Conservative and Progressive Papers' News Presentation of the U.S. Beef Imports Issue:
Analysis of Sources in Korean Newspaper Articles

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Abstract

This study explores the source usage of three conservative and two progressive newspapers in Korea over the issue of beef imports from the United States. The purpose of the study is to understand the tendency of newspapers on both sides, which induced much turmoil, including huge demonstrations against the government in the middle of 2008. The results of a quantitative content analysis show that progressive newspapers employed more sources and presented the issue more negatively than conservative newspapers. In particular, progressive papers used more negative information, especially from experts, NGOs, and citizens, while the conservative papers used more positive information. In terms of information credibility and valence, the progressive papers effectively used NGO sources, which are situated in the middle of source credibility order, to present a negative tone. The order of credibility is as follows: experts (most credible), followed by judiciary, administration, parliament, NGOs, commercial businesses, and citizens (least credible).

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Introduction

The news media are supposed to provide cognitive and affective information to help people better manage their lives (Brooks et al. 2004). This notion supports the idea of public service journalism; that is, the news media must offer reliable information for people to be free and self-governing (Kovach and Rosenstiel 2001). Audiences generally believe this to be the function of media (Robinson and Kohut 1988). Based on the people's belief in the credibility of information, media can affect people's cognition, attitude, and behavior (McCombs 2004), because credibility can enhance the level of persuasion (Berlo, Lernert, and Mertz 1980). Additionally, credibility augments the chances for media to survive the fierce competition for public attention in that it provides the platform upon which the media make financial profits (McManus 1992). If the information provided by some media is not credible, people will leave them and switch to other forms of media, hence they will lose their means for profit. Therefore, news credibility is important for the media, not only to perform their public service duty, but also to generate revenue. Looking at the 2008 dispute in Korea over beef imports from the United States, the authors of the present paper became curious whether Korean news media offered credible information to the public. More precisely, as argued by many scholars on the effects of media (Fiske and Taylor 1992; Zaller 1992), we could presume that the media influenced the public, but we were not sure whether it was based on credible information.

According to news reports and some journalism scholars in Korea, the conflict began when the government decided to import U.S. beef in early April of 2008 (Hwang 2008; Lee and Koh 2009). However, this was not the first time Korea imported U.S. beef; rather, it had officially been importing U.S. beef since the 1990s. The importation had been halted, however, because of potential contamination with bovine spongiform encephalopathy (BSE), commonly known as mad cow disease, with imports resuming and ceasing sporadically. The 2008 resumption was made after a five-month embargo. The

government decision was officially confirmed in an announcement by the Korean president, Lee Myung-bak, and then U.S. president George W. Bush when President Lee visited the United States for their first summit, a week after the decision to resume imports. At the time, however, concerns over the safety of the U.S. beef were not yet cleared.

Following the government decision and the announcement from the two presidents, the Korean media reported on the chronic and unresolved problems of beef safety. So-called progressive newspapers went on the attack, chastising the government for making a hasty decision without considering people's health. On the other hand, the "conservative" newspapers took position against the progressive newspapers, reporting that there was no clear scientific evidence of danger in the imported beef, and as such there was no reason for Koreans to give it up since it was cheaper than the local product. Initially, the conflict was based on the scientific explanation underlying the imported beef's safety. The conservative and progressive newspapers each offered different information with regard to the possible relationship between consumption of imported beef and people's health. However, the information began to be affected by the political orientations of the newspapers. The progressive newspapers in Korea are often considered to have an anti-U.S. bent, while the conservative newspapers are thought of as relatively pro-U.S. (Lee and Koh 2009). With the wide variety of stories making their way to the printed page, audiences grew more confused. This confusion escalated into a national turmoil that lasted more than three months (Kim and Park 2008; Joo and Chung 2008).

Although the conservative and progressive newspapers reported the information in a divergent, conflicting manner, presentation can be largely divided into either support for or opposition to the import of U.S. beef. This same division was reflected in the readership of these news stories. Some opposed the government decision because of U.S. beef's potential contamination with mad cow disease, but others supported it because of little scientific evidence of contamination and its relatively cheap price. People who believed the reports offered

by the progressive newspapers took to the streets of Seoul in peaceful, candlelit marches, and asked the government to guarantee the safety of the beef. The government tried to hinder the demonstrators through official police operations, and the conflict worsened. The rally participants and riot police clashed on the streets. People who supported the government also began to hold rallies to voice their position. Both sides fought against each other on the streets, and the dispute developed into a nationwide turmoil. Following this conflict, the Korean government held further negotiations with the United States, which agreed to imposing stronger examination standards for beef. Although it was not clear whether Korean citizens were fully satisfied with the new terms, the issue slowly disappeared from the newspapers and demonstrations ceased.

