

Sources and Framing in  
Print News Coverage of a Water Quality Dispute  
in Oklahoma and Arkansas

(Research Paper)

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## Abstract

This content analysis focused on state and local newspaper coverage of a water quality dispute in Arkansas and Oklahoma. The dispute, which became a lawsuit, centered on water pollution in the Illinois River watershed and involved government officials in Oklahoma and several poultry companies with growers in both Arkansas and Oklahoma. The purpose of this study was to characterize print news coverage in an effort to provide practical feedback for communications professionals on all sides of the issue who were responsible for public communications and media relations. Trained coders evaluated 134 articles from two state and two regional newspapers for sources quoted and key frames. The findings of this study revealed that the attorneys general from both states and employees of the Oklahoma state government were the most successful in getting their statements and, most likely, their key messages published in print news coverage. Conspicuously absent as sources in the coverage were experts from the scientific and academic communities. In addition, most of the articles published were framed as *education* (typically a more neutral frame), though *responsibility* (typically a polarizing frame) was the second most common frame. The *safety* frame (a more neutral frame) was not common in the coverage. Results have important implications for communicators involved in this issue as well as for practitioners and researchers alike who desire to improve media coverage of water quality and other agricultural and environmental issues.

## **Sources and Framing in Print News Coverage of a Water Quality Dispute in Oklahoma and Arkansas**

### **Introduction**

In an age of lawsuits and threats of lawsuits, for an organization to protect its image and reputation in the media is key. Those responsible for protecting organizations' images in the face of highly publicized disputes and lawsuits are normally public relations professionals. These communicators are trained for their primary duty of educating journalists, and journalists rely on timely and accurate information provided to them by PR professionals to do their job each day—that is, write about the news.

Each day, journalists have a multitude of news about which to write. Their decisions about what to cover and how to cover it are important, affecting nearly every aspect of American society by identifying and describing issues of public importance. Additionally, while journalists are bound by ethics to have their readers' best interests in mind, their decisions are often made rather quickly under the pressures of deadlines. Watson (2007, p. 108) succinctly characterized this pressure and the resulting problematic effects on journalistic decisions and media framing: "Deadlines cut things short. Deadlines drop things out."

In making journalistic decisions, journalists exercise their ability and power to "frame" the coverage of particular issues. Framing, in simple terms, is the overall theme of news coverage; it is the angle journalists use to present information to readers (Valkenburg, Semetko, & de Vreese, 1999), and it is journalists' representation of reality (Watson, 2007), filtered by their own schemas.

Public relations in the agriculture industry is significantly affected by media framing, especially because print media plays such a key role in educating the public about agriculture-related issues. One study by O'Laughlin, McGuire, and Carlson (1998), showed that 85% of

residents used a newspaper “sometimes” or “often” to learn about water quality issues. Though that number may be dwindling with the rise of new electronic media, PR professionals in agriculture, as with any other industry, still must develop media relations efforts for print journalists, such as news releases, fact sheets, and press conferences, to encourage journalists to make well-educated decisions as they frame their stories in a way that is most positive for agriculture.

One way to add more reliability to the decision-making process is the examination of case studies of previous agricultural communications efforts. Case studies can provide PR professionals with practical, anecdotal knowledge that could be applied in similar situations in creating more successful campaigns and media relations efforts. By reviewing studies that examine the relationships between information sources and frames in news coverage, public relations professionals can be better prepared to influence journalists’ decisions about how to present the news.

A particularly interesting legal case involving a water quality dispute between Oklahoma government officials and several Arkansas-based poultry companies operating in the Illinois River watershed began in 2005 and continues today. Environmental, political, and legal news related to this case continues to make headlines in state and regional print news sources in Arkansas and Oklahoma. By examining the media coverage in this case, communicators on all sides of the issue, especially those employed by the poultry companies, could benefit from a better understanding of how journalists have framed the coverage to this point.

### **The Case and Its Context**

The Illinois River is designated by the State of Oklahoma as a scenic river. It has significant recreational benefits to the region. Float trips on the river provide about \$9 million

per year in direct economic impact, and Lake Tenkiller, fed by the Illinois River, is a popular destination for fishing, boating, and scuba diving (Soerens, Fite, & Hipp, 2003).

