

Introduction

Nelkin (1995) noted that while scientists often were concerned about the accuracy of news coverage, overtones generated within news about scientific issues, ideas, proposals, institutions and individuals were also important. Nelkin (1995, p. 81, quoting Laski, 1984) explained that science and medical news reporting inevitably fostered an 'environment of suggestion' about the subjects, persons and issues that journalists covered.

The distinction Nelkin made between overtones and information within news reporting was similar to William James' (1891) differentiation between a text's transitive and substantive dimensions (see also: Stephenson, 1972, 1973, 1978, 1980a, 1980b). To James, a text's impact and meaning for readers went beyond examining its words and content, or substantive dimensions. James (1891) was interested in the transitive elements within text, which included how readers projected their prior knowledge and attitudes into interpreting what they read and how readers sometimes derived a mood, or an opinion about a subject (even from text where the author was trying to remain impartial about the subject matter). To James (1891) and later to Stephenson (1972, 1973, 1978, 1980a, 1980b), a text did not have to be rhetorically argumentative to foster what Nelkin (1995) later called an environment of suggestion. Readers formed opinions about persons, institutions even through impartial reporting, such as the science writing Nelkin (1995) examined in her analyses.

McQuail (2000, p. 343) added that the study of how journalists fostered an environment of suggestion, or what he called 'bias', within news reporting, has been a long standing tradition in mass communication research. McQuail (2000) noted that most inquiry has assessed how framing of news stories influenced public perceptions. "The idea of 'frame' in relation to news has been widely and loosely used in place of terms such as 'frame of reference,' 'context', 'theme', or even 'news angle.'" (McQuail, 2000, p.343). McQuail (2000, p.343) found the study of news framing frequently focused on story topics and thematic undercurrents. For example, Lepre, Walsh Childers and Chance (2003) recently found undercurrents in news coverage of managed care that portrayed patients, health professionals and hospitals as victims and government and managed care organizations are villains. McQuail (2000) emphasized that introduction of bias in news reporting often was an inadvertent or inevitable part of placing news within formats, such as the inverted pyramid style of writing.

Nelkin (1995) added that what Reichert, Mueller and Nitz (2003) call 'tone' was a narrower source of inadvertent bias in science news reporting. Reichert, Mueller and Nitz (2003) defined tone as a favorable or unfavorable impression that is created about either the major sources referred to within a story, or its topic. Unlike framing, where the unit of analysis often is a news angle or how news is placed within rhetorical formats, the study of tone has been a more limited analysis of how major social actors are depicted in news stories. The focus on "tone" of reporting also differentiates it from other areas, like agenda setting where the impact of reporting and editing decisions are critiqued. In

agenda setting, news selection patterns have been linked to subsequent priorities that receive public and legislative attention (Dearing and Rogers, 1996).

To study overtone or tone in news, Budd, Thorp and Donohew (1967) suggested that researchers assess how social actors are depicted on a scale of favorable to unfavorable in routine news reporting. Budd, Thorp, and Donohew (1967) also devised a scale that provided operational definitions of favorable, unfavorable and neutral depictions of social actors. Shah and Thornton (2004) defined social actors as primary news sources who are individuals or institutions that actually or potentially affect individuals or institutions.

Logan, Peng and Fraser Wilson (2000) used Budd, Thorp and Donohew's (1967) favorability scale to study the tone toward social actors in science writing in the *Washington Post* and the *Los Angeles Times*. Logan, Peng and Fraser Wilson (2000) referred to the analysis of tone, or how social actors are perceived favorably or unfavorably in news reporting, as the study of 'prevailing impressions.'

Logan, Peng and Fraser Wilson (2000) noted that an emphasis on the tone, overtone, climate of suggestion, or degree of favorability towards news sources was a long-standing motif within the science communication literature. They described previous research as primarily exploring social actors representing industry, government, health care delivery system, science and medical professionals and public interest organizations (Logan, Peng and Fraser Wilson (2000).

Logan, Peng and Fraser Wilson (2000, p. 32) characterized more than 20 years of science communication literature about tone, or prevailing impressions, as polarized into conflicting assertions. In summarizing more than two decades of contrasting claims, They noted how previous findings neutralized each other and "could be best characterized as more equivocal... than skewed in either direction (Logan, Peng and Fraser Wilson , 2000, p. 33)."

