Framing of Online News Coverage of the Coronavirus in the United States

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Submitted in partial fulfillment of the requirements in
an undergraduate senior capstone course in communications

Abstract

In early 2020, the World Health Organization declared an international public health emergency due to the coronavirus outbreak. Due to the novelty and quick spread of the coronavirus, people turned to news outlets for information regarding the severity and suggested safety measures. This study analyzed themes in news coverage of COVID-19 in the United States using framing theory. The research studied the styles and changes in framing from January 1, 2020 to the United States' declaration of a state of emergency on March 13, 2020. The content analysis included 90 online articles from The New York Times, *Fox News and CNN, which are among the most popular news sources for Americans. The study concluded that coronavirus news coverage focused on reporting the number of cases and deaths, the economic impact, and the actions governments took to prevent its spread. This study suggests that early coverage of a pandemic is more focused on the facts and immediate effects of the disease rather than the individual and personal stories of people dealing with the pandemic.*

I. Introduction

On January 30, 2020, the World Health Organization (WHO) declared an international public health emergency as a result of an outbreak of the novel coronavirus, also known as COVID-19 (CDC, 2020). The coronavirus causes a respiratory disease that results in symptoms similar to those of the flu. The epicenter of the initial COVID-19 outbreak was in Wuhan, Hubei Province, China. Experts suspect the virus was spread from a live animal to a human in an exotic food market. Because of the new and fast-changing nature of the disease, the "complete medical picture" of the disease remains unknown. According to the Centers for Disease Control and Prevention (2020), those most negatively affected by the disease are the elderly and those with pre-existing health problems.

The coronavirus quickly spread, leading the WHO to classify it as a pandemic on March 11, 2020 (Chappell, 2020). A pandemic is defined as an "epidemic that has spread over several countries and continents" (CDC, 2012). According to the CDC (2020), "pandemics happen when a new virus emerges to infect people and can spread between people sustainably." The first case of the coronavirus in the United States was confirmed on January 21, 2020 in Washington state (Caryn Rabin, 2020). Following this announcement, the first death as a result of the disease was confirmed on February 29, when a 50-year-old man with underlying health issues died (Reuters, 2020).

Due to the novelty and quick spread of the coronavirus, people are turning to news outlets for information regarding the severity and suggested safety measures. This research will study how framing of U.S. news coverage about the coronavirus changed from its original outbreak in January 2020 — following the first reported case to the WHO of a "pneumonia of unknown cause" on December 31, 2019 — to the declaration of a state of emergency in the United States on March 13, 2020.

II. Literature Review

The framing of international events in the news has been subject to much research over the years. This literature review will examine studies surrounding the effect of framing in news coverage, the way international events are framed by the news media, and the framing of infectious diseases. There is little scholarship about the frames used by news organizations when discussing infectious disease outbreaks.

Framing theory in news

Researchers have conducted studies focusing on the way news events are covered, recognizing the effect news has on individuals' perception of an event, a country, or a person. According to Brown and Barker (2006), people depend on the news to become informed about events, particularly international events, where audiences cannot acquire first-hand information from personal sources.

Framing is a way of organizing a story or idea in order to provide meaning to it in such a way that unfolding events have a connection to each other (Gamson & Modigliani, 1987). As a result, frames are created when news organizations give prominence to an issue by choosing to cover it and by highlighting "a particular problem definition, causal interpretation, moral evaluation, and/or treatment recommendation" (Entman, 1993, p. 52). The way a news organization covers an event is important because of its influence on the framing effect (Druckman, 2001). The framing effect occurs when media "suggest a particular meaning or interpretation of an issue" (Tewksbury & Scheufele, 2009, p. 20). Because of this, the way an event is framed will affect the way a population thinks of and sees not only the event but also the people involved in it.

Common frames of international events

The effect of framing theory in the news is particularly relevant when looking at international coverage. Researchers have conducted countless studies to analyze the way in which news organizations frame international events, conflicts, and stories. As noted above, the way a story is framed will influence the perceptions of the public on that story. Framing of international news stories creates "recognized and legitimized frames … that are a fundamental part of the social construction of reality" (Elena, 2016, p. 122).