Somewhat in contrast, the portion of the Illinois River watershed lying in Arkansas encompasses an area that is among the leading poultry production regions in the United States. It also exists in one of the fastest growing metropolitan areas in the United States, which includes the cities of Fayetteville, Springdale, Bentonville, and Rogers, plus many smaller communities. Though municipal wastewater treatment plants in the area have been proven to be contributing to high phosphorus levels in the watershed, public attention has focused on the spreading of poultry waste on fields as fertilizer as a major contributor to high phosphorus levels in the Illinois River and its tributaries (Oklahoma Attorney General's Office, 2005). This overabundance of phosphorus, a nutrient necessary for plant growth in water and on land, can cause rampant algae growth in streams and reservoirs if the level is too high. Too much algae can lead to poor water quality and can kill off other aquatic life (Moore, 2005).

To combat this problem, in 2002, Oklahoma adopted a numerical water quality standard for phosphorus in surface water. The standard – 0.037 mg/ L – was adapted from published data by Clark, Mueller, and Mast (2000), who studied the nutrient content of 85 streams across the U.S. and found the highest concentrations and yields of phosphorus in the western and southeastern U.S. Unfortunately, even since the development of the standard, some data suggest that there has been a continuing decline in the quality of water in the Illinois River, and discussions have focused on developing and implementing a similar phosphorus standard in Arkansas (Willet, Mitchell, Goodwin, Vieux & Popp, 2006). Some in the poultry industry believe Oklahoma's standards are unachievable and that the industry is already doing enough to solve the phosphorus problems by following strict nutrient management plans.

Oklahoma Attorney General Drew Edmondson still argued that the poultry industry was not doing enough. In a news story in the *Tulsa World* (Barber, 2005), Edmondson was quoted as saying, “The poultry companies can conduct their business in compliance with the law and remain viable, if they choose to do so, but they have refused to accept responsibility for adequate expenditure to clean up this basin” (p. A1). On June 14, 2005, Edmondson sued eight poultry companies and six of their subsidiaries. Edmondson blamed the companies for polluting the Illinois River watershed with an excessive amount of nutrients found in poultry litter. The resulting print news coverage and public debate has continued to grow, and several groups with much at stake in the debate have used media relations and public relations efforts to establish their public positions.

### **Purpose of the Study and Research Objectives**

This content analysis focused on news stories published in a selection of regional and state newspapers. The goal was to describe characteristics of the print news coverage of the Arkansas-Oklahoma water quality dispute, including sources used, framing, and the interrelationships between these characteristics. The results of this study provide public relations professionals with research-based information that could be used in planning future media relations and media education efforts.

Specifically, the study addressed the following research questions: (1) What sources did print journalists commonly use to get information for a story? (2) What frames were evident in the news coverage? and (3) What interrelationships are evident between the sources quoted and the frames emphasized in the coverage?

## Review of Literature

The key literature related to this study focuses on media framing and source credibility, which have been a part of academic dialogue in journalism for more than 40 years. These long-standing theoretical concepts served as the theoretical foundation of this study.

### *Framing*

Journalists use media frames to report news. McCombs, Shaw, and Weaver (1997) explained that framing describes the particular ways news and information are presented to public. Framing motivates an audience to think about the issue in a particular way. According to Goffman (1974), journalists use “frames (to) organize strips of the everyday world, a strip being an arbitrary slice or cut from the stream of ongoing activity” (p. 10-11). Furthermore, Gamson and Modigliani (1987) offer a similar definition for media frames: a media frame is “a central organizing idea or story line that provides meaning to an unfolding strip of events” (p. 143).

In a study by Valkenburg, et al. (1999), researchers identified how journalistic news frames affected readers’ thoughts and perceptions on two different issues. During the study, participants read two different newspaper stories concerning two socially important issues in Europe. While all of the stories had the same core body of text, the title, opening paragraph, and closing paragraph were edited to reflect a desired frame. Several types of frames emerged, and these frames have now become common constructs in content analysis research. *Conflict* frames emphasize disagreement between individuals, groups, or institutions. *Human interest* frames are personal to the reader or evoke emotion by emphasizing drama. When a news article placed blame or gave credit to a specific individual, group, or institution, it is considered to be framed as *responsibility*. The *economic consequences* frame applies to news stories that frame the news in

terms of the actual or potential economic impact. According to framing theory, these frames have a significant effect on readers' opinions of the news.

