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Recommended Citation

Ruth, Amanda M.; Eubanks, Emily E.; and Telg, Ricky (2005) "Framing of Mad Cow Media Coverage," *Journal of Applied Communications*: Vol. 89: Iss. 4. <https://doi.org/10.4148/1051-0834.1312>

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Abstract

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Abstract

When a case of bovine spongiform encephalopathy (BSE), or mad cow disease, is confirmed, it causes a major impact economically, socially, culturally, and geographically. Through framing analysis, this study examined the way in which a case of BSE confirmed in Canada was covered in Canadian and American newspapers. By examining what the major newspapers emphasized, what sources they used for information on the disease, and the frames used in reporting the outbreak, results indicated a significant difference between American and Canadian print media coverage surrounding the mad cow outbreak. Specifically, U.S. newspapers primarily reported the outbreak as posing a high risk to humans, while Canadian newspapers primarily reported the outbreak as a crisis for the Canadian cattle industry. Overall, the news coverage of the mad cow disease outbreak in May 2003 was negative, potentially causing uncertainty and fear in Canada and the United States. If journalists cover only agricultural news that is problematic or associated with risk—like mad cow disease—then it can be expected that consumers will continue to lack accurate knowledge and understanding of agricultural and food-related issues.

Introduction

On May 21, 2003, news reports around the world confirmed the discovery of a case of bovine spongiform encephalopathy (BSE), or mad cow disease, in Canada. Mad cow disease is a neurological disease transmitted through the consumption of BSE-contaminated meat and bone meal, which has the potential to contaminate the food supply (The BSE Inquiry, 2000). While most food supply and contamination issues are newsworthy, BSE has gained increased press attention because of the major impact it has had economically, socially, culturally and geographically. “As the distance between lay consumers and food producers and processors increases, the most likely source of information on food safety for the lay consumer is the mass media” (Ten Eyck, 2000, p. 45). Thus, it is important to examine media coverage of this issue in two of the largest countries affected by the outbreak of

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this disease, Canada and the United States, to uncover the public's understanding of the disease and its short- and long-term effects.

This study examined the framing of BSE coverage between Canada and the United States. By examining what the major newspapers emphasized in their coverage of mad cow disease, what sources they used for information on the disease, and the frames used in reporting the outbreak, this study identifies how and why decisions were made regarding the disease by key players involved in the issue: government, industry representatives, consumers, and commerce.

Framing BSE within national media has implications for the media's future coverage of the issue. Coverage may lead to governmental regulatory actions. In addition, how this issue is framed in the media determines how the public perceives the issue and what actions may be taken with similar situations in the future.

Literature Review

BSE belongs to a family of diseases characterized by spongy degeneration of the brain with severe and fatal neurological symptoms (WHO, 2003). This family of diseases affects a number of species, including cattle, humans, cats, and other animals. BSE is most commonly transmitted through the consumption of BSE-contaminated meat and bone meal supplements in cattle feed, which poses the largest risk to humans (WHO, 2003). A newly recognized human disease belonging to this same family is a form of Creutzfeldt-Jakob disease, vCJD, which was first reported in March 1996 in the United Kingdom (WHO, 2003). The route of transmission for vCJD is assumed to be through exposure to food contaminated by BSE.

On May 20, 2003, a BSE-infected cow was confirmed in Alberta, Canada (Government of Alberta, 1995-2003). This outbreak is the foundation for this study, which examined the media coverage surrounding this event. The potential impact of a widespread outbreak of BSE on the Canadian cattle industry is immense. As a significant contributor to Alberta's farm economy, the Canadian cattle industry accounted for nearly 77% of cash receipts from livestock and livestock product sales in 2002 (Ministry of Agriculture, Food, and Rural Development 2003). Approximately 13% of the beef produced in Alberta is used for human consumption locally; however, the majority of Alberta's beef is exported to other areas in Canada as well as other countries. In 2002, more than 511,000 head of cattle and calves, made up mostly of slaughter animals, were exported to the United States. Total beef sales to the United States reached \$1.3 billion in 2002, making it the largest recipient by far of Canadian beef (Ministry of Agriculture, Food, and Rural Development, 2003).