Framing of international content often depends on the host nation of the news organization. In order to make a news story relevant and interesting to their audience, "journalists and news media package and present information in a way that is understandable and meaningful to the audience through framing" (Tanikawa, 2017, p. 115). This is particularly the case for international events because audiences need more context to understand the event.

One way journalists do this is through the use of a "culture link" or "culture peg." Tanikawa (2017) defines a culture peg as a choice that provides "readers with cultural elements they can easily identify as something arising from that culture," and a culture link as a story including "elements of the culture or person(s) from the reader's home country" (p. 116). For example, when comparing how the Iraq War was covered in both the United States and Sweden, Brown and Barker (2006) found that, particularly in the United States, a focus on the country's influence in the war was prominent in its coverage. However, stories focusing on Iraqi civilians dominated 11% of Swedish content and only 4.5% of American content. Similarly, when analyzing the way five countries framed the earthquake in Haiti, researchers found that news coverage "illustrated the involvement of the home country" rather than primarily depicting Haiti as "devastated and miserable" (Jia et al., 2011, p. 17).

Even though there are established news values for journalists, such as "timeliness, proximity, consequence for the audience, prominence, human interest, usualness, and conflict," culture still influences the way in which these values are packaged in news stories (Brown & Barker, 2006, p. 10). Because of this,

focusing on cultural influences in news coverage can skew foreign news reporting (Tanikawa, 2017).

Not only does culture influence international coverage, but so do other factors including geographical distance, normative deviance of an event, relevance to the host country and potential social change. In terms of the way the earthquake in Haiti was framed, researchers found that "the further the distance between the two countries, the shorter the news coverage" (Jia et al., 2011, p. 13). Similarly, the influence of the host country in the event directly affected the coverage. The more financial aid a country gave to Haiti, the longer the news coverage and the more likely a story described "the suffering and pains of the earthquake victims, as well as to portray them as a stigmatized group marked with poverty, anxiety, shame, and isolation" (p. 15).

The political stance of a nation on an event can also influence the story's framing. For example, the themes "Bush's diplomatic failure" and "U.S. — Arrogant superpower" in the framing of the Iraq war appeared in Swedish media 4.2% of the time and in U.S. media 0.7% of the time (Brown & Barker, 2006). This is likely because of the political stance of the United States in the war and the overwhelming public support for it in the United States versus Sweden. Similarly, in a study on the framing of the fall of former Egyptian President Mohamed Morsi, Martin Elena found that CNN over-represented the influence of the United States on the conflict. However, CNN was not entirely influenced by the United States' government. After the United States' government stopped using the term "coup" to refer to the event, CNN continued to use it in its reporting (2016).

Based on multiple research studies and analysis, it is clear that many factors influence the way an international news event is framed. Whether it is a culture link or the political influence of a host country on an international situation, comprehending the framing of a news story is key. Research shows that the way in which people perceive events, particularly international ones, are largely influenced by the media. Because of this, the framing of international events can skew public perceptions.

Coverage on international infectious disease outbreaks

While a multitude of studies have been conducted on the framing of international events such as political conflict, war, or natural disasters, the framing of health issues such as infectious diseases or pandemics is not as common. News reports on infectious diseases, pandemics, and epidemics are crucial as "media reports can play a significant role in the construction of public health issues" (Shih, Wijaya, & Brossard, 2009, p. 1). Health concerns, particularly with pandemics, are often accompanied by urgency and uncertainty of information. Because of this, individuals rely heavily on the news to receive information about infectious diseases (Lee, 2014).

As a result of the importance of news coverage on health issues, particularly relating to infectious diseases, analyzing the way in which these stories are framed is crucial. The influence news organizations have on the information that is disseminated in regard to epidemics and pandemics makes researching what the media cover a priority. In order to understand the way the public comprehends the risks, solutions, and severity of infectious diseases, the framing of these events needs to be understood.