Many communications experts in Korea pointed out that the turmoil, which allegedly started with inappropriate, unilateral decision making by the government, was exacerbated by the newspapers' conflicting presentations and different news media likely had an impact on the conflicting and different attitudes of the general public (Hwang 2008). As journalism scholars, the authors of the present paper felt obligated to investigate the credibility of news presentation. If the newspapers influence audience attitudes, it is important to know whether the news information is derived from credible sources, since news can help construct social reality in the mind of its audience (Tuchman 1978). Generally, people rely on news information in order to understand the world, as they cannot directly experience every event or issue. Thus, if the news information is not credible or reliable, citizens may perceive the world in a manner that is incorrect, causing the world to appear distorted or skewed (Gans 1979).

To explore the credibility of news information, the current paper investigates the use of sources by the Korean newspapers, as these sources play an essential role in news production (Brooks et al. 2002; Mencher 1991; Rich 2003). Specifically, the paper will analyze what kinds of sources were used by conservative and progressive newspapers, differentiated in terms of credibility. The source credibility order in the analysis will be established by generally following the

methods of previous studies in this field (Detjen et al. 2000; Yoon 2005). At the same time, the paper will also examine the tone of source information to show the reporting tendencies of those newspapers. We hope that this investigation will allow us to better understand the political orientations of Korean newspapers, which have been recognized but seldom tested by empirical examination. This discussion will explore the use of sources of the conservative or progressive newspapers in order to build their respective political points of view, based on the sources' level of credibility.

The current study is closely related to the research article (Lee and Koh 2009) published in *Hanguk eollon hakbo* (Korean Journal of Journalism and Mass Communication Studies), which is written in Korean by the present paper's authors. However, this paper is different from the printed article which microscopically scrutinized the political perspectives of five individual newspapers to determine their order of political stances from the most conservative to the most progressive. The current study examines the collective political orientations of three conservative and two progressive newspapers as groups. We conducted a few studies to explore various aspects of media political standpoints by using same data pool but different approaches. Therefore, some methods, including coding schemes employed in this study, may be similar to those of other studies such as Lee and Koh's 2009 article in *Hanguk eollon hakbo.*

Nature of News Information Given by Sources

The news produced by journalists is supposed to include relevant, useful, and interesting information to engage its intended audience. Journalists are professionals who look for such information and decide whether it is worth reporting (Brooks et al. 2004). Once they find issues or events they deem newsworthy, however, they usually rely on a small group of people when they decide how to transfer the message to their readers or viewers (Lacy and Coulson 2000). Reporters generally are neither experts on nor firsthand observers of

every issue or event (Sigal 1986); even if they find something they
consider newsworthy, they want to verify if their decisions are cor-
rect, based on the knowledge and testimony of specialists and first-
hand witnesses. Those with special insight or experiential knowledge
are called sources (Gans 1979). By relying on these sources, journal-
ists are able to construct a world in the minds of the audience (Lipp-
mann 1922). When a source provides information to a representative
of the media, that representative transfers the message to the audi-
ence; the general audience, who are neither experts nor direct eye-
witnesses of issues or events and do not have the access that journal-
ists do, accept the information. In the end, the audience believes in
the world outside as it has been presented in the news stories.
Sources play a pivotal role in news production. Sigal (1986, 15)
portrayed the essential function of sources as "News is not what
happens, but what someone says happened or will happen." Schud-
son (1978) also explained the importance of sources by stating that
news production began with sources, and they were the first draft of
journalism.

While sources are believed to play an important function in news
stories, the news itself eventually constructs social reality in the audi-
ence's mind, and most people generally believe that media reports
are true (Tuchman 1978). However, many journalism and communi-
cations scholars doubt the media news really meets the audience's
expectations. They suspect the trustworthiness of news offered by
media outlets which are also obliged to pursue their own political or
financial interests (Entman 1993; Hayes, Singer, and Ceppos 2007;
Shoemaker and Reese 1996). They argue that the journalistic norms
of public service are influenced not only by the media's political ori-
entations, but also by individual journalists' personal or societal prej-
udices. Although Gans (1979) admitted that the power of media
influences people's attitudes, he was suspicious whether the media
are doing their job properly because of the biases of media and their
employees. Even though some scholars argue that media have been
recognized to offer credible information (McNair 1998) or that media
should provide objective and trustworthy news (Schudon 1995),

Tuchman (1978) attacked the journalism practice wherein the media disguise their subjectivities with superficial objectivities or truth they could never get when they publish news stories.