Similar to frame analysis, the study of prevailing impressions or tone towards social actors in science news also has been linked to influencing public judgments about science policy by Hartz and Chappell (1997), Nelkin (1987, 1995) and Hilgartner and Bosk (1988). Hartz and Chappell (1997) and Nelkin (1987, 1995) noted that funding for a superconducting supercollider, the expansion of space exploration and supersonic transport were undermined by an adverse public opinion that reflected the news media's alleged unfavorable depiction of these projects. Among other things, Hilgartner and Bosk (1988) found the overtones fostered by ongoing news reports were linked to a public climate, which could accelerate or deter science, medical and other public policy.

Thus, the study of prevailing impressions has been perceived to provide insights into how reporting depicts social actors as well as how public opinion and judgments unfold.

In this study, the prevailing impressions about four major social actors in a national public health crisis were assessed within two South Korean national newspapers. In contrast to the Logan, Peng and Fraser Wilson (2000) research that assessed science and

medical reporting randomly chosen within a six year era, the current study focused on how two national newspapers covered a public health crisis within an intense 15 month period.

In addition, the national medical crisis in South Korea (hereafter referred to as “Korea” or ‘Korean’) from September 1999 – December 2000 provided a significant opportunity to assess how the news media depicted prominent news sources since previous literature found there were significant inconsistencies between how major news organizations depicted major social actors and normal journalistic practices (Chang, Cho, Park and Hwang, 2002; Yang, 2001).

Yang (2001) found the two Korean newspapers assessed in this study, *Chosun Ilbo* and *Hankyoreh*, provided unfavorable images of physicians during three of the 15 months during the public health crisis. Several authors suggest there was widespread public dissatisfaction with the leadership provided by Korean government officials, major social institutions and most social actors associated with the nation’s public health crisis (Chang, 2000; Kim, 2000; Shin, 2000; Choi and Kim, 2000). The tone of news also was interpreted as unfavorable toward all major social actors who were covered by the Korean media during the nation’s public health crisis by Chang, Cho, Park and Hwang (2002).

As a result, previous researchers inferred that unfavorable impressions of social actors abounded during the Korean public health crisis (Chang, 2000; Kim, 2000; Shin, 2000; Choi and Kim, 2000). An unfavorable depiction of major social actors was suggested within an atmosphere where prevailing journalistic standards disdain editorializing about sources or topics within news stories and there is a self-imposed professional emphasis on impartial news reporting (Yang, 2001; Chang, Cho, Park and Hwang, 2002; Kim, 2001; Park and Park, 2000). Previous research suggested that during the Korean public health crisis, major news organizations deviated from normative standards and, whether inadvertently or deliberately, conveyed a tone that was unfavorable towards prominent social actors (Yang, 2001; Chang, Cho, Park and Hwang, 2002; Cho, 2000; Baek, 2001).

However, previous research about the Korean health crisis either assessed only three of the 15 months during the crisis, or did not provide a quantitative assessment of how the Korean news media covered the story (Yang, 2001; Chang, Cho, Park and Hwang, 2002; Cho, 2000). The contrasting current study applied Budd, Thorp and Donohew’s (1967) favorability scale to more systematically determine if news coverage towards major social actors was favorable, unfavorable or equivocal during the entire Korean public health crisis.

Chang, Cho, Park and Hwang (2002) explained the major social actors during the Korean public health crisis were physicians, government officials, civic groups and pharmacists. A more detailed explanation of the Korean public health crisis and a more detailed discussion of the standards in Korean journalism are provided in an accompanying article (Logan, Park and Shin - citation for accompanying article goes here).

The study's hypotheses were:

H1. The prevailing impressions about physicians in *Chosun Ilbo* and *Hankyoreh*'s reporting should be unfavorable and this unfavorable impression should remain consistent during Korea's public health crisis.

H2. The prevailing impressions about government officials in *Chosun Ilbo* and *Hankyoreh*'s reporting should be unfavorable and this unfavorable impression should remain consistent during Korea's public health crisis.