There is limited material that investigates the media coverage of previous incidences of mad cow disease. Nonetheless, there have been numerous studies conducted on the media coverage of other related agricultural risk or food safety issues, such as food biotechnology, *e. coli* outbreaks, Alar, and other food-borne illnesses (Smith, Young, & Gibson, 1998; Nisbet & Lewenstein, 2001; Eyck, 2000; Fisher, King, Epp, Brown, & Marezki, 1994).

Eyck (2000) conducted a study of food safety coverage in the media. He reported on many of the most common and devastating food safety issues in agriculture. Eyck suggested that food safety issues covered in the mass media between 1986 and 1997 tended to cluster around certain crises, such as Alar and mad cow disease. Eyck also found that “while consumers may be aware that food safety was a concern, they were often unaware or unsure of their own roles in this area” (Eyck, 2000, p. 45).

Most of the framing literature on food safety issues indicates that the media cover them as posing a threat to human health. In addition, many of the research findings reveal that media coverage of the issues is presented in such a way that the audience may perceive that the only people who can solve the problems associated with food risk are the experts, mainly government officials and scientists.

A study from the first outbreak of mad cow disease in 1996 indicates that “this possible linkage between a deadly human disease and a food source seemed to make for an ideal media story”; however, there was never any scientific proof that BSE was transferable to humans (Eyck, 2000, p. 41). In this same study, Poulsen (1996) explained that European coverage was based on emotions and sensationalism; however, American coverage on that same outbreak emphasized the health risk and association of the disease with human illness and death (though this implication is inaccurate).

“The rise and fall of mad cow disease in the popular press is interesting, as it continues to be a controversial topic in more specialized journals, such as *The Lancet*, *New England Journal of Medicine*, and *Journal of the American Medical Association*, all of which are used by journalists” (Eyck, 2000, 41). One possible explanation for this is that after the concentrated coverage surrounding the mad cow events of 1996, nothing new regarding the disease had been reported until the Canadian outbreak.

To understand the print media coverage of this latest outbreak of mad cow disease in Canada, the current study examines how Canadian and American newspapers framed the disease and the implications associated with those stories. Using framing theory and associated methods of analysis, which focus on the presentation and sourcing of the news, this study reveals

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the media context for the understanding of mad cow disease in both Canadian and American societies.

Framing theory is found across the social, behavioral, and cognitive sciences, both as a concept that relates to the way in which media report on events as well as individuals' processing of message information (McLeod, Kosicki, & McLeod, 1994). "Framing theories suggest that the way an issue is presented—the frame—especially through the media, can affect public perceptions of the issue" (Bridges & Nelson 1999, p. 100).

The use of framing by the media refers to the way an issue is packaged, which in turn is the way people come to understand that issue. Framing conducted by individuals, according to McLeod, Kosicki, and McLeod (1994), is based on the assumption that "frames invoke schemata of interpretation that allow individuals to locate, perceive, identify, and label information" coming from a certain source. Both the media and the audience use mental shortcuts to process incoming messages quickly and efficiently. They rely on cues from incoming messages to help them connect the new information with their preconceived notions about the world (Bales, 2001).

Framing is based on the perspective that news is a function that helps explain and shape public perceptions of an event (Gitlin, 1980). This is accomplished through the use of frames by the media. "Frames are principles of selection, emphasis, and presentation composed of little tacit theories about what exists" (Gitlin, 1980, p.6). These frames, though discreet, organize the world into identifiable/ understandable schema for both journalists and those who rely on journalists for information (Gitlin, 1980). Framing analysis is a useful research tool for uncovering elements such as keywords, sources of information, symbols, metaphors, messengers, visuals, messages, stories, numbers, or context that people use to understand the world (Entman, 1991). "By providing repeating, and thereby reinforcing words and visual images that reference some ideas but not others, frames work to make some ideas more salient in the text, others less so—and others entirely invisible" (Entman, 1991, p. 7).