### *Source Credibility*

The people in organizations providing information to journalists play key roles in how news is framed. The perceived credibility of key individuals may determine the likelihood that journalists will rely upon them to build their stories (Dunwoody & Ryan, 1987). Galtung and Ruge (1965) (and many researchers since) have shown that journalists affect other journalists' ideas of what is newsworthy. For example, if a journalist decided to write a story about the effects of poultry litter on a river, other journalists might read this story and decide the topic is newsworthy enough to warrant another story in their publications; thus, the topic could be rendered newsworthy for a long time. The same concept could easily be applied to sources journalists quote in news stories. A source's initial appearance in the media – in association with a specific topic – may be enough to establish that person as credible on that subject and lead other journalists to contact that individual and quote him or her.

### **Methods**

This study involved examination of articles published in each state's largest newspaper: *The Daily Oklahoman* and the *Arkansas Democrat-Gazette*. In addition, each regional news publication used in the study was selected based on proximity to Arkansas poultry companies and citizens living in the Illinois River watershed: the *Tulsa World* in Oklahoma and the *Springdale Morning News* in Arkansas. Using Lexis Nexis and individual newspaper archives, researchers collected full-text articles concerning the water quality dispute from each of the newspapers. Two keyword searches were conducted for each of the publications: "Arkansas," "water quality," and "lawsuit"; and "Oklahoma," "water quality," and "lawsuit." Only news or

feature stories addressing the Arkansas-Oklahoma water quality dispute over the Illinois River watershed were eligible for the study, and only articles published after June 13, 2005, and before January 1, 2007, were used in this study. (June 13, 2005, was the day Oklahoma Attorney General Drew Edmondson filed the lawsuit against the poultry companies.)

Six coders – three Oklahoma residents and three Arkansas residents, characterized as educated lay readers – were recruited to evaluate the news stories. The coders were trained to code the news stories them according to a codebook adapted from previous framing studies on agricultural news by Miller, Annou, and Wailes (2003) and Heuer (2005). A definition sheet was developed during training sessions, and the codebook was updated to reflect the definitions. The coders were trained using similar articles from a different case related to water quality, and they worked to reach an acceptable level of intercoder reliability, a Cohen's index (K) level of .77 (Cohen, 1960). According to Landis and Koch (1977), a range of .61 to .80 is of "substantial" strength on Cohen's index.

Finally, the actual Illinois River watershed articles pertaining to this study were distributed at random to each coder. Seven to ten articles were assigned each week for three weeks, and coders used the codebook to evaluate the articles. Sources were characterized by organizational affiliation, and type of position (e.g., job title). Frames, as suggested by Valkenburg et al. (1999), included *economic, education, safety, human interest, responsibility,* and *inconclusive/multiple*. The frames were clearly defined for coders during training. After the coding was complete, the researcher analyzed the qualitative data reported in the codebooks and identified themes and relationships based on the frequencies of the codes reported.

## **Results**

### *Journalists' Sources*

A total of 150 unique sources were quoted in 134 stories. The most frequently quoted sources are listed in rank order in Table 1, along with the sources' positions (e.g., job titles) and affiliations. The most commonly quoted source was Drew Edmondson, Oklahoma Attorney General (42.3%). Janet Wilkerson, the vice president of Peterson Farms and a spokesperson for the poultry industry (25.5%), and Mike Beebe, Arkansas Attorney General (21.2%), were also quoted frequently. Other less frequently quoted sources' positions (not included in Table 1) were educators, politicians, and other.

The types of sources quoted by journalists were categorized into 10 groups by position as demonstrated in Table 2. These specific groups were developed to better illustrate what types of sources (in terms of professional position or job title) journalists used when getting information for a news story. Government executives (79.1%) were the most frequently quoted sources. The attorney generals from each state (64.2%) were the second most quoted sources, followed by spokespeople from various affiliations (58.2%).

The sources quoted by journalists were categorized into 16 groups by affiliation as demonstrated in Table 3. The specific groups were developed to better illustrate the different types of institutions journalists turn to when gathering information for a news story. Sources from the Oklahoma Attorney General's Office (59.7%) were quoted the most frequently in the 134 news stories. Sources from the poultry corporations (49.3%) and sources from the Oklahoma State Government (41%) were also frequently quoted.

