administration of Sports, General Administration of Customs, State Administration of Taxation, General Administration of Press and Publication, Administration of Quality Supervision, Inspection and Quarantine, National Tourism Administration, State Post Bureau, and State Oceanic Administration.

Leone) described them as declaring a state of emergency, coordinating with or helping international aid, and asking for help from the international community. The positive descriptions of contributions made by West Africa were short and general. There were no descriptions of the specific actions taken by governments of West Africa to control the disease or prevent it from spreading and infecting more people. Consider the following examples:

In the evening of 30, President Koroma of Sierra Leone addressed to the nation, announced the country's status of emergency, also, he stated the national level of the reaction plan to defeat the Ebola epidemic. (31 July, 2014)

At the meeting, the Guinean President Lansana Conte told us that, just like Liberia and Sierra Leone, Guinea just went through internal crisis, the national institutions are fragile, the country needs all citizens to unite as one to solve the problems brought by Ebola epidemic. He welcomes the relevant resolutions about fight against Ebola that passed by the UN Security Council and the General Assembly, called on the international community to help strengthen the capacity of the medical staff, provide financial and logistical support, and keep the ports and airports open. (UN held a high-level meeting and response to Ebola epidemic urgently, 26 September 2014.)

Responses by International Governments

Xinhua used the Responses by International Governments frame more frequently in Ebola coverage (69.6%) than in SARS coverage (8.8%). This finding supports Hypothesis 4. Among the 174 stories about Ebola that used this frame, 105 stories covered actions of the Chinese government in helping originating countries with their problems. Contributions of the Chinese government include sending health workers, emergency supplies, medicine, and money to three affected West Africa countries. Consider the following examples:

Up to now, China has sent nearly 200 experts and medical staff to the Western African countries for assistance. When the first Ebola patient in Guinea was not diagnosed, he/she received medical treatment in the China-Guinea Friendship Hospital of China in Guinea. Although 9 local health care workers in the hospital were infected, and 6 of them were died, the Chinese medical team still stood firmly and remained at their posts, never leaving or forsaking. In the Liberia Capital Hospital where the Chinese assistant medical team was located, the Egyptian and American doctors all withdrew, but the Chinese medical team members still insisted on clinical reception under the premise of self-protection. (Defeating Ebola—China and the epidemic countries, 20 October 2014)

China is always committed to dealing with the Ebola epidemic with the international community, offering medical material assistance to Guinea, Liberia, and Sierra Leong at the first time. The Chinese care medical team stood firmly and remained at their post. 115 medical staff supported and joined the job of epidemical prevention and control in local area. (Foreign Ministry spokesman: China want to make contributions to the prevention and control of Ebola epidemic, 17 September 2014)

The other 69 stories covering responses by international governments besides China against Ebola focused on stopping the granting of visas to citizens from the originating countries of Ebola; promoting detection of incoming passengers; strictly controlling personal exchanges between citizens of local countries and West African citizens; issuing bans on trade and travel with the West African countries; issuing travel advisories; drawing up emergency plans for protecting citizens in West Africa; and reducing flights to and from West African countries. Developing vaccines, exploring knowledge of Ebola virus, and providing financial aid were the common contributions of both the Chinese governments and the other international governments were mentioned in the 174 stories. Consider the following examples:

On October 31, the Department of Citizenship and Immigration of Canada announced that, in order to protect the health and safety of Canadians, Canada would stop issuing visas to residents from African countries that has outbreaks of the Ebola epidemic. At the same time,

considering that the Ebola virus has the character of the rapid transmission, the Department of Health will strengthen the health inspections of people who want to enter Canada. (Canada stopped issuing visas to residents from African countries with Ebola outbreak, 1 November 2014)

In order to defeat the worsening Ebola epidemic, on 31st, the US government released the highest level of travel warning, asking people to avoid going to Guinea, Liberia, and Sierra Leone for non-essential travel. On that day, the US CDC said that the highest level of travel warning is because the Ebola epidemic in Western Africa “is getting worse.” The US has sent 12 experts to Guinea, Liberia and Sierra Leone to help control the epidemic; in August, another 50 American experts in disease control will be sent to the Western African area. (Be directed against the Ebola epidemic, US released the highest travel warning, 1 August 2014)

There were 22 stories about SARS covering contributions made by governments of countries outside China. Those governments include members of the Association of Southeast Asian Nations, Singapore, Vietnam, Italy, Ukraine, France, Canada, and the United States. Their responses to SARS included the exploration of information about the SARS virus and the development of SARS vaccines. Consider the following examples:

Wong Kan Seng pointed out—the commission adopted the three-pronged approach—isolation, containment and control—to ensure that SARS will not spread in social groups. He proposed preparedness and response “SARS” the spread of the three major national strategies: early identification of SARS patients, isolate the patient at the early time; the concentrate and isolate suspected or confirmed cases, and the places where the SARS cases show up and the people who were affected by SARS, including hospitals, clinics, and health care workers, and strengthen inspection and quarantine measures. Put prevention of the spread of SARS on high alert, and prevent the epidemic from spread into communities. (Singapore adopts isolation, containment, and control—a three-pronged anti-SARS measure, 24 April 2003)

In the evening of September 13, the Acting Health Minister Khaw Boon Wan said that the US CDC has confirmed that the inspection result of latest SARS case in Singapore is positive, hence, The

Singapore Ministry of Health has set up an investigation team including experts from WHO, to check whether the laboratory meets the biosafety criterion. (The latest SARS patients will leave the hospital, Singapore started to investigate the safety of laboratories, 14 September 2003.)

When the Responses by Domestic Government frame and the Responses by International Governments frame are taken together, we can see that Xinhua always casts a positive light on the Chinese government. Frames for the responses of the Chinese government to Ebola promote a positive public image of the Chinese government. The positive public image of China was frequently promoted through the direct description of actions of the Chinese government as well as the praise from third parties by using Pan and Koscki's 'syntactical structures', as in the following examples:

WHO's assistant director-general Keiji Fukuda comments that China truly stood out and is one of the countries who really provided assistance to West African countries. Medical staff and all kinds of facilities and supplies from China helped West African countries a lot. (WHO and top leaders of West African countries highly praised China's help in defending Ebola, 6 November 2014)

On August 13, Custodia Mandlhate, the WHO Representative in Kenya said that the assistance of Chinese medical team strengthened the ability of Western African countries to defeat the Ebola epidemic. Mandlhate said that China is currently working with the international community to respond to the outbreak of Ebola epidemic, "the Chinese government offers medical equipment, staff, and daily necessities to these countries on time." She said that China's experience in the treatment of infectious diseases would help Africa deal with Ebola virus. (WHO Representative in Kenya praised China for helping Africa to fight Ebola, 14 August 2014)

Reassurance

Xinhua used the Reassurance frame more frequently in SARS coverage (19.2%) than in Ebola coverage (6.4%). This finding supports Hypothesis 5. Many SARS

stories that used the Reassurance frame did so in combination with the Health Effects frame in ways that deemphasized the severity of the epidemic. SARS stories that used the Reassurance frame were more likely to emphasize that the virus was non-severe and controllable in that the fatality rate of SARS was as low as a typical cold and fever; that Chinese scientists already knew all about the SARS virus, that the disease is curable and controllable, that the chance to be infected is low with no apparent growth in infected cases and deaths; and that the vaccine that can cure SARS was being created and produced. Consider the following examples:

So far, the number of SARS infected cases is relatively low and is decreasing, and no medical workers were infected. This truly inspired our confidence in defeating the virus successfully. This shows that SARS is controllable and curable. Now, the pathogene of SARS has been found, and this is the key to prevent and cure the disease. Hence, in the face of SARS, we do not need to be scared. (Show the spirit of Shenzhen, 21 April 2003)

Why is there no need to be scared? Because, according to the data, the fatality rate of this disease is not high, people without contact history will not recur. (SARS was not spread into Shanghai, 7 April 2003)

Xinhua tended to express reassurance by telling audiences that the disease is under control. Consider the following examples:

It is safe to say that, none of the infected people are showing up out of our eyes, hence, there is no need to be scared. (Changchun City has enough spiritual preparation and enough power to control the disease, 8 May 2003)

The government continues to publish management measures, the SARS epidemic has been effectively controlled, the publicity of news on media was strengthened, so people are gradually reassured and have peaceful minds. (SARS hotline started to cool down, 23 May 2003)

Another way that Xinhua frequently reassured people was to show how much the government leaders were considering people's benefits, making correct decisions and caring about the citizens. Consider the following examples:

After we have some SARS knowledge, especially that the central government taken resolute measures and releasing the epidemic transparently, all these make us comfortable. (The spiritual condition of college students in the war with SARS, 16 May 2003)

Xinhua also reassured people by telling its audiences that the government was prepared for the disease:

Wen Jiabao said, "We have enough material supports that can totally satisfy the market supply and meet the need of citizens. The broad masses should be totally reassured" (Wen Jiabao eating with students at Beijing University and said: take care, 26 April 2003)

Xinhua frequently reassured people by emphasizing through personal stories in which people's lives were not affected by the disease. It used Pan and Koscki's 'script structures' and told these stories with language conveying a peaceful image of China to calm the anxiety brought on by the disease. Consider the following examples:

Because of understanding some knowledge about SARS, people are not scared and stay at home. A lot of people go outdoors to do physical exercises, breath the fresh air and enjoy the happy time in spring... People have started to calm down and face SARS rationally. (In the face of SARS, we choose calm, 4 May 2003)

In Zijinshanyuan, a central park of Zhengzhou City, in a green landscape studded with trees and bushes, someone is playing chess, and someone is doing exercises. On the surface of the lake ripples, someone is boating, someone is fishing. It is hard to believe we are still under the shadow of SARS. (Xinhua, 'Facing with SARS, we choose calm,' 4 May 2003)

Additionally, Xinhua reassured people that the disease is not severe by citing external sources. Pan and Koscki's 'syntactical structures'—third-party statements were frequently used by Xinhua in stories with the Reassurance frame. Statements by

external sources make messages more persuasive, as such sources are dependable and can be trusted by the people. Xinhua frequently used the WHO and information from the United States as external sources to explain why the Chinese should be reassured:

The *International Herald Tribune* of the United States published answers of frequently asked questions on April 21. Question: What is the death rate of SARS? Answer: the current death rate is around 4 percent, and this is much lower than when the Ebola virus broke out in Democratic Republic of Congo a few years ago. (An American Newspaper talks about SARS: the death rate of SARS is only 4 percent, which is much lower than Ebola and tuberculosis, 23 April 2003)

Xinhua also used examples of other infectious diseases that were defeated by humans to reassure people that SARS will also be defeated successfully:

Now, someone was scared once he or she heard of the word ‘SARS,’ but this is totally unnecessary. Here, we can go back to the hepatitis A issue in 1989. In that year, hepatitis A was widespread. However, after the society took it seriously, the disease was under control in a short time, and the lives of citizens were not affected greatly. (SARS was not spread into Shanghai, 7 April 2003)

The 16 Ebola stories mainly emphasized safety from the disease within China, that China is a peaceful land; that the Chinese are far from Ebola virus; and that the transmission risk of Ebola in China is very low. Again, Pan and Koscki’s ‘syntactical structures’—third-party statements were frequently used by Xinhua to reassure people. WHO is a frequently used external source, as the following example shows:

A WHO spokesman, Paul Garwood, told Xinhua that even though the Ebola disease in West African is still severe, Chinese do not need to feel panic. (Xinhua, A WHO spokesman: Chinese do not need panic, 31 July 2014)

Another way that Xinhua frequently expressed reassurance in Ebola stories was to highlight that China has the ability to prevent and manage the disease. Consider the following examples:

About the issue of how China prevents the importing Ebola cases, Keiji Fukuda said that China already has a strong health system and monitoring ability, and has the ability to deal with this problem. (WHO officials: experiences of China are worth to be used by Western African countries for defeating Ebola, 9 August 2014)

People could be on alert, but do not be scared, our ability to prevent and control infectious diseases is strong enough to ensure that there will be no Ebola outbreak in China. (Be careful for the rumors about Ebola, 7 November 2014)

Confidence

Xinhua used the Confidence frame more frequently in SARS coverage (16.8%) than in Ebola coverage (2.8%). This finding supports Hypothesis 6. The 41 stories about SARS that used the Confidence frame often used strong words to directly express confidence in the Chinese government in winning the fight with SARS. In addition, stories about SARS that used the Confidence frame explained why citizens should trust the Chinese government. Among the reasons presented are the following: because the Chinese governors care about their people; because SARS is a preventable, curable, and controllable disease that the Chinese government has the ability to handle for its people; because many policies and orders have already been created by the Chinese government to protect the majority of people from being infected; and because the facts show that under the governing of the Communist Party, China has already won a partial victory against SARS.

Xinhua frequently used the experience of success in overcoming other difficulties in history to bolster confidence in defeating SARS:

In the history of development, we have met with many kinds of difficulties, some are hard. However, the hard problems can still be solved successfully through the correct leadership of our Communist Party and the endeavor of our citizens. Hence, facing difficulties

brought by SARS, we will overwhelm it successfully. (Show the spirit of Shenzhen, 21 April 2003)

Xinhua also emphasized that people should be confident because the Chinese government leaders work hard, put the people's rights first, and care about the well being of the people:

People from all walks of life in Hong Kong spoke highly of Chairman Hu Jintao's visit to the forefront of the 'anti-SARS war' (defeating SARS is like a war), comfort the medical workers, care about the public, and command governments at all levels pay high attention to SARS. Public opinion thinks his visit "showed our country, our government truly bring benefits to its people, put people's rights first." A lot of celebrities show that Chairman Hu Jintao's words about the full support and help Hong Kong to defeat SARS truly support and inspire Hong Kong people, and will give confidence and power to us. (Went through rough together—write for the Hong Kong government who is in the forefront of anti-SARS war, 27 April 2003)