H3. The prevailing impressions about civic groups in *Chosun Ilbo* and *Hankyoreh*'s reporting should be unfavorable and this unfavorable impression should remain consistent during Korea's public health crisis.

H4. The prevailing impressions about pharmacists in *Chosun Ilbo* and *Hankyoreh*'s reporting should be unfavorable and this unfavorable impression should remain consistent during Korea's public health crisis.

Methods

The discussion of the study's methods is divided into four sections: 1) time periods and newspapers assessed in the study; 2) outcome variables; 3) operational definitions and 4) application of Budd, Thorp and Donohew's (1967) favorability scale. A more complete discussion of the rationale for the selection of *Chosun Ilbo* and *Hankyoreh* was provided in an accompanying article (Logan, Park and Shin - citation for accompanying article goes here).

Time periods & newspapers assessed in the study

Two coders read all articles in *Chosun Ilbo* and *Hankyoreh* published between September 19, 1999 and December 12, 2000. The dates were selected to coincide with the initial reporting of a possible protest by health care providers in September 1999 and the last news story on the settlement, which was completed on December 12, 2000. The era was divided into three time periods, September 18, 1999-June 20, 2000, June 21-August 1, 2000 and August 2-December 7, 2000. The three periods reflected the eras where there was burst of activity and publicity about different aspects of the public health crisis, so the era was not divided into three equal time periods (Chang, 2000; Choi, 1999; Choi and Kim, 2000; Jang, 2000; Kim, 2000; Park, 2002).

Briefly, during period one there was a build up to a strike after a possible change in governmental policy threatened to change the role of pharmacists and pharmaceutical reimbursement. Period two represented a trial period for the government's new policy and a resulting strike of more than 95 percent of Korea's hospitals. Period three represented the post-trial period, execution of the government's policy on August 2, 2000 and the eventual settlement of the strike and the return to work by a variety of health care professionals. More detail on the events within each period is explained in an accompanying article (Logan, Park and Shin - citation for accompanying article goes here).

The division provided three separate opportunities to assess press performance based on actual changes in the story's texture and the shifting involvement of an array of social actors in a complex, public health crisis.

Chosun Ilbo and *Hankyoreh* were selected because each is a nationally distributed, daily newspaper in Korea and plays a high profile role in covering Korean public affairs (Korean Press Foundation, 2000; Youm, 1996; Heuvel and Dennis, 1993; Chaudhary and Chen, 1995; An, 1994; Kim, 1999). The newspapers are owned by separate companies and make independent editorial judgments (Heuvel and Dennis, 1993; Chaudhary and Chen, 1995). Both news organizations also feature stable news staffs, have internally-imposed standards and practices and try to cover news impartially (Heuvel and Dennis, 1993; Chaudhary and Chen, 1995). Yet *Chosun Ilbo*'s editorial page is considered to be more conservative than *Hankyoreh* and *Yankyoreh* is perceived to serve a younger audience (Chaudhary and Chen, 1995; An, 1994).

The selection of the two newspapers provided two editorially distinctive, stable news organizations, widely read by diverse Korean audiences. More information about *Chosun Ilbo* and *Hankyoreh* is included in the accompanying article (Logan, Park and Shin - citation for accompanying article goes here).

The study was a census, not a sample, of the news stories in both newspapers that mentioned the public health crisis. All stories about the public health crisis were included in the analysis of both newspapers. A total of 687 articles were assessed (*Chosun Ilbo* = 256, *Hankyoreh* $n = 431$). All stories were read in the Korean language by coders whose native language is Korean. News stories were archived in KINDS, a Korean news article database. The final editions of *Chosun Ilbo* and *Hankyoreh* were analyzed. Editorials, signed columns, and opinion-editorials were not assessed in the study.

Outcome variables and operational definitions

The dependent variable was the mean favorability toward physician organizations and physicians, government officials, civic groups plus pharmacists – the four principle social actors during the Korean public health crisis. The independent variable was time – the three time periods assessed in the study.

All four social actors were measured separately by their story placement as a news source. Table 1 reports the mean favorability of each of the four social actors depicted as the first news source in all the stories *Chosun Ilbo* and *Hankyoreh* published about the Korean public health crisis. Table 2 reports the mean favorability of each of the four social actors depicted as the second news source in all the stories *Chosun Ilbo* and *Hankyoreh* published.