Table 1

*Frequency of news stories (N=134) in which the top 16 sources were quoted*

Source	Position	Type of Position	Type of Affiliation	Affiliation	<i>f</i>	%
Drew Edmondson	Attorney General	Oklahoma Attorney General	Oklahoma Attorney General's Office	Oklahoma Attorney General's Office	58	42.3
Janet Wilkerson	Spokesperson	Spokesperson	Poultry Advocacy Organization	Poultry Industry	35	25.5
Mike Beebe	Attorney General (Government Executive)	Arkansas Attorney General (Governor of Arkansas)	Arkansas Attorney General's Office	Arkansas Attorney General's Office	29	21.2
Charlie Price	Spokesperson	Spokesperson	Oklahoma Attorney General's Office	Oklahoma Attorney General's Office	16	11.7
Bev Saunders	Spokesperson Producer	Manager Producer	Poultry Advocacy Organization Poultry Farm	Poultry Partners Poultry Farm	13	9.5
Jerry Hunton	Government Executive	Judge	Arkansas County Government	Washington County	11	8.0
Matt DeCample	Spokesperson	Spokesperson General's Office	Arkansas Attorney	Arkansas Attorney General's Office	11	8.0
Ed Fite	Special Interest Executive	Administrator	Watershed Advocacy Organization	Oklahoma Scenic Rivers Commission	10	7.3
Rick Stubblefield	Special Interest Executive	Commissioner	Watershed Advocacy Organization	Oklahoma Scenic Rivers Commission	10	7.3
Bill Blackard	Special Interest Executive	Chairman	Watershed Advocacy Organization	Oklahoma Scenic Rivers Commission	6	4.4
Mark Simmons	Corporate Executive	President	Poultry Corporations	Simmons Foods	6	4.4
Sam Joyner	Government Executive	Magistrate	U.S. Government	U.S. District Court	6	4.4
Scott McDaniel	Attorney	Attorney	Poultry Corporations	Peterson Foods	6	4.4
Gerald Hilsher	Special Interest Executive	Commissioner	Watershed Advocacy Organization	Oklahoma Scenic Rivers Commission	5	3.6
John Elrod	Attorney	Attorney	Poultry Corporation	Simmons Foods	5	3.6
Mike Huckabee	Government Executive	Governor of Arkansas	Arkansas State Government	State of Arkansas	5	3.6

Table 2

*Frequency of news stories (N=134) quoting sources categorized by position (or job title)*

Position	<i>f</i>	%
Government Executives	106	79.1
Attorney Generals	86	64.2
Spokespeople	78	58.2
Attorneys	38	28.4
Special Interest Executives	31	23.1
Corporate Executives	25	18.7
Producers	25	18.7
Educators	11	8.2
Politicians	11	8.2
Other	7	5.2

Table 3

*Frequency of news stories (N=134) using sources categorized by organizational affiliation*

Affiliation	<i>f</i>	%
Oklahoma Attorney General's Office	80	59.7
Poultry Corporations	66	49.3
Oklahoma State Government	55	41.0
Arkansas Attorney General's Office	39	29.1
Arkansas State Government	29	21.2
Other	28	20.9
Poultry Advocacy Organizations	28	20.9
Poultry Farms	21	15.7
Watershed Advocacy Organizations	18	13.4
Arkansas County Government	16	11.9
U.S. Government	14	10.4
Academia	9	6.7
City Government in Oklahoma	8	6.0
City Government in Arkansas	7	5.2
Political Candidate Headquarters	6	4.5
Other State's Government	4	3.0

Note. Percentages total more than 100% because often more than one source was quoted in a news article.

## *Journalists' Frames*

Through an initial literature review of Valkenburg et al. (1999), the researcher determined five original frames to use in the study: responsibility, economic, education, safety, and human interest. An additional frame, inconclusive/multiple, was added for stories that a frame was not easily recognized or the story represented more than one frame. During coder training, coders determined these six frames were sufficient to describe the frames in this case. This, in itself constitutes a finding. The following frames (presented with their operational definitions for this case) were clearly evident in the print news coverage:

***Responsibility*** – looks for blame or takes blame. It causes the reader to believe someone or something is at fault.

***Economic*** – discusses the profitability or losses caused by the water quality issue or the lawsuit. Economic resources may be in the form of dollars, jobs, or product.