Sometimes Xinhua portrayed the confidence in the Chinese government through descriptions of the peaceful lives of people:

A journalist from Associated Press smiles and says that people in Guangzhou walk around peacefully, this shows that Guangdong province did a good job in SARS prevention and management, so citizens and tourists all have confidence in this. (The fatality rate in Guangdong province is the lowest around the world, 13 June 2003)

The college students said that with the strong leadership under the Party Central Committee and the State Council, with the endeavor of all the citizens, all difficulties will be overwhelmed and all disasters will be defeated. (The spiritual status of the college students in the anti-SARS war, 16 May 2003)

The 7 stories about Ebola that used the Confidence frame concentrated on confidence in the Chinese government in preventing Ebola from spreading into China. Similar to the SARS stories that used the Confidence frame, stories about Ebola frequently used strong words to directly state the government's confidence in

preventing Ebola from spreading into China. Among the reasons are as follows: the leaders and government officials are responsible and dependable; they have enough ability and rich experience (dealing with SARS and H1N1); also, the Chinese government officials are busy creating orders and policies to defend against the disease. Taken together, the Ebola stories express the idea that even though Ebola is very lethal, the Chinese government is confident in protecting the citizens from being infected. For example:

In short, China already has a strong health care system and the monitoring capabilities; the ability of China to deal with the possible Ebola invasion is enough. (Xinhua International Commentary: Ebola response, China has the preparation, 20 October 2014)

As this chapter illustrates, Xinhua's framing of SARS and Ebola differs in various ways. In the next chapter, I will discuss the findings, explore potential explanations to why there are differences in the coverage of diseases originating from different countries, draw conclusions based on the findings of the study, and talk about the limitations of the study as well as possible directions for future research.

Chapter 3

CONCLUSION

SARS and Ebola are both infectious diseases, with the former originating in China in 2003 and the latter originating in West Africa in 2014. For my study, I conducted a comparative framing analysis between infectious diseases that originated inside and outside China by exploring how the official news agency of China—Xinhua—framed these two diseases. Five of the six of my hypothesizes have been supported: Xinhua used the Health Effects frame more frequently in Ebola stories than in SARS stories, Xinhua used the Responses by Domestic Government(s) frame more frequently in SARS stories than in Ebola stories, Xinhua used the Responses by International Governments frame more frequently in Ebola stories than in SARS stories, Xinhua used the Reassurance frame more frequently in SARS stories than in Ebola stories, and Xinhua used the Confidence frame more frequently in SARS stories than in Ebola stories. My hypothesis 2 was not supported by the quantitative results, but it was partially supported by the qualitative findings because Xinhua described the economical impacts caused by the diseases from different perspectives. The majority of SARS stories that used the Economics frame described the influence of SARS on economy from a positive or neutral perspective, few stories discussed SARS's negative economic impacts. In contrast, all of the Ebola stories that used the Economics frame described the economic impacts as negative.

The findings of my study build on and extend findings from previous research. Like Hong's 2007 study, my study found that the Health Effects frame is a commonly

used frame in SARS coverage by a Chinese national leading news media outlet. However, Xinhua used the Health Effects frame less frequently in SARS stories than in its coverage of Ebola. Like Beaudoin (2007) and Hong (2007) found, my study found that the economic consequences frame was also frequently used frame in SARS coverage by a Chinese national leading news media outlet. Xinhua used the Economics frame more frequently in SARS stories than in Ebola coverage.

Like Feng, Brewer, and Ley's 2012 study, my study found that frames emphasizing responses by the Chinese government to health-related issues are common in Xinhua's coverage. Xinhua used the Responses by Domestic Government(s) frame more frequently in SARS stories than in Ebola coverage. Also, Xinhua used the Responses by International Governments frame more frequently in Ebola stories than in SARS coverage.

Furthermore, my study found that reassurance and confidence are tone frames that frequently appear in Xinhua's coverage of SARS and Ebola. This result dovetails with Peng and Tang's 2010 study, which found that the Chinese media frequently use positive or neutral tone frames when it covered health-related issues. In my study, neither of the tone frames frequently used by Xinhua when it covered SARS and Ebola—the Reassurance frame and the Confidence frame—is negative. Compared to the Ebola coverage, Xinhua used the Reassurance frame and the Confidence frame more frequently in SARS coverage.

In regard to the qualitative analysis, my study's findings, consistent with Beaudoin's (2007) results, suggest that Xinhua paid less attention to the aspect of health severity when it covered the Health Effects of SARS. Also, like Hong (2007) found, certainty about SARS is a common aspect among the SARS descriptions

presented by the Chinese news media. My study found that Xinhua also deemphasized severity and emphasized certainty when it covered stories about SARS. In Ebola stories, Xinhua focused more attention on the severity of the disease. The citation of trusted or powerful sources is a common feature of the descriptions that Xinhua used to highlight the health effects of the two diseases (for similar findings see Feng, Ley, Brewer, 2012; Wu, 2006).