A first news source represented the first social actor, or source, who received prominent attribution or direct quotation in a cluster of related sentences or paragraphs with a news story. A second news source represented the second social actor, or source,

who received prominent attribution or quotation in a cluster of related sentences or paragraphs with a news story.

The decision to measure first and second sources separately was based on the possibility that tone towards individual actors might be different dependent on story placement. Sources often are placed in rhetorical juxtaposition with each other in a conflict type format used frequently within news reporting in the U.S. and in South Korea (Kim, 2001). Hence, the authors were interested to see if the predicted consistency in unfavorable tone towards all four major social actors would occur regardless of story placement.

All n=687 measured stories had a primary, or first attributed, news source; all stories did not have second most attributed news source. The frequency of stories with a second most attributed news source was n=147/256 in *Chosun Ilbo* and n=250/431 in *Hankyoreh*. News sources are named within the stories surveyed, so coders' determination of first and second sources was self-explanatory from the reviewed articles and did not require scrutiny of external materials.

The higher number of stories with only one source in both newspapers and the skew within both newspapers to cover physicians and government officials resulted in more interpretable data about physicians and government officials than civic groups and pharmacists both as first and second sources. While all data are reported, the calculation of consistency of favorability across time was done only on physicians and government officials as first sources because a higher frequency of occurrence within these data points enabled a more meaningful statistical comparison. This is further explained in the results section.

The coders' assessment of the study's outcome variables required an in-depth understanding of the political, economic and medical context surrounding the Korean public health crisis. To improve reliability, there was extensive discussion of the applied operational definitions for each outcome variable and the impact of the public health crisis on Korean culture and professions, along the lines suggested by Peter and Lauf (2002). Coders also were encouraged to be familiar with the reporting of other Korean news organizations during the period surveyed. None of the other consulted news organizations were owned by or shared newsrooms with *Chosun Ilbo* or *Hankyoreh*.

Operational definitions

The term 'physician' in Tables 1 and 2 refers to all medical and physician organizations plus individual physicians named as sources in *Chosun Ilbo*'s and *Hankyoreh*'s news reporting during the 15 month public health crisis. The term 'government' in Tables 1 and 2 refers to government health ministers, government public health executives, government public health officials and nationally elected officials in the Korean presidential administration or cabinet. It does not refer to political opposition leaders, or legislators. The term 'civic group' in Tables 1 and 2 refers to public interest organizations, spokespersons for informal groups of citizens and spokespersons for

patient rights organizations throughout Korea. The term ‘pharmacist’ in Tables 1 and 2 refers to organizations representing pharmacists plus individual pharmacists.

Application of favorability scale

A favorable, unfavorable, or equivocal tone toward sources and/or institutions depicted in a science or biomedical story was derived from a heuristic scale originally proposed by Budd, Thorp and Donohew (1967, p. 53-54) and recently used by Logan, Peng and Fraser Wilson (2000).

Favorable impressions in news coverage were operationally defined as depicting individuals or social institutions as progressive, peace loving, stable, moral, rational, linear, wise, intelligent, unified, law abiding, or exercising leadership. Favorable news reporting strongly suggests social cohesion, cooperation, common sense, and political and economic stability and/or strength, judged on the basis of the contribution of a person or an issue to cultural, public, or economic affairs.

Unfavorable impressions in news coverage were operationally defined as depicting issues or individuals as backwards, domineering, impractical, irrational, disorganized, unwise, unlawful, disunified, immoral, and lacking in leadership. Unfavorable news reporting strongly suggests social conflict and disorganization, arrogance, instability, and economic instability and/or weakness, judged on the basis of a person’s or an issue’s efforts to undermine cohesion in cultural, public, or economic affairs.

Favorability was rated on a Likert-type scale from 3 to –3 for each outcome variable within each story, which was transposed to a scale of 1 (*highly unfavorable*) through 7 (*highly favorable*) as reported in Table 1. The use of a Likert-type scale enabled flexibility in judgment, including providing for measurement of equivocal prevailing impressions of social actors—where reporting is seen as more neutral, indecisive, or mixed within a story:

Clearly, the mathematical “middle point” along such a scale will be an arbitrary outcome (depending on the specific channels and content chosen and the criteria applied for judging value implications) and not an absolute standard. However, the method serves quite well for comparative and relative assessment (McQuail 1992, p. 227).