However, even with such criticism, other scholars studied the efforts made in the journalism field to comply with the audience's expectations about news credibility (Abel and Wirth 1977; Gantz 1981; Gunther 1992; Johnson and Kaye 1998). Although it is not plausible for journalists to meet some idealized level of news credibility, the researchers analyzed the challenges faced by journalism practitioners in achieving such a goal. One of the scholars' approaches was to scrutinize the credibility of sources appearing in news stories, considering the source is the core of news production (Klaidman and Beauchamp 1987; Wathen and Burkell 2002; Wilson and Sherrel 1993). Therefore, it is reasonable to study source credibility to appreciate the credibility of the news itself.

Traditional source studies go back to the early 1950s, when Hovland and Weiss (1951) and Hovland, Janis, and Kelly (1953) introduced expertise and trustworthiness as the two most reliable characteristics of sources. Expertise here pertains to the specialty of sources based on how they conduct tasks relating to the issue of concern. Trustworthiness is the honesty of sources based on how candidly the sources converse about the issue. These two attributes have evolved and been refined to become major tools of source credibility measurement for news articles. Sigal (1973) and Brown et al. (1987), who studied the source use of the *New York Times* and the *Washington Post*, found that the newspapers mainly rely upon official informants, and argued that the media tend to use traditional channels to make their stories more reliable. Those specific sources frequently appeared not only in the major newspapers but also in the local newspapers (Soloski 1989), news magazines (Gans 1979), and television news (Berkowitz 1987). Gans (1979) also wrote that famous figures appeared in news stories repeatedly.

In addition to studying the frequency of appearance of sources and their relationships with news credibility, refined tools for measuring news credibility have also been developed. The expertise and

trustworthiness, Hovland and his colleagues' two main characteristics of credibility in the 1950s, were expanded to twelve categories of news credibility (Gaziano and McGrath 1986). Meyer (1988) summarized the twelve categories to produce an index of five items (accuracy, fairness, trustworthiness, bias, and completeness) to measure the credibility of news itself. The index was also used to estimate source credibility (McComas and Trumbo 2001). Based on such indices, some scholars paid attention to sources other than official figures and expanded the scope of sources, which can be differentiated in the order of credibility. Along with the studies, experts were highlighted among the most important sources in terms of credibility (Greenberg 1966; Priest 1995). These scholars portrayed an expert as a specialist who has the ability to explain issues of concern professionally, scientifically, or systematically. The expert was believed to be the most credible source in the news about science and crisis, such as with the safety of U.S. beef imported to Korea. Like official informants from the public sector, experts are recognized as highly qualified and more credible than other sources, such as ordinary citizens (Gans 1979; Hansen 1991). Experts even surpassed official informants in terms of credibility, because government personnel are often connected to political sectors with special interests. Therefore, Detjen et al. (2001) introduced the order of source credibility, citing university sources as the most credible, followed by government, advocacy organizations, and business sources. Including university sources in the category of experts, Yoon (2005) suggested that these experts are the most qualified and credible sources, and followed a similar order to Detjen et al.

Besides the credibility study, there is another dimension to news research, focused on the tones or hues of information (Kim et al. 2002; Kiousis et al. 1999; McCombs 2004; McCombs et al. 2000). Scholars studying this function of news information regarded the tones or hues to be specifically important in terms of public opinion-making because they can affect the attitude and behavior of audiences. While the facts mainly influence the audience's cognitive ability, the tones or hues of information can lead the audience's affective attitude in a certain direction (Shah et al. 2008). Although it is still

debatable whether we can find a clear-cut division between human cognition, attitude, and behavior, scholars measure these categories separately (Lee 2005). Research on information tone in communication or journalism studies is built upon the classic approaches of psychology, which lends to the use of the term "valence." In psychology, valence generally "refers to the 'positive' or 'negative' character of an emotion as well as to the 'positive' or 'negative' character of some aspects of emotion" (Colombetti 2005, 103). Psychologists largely believe that people's emotions about things are closely related to their values, and the "value," which is a main attribute of human opinion, is created by the function of preference (Hilmert et al. 2006). Preference refers to the degree of liking something, and it can be translated into positive, neutral, and negative attitudes about it (Suls et al. 2000). Adopting such rationale, journalism scholars modified the meaning of valence into the positive, neutral, or negative character of information presented in the stories (McCombs 2004; Yoon 2005). They consider that the tones or the valences of the information can affect the audience's attitude and opinion (Fan 1988; Ghanem 1997; Price and Tewksbury 1997). This is very important in order for us to understand the news featured in the media, especially with regard to the U.S. beef imports in Korea, because it was believed to be one of the hottest national issues, and the audience's opinion or behavior may well have been tempered by news information, for better and worse (Hwang 2008).