In using the Economics frame, SARS stories included more information about the positive and neutral economic effects brought by the disease, whereas Ebola stories emphasized the negative perspective on such effects. No Ebola stories about the economic impact of the disease were told from a positive or neutral viewpoint. Information from powerful, trusted, and dependable sources was frequently used by Xinhua when it covered the economic effects of both diseases (for similar findings see Feng, Ley, Brewer, 2012; Wu, 2006).

In Xinhua stories about the Responses by Domestic Government(s), the Chinese government—the domestic government in the case of SARS—was described as hard working, with enough experience and leadership to control, defeat, and prevent the disease (for similar findings see Feng, Ley, Brewer, 2012). However, in the stories about Ebola, the domestic nations—Guinea, Sierra Leone, and Liberia—were described as help-seekers who needed international assistance. In the descriptions of Responses by International Governments, a few international governments were mentioned in SARS stories for making contributions to SARS prevention and management, vaccine development, or financial support. In Ebola stories, contributions by several international governments in Ebola prevention, virus knowledge exploration, and financial aid were covered.

The tone frames analyzed by my study were the Reassurance frame and the Confidence frame. Shih, Wijaya, and Brossard (2008) found that reassurance is always a salient topic in news stories about a public-health issue. In keeping with this, my study found that Xinhua uses the Reassurance frame when it covers the public health issues. In SARS stories, Xinhua tried to reassure people by stating that the disease is curable, the epidemic is under control, the country's leaders are excellent, and the government is well prepared. Xinhua frequently used personal stories and external sources in SARS Reassurance stories (for similar findings see Feng, Ley, Brewer, 2012; Liu, Ley, Brewer, 2011; Wu, 2006). In Ebola stories that used the Reassurance frame, Xinhua frequently told audiences that China has sufficient ability to prevent the Ebola virus outside the country. For the Confidence frame, in SARS stories Xinhua promoted confidence in the Chinese government's ability to deal with the disease successfully by emphasizing the curableness and controllableness of the disease; the hard work of the Chinese leaders; and the successful experiences of overcoming other difficulties. In Ebola stories, Xinhua emphasized confidence in the Chinese government to protect Chinese citizens from being infected by the Ebola virus.

All in all, the qualitative analysis of coverage of SARS and Ebola by the leading Chinese news wire service, Xinhua News Agency (see also Beaudoin, 2007; Feng, Ley, Brewer, 2012; Wu, 2006), found that it used information from powerful, trusted, and dependable sources—for example: the World Health Organization, Centers for Disease Control and Prevention—they are third parties with high international/national reputations, to highlight the effects or consequences of the diseases. Also, descriptions of the responses by the Chinese government to deal with health-related issues were overwhelmingly positive (see also Feng, Ley, Brewer, 2012;

Wu, 2006). Additionally, Xinhua used personal stories in its coverage of diseases to emphasize the diseases' influences on people's lives (see also Feng, Ley, Brewer, 2012; Liu, Ley, Brewer, 2011; Wu, 2006).

Analysis

The contrasts between the coverage of the two diseases originating in different countries illustrate how the Chinese official media construct the different meaning of different public health issues. News media play a critical role in the dissemination of the information about public health (Larson, 1991; Wade & Schramm, 1969) as well as the creation of the public opinion toward issues (Iyengar, 1991). As the leading news resource within the Chinese Mainland (Feng, Brewer, & Ley, 2012), Xinhua News Agency exerts huge influence on the majority of the mainstream news media within the Chinese context (Liebman, 2005). Hence, one likely cause of the differences in framing Xinhua's coverage of SARS and Ebola stories is the Chinese news environment.

The news environment is a significant determinant of news framing (Beaudoin, 2007). Organizational environments, interest groups, governmental policies, rules, and practices all exert pressure on news coverage; ideologies, values, and attitudes of journalists on specific issues also influence news coverage (Shoemaker & Reese, 1996). In the Chinese news context, Xinhua is considered the mouthpiece of the Chinese government and the Communist Party (Beaudoin, 2007) and the 'official state-run news agency' (Xinhua, 2005). Thus, Xinhua News Agency needs to describe the Chinese government in a positive way.

