

THE EFFECT OF ONLINE NEWS STORY COMMENTS
ON OTHER READERS' ATTITUDES:
FOCUSING ON THE CASE OF INCONGRUENCE
BETWEEN NEWS TONE AND COMMENTS

by

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A THESIS

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ABSTRACT

As people read news on the Internet, they are also exposed to other readers' comments in response to the news stories. The comment forums on news websites offer a sphere where readers can communicate as both providers and receivers, and the comments provided may influence how news readers shape their opinions. The purpose of this study is to investigate if comments in response to an Internet news story influence other readers' opinions and to determine the extent to which readers' evaluation of the news story and perception of public opinion vary when these comments either affirm or are in conflict with the tone of the story. The experiment for this study exposed 120 participants to a news story manipulated according to two types of news tones (pro and con) and two types of comments (pro and con). Individuals who read comments in conflict with the tone of the news story perceived the news story less positively than did those who read comments affirming the story. However, individuals' perceptions of public opinion based on the third-person effect showed no change in response to comments in conflict with the news story's tone. Furthermore, the hostile media effect did not cause the partisan group who read news conflicting with the opinions expressed in the comments to perceive the story as biased and to evaluate the story's news value as low.

DEDICATION

I would like to dedicate this thesis to all those who helped and guided me through the trials and tribulations of creating this manuscript. In particular, I want to thank my family and close friends, who have stood by me throughout the process of completing this thesis.

LIST OF ABBREVIATIONS AND SYMBOLS

M	Mean: the sum of a set of measurements divided by the number of measurements in the set
F	Fisher's F ratio: A ratio of two variances
p	Probability associated with the occurrence under the null hypothesis of a value as extreme as or more extreme than the observed value
SD	Standard Deviation: the square root of the variance
η_p^2	Partial Eta squared: the proportion of the total variance attributed to treatment
t	Computed value of t test
$<$	Less than
$>$	More than
$=$	Equal to

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INTRODUCTION

With the increased ubiquity of Internet service, readers frequently encounter online news provided by well-known print and broadcast news companies. According to Lee's (2010) recent research, 71% of American adult Internet users utilize the Internet daily, and reading online news ranked fourth on the list of most popular daily Internet activities performed in the United States. Most Internet users read online news. As such, these users may be influenced by online news sources and viewpoints that may differ from those of traditional newspapers.

How is an Internet news audience distinct from the audience for traditional news sources? One of the notable characteristics of Internet news is its interactivity (Kim & Sun, 2006; Morris & Ogan, 1996). Internet news consumers are able to interact with the content through both reading and writing, which is not possible with traditional news formats. Not only can an online news audience submit immediate feedback regarding a certain issue or news story by submitting opinions via the website, but consumers of Internet news are also able to reconstruct or supplement their opinions of the news by viewing feedback from other readers. In the past, audiences understood news stories simply by watching presentations provided by the mass media (Lippmann, 1922). Nowadays, however, Internet news offers a broader "pseudo-environment" in which audience members can learn and interpret what is going on in the world. Through exposure to the responses and feedback of other readers, online news consumers gain a broader and more comprehensive experience than would be possible by reading or viewing other types of news (Lippmann, 1922; Yang, 2008).

Comment-related behavior on Internet news websites can be categorized as either “reading” or “writing.” Writing is a highly active type of participation that requires those commenting to go through a log-in or registration process in order to contribute their opinions on the news website. In Korea, the country with world’s highest percentage of Internet users and Internet industries, NHN Corporation, the mother company of Naver, analyzed users’ comment-related behaviors on Naver’s representative portal site. The corporation found that 50% of all comments were produced by only 0.25% of the total site users. In other words, of the average 1,200,000 daily users of the portal site, only 2.5% of these, or 30,000 people, contributed over 120,000 comments a day (Kweon & Kim, 2008). This finding indicates that very few people participate in the news by writing comments; the majority is instead readers.

Discussion rooms offer a similarly interactive method for online news consumers to comment and communicate online, featuring the most active behavior of Internet users. Kim and Rhee’s (2005) exploration of a portal site’s discussion room revealed that reading behaviors were significantly more common than writing behaviors. In other words, users who read news and opinions posted by others far outnumber those who actually post comments on the Web. Those who read others’ opinions are more like “generalized others” who organize their attitudes by considering others’ roles, values, or expectations. Therefore, in order to understand the behavior of online news readers, one must understand both the audience for comments as well as the audience for news.