In the same way that it is difficult to differentiate between cognition and attitude, it is also difficult to distinguish the facts from valence in the information. Although scholars measure them separately, facts and valence are inherently intertwined (McCombs 2004). If factual information given by credible sources is accepted as true by a given audience, the valence of the information can be believed to be true as well. Thus, we believe it is critical to investigate news information on the issue of U.S. beef imports in terms of credibility and valence of information given by the sources. During three months of social disturbance over the issue, Korean newspapers reported heavily on various aspects of the event by using diverse

sources. However, they seemed to deliver different sides of the issue. Depending on the political perspective of the newspaper, conservative media were believed to report that imported beef was safe, but progressive papers wrote otherwise. Audiences heard conflicting facts and opinions about beef safety from various sources and newspaper articles. Consumers were confused and uncertain about the safety of beef, even up to the time this research paper was being written.

We decided to examine how various media used sources in terms of the credibility level and valences of information given by the sources. Even though the goal of this study is not to prove which of the conservative and progressive newspapers offered the "right" information, we hope that we can empirically understand the newspapers' political orientations, which can be deduced from the information provided by their sources.

Research Questions

The central question investigated in this paper is how newspapers reported on the beef import issue. More specifically, it is about which newspapers provided factual reports based on credible sources. This question can be addressed in terms of two factors: frequency of credible sources appearing in newspaper articles, and valence of the information given by the sources. The detailed research questions are as follows: first, in terms of frequency, how did conservative and progressive newspapers use sources whose credibility level varies in their news presentations? (RQ1); and second, in terms of positivity and negativity, how did the newspapers present the information given by the sources? (RQ2)

Methods

Based on established political orientation, five central Korean newspapers were analyzed for the present study. They are the *Chosun*

Ilbo, *JoongAng Ilbo*, *Dong-A Ilbo*, *Hankyoreh*, and *Kyunghyang Daily News*, among which the first three papers are known as conservative papers, and the latter two recognized as progressive ones (Lee 2006; Yoon 2002). The conservative papers are believed to ascribe to the norms of mainstream capitalism, while the progressive newspapers are recognized to adopt politically radical stances quite different from the market-oriented perspective taken by their conservative counterparts (Lee and Jung 2008; Yi 2008). Although media news is supposed to be impartial, the practice of journalism does not always follow these rules. The media, furthermore, become active political players by projecting their own agenda (Perloff 1998). In Korea, many scholars have become interested in the political orientations of newspapers, especially with the 1988 advent of the progressive paper, *Hankyoreh* (Lee 2006). Often, however, study results were not reported in an empirical way, but rather in a descriptive manner. We hope that by using statistical analysis, we can propose additional explanations to better understand the trends in Korean media.

This paper used the front-page articles of these five newspapers for analysis, since the first page contains the most important issues of the day, which news institutions believe represent their own news judgment standards (Blood and Phillips 1997). The front-page stories were published in the six-month period from April 11, when the Korean government's decision to resume importation of U.S. beef was first reported, and lasting until October 10, 2008. The number of articles addressing the beef import issue in the five major newspapers totaled 459. These articles were examined by quantitative content analysis to compare how conservative and progressive newspapers reported on the matter. Although the peak point of the confrontation was in early July, and related stories appeared sporadically after this point (See Table 1), we decided only to collect six months' worth of stories in accordance with typical information gathering practices found in related literature (Lee and Jung 2008; Yoon 2002).

This paper uses synthetic information from each sentence given by individual sources in a story as a unit of analysis. The synthetic information includes a fact or opinion projected by the source. The

number of sources counted for RQ1 indicates the amount of synthetic
information appearing in sentences given by individual sources. The
valence of sources measured for RQ2 was estimated by the positivity,
negativity, or neutrality of the synthetic information appearing in the
sentence given by the source. Even if a sentence contained several
words that could also be interpreted as information, we did not con-
sider them to be units of analysis because every single word cannot
represent the number of sources, which is crucial to exploring the
RQ1. Furthermore, they can conflict with each other in terms of
information tone, thereby preventing the authors from measuring the
contextual tones of the information. To examine the overall tone of

Table 1. Number of Stories and Sources Related to Beef Imports*

Dates	Conservative Newspapers				Progressive Newspapers			Total
	Chosun	*Joong-Ang*	*Dong-A*	Sub-total	*Han-kyoreh*	*Kyung-hyang*	Sub-total	
April 11–May 10	12 (37)	13 (40)	10 (30)	35 (107)	18 (44)	14 (38)	32 (93)	67 (200)
May 11–June 10	29 (65)	28 (68)	27 (70)	84 (203)	44 (145)	35 (126)	79 (271)	163 (474)
June 11–July 10	35 (94)	32 (104)	41 (92)	108 (290)	43 (152)	34 (133)	77 (285)	185 (575)
July 11–Aug. 10	5 (10)	7 (20)	10 (24)	22 (54)	10 (24)	3 (8)	13 (32)	35 (86)
Aug. 11–Sept. 10	0 (0)	2 (5)	1 (1)	3 (6)	4 (16)	0 (0)	4 (16)	7 (22)
Sept. 11–Oct. 10	2 (6)	0 (0)	0 (0)	2 (6)	0 (0)	0 (0)	0 (0)	2 (6)
Total	83 (212)	82 (237)	89 (217)	254 (666)	119 (392)	86 (305)	205 (697)	459 (1,363)