Coders were instructed to base judgments “on the likely impression made on an average audience” (McQuail, 1992, p. 227).

A pretest representing a constructed week described by Krippendorff (1980) was conducted for both newspapers. The pretest’s intercoder reliability was 88 percent. Independent coding resulted in a rounded off 94 percent agreement for the results in Table 1 and 91 percent agreement for the results in Table 2. The high degree of intercoder reliability is explained by pre-testing and extensive preparation for cross national content analysis as recommended by Peter and Lauf (2002). There were no missing cases.

In the analysis of outcome variables, a mean index score was operationally defined as favorable if the range was between 5.0 and 7.0; a mean score was operationally defined as unfavorable if the range was between 1.0 and 2.9. Scores between 3.0 and 4.9 were interpreted as equivocal, or neither favorable or unfavorable. This is modified from the range suggested by Logan, Peng and Fraser Wilson (2000).

Results

Hypothesis one said the prevailing impressions about physicians embedded in *Chosun Ilbo* and *Hankyoreh*'s reporting should be unfavorable and this unfavorable impression should remain consistent during Korea's public health crisis.

Table 1 reports the mean favorability toward physicians as a first source within *Chosun Ilbo* ranged from 2.32 to 3.90. In *Hankyoreh*, the mean favorability toward physicians ranged from 2.28 to 2.58. The means are interpreted as unfavorable in the first of three periods surveyed in *Chosun Ilbo* and equivocal in the latter two periods. The means are interpreted as unfavorable in all of *Hankyoreh*'s three time periods.

Table 2 reports the mean favorability toward physicians as a second news source in *Chosun Ilbo* ranged from 2.18 to 3.44. In *Hankyoreh*, the mean favorability toward physicians as a second source ranged from 2.26 to 2.45. Table 2 suggests the tone was unfavorable in the first of three periods and equivocal in the two latter periods in *Chosun Ilbo* and unfavorable in all of *Hankyoreh*'s three time periods.

Table 1 reports the mean favorability toward physicians as a first source did not vary significantly in *Hankyoreh* but varied significantly in *Chosun Ilbo* from September 1999 – December 2000. Statistical differences among mean scores was not interpreted for Table 2 because $n < 20$ in several of the data points.

The significant change in the mean favorability toward physicians as a first source in *Chosun Ilbo* partially rejects hypothesis one. The mean favorability toward physicians as a primary or first source also remained in the equivocal range in *Chosun Ilbo* during the second and third time period measured, which is inconsistent with first hypothesis.

In *Hankyoreh*, Tables 1 and 2 report physicians were depicted unfavorably regardless if they appeared as first or second sources and the unfavorable mean scores as a first source did not vary significantly, as Hypothesis 1 suggests.

Combining both newspapers, the findings fail to confirm or reject the first hypothesis.

Hypothesis two said the prevailing impressions about government officials in *Chosun Ilbo* and *Hankyoreh*'s reporting should be unfavorable and this unfavorable impression should remain consistent during Korea's public health crisis.

Table 1 reports the mean favorability toward government officials as a first source within *Chosun Ilbo* ranged from 3.35 to 4.13. In *Hankyoreh*, the mean favorability toward government officials ranged from 2.40 to 3.03. The means are interpreted as equivocal in all three periods assessed in *Chosun Ilbo*. The means are interpreted as unfavorable in two of the periods surveyed in *Hankyoreh* and equivocal in the first time period.

Table 2 reports the mean favorability toward government officials as a second source within *Chosun Ilbo* ranged from 2.60 to 4.44. In *Hankyoreh*, the mean favorability toward government officials as a second source ranged from 2.60 to 3.11. Table 2 suggests the tone was unfavorable in the second time period in *Chosun Ilbo* and equivocal in the first and third period. The tone was unfavorable towards government officials in the first and second time period and equivocal in the third time period in *Hankyoreh*.