Though framing analysis has been criticized for its weak theoretical and empirical foundation, the strengths of framing lie in its "emphasis on providing context within which information presented and processed allows framing to be applied across a broad spectrum of situations" (Hallahan, 1999, p. 209). By examining news media surrounding the mad cow events of 2003 from a framing perspective, the researchers attempted to identify how and why the media present the issue and if the location of the coverage influences the frame. This study was conducted on the assumption that personal experience with agricultural issues is becoming more attenuated

within the lay public, and so media discourse plays a significant role in developing knowledge and understanding in this area (Eyck, 2000).

Combining the events associated with mad cow disease and framing theory, this study attempted to answer the following research questions:

RQ1: How has this issue been framed in major daily newspapers in Canada and the United States? Which of these frames dominates?

RQ2: How has Canadian print media framed the mad cow issue?

RQ3: How has the American print media framed the mad cow issue?

RQ4: What sources are relied upon? And what frames are they associated with?

Methods

This study examined the framing of the events surrounding a recent case of mad cow disease in newspapers from both the United States and Canada. The coverage time was from April 1, 2003, to October 1, 2003, yielding approximately 235 articles for the analysis. Print media was chosen for this analysis because previous research has shown that in situations regarding food safety and health risk, consumers felt that print media were more reliable than television (Bruhn & Schutz 1999).

Because of the location of this outbreak, Alberta, newspapers were chosen from geographic regions that represented areas that were both geographically close and geographically distant from the outbreak. The *Winnipeg Sun* from Canada and the *Los Angeles Times* from the United States were chosen as two large newspapers close to the outbreak; the *Toronto Star* from Canada and the *New York Times* from the United States were chosen as the two large newspapers distant from the event.

April 1, 2003, was chosen as the start date because even though the cow was discovered and eradicated in January 2003, the positive test results were not revealed until May 2003, which caused media coverage to increase at that time. The end date of the study, October 1, 2003, was chosen because by this time the media coverage of the event had dropped significantly.

Articles for this study were gathered from the Lexis-Nexis database, using the keywords "mad cow disease" and "BSE." Articles selected from the search included news articles, feature articles, and opinion pieces. Letters to the editor were omitted. Articles under 100 words in length were also dropped from the study because they did not provide enough material to conduct a proper framing analysis. Along with these brief articles, stories that just mentioned mad cow disease were also dropped from the study. Finally, only the final edition of an article that appeared in several editions of the same publication was used for the study.

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This resulted in 235 stories: 110 from the *Toronto Star*, 94 from the *Winnipeg Sun*, 21 from the *New York Times*, and 10 from the *Los Angeles Times*. To draw a representative sample, the researchers implemented a systematic sampling method. Because of the small amount of media coverage in the United States, all of the 31 articles from these newspapers were analyzed for this study. However, 204 articles were obtained from the Canadian newspapers, so an equal number (31 articles) were randomly chosen from the Canadian newspapers to make the sample balanced. Sixty-two articles, representing the media coverage from the *Los Angeles Times*, the *New York Times*, the *Toronto Star*, and the *Winnipeg Sun* surrounding the mad cow events of May 2003, were coded for this study.

The unit of analysis for this study was the individual article. The stories were examined by the researchers using a code sheet, which consisted of categories including the newspaper, the headline, the length of the article in words, the month in which the article appeared, the day of the week in which the article appeared, the types of sources used within the article, the overall tone of the article, and the prominent frames of the article. The initial coding method used by the researcher and co-researcher was to each code half of the articles. This method was revised after recognizing discrepancies between coders. The revisions resulted in having the researcher examine all 62 articles; the co-researcher randomly examined 10% of the articles. After accounting for any initial discrepancies in coding, the coders were in agreement with the final results.