* The number outside the parentheses is the number of stories; the number inside the
  parentheses is the number of sources appearing in newspapers for the designated
  period of time.

the information in a sentence is very critical for RQ2. Although news frames exploring media's news selection strategies were frequently studied by investigating individual articles or assertions (McCombs et al. 2000), examining individual sentences seemed to be more suitable than other methods for the purpose of this paper.

We have borrowed Detjen et al.'s (2000) tool and Yoon's (2005) standards for examining the level of sources' credibility, and modified them to establish seven basic categories. Each level was decided in the order of the sources' professionalism and economic impartiality with regard to the issue, as with previous studies of related topics (Detjen et al. 2000; Yoon 2005). Experts were people acquainted with the concerned issue on a scholarly and/or professional level and had no economic or commercial interests. They included university sources as the most credible, followed by the government, as in Yoon's study of sources and journalists' perceptions (2005). However, as is the case of earlier research, some sources, such as professors and doctors, who were generally considered experts, were not coded for the expert category in this study if they were affiliated with other groups, such as NGOs or the government. Government, which was considered the second-most credible source in previous studies (Detjen et al. 2000; Yoon 2005), was expanded and divided into three entities in the present study: judiciary, administration, and parliament. Based on their characteristics and relationship with the beef import issue, the judiciary was most credible because it made more technical decisions based on the established laws. It was followed by administration, which offered the official government information on the issue. This information was generally believed to be professionally confirmed by authorized specialists, even though it tended to support the imports. Last was the parliament, which was mainly divided into ruling and opposition parties' data rooted in their political orientations. For the levels of NGOs, commercial businesses, and ordinary citizens, this paper simply followed the standards of previous studies (Detjen et al. 2000; Hansen 1991; Yoon 2005). Sources that could not be included in these categories were coded as "other."

The credibility levels of the three power groups must be inter-

preted very carefully because there are few clear guidelines to gauge their credibility in earlier studies. Specifically, the judiciary and parliament were not major sources in the area of credibility research. However, we could neither leave them unnoticed nor put them in the category of "other" because the 250 parliamentary sources and 68 judiciary sources in this study outnumber other categories. Additionally, the credibility level of NGOs must be discussed for this specific study in light of substantive NGO opposition to the government resumption of American beef imports. They championed their cause by using selective information. At the same time, we did not think it was right either to arbitrarily put one source first in terms of credibility level without considering the results of previous studies. The same rationale also worked for the relationship between NGOs and the judiciary and parliament. Ultimately, we decided to first analyze them and to discuss the results in the conclusion section later. Based on this, the authors counted the number of sources in each category to examine how the conservative and progressive newspapers used the sources.

At the same time, the valence of sources' information in news stories was measured in terms of the pros or cons of American beef imports. If the overall information given by a source in a sentence was in support of the beef imports, it was coded as pro-import; if the information supported continued bans on import, it was coded as con; and if impartial, it was coded as neutral. For example, if a source said in news stories, "We know that the government agreed to import U.S. beef" in news stories, it was regarded as factual information and coded as neutral. If a source said, "We support the decision," it was coded as pro, and if a source said, "We believe it is dangerous to eat the imported beef," it was coded as con. While the number of valences was counted, each example of information in favor, or pro-import, was transformed to plus (+1), negative, or con-import, to minus (–1), and impartial to zero (0).

The categories for individual coding units were prepared and established through pilot studies to find potential disagreements among the three coders employed for this study, who were graduate

Table 2. Inter-coder Reliability

	A-B	A-C	B-C	Mean
Source Identity	0.929	0.921	0.931	0.927
Source Valence	0.706	0.754	0.754	0.738
Mean	0.817	0.837	0.843	0.832

students of a university in Seoul, Korea. Authors randomly chose 10 percent of the 459 stories and asked each coder to apply the coding scheme. When they reached incongruity in coding certain categories, they were allowed to discuss them with the authors to resolve the problem. The original coding scheme was modified until a substantial degree of intercoder reliability was met. The intercoder reliability based on the finalized coding scheme was 0.832 (Cohen's Kappa) (see Table 2). Then, each of the three coders evaluated the beef import-related news articles independently.