Taken together, the reports of Xinhua cast a positive light on Chinese government by emphasizing the actions and contributions of Chinese government in

preventing SARS from spreading to a wider area, and in helping West African countries to manage and control Ebola. These frequently used themes promote a positive public image among Chinese citizens, and encourage the Chinese to trust, place confidence in and depend on Chinese government. As compared to the chaotic lives of people in West African countries because of Ebola, Chinese people should have a strong feeling of security and peace and be grateful to live under the government of the Communist Party. In addition, to some extent, reports of Xinhua about SARS and Ebola helped the Chinese society to sustain stability by using the Reassurance frame to lessen the fear of people and emphasize the safety within China.

A second potential cause of the differences in the coverage relates to the Chinese political context. The ideology of the Communist Party dominates the political system of China (see Akhavan-Majid & Ramaprasad, 1998; Kobland, Du, & Kwan, 1992; Feng, Brewer, & Ley, 2012; Luther & Zhou, 2005; Tone, 2006; Wu, 2006). The political context of Xinhua reflects the Communist theory of the press (Siebert, Peterson, & Schramm, 1956). According the ideology of Marx, Communist theory states that the press is seemingly maintained by people. Siebert, Peterson, and Schramm (1963) identified three ways in which the Soviet Communist Party and, more generally, governments in a communist country supervise media content: first, the Department of Propaganda assigned news-related people at almost all levels; second, the Communist Party/government offered directions for media content by the departments of propaganda; and third, the Community Party/government criticized the press. The real goal of the press is to help the rule of the Communist system and the Party be successful and sustainable (Beaudoin, 2007). Besides distributing information about the policies of the government and the party and covering social issues under the

rules (Ma, 2008), another job for Xinhua News Agency, as the mouthpiece of the Chinese government and the Communist Party, is to foster a harmonious society, maintain political stability, and protect the growth of the Chinese economy (Beaudoin, 2007; Chang, Chen, & Zhang, 1993; Chang, Wang, & Chen, 1994; Liebman, 2005; Ma, 2008; Wu, 2006).

A third potential cause of the differences in the coverage relates to China's growing global/economical position. Concerning the solid and rapid development of China's economy (Feng, Brewer, & Ley, 2012) and its growing position in the global political context (Scott, 2010), China's national news agency may need to describe the strong ability of the Chinese government and construct a powerful public image of the Chinese government to both Chinese citizens and news receivers around the world. This might help to explain why Xinhua frequently uses the Reassurance and Confidence frames, highlighting that SARS was under control within China and that China has the ability to prevent Ebola from spreading into China. Also, considering that China is a rising political and economic power, it wants to be seen as a responsible power in the world (Knoema, 2015; Scott, 2010). As the national news agency, Xinhua needs to display the great power of the country by promoting the public image of China as a responsible power. Thus, it frequently used the Responses by Domestic Government(s) frame in SARS stories and Responses by International Government frame in Ebola stories to emphasize the contributions from China to the world. This may also help explain why Xinhua less frequently used the Responses by Domestic Government(s) frame in Ebola stories: Xinhua may have downplayed or simplified the contributions by the three originating countries—Liberia, Sierra Leone,

and Guinea—in order to highlight the medical or financial contributions that China made in Ebola management.

According to framing theory, media not only determine the content people should think about, but also how to think about this content through the process of selection—that is by emphasizing some facets and downplaying others (Peng & Tang, 2010). Avoiding frames about health severity and emphasizing safety within China is a common way by which the Chinese government and the Communist Party deal with potential crises and avoid social instability. Shortages of rice vinegar and Banlangen during the time of SARS are examples that show the anxieties of people and the potential instability of Chinese society. At that time, people's fear turned SARS from a disease to a potential crisis. Framing, as a way to report and cover news, plays a key role in crisis creation, awareness, management and prevention (Ma, 2005). China has the largest population among the world. If a crisis happens, the society might become unstable. Thus, frames in state-controlled media should tend to protect social stability. In the case at hand, framing that de-emphasized negative health effects and negative effects of the disease on Chinese economy, combined with the frequent emphasis on actions of the Chinese government, reassurance, and confidence may have contributed to avoiding crisis and social instability.

As for Ebola, the frequent description of contributions of the Chinese government and the emphasis on the safety within China and the confidence of the Chinese government in preventing the disease from spreading to China may make people appreciate the government under the Communist Party. The frequent descriptions of health severity and the negative impact of the disease on the three West African countries may depict a poor picture of West African citizens' lives. Compared

to the worse lives of West African people, Chinese citizens will enjoy the peaceful life in China. Thus, Chinese society will remain stable. In this way, the present study analyzed how a socialist country and a collectivist society foster and protect the public image of the government among the citizens when dealing with a potential crisis related to health—one of the basic rights of humans.