In a study about the framing of mad cow disease, the West Nile virus, and the avian flu, researchers found two frames were predominantly used to cover all three infectious diseases. Based on prior research, it is known that journalists tend to focus on events rather than issues "when reporting on risk issues" for example, by reporting on the number of casualties (Shih, Wijaya, & Brossard, 2008, p. 143). The two most prominent frames in the coverage of these three infectious diseases were action and consequence. The action frame refers to the actions taken in regard to the disease, usually in reference to governmental decisions, and the consequence frame refers to coverage focusing on the number of deaths or the number of individuals infected. Not only were these the most prominent frames used, but the amount of coverage an infectious disease received was also largely influenced by the "number of infected cases and the type of governmental actions taken" (Shih, et. al, 2008, p. 156).

In addition to researching the framing of coverage on infectious diseases, Tsung-Jen Shih and Dominique Brossard (2009) conducted a separate study looking at the sourcing of these events. According to this study, the findings reflect an emphasis on "institutional and administrative sources when covering these public health issues" (Shih & Brossard, 2009, p. 16). Not only is the framing of the coverage based on action, but so are the sources. However, even though consequence is another prominent frame in the coverage of infectious diseases, according to the study, journalists do not source "people who were most affected" by

infectious diseases (p. 17). The focus on the number of cases and the government actions taken makes it so that stories about specific people who have been affected or the "human interest" side of the coverage is not as prevalent.

Research Goals/Questions

One of the most recent pandemic outbreaks internationally has been the novel coronavirus, COVID-19, outbreak. The epicenter of the outbreak was in Wuhan, Hubei Province in China and the first cases were detected in December (Cheung, 2020). The International Health Regulations Emergency Committee of the WHO declared COVID-19 an outbreak and a "public health emergency of international concern" on January 30, 2020 (CDC, 2020). COVID-19 has since been confirmed in all six of the WHO's regions (CDC, 2020). As of May 5, 2020, more than 243,401 people have died as a result of the disease and 3,517,345 people have been infected (Cheung, 2020). According to the WHO, COVID-19 produces flu-like symptoms and 80% of those infected recover from the disease (WHO, 2020).

Because of the international and fast-spreading nature of COVID-19, news organizations have been a main driving force for disseminating information about the disease. Due to the novelty of COVID-19, no concrete research studies have been conducted to analyze the framing methods of news coverage of this specific illness. This research study will conduct a content analysis of the changing frames in coverage of COVID-19 from its detection to its eventual spread to the United States.

RQ 1: What were the main frames used in American news coverage of the coronavirus?

RQ 2: How did American news framing change from the coronavirus being an international versus national concern?

III. Methods

This research study was conducted using a content analysis of online news articles about the coronavirus. According to the Pew Research Center (2019), a majority of adults in the United States get "at least some news online." As a result, the content analysis focused on online news only. The outlets studied were CNN, Fox News, and *The New York Times*. According to a Digital News Report conducted by the Reuters Institute for the Study of Journalism and the University of Oxford (2019), these outlets are among the top five most used online news sources in the United States.

The unit of analysis was an article including the headline; however, photos and captions were omitted from the coding. The time frame selected for the content analysis was between January 1, 2020 — which is when cases of the coronavirus in China began being reported in the United States — and March 13, 2020, when the United States declared a state of emergency. Using this time frame as a guide, the keyword "coronavirus" was used in the search engine of each outlet to select the articles that would be coded. In addition, the subtopics that were selected were "U.S." and "International" news stories. Once the search was narrowed down, 30 articles were randomly selected from each outlet. Because of the overall number of articles, every fifth article from *The New York Times* and Fox was selected, and every seventh article for CNN was selected. A total of 90 articles were coded. It is notable that there were more articles from CNN about the coronavirus than from Fox or *The New York Times*. In addition, the volume of articles increased as the time frame did, meaning few articles were written in January, and as a result the majority of articles coded were written at the end of February and in March.