Table 1 reports the mean favorability toward government officials as a first source did not vary in *Hankyoreh* or *Chosun Ilbo* from September 1999 – December 2000. Statistical differences among mean scores were not interpreted for Table 2 because $n < 20$ in several of the data points.

The mean scores in *Hankyoreh* provide partial support for the second hypothesis since the mean favorability toward government officials as first and second sources was unfavorable in four of six assessed periods and mean scores did not vary significantly in Table 1. While mean scores also did not vary in *Chosun Ilbo*, the findings provide little support for the second hypothesis. The mean favorability towards government officials as a first source in *Chosun Ilbo* was equivocal in all three measured periods and mean favorability towards government officials as a second source was equivocal in the first and third assessed periods.

Combining both newspapers, the findings fail to confirm or reject the second hypothesis.

Hypothesis three said the prevailing impressions about civic groups in *Chosun Ilbo* and *Hankyoreh*'s reporting should be unfavorable and this unfavorable impression should remain consistent during Korea's public health crisis.

Table 1 reports the mean favorability toward civic groups as a first source in *Chosun Ilbo* ranged from 2.83 to 3.67. In *Hankyoreh*, the mean favorability toward civic groups ranged from 1.75 to 2.30. The means are interpreted as equivocal in the first and third of the three assessed time periods in *Chosun Ilbo*. The means are interpreted as unfavorable in all of *Hankyoreh*'s three time periods.

Table 2 reports the mean favorability toward civic groups as a second source within *Chosun Ilbo* ranged from 2.25 to 3.50. In *Hankyoreh*, the mean favorability toward civic groups as a second news source ranged from 1.67 to 2.67. Table 2 suggests the means

were unfavorable in the first time period surveyed in *Chosun Ilbo* and equivocal in the second and third time periods and unfavorable in all of *Hankyoreh*'s three time periods.

Statistical differences among mean scores were not interpreted for Table 1 or Table 2 because $n < 20$ in several of the data points.

The unfavorable mean scores towards civic groups in *Hankyoreh*, regardless of placement as a first or second source, lent some support to the third hypothesis. However, Tables 1 and 2 report the depiction of civic groups in *Chosun Ilbo* was equivocal in four of the six assessed periods.

Combining both newspapers, the findings fail to confirm or reject the third hypothesis. The less frequent use of civic groups as a first or second source in *Hankyoreh* and *Chosun Ilbo* also makes the findings less robust for the third in comparison to the first and second hypotheses.

Hypothesis four said the prevailing impressions about pharmacists in *Chosun Ilbo* and *Hankyoreh*'s reporting should be unfavorable and this unfavorable impression should remain consistent during Korea's public health crisis.

Table 1 reports the mean favorability toward pharmacists as a first source in *Chosun Ilbo* ranged from 1.00 to 3.14. In *Hankyoreh*, the mean favorability toward pharmacists as a first source ranged from 1.70 to 3.00. The means are interpreted as equivocal in two of the three periods and unfavorable in one of the assessed periods in *Chosun Ilbo*. The means are interpreted as unfavorable in two of three periods and equivocal in one of the assessed periods in *Hankyoreh*.

Table 2 reports the mean favorability toward pharmacists as a second source in *Chosun Ilbo* ranged from 2.43 to 3.50. In *Hankyoreh*, the mean favorability toward pharmacists as a second source ranged from 2.00 to 2.67. The means are interpreted as equivocal in two of three periods and unfavorable in one of the assessed periods in *Chosun Ilbo*. The means are interpreted as unfavorable in all of *Hankyoreh*'s three time periods.

Statistical differences among mean scores was not interpreted for Table 1 or Table 2 since $n < 20$ in several data points.

The mean favorability toward pharmacists as a first and second source in *Chosun Ilbo* was in the equivocal range during four of the six measured periods, which is inconsistent with hypothesis four. In contrast, *Hankyoreh*'s depiction of pharmacists as a first and second source was unfavorable in four of possible six periods, which lends support to hypothesis four.

Combining both newspapers, the results fail to confirm or reject hypothesis four. The less frequent use of pharmacists as a first or second source in *Hankyoreh* and *Chosun Ilbo*

also makes the findings less robust for the fourth in comparison to the first and second hypotheses.