The current study also carries implications for public knowledge about infectious diseases. The Health Effects frame includes information about the seriousness of the two diseases, as well as certainty/uncertainty about the diseases. This information includes the curableness of the disease, the occurring intensity, the speed of dissemination, the ways to avoid being infected, the symptoms of the diseases, ways to diagnose the diseases early, groups of people at high risk to suffer the diseases, the gene order of the virus, the development of vaccines, medicine that may prevent the diseases, specific animals that may have the virus, and recommended eating/drinking behavior (for similar findings see Liu, Ley, Brewer, 2011; Shih, Wijaya, & Brossard, 2008; Wu, 2006). Even though the information in the Health Effects frame may contribute to making people feel reassured or be confident, it also popularizes the basic knowledge about the diseases. Such basic information may help people possess the necessary knowledge to prevent the disease effectively, have healthier living behaviors, visit doctors and cure the disease at an early time.

The current study carries further theoretical and practical implications. As to theoretical implications, even though there are studies that analyzed framing of public health issues (e.g. Clarke, McLellan, & Hoffman-Goetz, 2006; Shih, Wijaya, & Brossard, 2008; Tong, 2006), framing health-related issues in mass media outlets (e.g. Hong, 2007; Peng & Tang, 2010; Tong, 2006; Zhang & Fleming, 2005) and framing

of health-related issues by national leading wire services in different countries (e.g. Feng, Ley, Brewer, 2012; Liu, Ley, Brewer, 2011; Wu, 2006), few studies have compared frames about two diseases originating in different countries by one national leading wire service. The findings of the current study help fill this gap.

As to the practical implications, previous research suggests that public responses may be shaped by the patterns of framing in the coverage (see Iyengar, 1991; Scheufele, 1999). For example, the results show how a socialist country and a collectivist society promote and protect the public image of the government among citizens when dealing with a potential crisis related to the basic rights of citizens. The descriptions of the Chinese government are entirely positive both in expressions about how the government dealt with the health issue within the country and how the government helped other countries manage the health issue. Such positive descriptions may have led Chinese citizens to view their government positively, place confidence in their government, and maintain stability in the society with the largest population in the world.

Limitations and Future Research

Among the limitations of the study, one is that, since the two diseases did not happen at the same time, we cannot be certain whether the differences in the frequency of frames for Ebola and SARS reflect difference based on the countries of the origin or the evolving Chinese news environment. Over the past decade, the Chinese media system changed substantially, especially with the emergence of the Chinese social media platforms. Given the quick rise of the Chinese micro-blogging platform—Sina Weibo—information could be disseminated through social media to massive numbers of people (more than 400 million users by November 2012) at a high speed (Yang, Liu,

Yu, Yang, 2012). Sina Weibo offers Chinese citizens another way to acquire information and engage with news (Gu, 2014). Although the government tries to control Sina Weibo, it is difficult to do so because Sina Weibo is a private company rather than a government organization. Also, it is difficult for government to control the vast amount of content produced by citizens. As for SARS and Ebola, the former disease happened before the popularization of Weibo and the later was happened after social media became popular. More generally, given that the Chinese news system has changed, we cannot know for certain that if SARS had happened in 2014, Xinhua would have framed stories about it the same way as it framed stories about Ebola.

The second limitation is that the study randomly selected through stratified sampling by month only during peak periods of coverage. Hence, the results of the present study cannot represent the whole population from different periods, such as the beginning and end periods. Thirdly, the present study only examined the use of frames in news coverage. Thus the results do not demonstrate the influence of these frames on the beliefs and emotions of the audiences.

For future studies, researchers could explore whether changes in the Chinese news environment may lead to the differences in coverage across diseases originating in different areas. Also, researchers could select stories from different periods, such as the beginning period, and the ending period, to analyze differences or changes in frames. Given that the present study conducted a comparative analysis looking at only two diseases, the conclusions may be not extend to other diseases. For future studies, researchers could draw broader conclusions about framing in Chinese news coverage of public health issues by adding other infectious diseases as cases. The H1N1 outbreaks in 2009 in North American offer one logical case for doing so. Finally,

future studies could use survey and/or experimental research to examine whether the frames analyzed in the study influence audience members.

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Appendix
CODING SCHEME

Problem Frames: Does the news story cover facts or incidents regarding the disease from the perspective of the seriousness of the disease for human health or from the perspective of the impact of the disease on the economy of the original nation(s) and/or other nations?