Internet news features both mass communication conveyed by the actual news article and interpersonal communication presented in the form of comments left by and for readers. In past communication studies, researchers have explored how individuals’ attitudes change according to what they read in news stories. However, the process of shaping individuals’

opinions may be more active in the context of the Internet than through television or newspapers, because Internet news users can actually interact with the news articles presented (Yang, 2008). Although the opinions contributed by online news consumers tend to be short and informal, other news readers are able to not only assess opinion trends from these comments, but also to draw upon others' ideas to form their own opinions. This process of interpersonal communication taking place the Internet should not be overlooked. Therefore, the purpose of this study is to examine how comments associated with Internet news stories influence individual readers' attitudes as well as their perception of how news stories influence public opinion when comments are either consistent or inconsistent with the tone of a news story. Another purpose of this study is to investigate how news readers evaluate an Internet news story when other readers' comments are inconsistent with the news tone.

LITERATURE REVIEW

Mass media plays a key role in shaping public opinion. With the increase in Internet use, mass media has become a tool for people to express their perspectives and read the opinions of others. Readers can participate in shaping opinion not only as information seekers, but also as information providers, because Internet news websites provide users with spaces to interact with the news, responding to stories and sharing their opinions with other online news participants. These spaces include comment boxes, chat rooms, discussion forums, and polls or surveys. Any user who clicks on a particular news story is exposed to the comments on that web page and can therefore readily assess how the opinions related to that news story are trending. Even active readers focused on writing their own opinions tend to read others' comments in order to assess general perceptions of certain news. For this reason, the comment box is a place where readers are able to communicate as both providers and receivers. Furthermore, the boundary between reporters and readers has become vague when it comes to roles involved in the communication of news (Yang, 2008).

Scholars have formulated several theories to explain Internet users' comment reading behavior, including the two-step flow model, social comparison theory, and cognitive dissonance theory, all of which contribute to the theoretical basis of this study. In addition, this study will address properties of online news as well as how news readers interact with these properties.

Interactive Online Journalism

Rafaeli (1988) and Sudweeks (1997) suggested three types of communication models: one-way communication, two-way (reactive) communication, and interactive communication. In the period of one-way communication, the role of the news source or sender was perceived to be

powerful. The news agenda was set by the source, and there was no direct feedback. In the two-way (reactive) communication age, receivers responded to senders and sent and received messages bilaterally. Interactive communication displays characteristics similar to those of two-way (reactive) communication but varies slightly in that it allows simultaneous and continuous exchanges and “multiple types of cues, potential spontaneity, emergent progression of the content, the ability to interrupt or preempt, mutuality, and patterns of turn-taking” (Rafaeli & Sudweeks, 1997, p. 129).

Rice and Williams (1984) said that the most complete interactive media was that in which the role of audience and sender can be completely reversed. Interactivity is currently defined as the process of creating meaning through the exchange or sharing of messages between a sender and audience (Park, 2005). Beginning in the early 1990s, some scholars and practitioners called for an “interactive journalism” that emphasized audience participation (Lawrence, 1993) by focusing on the audience’s active role. The Internet’s properties of interactivity and hypertext facilitate a horizontal relationship between news producers and their audience, allowing the news audience to actually participate in the production of news (Kim & Sun, 2006).

Yoon (2000) suggested several types of online journalism, including conveying information from previous media to websites, transmitting information only on the Web, collecting news and subsequently reporting it through use of a computer, and exchanging information in the context of news groups or online bulletin boards. For the purpose of this study, “online journalism” refers to exchanging information or opinions through news groups or online bulletin boards (Kim & Sun, 2006). Park (2005) suggested that people are not restricted by either time or place when they post information or opinions to online bulletin boards that allow audience members to bring up and discuss any issue they want. The Korean term “Datgeul

(comment) journalism” reflects how readers’ comments influence news editors’ production of articles by lending them novel ideas.