Results

Sixty-two articles were reviewed from the *Los Angeles Times*, *New York Times*, *Winnipeg Sun*, and *Toronto Sun*. Of the 62 articles, the majority of the articles ($n = 36$) were written in May, eight articles in June, eight articles in July, nine articles in August, and three articles in September.

In the U.S. coverage of mad cow disease, 13 of the articles were written by the same author and used neutral headlines. Only two of the articles had negative headlines.

The Canadian Press wrote seven of the 31 Canadian articles reviewed; however, none of the articles were written by the same author. The majority of the headlines presented mad cow disease from a neutral perspective. Unlike the United States coverage, however, there were several headlines that portrayed mad cow disease in a positive fashion.

After completing the analysis of the sample articles, four major frames emerged from the articles: industry crisis, economic calamity, blame/

responsibility, and health risk. This last frame can be divided into two sub-frames: zero health risk and amplified health risk.

“Industry crisis” was the most popular frame used in the articles reviewed. This frame conveyed not only how the mad cow disease is devastating to the beef industry in Canada, but also how it has had negative implications on the beef industry internationally. This frame implied that mad cow disease has devastating consequences by communicating the negative aspects of the disease, using key phrases like “the embattled beef industry,” “farmers in dire straits,” “devastating impact,” “destroying power,” “crippling the industry,” “debt-laden cattlemen,” “cattle industry in a tail-spin,” and “pandemonium.” The frame was consistently characterized as a disaster-causing disease for the beef industry, which produces a negative tone throughout the article. For example, a *Toronto Star* article reported the crisis of mad cow from a beef farmer’s perspective and used the words “desperation,” “destroy,” and “losing hundreds of thousands of dollars” (Avery, 2003).

The “economic calamity” frame emphasized the impact this disease had on industries outside of the beef industry, like tourism, the restaurant business, and the economies of Canada, the United States, Mexico, and even Japan. In most cases, this frame mentioned the decrease in sales or company profits for businesses and the plummeting of stock prices in the companies and commodities affected by BSE. The decline in tourism was specific to Canadian coverage and was presented as being caused by a double threat of mad cow disease and SARS. Also included in the economic impact frame was the issue of closed borders and beef bans.

Phrases like “the BSE curse,” “slamming shut borders,” “beef ban,” “borders remain closed indefinitely,” “slammed the door,” “destroy economies,” “prices plummeted,” “tourism troubles,” and “economic fallout” portrayed the impact the mad cow disease had on several economies and other industries. The following passage from a *Los Angeles Times* article was a typical depiction of this economic calamity frame.

Mad cow disease had caused trouble for beef joints like Barberian’s, compounding the SARS-related tourism problems. Business was already 40% off normal with the SARS outbreak, he said, and then came the news of the BSE- infected cow. “I immediately got the phone call from people canceling their dinner reservations, ‘We’re not going to eat beef right now,’ they say. It’s like a true sucker punch.” Barberian said he decided to pull Alberta beef from the menu even though it tastes better than his U.S. beef (Murphy, 2003).

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The economic calamity frame covered many players affected by the disease; however, they were all connected by the concept that mad cow disease has been a negative influence on their profits, sales, prices, or product availability.

The “blame and responsibility” frame focused on the finger-pointing aspect of the mad cow outbreak. Issues like who was at fault for the outbreak, why and how it happened, and who was going to take the blame were covered within this frame. In most articles, the government and regulatory agencies, such as the Canada Food Inspection Agency, were blamed for their poor record-keeping and tracking systems; however, several articles placed the blame on the industry representatives, primarily farmers and ranchers. This frame was the most infrequent frame in the stories. Phrases associated with this frame included “diseased cow far down on the priority list,” “why did it take so long to test this animal,” “we got lucky this time,” “investigation is hindered by gaping holes,” “no legal requirement to keep records,” “inspectors uncertain,” “we could have done more,” and “system is falling short.” The lead from an article in the *Toronto Star* presented a typical description of this frame.