The study was conducted using an inductive qualitative coding method. This form of coding relies on the researcher creating categories as the content analysis is in progress. Rather than arranging content into predisposed categories, researchers form these categories throughout the analysis. The process of inductive qualitative coding often begins with an in-depth reading of the text. From here, the researcher identifies themes and categories apparent in the text and sorts the content into these categories. Unlike in most quantitative studies, not all text must be coded, and the same portions of text can fall under multiple themes when relying on inductive qualitative coding.

According to David Thomas (2003), this method of coding has three main benefits to it. First, it condenses a lot of text into a summary format. Second, it establishes links between the research objectives

and the findings, and finally, it helps develop a theory from the data. Each article was read, and themes were coded as they emerged from the text. A maximum of eight keywords in the article were coded for each story. As the coding continued, themes were sometimes repeated, and the same keyword was used. From there, the 17 most popular keywords were selected, and data was analyzed using those.

IV. Findings

This section describes the results from 90 articles about the coronavirus from *The New York Times*, Fox, and CNN spanning a time frame of January 1 to March 13, 2020. After coding all articles, the 17 themes shown in Table 1 were the most common throughout the three news organizations and across the time frame. Table 1 shows the distribution of themes across all 90 articles without dividing the results by news organization.

Table 1: Results of the theme analysis across all three news outlets

Theme	Total	
International	50	56%
U.S.	43	48%
China	17	19%
Government response (U.S.)	22	24%
Government response (Intl.)	26	29%
SARS/MERS/Ebola	12	13%
Healthcare system/Lack of supplies	30	33%
Quarantine/Lockdown	45	50%
Travel/Planes/Cruises	39	43%
Public health emergency	7	8%
Xenophobia/Racism	5	6%
Testing/Vaccine	18	20%
Economic impact	11	12%
Personal effect/Specific cases	18	20%
Religion	10	11%
Little threat	5	6%
Number of cases & deaths	70	78%

The results on Table 1 show that the distribution between stories focusing on the virus internationally versus in the United States were fairly similar, 56% of stories included a focus on the virus internationally, and 48% focused on the virus nationally. It is important to note that some articles discussed both the United States and other countries prominently which is why the numbers do not add up to 100%. The content analysis also showed that 19% of the articles focused on China as a main theme.

In addition to the region of the world, there were two main themes that were coded across the time frame and outlets. The main theme displayed in 78% of the articles was the number of cases and deaths of the disease. This included overall global numbers as well as the number of cases in particular countries, states or cities. The next most prevalent theme was a discussion about governmental responses to the virus. Mentions of both international and national responses to the virus by government were combined, and a total of 53% of the articles included this theme.

Among the other themes, specific cases or stories about individuals in particular were only found in 20% of the articles. Discussions about quarantines and lockdowns as well as the canceling of events was

seen in 50% of the articles. Only 6% of articles mentioned cases of xenophobia and racism as a result of the virus. Similarly, 6% of articles described only a "little threat" relating to the virus and only 8% of articles characterized it as a public health emergency.

Table 2: Results of theme analysis by news outlet

Theme	*TheNew York Times*		Fox		CNN	
International	10	33%	20	67%	20	67%
U.S.	19	63%	13	43%	11	37%
China	4	13%	4	13%	9	30%
Government response (U.S.)	10	33%	6	20%	6	20%
Government response (Intl.)	4	13%	9	30%	13	43%
SARS/MERS/Ebola	5	17%	0	0%	7	23%
Healthcare system/Lack of supplies	16	53%	5	17%	9	30%
Quarantine/Lockdown	9	30%	14	47%	22	73%
Travel/Planes/Cruises	13	43%	9	30%	17	57%
Public health emergency	5	17%	0	0%	2	7%
Xenophobia/Racism	1	3%	1	3%	3	10%
Testing/Vaccine	8	27%	3	10%	7	23%
Economic impact	6	20%	3	10%	2	7%
Personal effect/Specific cases	9	30%	2	7%	7	23%
Religion	2	7%	8	27%	0	0%
Little threat	2	7%	3	10%	0	0%
Number of cases & deaths	24	80%	22	73%	24	80%

The results in Table 2 show the distribution of themes by news organization. The most prevalent theme was the number of cases and deaths, mentioned by *The New York Times* and CNN in 80% of each outlet's articles, with Fox including it in 73% of its articles. Mentions of government responses were also prevalent in all three news outlets, with CNN mentioning the theme in 63% of articles, Fox 50% and *The New York Times* 46%. The distribution of articles focusing on a specific case or person's story was more varied. Only two articles, 7%, followed this theme for Fox while *The New York Times* had 30% and CNN had 17%. CNN also discussed xenophobia and racism in three articles while the other two outlets only did so in one article.