Kim (2004) studied the correlation between interactivity and discussion content in response to news articles on Ohmynews, a Korean Internet news site. Interactivity was measured based on the number of interactive messages among the total number of messages left by news readers responding to specific articles. The study thoroughly examined discussion content in response to news articles using content analysis by categorizing news readers’ messages into categories of politics, economy and IT, city, culture, and sports and leisure. Kim found that the correlation between the interactivity of Internet newspaper users and use of the first-person plural was high. The correlation between interactivity and abusive or low forms of speech was also positive. Because the first-personal plural indicates a sense of community, its use may facilitate news readers’ participation in public issues by fostering community spirit and allowing users to exercise their social influence.

In two studies of interactivity (Kim, 2004; Kim & Kim, 2005), a readers’ comment box and bulletin board were shown to be places where people can interact with each other and present their opinions freely. Kim and Kim (2005) analyzed readers’ comments on bulletin boards and separated them into four categories: (a) the logicity of the opinion, which was categorized as logical argument, non-logical argument, slander, or other; (b) types of interactions, which included single shot, sympathy, refutation, argument, convergence, confusion, and other; (c) offensive language, categorized as severe abuse, normal abuse, slang, and none; and (d) tone of the comments, which was categorized as approval, disapproval, neutral, and other. In Kim and Kim’s study, readers displayed their opinions by using assertive writing forms through various

types of interaction. The comments they contributed generated more comments, indicating that readers' responses were active.

However, both of these studies concluded that these places were similar to "wild publics" and did not represent Habermas' (1962) conception of the "ideal public sphere," where every opinion could reach the same agreement through interactivity. In the studies mentioned above, people discussed the news online with others by using non-logical arguments, assertive writing, abuse, and slang, primarily to support their opinions. This sort of behavior was not aligned with the concept of the ideal public sphere, where all people could freely participate in a reasonable discussion to identify social problems and reach agreement.

These studies have contributed to an understanding of Internet news media by focusing on interactivity. However, these studies are limited in that the researchers only investigated the properties of writing comments through a content analysis of Internet bulletin boards and ignored how the comments influenced the perceptions Internet news readers. According to Kim and Rhee (2005), Internet users tended to read others' comments to determine the climate of opinion prior to establishing their own perspectives. In an Internet discussion room, participants attempted to respond to others' comments rather than simply offering one-sided opinions. Therefore, investigating interactive communication on the Web was important because the behavior of people who read others' opinions was as active as that of those who contributed their own opinions. Interactive communication on news sites is also important because the behavior of reading comments includes the processes of thinking and sharing meaning with newsreaders themselves (Kim & Sun, 2006).

Opinion Leaders on the Web

Lazarsfeld, Berelson, and Gaudet (1968) suggested that researchers took note of the “influential-infleece relationship,” because audience members were influenced by others around them as well as by news media in general (Kim & Sun, 2006). The two-step flow model of communication was based on the assumption that an original idea did not flow directly from mass media to news readers. The idea flowed first to opinion leaders, who then conveyed it to less active receivers. That is, people’s opinions were interjected between the message providers and the audience, meaning that opinion leaders played a pivotal role in influencing the audience’s decision-making regarding the message.

Katz and Lazarsfeld pointed out in their book, *Personal Influence* (1955), that people received more information from acquaintances, friends, and family than from either mass media or authoritative sources. Furthermore, they found that people’s opinions, choices, and decisions were influenced or changed by the information conveyed by their acquaintances. Katz and Lazarsfeld called these types of acquaintances opinion leaders, recognizing them as influential people or authorities (Case, Johnson, Andrews, Allard, & Kelly, 2004). Many other researchers have supported this model of influence. Chaffee (1982) concluded that information gained from interpersonal sources was more persuasive than information conveyed by mass media sources. Case (2002) added that a colleague, friend, or relative could act as the first channel.

However, as the communication environment has evolved, the perspective on individuals has broadly changed from “personal” to “impersonal.” In her book, *Impersonal Influence* (1998), Mutz assessed the influence of the public’s experiences and attitudes on individual perception. Individuals who had no personal experience related to a situation could easily access electronic media, although the newsworthiness of those media was unproven. As

such, people grow dependent on media in order to share or find information or ideas. This media dependence can create indirect ties between people on the Internet utilizing several types of media. This phenomenon of developing indirect ties over the Internet allows users to gain information from impersonal others (Kim & Sun, 2006; Mutz, 1998). Ball-Rokeach (1998) also argued that media diffusion cuts off close interpersonal networks so that people grow dependent on the media to solve problems such as ambiguity in the social structure and cultural inconsistency. This behavior could be interpreted as indicating that media development increases “impersonal influence,” which is the influence of people unknown to an individual as opposed to acquaintances. For instance, news websites provide interviews that come from “generalized others,” or present polls that indicate the public’s opinions or reflect their responses (Kim & Sun, 2006; Mutz, 1998).