Health Effects: Does the news story include any information about or discussion of the severity or seriousness (or lack thereof) of the threat that the disease poses or may pose to human health? For example:

(i). The continued spread of SARS has presented a health challenge confronting the entire regional community. It threatens the health and life security of human beings. (Xinhua, “What did the China-Asian conference of SARS bring to the world,” 30 April, 2003)

(ii). Frequently, the Ebola virus can be easily transferred through blood or other body fluids, the speed of transmission is very fast. The virus is one of the diseases with the highest fatality rate, and there is no effective therapy so far. (Xinhua, “Ebola caused 16 people in Libya,” 18 June, 2014)

Economics: Does the news story include any information about or discussion of the positive, negative, or neutral impact of the disease on the economy of the originating nation(s) or countries outside the originating countries? For example:

(i). The spread of SARS negatively affected our economy and social development. (Xinhua, “China-Asian conferences of SARS,” 20 April, 2003)

(ii) In the present year, Chinese government effectively maintained social stability and healthy development of the national economy by managing SARS and developing economy at the same time. (Xinhua, “Shanxi Province neglects neither prevention of SAARS nor economic development,” 6 May, 2003)

(iii) In the past few years, the economic growth of Guinea, Sierra Leone, and Liberia is notable; however, since the outbreak of Ebola, the economic growth rate of these three countries has decreased by 3 to 5 percent. Also, the negative economic effects of Ebola will be last for more than ten years. (Xinhua, “Ebola make three western African countries lose 13 billion dollars,” 15 October, 2014)

Actor Frames: Does the news story cover the responses by domestic government(s) and/or international governments to resist, prevent, manage, or control the disease?

Responses by Domestic Government(s): Does the news story include any information about or discussion of responses by the domestic government(s) in the originating nation(s), including national/central government, regional governments, state/provincial/city governments, the governing party, army, or public health agencies to prevent, control, or manage the disease? For news stories about SARS, domestic governments include governments of the Chinese Mainland, Hong Kong, and Macau. News stories about responses by the Taiwan government are not included in Responses by Domestic Governments for SARS. For news stories about Ebola, the domestic governments include Liberia, Sierra Leone, and Guinea. For example:

(i). The Chinese government has organized and invested 35 hundred million yuan for the infrastructure construction of national institution of diseases control and prevention, and for the engineering construction of the Chinese Diseases Control and

Prevention Center. (Xinhua, “The speech given by Primary Minister Wen Jiabao in the China-Asian Conference,” 29 April, 2003)

(ii). Liberia appropriated more than ten million dollars to prevent the spread of Ebola. The president of Liberia joined the discussion about the prevention and management of Ebola with other leaders of ECOWAS. (Xinhua, “New deaths caused by Ebola,” 13 August, 2014)

Responses by International Governments: Does the news story include any information about or discussion of responses by governments outside the originating nation(s) to prevent, control or manage the disease, or help the originating nation(s) prevent, control, or manage the disease? For example:

(i). China and Spain signed the memorandum. Based on the memorandum, the Spanish government donates 229, 000 euros to the Chinese government for the purchase of laboratory equipment; also, the Spanish government offers 240, 000 euros for the construction of health care system. (Xinhua, “China and Span signed the anti-SARS memorandum,” 7 July, 2003)

(ii). The Chinese special plane of goods and materials of the emergency humanitarian aid against Ebola has been arrived at the Liberia in the night of 11. These goods and materials will help Liberia to prevent the disease from spreading to a wider range, and to save more lives of patients. (Xinhua, “Liberia mainstream media speak highly of the aids from China,” 16 August, 2014)

Tone Frames: Does the news story include any explicit expressions of reassurance about the disease or confidence in the Chinese government when it comes to preventing, controlling, or managing the disease?

Reassurance: Does the news story include any explicit expression of reassurance about the disease’s potential impact and/or public safety from the disease?

For example:

(i) The normal international level of the mortality rate of patients hospitalized with pneumonia is around 10%, but from the data we have so far, the mortality rate of SARS is less than 5%. So, we totally do not need to be scared. (Xinhua, “SARS in Shanghai is not spreading and diffusing,” July 7, 2003)

(ii) Dong, Xiaoping said “after the analysis of the infection source, route of transmission, and the transmission capacity, it is almost impossible for the Ebola virus to come into China. (Xinhua, “Experts: the risk of the outbreak of Ebola epidemic within China is very low,” 13 August, 2014)

Confidence: Does the news story include any explicit expressions of confidence in the Chinese government when it comes to preventing, controlling, or managing the disease? For example:

(i) The work to prevent and cure the disease should respect for science, should be fast and orderly, scientific and effective. The prevention and cure should be ensured with mass participation, lead the general with the correct public opinion, so the general public trust we all levels of the organization have the ability to control and cure SARS successfully. (Defeat SARS comprehensively, the accelerated mobilization in Taiyuan, 22 April 2003)

(ii) Even though there is the risk of Ebola virus importation, our country “has the confidence, has the ability, and has the preparation for Ebola—the virus that may be imported” said by Wang Wenjie, the vice director of the emergency office of National Health and Family Planning Commission. (Xinhua, “National Health and

Family Planning: there is risk of Ebola virus importation, we can control it once it happened,” 3 November, 2014)