Conclusions

The findings failed to confirm or reject the four hypotheses and suggested important differences between *Chosun Ilbo* and *Hankyoreh*.

While the depiction of physicians, government officials, civic groups and pharmacists in *Hankyoreh* tended to be unfavorable, the depiction of the same social actors tended to be equivocal in *Chosun Ilbo*. In turn, the findings suggest the prevailing impressions readers received about major social actors during Korea's public health crisis was different in *Hankyoreh* versus *Chosun Ilbo*.

In addition to the findings that the two newspapers tended to be dissimilar, the depiction of social actors in Korea's public crisis was not uniformly unfavorable, which is inconsistent with previous literature (Chang, Cho, Park and Hwang, 2002; Yang, 2001). Despite a negative social climate surrounding an array of important medical and public policy issues, the depiction of the major social actors tended to be more equivocal in *Chosun Ilbo* (Chang, 2000; Kim, 2000; Shin, 2000).

These findings suggest that: a) the depiction of social actors may be variable between leading, Korean news organizations and b) a one-dimensional, uniform characterization of the Korean news media's alleged biases over time may be difficult to validate. This implies that a tendency to uniformly characterize the depiction of social actors by all national news organizations could be an overstatement both in Korea and perhaps within other social libertarian press contexts, where governments exercise minimal controls on news organizations (Merrill and Lowenstein, 1990; Youm, 1996).

The findings that *Hankyoreh*'s news reporting tended to be unfavorable towards physicians, government officials, civic groups and pharmacists does not suggest the newspaper should be characterized as partisan. The authors found very few examples in *Hankyoreh*'s news coverage where reporters seemed to directly editorialize about the events or persons depicted.

The finding that *Chosun Ilbo*'s reporting tended to reflect a middle, or ascribed equivocal range, similarly does not suggest *Chosun Ilbo* was non-partisan, or that the impressions created were consistently centrist, neutral, or indecisive toward social actors. Similar to Logan, Peng and Fraser Wilson (2000), the coders found that prevailing impressions were present throughout the entire sample. For example, some stories in *Chosun Ilbo* about government inaction with regard to settling the strike sometimes left an unfavorable impression about governmental stewardship. Stories about physicians explaining their negotiating position in *Hankyoreh* sometimes left a more equivocal or mixed impression about their concern for patients. Stories about civic groups and pharmacists in both newspapers left mixed impressions about the interest in both groups in dispute resolution and the public's welfare.

It is noteworthy that the study found little evidence that either *Chosun Ilbo* or *Hankyoreh* favorably depicted physicians, government officials, civic groups and pharmacists. The highest mean scores -- *Chosun Ilbo*'s mean favorability toward government as a first news source in the second period and as a second source within in the third period were 4.13 and 4.44 respectively -- were both within the equivocal range.

To return to James' (1891), Nelkin's (1995) and McQuail's (2002) point, prevailing impressions about social actors may be fostered even when news coverage strives to be impartial.

The study also illustrates the value of basing results on a census (rather than a sample) of what a news organization covers throughout the entire period as a major news story emerges, matures and is resolved.

Because only *Chosun Ilbo* and *Hankyoreh* were compared, the study is not generalizable to the Korean news media. For future research, it would be interesting to ascertain if the coverage of the public health crisis in KBS, Korea's largest broadcast news organization, was consistent with the findings for the two newspapers.

The limited number of observations for pharmacists and civic organizations resulted in less robust findings for two of the four hypotheses and impaired the author's ability to test for significant differences in the dependent variable in some cases. There are inherent challenges within content analysis to narrowly define operational definitions to improve consistency between coders and Budd, Thorp and Donohue's heuristic scale to measure favorability toward social actors demanded judgment by each of the two coders (Budd, Thorp, and Donohew, 1967).

The study's limited focus made it impossible to extrapolate from the prevailing impressions about social actors the authors found in both newspapers to its impact on public policy, which Hartz and Chappell (1997), Nelkin (1987, 1995), Hilgartner and Bosk (1988) among others, argued is operant. In terms of future scholarship, it seems important to investigate within dynamic contexts, such as the Korean public health crisis, if there is a correlation over time between shifts in public opinion towards social actors and the news media's depiction of social actors.