Federal and provincial officials admit the investigation into the source of mad cow infection is hindered by gaping holes in records kept of animals born before a national tracking system began two years ago. The admission comes amid growing calls for Canada to step up testing for bovine spongiform encephalopathy and ban all animal-based feed, with critics saying current practices are putting human health at risk (MacCharles and Lawton, 2003).

The “health risk” frame presented two perspectives regarding health risks. The first subframe was zero health risk. Here, information presented in the articles reaffirmed that the disease was under control, diseased meat never made it into the food chain, beef was safe to consume, and the disease was an isolated case. Words and phrases associated with this frame included “safe to consume,” “number one priority is health and safety of consumers,” “quarantined,” “no threat to health,” “continue to eat meat,” “eating beef is still safer than walking down the street,” and “disease stopped before making it to the food chain.” This frame was typically partnered with the amplified health risk subframe, which linked BSE to the human disease, Creutzfeldt-Jakob Disease (CJD). This frame advised consumers to eat only certain cuts of meat, suggesting that the outbreak was widespread. The recurrent mention of several countries banning Canadian beef also played a large role within this frame. This connection associated the need for a beef

ban with unsafe beef. Words and phrases used to convey this frame included “fatal,” “brain-wasting disease,” “quarantined,” “tainted beef,” “food safety crisis,” “diners leery of beef,” “chronic wasting disease,” “crippling brain ailment,” “risk in consuming certain cuts of meat,” “no cure,” and “transmitted to humans through diseased beef consumption.”

The health risk frame commonly presented both subframes within an article. The following lead from the *New York Times* demonstrates this:

Alarming as it was to learn last week that mad cow disease had appeared in North America, the news could have been worse. Thanks to advances in bioscience and technology, we can now stop an epidemic like mad cow disease, and its fatal human offshoot, Creutzfeldt-Jakob disease, in its tracks (Ridley, 2003).

Again, incorporating words such as “fatal,” “human offshoot,” and “epidemic” portrayed the amplified health risk to readers; however, the overall tone of the passage was positive in saying that the outbreak could have been worse and that the disease had been stopped before it was able to become a risk.

The two subframes from the health risk frame also exposed another important aspect from the articles reviewed; they caused different tones to resonate from the articles. For this reason, it was difficult to determine the overall tone of the article, resulting in most of the articles having a neutral tone. The researchers chose “neutral” as the descriptor due to the presence of both positive and negative information regarding the mad cow disease within each of the reviewed articles.

Though all four frames were present throughout the articles analyzed, the industry crisis (38 out of 62 stories) and the health risk (39 out of 62 stories) frames were the most dominant, appearing in more than half of the articles. The crisis frame was dominant in the Canadian coverage, and the health risk frame was dominant in the U.S. coverage. The supporting frames in this analysis were the economic calamity frame and the blame frame, yet the economic calamity frame was much more prominent throughout the articles of both U.S. and Canadian coverage than the blame frame. It is also important to note that the Canadian coverage used more frames overall in reporting the mad cow outbreak (Table 1).

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Table 1. Frequency of Dominant Frames Within Media Coverage of Mad Cow Outbreak

Newspaper	Industry Crisis	Economic Calamity	Blame	Health Risk
<i>New York Times</i>	7	10	4	15
<i>Los Angeles Times</i>	6	4	1	9
U.S. coverage	13	14	5	24
<i>Toronto Star</i>	11	10	3	6
<i>Winnipeg Sun</i>	14	10	5	9
Canadian coverage	25	20	8	15
Total articles (62)	38	33	13	39

A majority of the Canadian coverage focused on the effects that mad cow disease has had on the Canadian beef industry. Sources used to convey these frames were commonly ranchers and farmers affected by the disease. The researchers believe that a negative tone emerged from these articles, which could potentially cause empathy and support for the beef industry from readers. Almost equally as significant as the industry crisis frame in Canadian coverage was the economic calamity frame. Most commonly associated with this frame was a neutral tone, which indicated that although this disease had a negative impact on several industries, it was not as bad as it could have been, and they could recover without suffering severely.