***Inconclusive/multiple*** – the story has more than one dominate frame.

***Human interest*** – takes a humanistic approach. It may include an interview with someone who was sick from the water quality in the Illinois or a producer who is worried about the future of the poultry industry in his/her area.

***Education*** – objectively teaches the audience facts. The story may include informative facts promoting general knowledge for the public.

***Safety*** – informs the reader of safety information regarding the water quality of the Illinois River. It may tell the readers the water quality is safe/unsafe in the river or the measures each side of the issue is taking to ensure the safety of the river.

Describing the prevalent frames of the print news coverage was the first objective of this study. The types of frames appearing in the news stories and their frequencies are reported in

Table 4.

Table 4

*Frequency of news stories using various frames (N=134)*

Frame	<i>f</i>	%
Education	55	41.0
Responsibility	43	32.1
Human Interest	14	10.4
Economic	12	9.0
Inconclusive/Multiple	5	3.7
Safety	5	3.7

The news stories examined most frequently contained the *education* frame (41%). The *responsibility* frame (32.1%) was the second most common frame. These two were clearly the most popular by a wide margin.

*Interrelationships between Sources and Frames*

Table 5 shows the relationships between the affiliation of a source and the frame used to present the story.

Table 5

*Percentages of news stories (N=134) using various frames, categorized by organizational affiliations*

	%					
	Economic	Education	Human Interest	Inconclusive	Responsibility	Safety
Oklahoma Attorney General's Office	2.5	38.8	5.0	3.8	50.0	0
Poultry Corporations	10.6	43.9	6.1	3.0	34.8	1.5
Oklahoma State Government	10.9	49.1	5.5	0	27.3	7.3
Arkansas Attorney General's Office	5.1	38.5	15.4	7.7	33.3	0
Arkansas State Government	0	48.3	24.1	0	27.6	0
Other	7.1	50.0	5.4	7.1	14.3	10.7
Poultry Advocacy Organizations	10.3	34.5	3.4	0	44.8	6.9
Poultry Farms	28.6	9.5	14.3	4.8	33.3	9.5
Watershed Advocacy Organizations	11.1	61.1	5.6	5.6	5.6	11.1
Arkansas County Government	6.3	25.0	31.3	12.5	25.0	0
U.S. Government	7.1	64.3	0	0	28.6	0
Academia	22.2	77.8	0	0	0	0
Cities in Oklahoma Government	0	37.5	0	0	62.5	0
Arkansas City Government	57.1	28.6	0	0	0	14.3
Political Candidate Headquarters	0	83.3	0	0	0	16.7
Other States' Government	0	0	0	0	100.0	0

Note. Percentages may not total 100% because of rounding.

When an article contained a quote from the Oklahoma Attorney General's Office, the article was framed *responsibility* 50% of the time, and *education* 38.8% of the time. When an article contained a quote from the State of Oklahoma it was framed *education* 49.1% of the time

and *responsibility* 27.3% of the time. When articles contained quotes from the poultry corporations, 43.9% of them were framed *education* and 34.8% were framed as *responsibility*.

## **Conclusions and Implications**

*What sources did journalists use to get information for a story?*

As one might expect, among the most commonly quoted sources were the sources at odds in this public dispute—namely the Oklahoma Attorney General’s Office, the poultry corporations, and the Arkansas Attorney General’s office. An interesting note to this conclusion is that sources representing the Oklahoma Attorney General’s Office (59.7%) and Oklahoma state government (49.3%) were quoted in considerably more articles than sources associated with the Arkansas Attorney General’s Office (29.1%) or Arkansas state government (21.2%). If O’Laughlin et al.’s (1998) explanation still holds true, and the general public does, indeed, gather most of its information about water quality issues from newspapers, then the Oklahoma Attorney General’s office likely benefited in terms of publicity from communicating its side of the issue in more stories than any of the other organizations involved in the dispute.

The positions of the quoted sources are equally noteworthy. Government officials were the favorite sources of reporters, followed by the attorneys general. It seems significant that the high-level officials were quoted even more often than their appointed spokespeople in this case. Whether this was a result of various media relations efforts or not can not be determined. It is possible journalists used these particular sources so frequently because they were the best sources of information and recognizable to the public, or perhaps these high-profile figures purposefully made themselves available to journalists. Either way, the attorneys general from both states and employees with the Oklahoma state government were the most successful in getting their names – and most likely their key messages – published.