Results

Research Question 1: Number of Sources

Over the course of six months, 1,363 pieces of information given by sources were included in beef import-related news stories on the front pages of target media. Three conservative newspapers presented 666 kinds of information in 254 stories, and the two progressive newspapers brought 697 kinds of information to 205 stories. When the net number was divided into source categories, more cases of information from the administration, businesses, and others categories were provided by conservative papers than by progressive ones; the progressive newspapers presented more data from the five other categories. However, because the total number of stories was different between the conservative and progressive papers, independent t-tests were conducted to statistically compare the source usage,

*Table 3. Number of Sources Used in Beef Import-related News Stories
and Comparison between Conservative and Progressive Newspapers*

	Conservative Newspapers	Progressive Newspapers	Mean Difference	S.D.	D.F.	T-Value
Experts	39	54	0.109	0.628	457	1.884
Judiciary	33	35	0.041	0.529	457	0.822
Administration	271	223	0.011	1.340	457	0.087
Parliament	116	134	0.218	1.092	457	2.093*
NGOs	94	163	0.410	1.034	457	4.178**
Businesses	45	21	−0.078	0.464	457	−1.838
Citizens	64	65	0.085	0.951	457	0.949
Others	4	2	−0.006	0.159	457	−0.395
Total	666	697	0.796	1.883	457	4.411**

$*p < 0.05$; $**p < 0.001$.

with the results reported in Table 3.

Table 3 shows that the overall amount of information given by various sources in the progressive newspapers was greater than that of conservative papers, and the difference was statistically significant ($t = 4.411$, $p < 0.001$). When the difference of each category was compared, however, statistical significance was found only in parliamentary sources ($t = 2.093$, $p < 0.05$) and NGOs ($t = 4.178$, $p < 0.001$), demonstrating that progressive newspapers used more sources from these two mid-credibility categories.

Research Question 2: Valence of Sources

In the second research question, the positive, negative, and neutral tones of the information given by the sources were investigated and reported in Table 4. When $+1$ was given to positively toned information, -1 to negatively toned, and 0 to neutrally toned, the final marks of valence were calculated for each category of sources. Valence in Table 4 is defined as the sum of tones for each category. If the valence carries a minus sign, it means that the overall tone of infor-

mation given by the source category was negative. Zero in the valence cell means that the information given by the category was neutral. The whole number without a sign in the valence cell indicates that the information given by the category was positive. The bigger the absolute number, the bigger the magnitude of the tones in either direction.

The descriptive analysis in Table 4 shows that the overall tone of news presentation on the beef import issue was negative (–189). Specifically, among the source categories, the experts (–12), parliament (–92), NGOs (–144), and citizens (–51) gave negative information, while the judiciary (4), administration (100), businesses (5), and others (1) gave positive information. When divided, even the conservative papers presented U.S. beef import news negatively overall (–9). Specifically, the sources of parliament (–34), NGOs (–28), and citizens (–8) gave negative information, while experts (1), judiciary (3), administration (52), businesses (4), and others (1) gave

Table 4. Valence of Sources* Used in News Stories

|		E	J	A	P	N	B	C	O	T
Conservative Papers	Pro	2	3	56	2	10	6	13	2	94
	Neutral	36	30	211	78	46	37	30	1	469
	Con	1	0	4	36	38	2	21	1	103
	Valence**	1	3	52	–34	–28	4	–8	1	–9
Progressive Papers	Pro	0	5	51	12	5	4	2	1	80
	Neutral	41	26	169	52	37	14	18	0	357
	Con	13	4	3	70	121	3	45	1	260
	Valence**	–13	1	48	–58	–116	1	–43	0	–180
Total	Pro	2	8	107	14	15	10	15	3	174
	Neutral	77	56	380	130	83	51	48	1	826
	Con	14	4	7	106	159	5	66	2	363
	Valence**	–12	4	100	–92	–144	5	–51	1	–189

* E = Experts; J = Judiciary; A = Administration; P = Parliament; N = NGOs; B = Businesses; C = Citizens; O = Others; T = Total

** Valence: Sum of individual valences when each pro-import is transformed plus (+), con-import to minus (–), and neutral to zero (0).

positive information. The progressive newspapers also presented news with a more negative angle, and the overall magnitude of the tone (–180) was greater than conservative papers. Expert sources appearing in progressive newspapers presented negative information (–13), and parliament (–58), NGOs (–116), and citizens (–43) went along with experts in terms of valence. However, the judiciary (1), administration (48), and businesses (1) sources provided positive information, and other sources gave neutral information (0) in the progressive newspapers.