The study underscored the value of content analysis to add perspective to a discussion about the news media's biases, especially in examples where prevailing journalistic standards aspire to be impartial, or avoid editorializing about topics and subjects. Unlike Logan, Peng and Fraser Wilson's findings, in this study at least one news organization's depiction of major social actors tended to be unfavorable (Logan, Peng and Fraser Wilson, 2000). Since the prevailing impressions about social actors fostered by medical and other news reporting may have public policy consequences, the study also points out a need for more systematic examinations about how the press does or does not shade opinion about the sources and topics it covers.

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Table 1. Mean favorability of the first news source by time

News Source	Paper	Sep 99 –	Jun 21, 00	Aug 00	Overall	sig.
		Jun 20, 00	– Jul 00	– Dec 00	Mean	
Physician	<i>Chosun Ilbo</i>	2.32 (38)	3.17 (35)	3.90 (20)	2.98	.002**
	<i>Hankyoreh</i>	2.28 (36)	2.58 (50)	2.56 (39)	1.82	.717
Government	<i>Chosun Ilbo</i>	3.43 (40)	3.35 (17)	4.13 (24)	3.62	.129
	<i>Hankyoreh</i>	3.03 (31)	2.40 (45)	2.96 (54)	2.78	.137
Civic Group	<i>Chosun Ilbo</i>	3.67 (3)	2.83 (6)	3.10 (10)	3.11	.699
	<i>Hankyoreh</i>	2.30 (10)	1.75 (12)	2.19 (16)	2.08	.668
Pharmacist	<i>Chosun Ilbo</i>	3.14 (7)	1.00 (3)	3.00 (2)	2.58	.033
	<i>Hankyoreh</i>	3.00 (5)	1.70 (10)	2.14 (7)	2.14	.260

Note: Favorability was measured by means of the seven-point stimulus scale where 1 is Most Unfavorable and 7 is Most Favorable. One-way analysis of variance was used to determine statistical significance. Numbers in the parenthesis refer to frequencies. ** $p < .01$

Table 2. Mean favorability of the second news source by time

News Source	Paper	Sep 99 –	Jun 21, 00	Aug 00	Overall	sig.
		Jun 20, 00	– Jul 00	– Dec 00	Mean	
Physician	<i>Chosun Ilbo</i>	2.18 (11)	3.30 (10)	3.44 (16)	3.03	.167
	<i>Hankyoreh</i>	2.45 (11)	2.26 (23)	2.34 (38)	1.50	.940
Government	<i>Chosun Ilbo</i>	3.00 (15)	2.60 (10)	4.44 (9)	3.26	.041
	<i>Hankyoreh</i>	2.60 (15)	2.63 (19)	3.11 (18)	2.79	.565
Civic Group	<i>Chosun Ilbo</i>	2.25 (4)	3.50 (2)	3.00 (4)	2.80	.640
	<i>Hankyoreh</i>	1.67 (6)	2.00 (6)	2.67 (6)	2.17	.236
Pharmacist	<i>Chosun Ilbo</i>	3.50 (4)	2.43 (7)	3.33 (6)	3.00	.501
	<i>Hankyoreh</i>	2.00 (1)	2.00 (10)	2.67 (6)	2.24	.427

Note: Favorability was measured by means of the seven-point stimulus scale where 1 is Most Unfavorable and 7 is Most Favorable. Numbers in the parenthesis refer to frequencies.

Prevailing impressions of social actors in Korean news coverage of a public health crisis

A content analysis of coverage of a Korean public health crisis from September 1999 to December 2000 explored four hypotheses regarding how major social actors were depicted within two national newspapers *Chosun Ilbo*, a conservative daily and *Hankyoreh*, a more liberal, youth-oriented daily. The findings failed to confirm or reject any of the four hypotheses. The coverage of major social actors tended to range from unfavorable in *Hankyoreh* to equivocal in *Chosun Ilbo*.

The study suggests that: a) the depiction of social actors was different between leading, Korean news organizations and b) a one-dimensional, broad characterization of the Korean news media's alleged biases over time were difficult to validate. The study also implies that a tendency to uniformly characterize the depiction of social actors by all national news organizations is difficult in Korea and perhaps, in similar cultural contexts.

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