Even more conspicuous was the absence of expert scientific sources in this coverage. Educators, including university faculty members, Extension employees, and researchers, whose opinions on agricultural issues are generally valued by journalists for their expertise, credibility, and objectivity (Vestal and Briers, 2000) were among the least frequently quoted sources in this case. This seems to contradict Dunwoody and Ryan's (1987) assertion that perceived credibility influences the likelihood of sources being quoted. It is possible, but not verifiable by this study, that the emotional nature of this issue led journalists away from the more objective scientific sources toward the more volatile political sources.

Because this lawsuit involved many different types of organizations and people and because this lawsuit was still occurring during an election year, it is necessary to discuss how the roles and aspirations of a few of the key players might have impacted their being a prominent source in the lawsuit's media coverage.

Mike Beebe, now Governor of Arkansas, was, during the time frame of this case study, serving as Arkansas Attorney General when Drew Edmondson filed the lawsuit. Although the suit was not directed at the State of Arkansas, Beebe's role was to protect the rights of the Arkansas producers. In June 2005, during the same time Edmondson was engaging the lawsuit against the poultry industry, Beebe announced he would enter the 2006 Arkansas gubernatorial race (Blagg, 2005). While still fulfilling his duties as Arkansas Attorney General, Beebe surely had to be concerned about his image in the media, and a logical explanation is that this concern prevented him from being as vocal as other key players. While Beebe was quoted in 21.2% of the news articles, his quest for governor could have hindered his ability to become more involved in the lawsuit.

Another key player not directly involved in the lawsuit but still associated with the issue was Oklahoma Farm Bureau, an agricultural advocacy organization that protects the interests of farmers and ranchers. Since some of the farmers who work for the poultry companies named in the lawsuit reside in Oklahoma, one would expect this agricultural organization to be a lead force in settling this lawsuit. However, OFB most likely had to be politically cautious about feuding with the Oklahoma Attorney General's Office because of other issues involving agriculture and natural resources in Oklahoma depended on the Attorney General's support. This could possibly account for the absence of quotes from OFB officials in this case.

*What frames were evident in the news stories?*

Following the lead of Valkenburg et al. (1999) and Heuer (2005), six frames were identifiable by coders in the news stories: *education*, *responsibility*, *economic*, *human interest*, *safety*, and *inconclusive/multiple*. The education and responsibility frames were the most common. Combined, they accounted for 73.1% of the news stories. Safety and inconclusive/multiple were the least commonly reported frames (3.7%).

Because this study examined news coverage surrounding a water quality dispute and lawsuit, in which at least three groups of people were placing blame on one another, one would expect the most frequent frame to be *responsibility*. However, the most frequent frame found by coders was *education* (41%). This is likely the result of both fair reporting and quality public relations efforts on all sides of the issue. Heuer (2005) found that the frames most commonly found in stories with neutral articles were education and safety. Therefore, public relations officers should have been providing information promoting these frames to assist journalists in writing fair and neutral articles. The other frame commonly associated with neutral reporting – *safety* – was conspicuously absent in many stories. Public relations professionals on all sides of

the issue may have been more concerned about making sure the facts of the lawsuit were reported in the news stories than informing the public about the safety of the water. Also, it can be inferred that since there were no reports of people getting sick from the water, public safety was not an urgent topic for public relations professionals to focus on.

On the other hand, *responsibility* was the second most commonly coded frame. The Oklahoma Attorney General's Office, which filed the lawsuit, was quoted in 59.7% of the news stories. The poultry corporations, the defendants in the lawsuit, were quoted in 49.3% of the news stories, and each made arguments about where the blame for elevated phosphorus levels in the Illinois River should lie. Likewise, because representatives of these two opposing sides of the issue were the top two sources quoted in news stories, it is understandable why the second most frequent frame was responsibility (32.1%). In a case study about a lawsuit, it would be surprising *not* to find articles that placed blame on one side because of the accusations made in the lawsuit. It is no secret that controversy sells, and since selling publications is a driving factor in determining the news each day, some editors and journalists may feel it is necessary to depict this turmoil in their stories and newspapers to engage readers.