Although the overall valence of both conservative and progressive newspapers was negative and fluctuated throughout the six-month period, there was a consistent dissonance between the two kinds of papers, which may have stemmed from their political orientations (see Figure 1). In Figure 1, where the valences of the conservative and progressive papers were shown on a monthly basis, the positive number indicates the positive valence of information, and

Figure 1. Change of Overall Valences in Conservative and Progressive Newspapers*
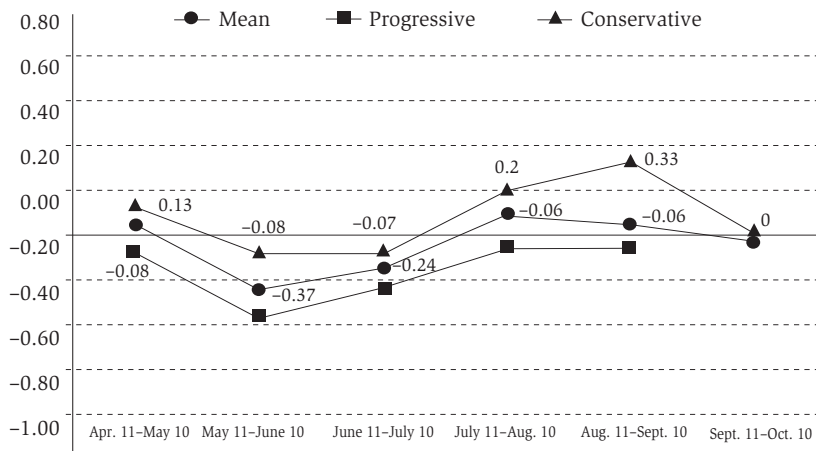
* No information regarding U.S. beef imports was reported in progressive newspapers from September 11 to October 10.

the negative number stands for negative valence. As shown in the figure, the overall valences of all the newspapers were negative for two months (May 11 through July 10), but the valence of the conservative papers was positive for the other four months, while the valence of the progressive papers was negative, except for the period of September 11 to October 10, when no information was reported in the progressive newspapers. The first period (April 11 through May 10) was the time when the issue was first introduced with regard to the research questions of this paper. During that period, the issue seemed to become a public issue. Conservative newspapers published positive information, while the progressive newspapers published negative information. The second and third periods (May 11 through July 10) were a time of dramatic tensions and conflicts as NGOs against the beef imports were formed. Moreover, rallies against the government decision and government's suppression of the demonstrations became violent during that period. These were the only periods when all the newspapers showed negative tones in their information. However, as seen in Figure 1, the progressive newspapers presented more negative information. For the last three periods, when the Korean and U.S. governments began new negotiations and agreed on a system of stronger examination for beef imports, the tones of newspapers were once again divided into positive and negative in accordance with their political orientation.

T-tests were conducted to explore whether the difference of valence between the conservative and progressive newspapers found in the descriptive analysis was statistically significant (see Table 5). According to the t-test results, the total valence (the sum of pro-import, neutral, and con-import) given by all sources in the progressive newspapers was more negative than that in the conservative papers, and the difference was statistically significant ($t = -7.544$, $p < 0.001$). Although the conservative papers reported in negative tones about the beef import issue, the progressive papers presented the issue more negatively. For each category compared between conservative and progressive papers, the statistically significant difference was found in the categories of experts ($t = -3.606$, $p < 0.001$),

*Table 5. Comparison of Valence of Sources between Conservative
and Progressive Newspapers*

	Mean Difference	S.D.	D.F.	T-Value
Experts	−0.266	0.396	91	−3.606*
Judiciary	−0.062	0.419	66	−0.610
Administration	0.023	0.436	492	0.592
Parliament	−0.140	0.588	248	−1.920
NGOs	−0.414	0.604	255	−5.263*
Businesses	−0.041	0.474	64	−0.327
Citizens	−0.537	0.689	127	−4.782*
Others	−0.250	0.125	4	−0.265
Total	−0.245	0.597	1361	−7.544*

* $p < 0.001$.

NGOs ($t = -5.263$, $p < 0.001$) and citizens ($t = -4.782$, $p < 0.001$). The combined results of Table 3 and Table 4 show that while conservative papers' expert sources gave positive information, the progressive papers' sources gave negative ones. This was the only case in which the progressive and conservative papers showed different angles and the only one where a statistically significant difference was found. The results also show that even if the conservative papers took negative angles in presenting information given by NGOs and citizens, the progressive papers used the information from those sources more negatively.