There was significantly less coverage of the mad cow outbreak in U.S. newspapers than in Canadian newspapers. The majority of the U.S. coverage highlighted the health risk frame. Though inaccurate and not supported by research, the *New York Times* and the *Los Angeles Times* commonly reported mad cow disease as being the cause of a fatal human disease called CJD. Even though these newspapers indicated that meat from the diseased cows did not make it into the food chain, articles generated a negative tone by including that the bovine disease was a threat to human health that can be transmitted through beef consumption.

The economic calamity frame also dominated the U.S. print coverage of the mad cow outbreak. Information surrounding the effects of the disease on both the Canadian and U.S. economies was the driving factor behind this frame. In several articles, the influence this disease had on consumer behavior was cited as a major problem.

Sources used within the articles were divided into nine groups. Table 2 shows the sources of direct quotes. Industry executives included commodity association staff or board members and agribusiness leaders or contacts.

Health care representatives included physicians, veterinarians, and health care spokespersons. Industry representatives included those directly involved in the beef industry: for example, farmers, ranchers, processors, shippers, beef buyers, and butchers. The university scientist group consisted of those who conducted research in an academic environment. Political leaders included those individuals who possessed an elected position in government: political party delegates or leaders, senators, representatives, mayors, and governors. The government official group was comprised of any position within government that was appointed or hired. Sources that represented this group were secretaries of agriculture and U.S. Department of Agriculture spokespersons. Another group was food agency representatives, which were food inspection services or food regulatory agencies, like the Food and Drug Administration. Consumers varied from a pregnant woman to a consumer advocacy group president. Eight articles from the sample did not use a source within the article.

Government officials were relied upon most often for mad cow disease-related information. These were also the sources most commonly associated with the blame frame. Both U.S. and Canadian coverage of the mad cow disease issue used government sources for the majority of the sources of information.

Table 2. *Frequency of Sources for Direct Quotes*

Source of Information	U.S. Coverage	Canadian Coverage	Total
Industry executive	6	4	10
Health care representative	2	5	7
Industry representative	7	11	18
University scientist	2	4	6
Political leader	6	10	16
Government official	12	17	29
Food safety representative	0	2	2
Consumers	3	1	4
Other	6	4	10

Industry representatives and political leaders were also a major source of information used within several of the articles. In most cases, farmers and ranchers were quoted about the negative impact this disease could have and did have on their industry. Industry representatives were commonly associated with the industry crisis frame by mentioning the “embattled industry,”

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or the “devastating effects,” or the “decreased industry survival rates.” The political leaders were used to present their opinion, which was usually associated with the blame frame. However, there were several political leaders who were associated with the economic calamity as well.

Discussion/Conclusion

Primarily through the health risk and industry crisis frames, the Canadian and United States print media framed the 2003 mad cow disease outbreak as having devastating implications for both the cattle industry and humans who consume beef. The health risk frame, more so than any other frame, reported information that was conceivably out of proportion to the real health risk that this disease posed. This frame was most commonly used to report mad cow disease in the American media and is similar to previous findings that suggested that “the possible linkage between a deadly human disease and a food source seemed to make for an ideal media story” (Eyck, 2000, p. 38). Aside from the health risk frame, readers could have also associated the need for a beef ban with unsafe beef and the blame on government inspection agencies for a real crisis situation. Therefore, the ways in which the frames were presented could provoke an element of fear in readers, resulting in a level of uncertainty and, possibly, extreme actions to avoid any contact with the disease.

Despite evidence to the contrary, the health risk frame continually linked mad cow disease to the fatal human disease Creutzfeldt Jakob Disease (CJD). Though this is believed to be a legitimate link, the research to support this claim has not been conducted. Several articles from the U.S. coverage mentioned this link as a fact, possibly misleading their readers and possibly increasing the dominance of the health risk frame. It is also important to mention that this finding is analogous to the results from Poulsen’s (1996) statement based on the European and U.S. coverage of the 1996 mad cow outbreak, which found that European coverage was based on emotions and U.S. coverage on health risk and human illness.