As McCombs et al. (1997) have noted, public opinion of specific issues has been linked to the media coverage of those issues. If this is true in this study, then the public may be accurately informed and able to form educated opinions about the issue. Furthermore, public perception of an issue can be cognitively influenced by how the issue is covered in the media, so if *responsibility* was the second most frequent frame, it may be likely that much of the public has already taken a stance on who is to blame.

*What interrelationships existed between sources and frames?*

Sources affiliated with three main groups were quoted most often in the news stories: the Oklahoma Attorney General's Office, poultry corporations, and Oklahoma state government. When someone affiliated with the Oklahoma Attorney General's Office was quoted, 50% of the news stories were coded as having a *responsibility* frame and 38.8% of the news stories were coded as having the education frame. However, when someone affiliated with the poultry corporations was quoted, 43.9% of the news stories were framed *education* and 34.8% were framed *responsibility*. Likewise, when someone affiliated with the Oklahoma state government was quoted, 49.1% of the news stories were framed *education* and 27.3% were framed *responsibility*. These comparisons are highly telling and may indicate the communications goals of those involved in the dispute. The Oklahoma Attorney General's Office seemed to have been successful at influencing coverage to focus on who was responsible for Illinois River pollution and on educating the public about the issue. The presence of quotes from representative of poultry companies was somewhat less effective at influencing framing in the stories, but *education* and *responsibility* were the most common frames associated with quotes from this type of source.

### **Recommendations for Practice**

The findings in this study provide practical implications that could improve the success of public relations efforts of poultry companies and organizations. One main point this study makes is that journalists in this case turned to knowledgeable and first-hand sources for information. As seen in the data, no two sources had more information (and more quotes) about the suit than the two parties involved in the suit. Since Galtung and Ruge's (1965) concept that journalists affect other journalists' ideas of who is credible is probably still true today, then public relations professionals must plan ahead to make sure the first sources to talk to the media

are the faces they want associated with their side of the issue because these few people have a good chance of being interviewed by other journalists and becoming connected to the issue. It is inferred from the data that the Oklahoma Attorney General's Office and the poultry corporations succeeded in referring credible sources to the media. Because 14 entities were named in the lawsuit, the poultry industry apparently made a wise decision in naming a spokesperson – Janet Wilkerson – and letting her speak for the poultry industry as a whole instead of each company employing an individual representative to get its messages in the media.

The public relations professionals involved in this particular lawsuit should reexamine the objectives they began with when introducing this issue to the media. The data provided in this study may provide some insight regarding whether they succeeded in getting their stories framed in a particular way. The analysis certainly demonstrates the presence of certain frames in the coverage, namely *education* and *responsibility*, as well as one important frame that was missing from the coverage—*safety*. This characterization should be useful for journalists and public relations professionals alike in making future decisions about media relations and journalistic coverage of similar issues.

Additionally, the conclusions of this study indicate which sources journalists covering this issue considered valuable, credible, and newsworthy. Dunwoody and Ryan's (1987) assertion that journalists search for such sources demonstrates why findings related to sources used in this case are invaluable for public relations strategic planning among poultry companies and government agencies. Specifically, the ability to refer journalists to the sources they desire is important to ensure fair, objective coverage, but also the ability to affect the tone of coverage by referring journalists to certain sources is an important aspect of good public relations. Furthermore, this study showed that public relations professionals in the poultry industry may be

missing an opportunity by not referring journalists to expert scientists and educators in university settings, who may be able provide more objective, less emotion-laden information about the issue and therefore affect the framing and tone of the coverage.

### **Recommendations for Further Research**

Based on the conclusions and implications of this study, the researchers feel further investigation is needed. A replication of this study in other animal agricultural industries facing environmental lawsuits and public scrutiny would be beneficial. Also, evaluating news releases and other public relations efforts distributed by each of the sides involved in the dispute could help determine which public relations practices were most successful. A survey of readers of the four newspapers used in this study could help determine how print media has actually influenced these people's opinions of the water quality dispute. Finally, a similar study could be conducted using different forms of media including web sites, television, and blogs to determine if different media frame stories differently or consider other sources more credible.

### **Final Commentary**

Media influence will only become stronger as more types of media evolve. With the advent of blogs and RSS, public relations practitioners have already seen the need to evaluate their communications efforts and to change with the times. While media outlets may change, it is likely that a newsworthy issue, a credible source, and the right angle on the story will always be a sound combination to get journalists' attention.

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