The characterization of the disease across the different news outlets also varied. The coronavirus was described as a public health emergency in 17% of *The New York Times* articles and 7% of CNN articles, while Fox did not characterize it as such in any of the articles analyzed. However, Fox characterized the virus as being only a small threat in 10% of the articles, *The New York Times* did so in 7% of articles, while CNN never described it in that manner.

Another differentiation among the news organizations was the emphasis on articles about the United States versus other countries. *The New York Times* focused mainly on the United States with 63% of articles. However, CNN had 67% of articles discuss international angles, with 37% being about the United States. Similarly, for Fox the distribution was 67% of articles about international topics and 43% about the United States. While both CNN and Fox had the same number of articles discussing international themes, CNN focused on China in 30% of all articles, while Fox, and *The New York Times* only mentioned the country in 13% of articles.

An analysis of the shift in themes across the time frame of January 1, 2020 to March 13, 2020 was also conducted. As mentioned in the methodology section, the distribution of articles from each news organization during the three months varied. Two articles written in January, 16 in February, and 12 in March were analyzed for *The New York Time*s, while the Fox sample had one article in January, four in February

and 25 in March. Finally, CNN's sample had four articles in January, 16 in February and 10 in March. This variation was taken into account when looking at the distribution and changes in the most common themes based on the month and the outlet.

The main shift occurred in the distribution between the international and the U.S. theme. For both *The New York Times* and CNN, as the months progressed the volume of articles written about the United States increased. However, for Fox, while most of the articles analyzed were written in March, there were more international stories than U.S. stories overall. Another important key theme that became more prominent as the months progressed was coverage about a particular case or person. For both *The New York Times* and Fox the majority of personal stories were told in March. However, for CNN this number was greatest in February when six of the 16 articles analyzed focused on a specific case.

V. Discussion

The study aimed to understand the way U.S. news coverage of the coronavirus pandemic shifted. In order to better analyze the results of the content analysis of 90 articles from three different news outlets, previous studies on the news coverage of epidemics and pandemics will be used as a point of comparison.

As discussed in the literature review, journalists covering infectious diseases tend to "concentrate their attention on substantive aspects of epidemic hazards" (Shih, Wijaya, & Brossard, 2008). In this study, the dominant frames in the coverage of the epidemics were action and consequence. Action refers to news coverage focusing on actions taken to prevent the spread of the disease, and consequence refers to the economic impact of the disease as well as the number of cases and deaths.

Similar to the results found in the aforementioned study, and in response to RQ1, the main themes in the coverage of the coronavirus were also under the consequence and action frames. The consequence frame was the most prevalent across the three news outlets and over the period of time. In looking at the results of the content analysis, 78% of articles discussed the number of cases and deaths, 12% discussed the negative economic impacts resulting from the pandemic and 33% mentioned the consequences on the healthcare system and a lack of supplies. The emphasis on the consequence frame shows that coverage of the coronavirus is focused on the overarching effects of the disease on society as opposed to the disease itself and the ways it affects individuals. This can be attributed to individuals seeking out news content about infectious diseases to learn about the decisions their governments are making to combat the spread of the disease.

Of the 17 themes that were most prevalent across all articles, four focused largely on the action frame. Discussions about governmental actions to combat the coronavirus, including enacting quarantines and lockdowns as well as increasing testing and working to develop a vaccine, were included in many of the articles analyzed. More than half the articles addressed actions governments around the world were taking in response to the coronavirus, including quarantines, lockdowns and the canceling of gatherings and events.