Conclusion and Discussion

For about six months in the middle of 2008, the issue of the safety of U.S. beef imports was one of the hottest issues in Korea. Thousands of people stood in the streets to voice their concerns about the safety of their food. The study results showed that progressive papers used more sources in total, and specifically more sources from the parliament and NGOs, which were in the middle range of the source credi-

bility order. Although the study hardly shows which of the conservative and progressive papers employed more credible sources, we can conclude that progressive newspapers used the middle-ranked sources frequently in presenting beef import information. Additionally, looking at the valence of information given by various sources, the authors found that progressive newspapers presented more negative tones, especially by using expert, NGO, and citizen sources. The progressive papers used high (expert), middle (NGO), and low (citizen) sources together, in terms of credibility level, to present information about the beef imports, which was generally negative. Here, NGOs could be highlighted more because it was the sole category showing the statistically significant difference not only in the appearance frequency but also in information valence between the progressive and conservative newspapers. In addition, as compared to the results of our previous study (Lee and Koh 2009) printed in *Hanguk eollon hakbo,* which only showed that the five individual newspapers respectively utilized the expert, NGO, and citizen sources altogether to establish their political orientations, the current study found that the NGO sources, among the three kinds of sources, were the major ones which clearly divided the political stances of newspapers. Conclusively, we could argue that progressive newspapers used NGO sources effectively to show their news judgment against the Korean government's decision to continue U.S. beef imports.

The study's results led us to consider the way Korean newspapers use sources. Progressive newspapers in Korea seem to be more enthusiastic about using sources in terms of frequency and valence. While the statistically significant difference was found in the total number of sources used between conservative and progressive newspapers, the number of sources of progressive papers in total and in some categories exceeded that of conservative ones. As is the case in the number of source appearances, a statistically significant difference was found in the overall valence of source information between progressive and conservative papers, with progressive papers being more aggressively negative and having stronger valence.

The frequency of sources appearing in the news stories can be

related to news quality. Lee and Jung (2008) argued that the higher the number, the better the quality of the story in general, because it shows a diverse spectrum of facts and opinions (Brooks et al. 2002; Rich 2002). In this sense, the results of the current study seem to advocate for progressive papers, in that they maintain various points of view in their news stories. The details of the results, however, give another impression. When compared with conservative newspapers, progressive newspapers' valence of overall information and that of some source categories where the statistically significant difference was found was highly negative. Although the situation could be taken as generally negative, and therefore reported as such by progressive papers, this may not directly apply to the beef import issue, as conservative papers provided more positive information, even from experts, which generally rank at the top in terms of source credibility (Hansen 1991; Yoon 2005). Thus, we can understand that conservative and negative newspapers used their sources in accordance with their original inclinations and their general principles when presenting news. Although progressive newspapers used more sources overall, in some categories with highly negative valence, the results should be carefully analyzed before concluding whether the papers presented higher quality information.

We also need to think about the critical limitations of methodology used in this paper for setting up source credibility order. The current paper employs methods introduced in earlier studies, which considered the sources' economic impartiality as a critical feature in their news credibility. However, the characteristics of sources related to U.S. beef imports are potentially quite different from those of sources investigated in previous studies conducted on dissimilar issues in other countries. We need to take into account additional attributes, such as the political and cultural orientations of sources, when we examine credibility order of sources, because even sources impartial in terms of monetary interest may be politically or culturally biased.

In the current study, the administration, believed to be economically disinterested in the issue and highly ranked in terms of source credibility in previous literature (Yoon 2005), tried to persuade peo-

ple that imported beef was safe. This meant that the administration was not impartial, and took sides in the beef import issue. The financial detachment of sources was not the only measurement to decide a source's impartiality and in turn their level of credibility. A similar rationale can apply to sources such as the judiciary, parliament, and NGOs.

We hypothesize, based on methods introduced in earlier studies, that expert sources were the most credible, followed by judiciary, administration, parliament, NGOs, business, and citizens. The current paper does not include such potentially critical features as political and cultural impartiality in source credibility ordering. Since there was no clear guideline to empirically estimate the political and cultural impartiality of sources, we could only conjecture based on the sources' political and cultural proximity to the issue. Because of that, we tried to avoid applying the methodologies not yet quantitatively measured. However, the political and cultural impartialities of sources may affect the credibility of news. Thus, it is an important limitation that this paper could not take into account when establishing source credibility order. In view of this, the authors of the current study strongly suggest that source credibility must account not only for economic aspects but also for other kinds of partiality. The similar concern was also projected in our previous study (Lee and Koh 2009) and it was found in this study again, thus we highlighted the aspect here once more. We hope future research will explore this subject.

Additionally, the relationship between news articles and people's perceptions should be discussed in greater detail. The present study began with curiosity over how Korean newspapers wrote about the beef import issue, assuming that news articles could affect people's attitudes. However, the relationship should be subject to further study.

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