The strong reliance on government officials as a source of information about mad cow disease might be because of the large role that government agencies play in potentially high-risk circumstances like mad cow disease. For example, it was a governmental decision to close the borders to Canadian beef, as well as to provide aid to the beef industry in Canada. The frequency of use of government sources also might have been an attempt by journalists to establish credibility on the issue. However, previous research has indicated that the lay public trusts doctors, scientists, and family/friends most for information regarding BSE, as opposed to the expert and government sources used in the coverage of this risk issue (Smith, Young, &

Gibson, 1998). In addition to the use of government sources, the use of industry representatives as sources of information might have been an attempt by journalists to enhance the sensationalism of the articles by demonstrating the huge impact this disease has had on “struggling” farmers. Despite these assumptions, one general interpretation of the use of all the sources to communicate mad cow disease could be that “journalists often turn essential consumer issues into struggles between major power sources—government, industry, activist groups—again rendering them beyond the reach of the average consumer” (Eyck, 2000, p. 44).

Entman (1991) said that news frames help create the public understanding of an event. The news frames surrounding the 2003 mad cow disease outbreak in Canada can reveal the basic understanding and perceptions of mad cow disease as a health risk and an economically destructive crisis for many industries, particularly the cattle industry. There was a lack of consistency across the messages presented. However, the majority of the messages had a negative tone that primarily alluded to consumers’ need to avoid the meat in question. Nonetheless, what was consistent across the stories was also consistent with coverage from the previous outbreak of mad cow disease and dealt with the level of source information. “The typical situation was to quote sources upstream from consumers, highlight one side over the other, but not give consumers a clear indication of what they should do,” increasing levels of uncertainty and risk (Eyck, 2000, p. 45).

As for industry implications, the framing of this issue potentially could affect perceptions of agriculture in general. Because the beef industry is a large subsector of the agricultural industry, trust in agricultural products in general could be affected by this event. It is very difficult to get an agricultural issue on the media’s agenda. However, when agricultural issues are reported, they tend to be negative in nature, creating an inaccurate schema for the lay public about agriculture. The framing of mad cow disease as a crisis or health risk issue illustrates this notion about agricultural media coverage and could cause harmful repercussions for the entire agricultural industry in addition to the damage it has caused the cattle industry.

Future research needs to compare the framing of the 2003 outbreak with the British media’s framing of the 1996 outbreak. It would be interesting to uncover how another country that has previous experience with this disease framed the issue, primarily to see if the prior exposure to similar information changed their frames. For parallel reasons, it also would be interesting to compare the coverage of the Great Britain outbreak in the 1990s with the coverage of this last outbreak to determine whether the first major encounter with the disease was covered differently than the latest outbreak. Finally,

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another noteworthy framing study could be to expand this study to include coverage in other countries heavily involved in the latest outbreak. Looking at the print media coverage from all the countries that banned Canadian beef—such as Mexico, Japan, and the United States—could reveal how different cultures understand the mad cow disease issue and how they perceive their country's beef ban to affect Canada and their own economy.

"In retrospect the BSE crisis was a debacle from whatever perspective: public health, food safety, food science and technology, politics, economics" and indeed in terms of mass communication (Smith, Young & Gibson, 1998, p. 1119). Overall, the news coverage of the mad cow disease outbreak in May 2003 was negative, potentially causing uncertainty and fear in the Canadian and American lay public. If journalists continue to cover only agricultural news that is problematic or associated with risk—like mad cow disease—then it can be expected that consumers will continue to lack accurate knowledge and understanding of agricultural and food-related issues.

Keywords

mad cow disease, BSE, bovine spongiform encephalopathy, cattle industry, framing, agricultural media coverage

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