Past research also discusses the media's tendency to focus on events as opposed to issues in reporting on diseases. This study found this was also the case in the coverage of the coronavirus. Only 18% of articles focused on personal stories and particular cases. Instead, articles tended to focus on governmental responses, actions taken to prevent the spread of the virus, and the overall number of cases and deaths. In a time of crisis, it is likely that audiences are seeking for information to help them combat the crisis as opposed to stories about particular people.

There are a few important notes in terms of the articles focusing on individual stories. *The New York Times* had the most stories about particular cases with nine out of the 30 articles analyzed. Of those nine, six of the articles were about people in the United States, and seven of those articles were written in March when the number of cases in the United States began to increase. In CNN's case, five articles focused on individual stories, but only two of the five focused on Americans while the other three were about individuals internationally. Fox only had two articles focusing on particular people, who both were American. While the research did not focus on this topic, it should be noted that many of Fox's articles were taken from The Associated Press, as opposed to original reporting, which could influence the lower number in individual issue stories.

With regard to the two research questions posed at the beginning of the study, there were shifts in framing from the original outbreak of the coronavirus to the declaration of a state of emergency in the United States. However, the main frames and themes remained consistent throughout the coverage of the disease and across the three news outlets analyzed. The first shift that was immediately apparent was the volume of articles and the country the articles focused on. As can be expected, because the three news outlets are based in the United States, the volume of coverage on the coronavirus increased as the virus became more of a risk to Americans. In addition, the articles began focusing on international issues and became more U.S.-centric as the declaration of a state of emergency approached. The majority of the articles focusing on countries internationally discussed the coronavirus in Asia and Europe. However, while Fox had a large volume of stories with international themes – 67% falling under this category – many of the organization's stories focused on countries in the Middle East, particularly Iran. Most of these stories discussed religious events being canceled. This was different from what the other two news organizations covered in terms of international stories.

A focus on the virus's consequences and governmental actions remained relatively consistent throughout the coverage, but stories about particular issues became more common as the virus entered the United States. This is consistent with previous studies focusing on news coverage of international events. Often, the host nation frames international stories in a way that makes them relevant or interesting to the audience. Because of this, international stories discussed the number of deaths of Americans in those nations, or specific cases about Americans.

Another shift in the coverage of the coronavirus was mentions of previous viruses and epidemics. At the beginning of the coronavirus outbreak there were more mentions of infectious diseases like SARS and MERS, but as the outbreak progressed, comparisons to other diseases became less common. In total, 13% of the articles analyzed mentioned SARS, MERS, or Ebola. This decline in mentions of other diseases as the outbreak progressed is not unexpected. As knowledge of the coronavirus grew and governments began taking action, comparison to previous epidemics became less relevant.

V. Conclusion

This study sought to analyze the framing and themes of news coverage of the coronavirus outbreak in the United States. A content analysis of 90 articles showed that the framing of the coronavirus was similar to those in previous studies of infectious disease epidemics. The two main frames focused on consequence and action. News organizations often focus on reporting the number of cases and deaths, economic impact, and actions governments take to prevent the spread of the disease. In accordance with the previous research, articles focusing on an individual story or case were less prevalent than those discussing the coronavirus from a broader perspective. In terms of changes over the time frame, more personal stories were written as the virus spread in the United States, while mentions of other infectious diseases as a point of comparison became less common as time went on.

The major limitation to this study comes from the ever-changing nature of the coronavirus. Because the pandemic was ongoing when the study was conducted, and there was a lot of uncertainty surrounding knowledge of the virus and ways of preventing its spread, news articles were constantly being written and updated. Ideally, a similar study could be replicated once the pandemic ends in order to gain a more accurate representation of the news framing of the disease. A larger base of content to analyze over a longer period of time would yield a more complete understanding of the themes used by news organizations when reporting on the disease.

This research lays a foundation for following studies to be conducted surrounding news coverage of this pandemic. Future research could compare the difference in coverage of the coronavirus across different nations or could analyze framing of the coronavirus with other infectious disease epidemics or pandemics in history.

Acknowledgements

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