In the Internet age, the definition of “opinion leader” has expanded beyond the original limited group of friends, family, or acquaintances who interact with a decision-maker. One important cause of this broadened definition stems from the fact that opinion leaders now exist everywhere on the Web. In addition, Internet services are expanding as a primary information source, because they can be used to verify information previously provided by media and to search for more concrete information related to the topic (Case et al., 2004; Kim & Sun, 2006). Individuals harness the Internet to gain more information regarding subjects about which they have heard or seen elsewhere. Furthermore, information receivers are able to easily access as much information as they want, because opinion leaders share their information on the Web. When people seek certain information, they now look to the Internet rather than consulting with another person or looking to a news anchorman. As a result, the Internet may provide an

environment where some people can fulfill the role of opinion leaders in the classic two-step flow paradigm (Case et al., 2004).

Kim and Sun also suggested that the role of Internet users corresponded to the role of opinion leaders in offline communication within the classical two-step flow paradigm. Kaye and Johnson (2003) explained that the Internet may be considered a substitute for old media in that it can be used to gain more information about desired topics and to discuss those topics with other Internet users. The classical two-step flow paradigm can be applied to the Web, because the Internet connects people and ideas or information flow. The main paradigm of the two-step flow remains unchanged despite the different communication environment. While the range of information flow was limited by physical proximity in the past, it has now broadened to include unknown people from all over the Web.

Individuals' Perception of Public Opinion on the Web

An individual's perception of others' opinions is one of the important components of public opinion. According to social comparison theory, public opinion is shaped continuously as people compare their opinions to those of others. When no objective criteria exist for evaluating their own opinions, people have a tendency to compare themselves to others. In other words, people are motivated to determine socially acceptable opinions by assessing the perspectives of others compared to their own (Festinger, 1954). Individuals join social environments in order to access others' opinions, and consequently, their attitudes and behaviors often change (Kim & Sun, 2006; Scheufele & Moy, 2000). Festinger suggested that humans demonstrate a desire to seek others' evaluations of their opinions or abilities. In addition, people tend to feel uneasy if there are no "frames of reference" in situations where they must process information, because

“frames of reference” are necessary for interpreting new information (Sherif, 1967). As they compare the salience of their behavior with that of others, their subsequent behavior changes, “along with social norms, attitudes, and intentions” (Rice & Atkin, 2009, p. 441).

When people need objective criteria to form an opinion about a news article, they utilize online discussion group or chat comments as a monitoring tool (Lee & Jang, 2009) in order to gauge public opinion. Kim and Rhee (2005) identified evidence for this psychological mechanism through an examination of the behaviors of Internet bulletin board users. Kim and Sun (2006) also cite the importance of public opinion in influencing individual perception. Comments in response to Internet news may correspond to majority opinions, because comments represent the opinions produced by an Internet news audience at a certain news site at a certain time. Internet news consumers are willing to expose themselves to and be influenced by others’ opinions.

Reading others’ opinions can provide cues for assessing the climate of opinion. In mass communication, there are many opportunities for news consumers to evaluate the climate of opinion by reviewing polls, reading interviews, etc. However, cues from the mass media are limited, because many opinions are not aired due to time constraints or filtering. By contrast, Internet news readers who access online media, which has properties of both interpersonal and mass communication, are able to derive cues about the climate of opinion from non-professional news readers in juxtaposition to those of professional mass media journalists. In addition, online media provides additional cues, such as the number of comments, the number of visitors to a site, and the number of readers who recommended a particular posting. In other words, cues derived from online media are more arbitrary and less controlled than those of offline media (Jeong & Kim, 2006).

In addition, news readers' perceptions of news are influenced by the phrasing of comments, which plays a key role in influencing individuals' opinions and the manner in which they express those opinions (Han, 2003; Mutz, 1998; Scheufele & Moy, 2000). Furthermore, the way in which comments are phrased may influence whether individuals' opinions are either reinforced or altered. Perceptions of public opinion impact individuals' decision-making regarding public matters and their predictions of others' personalities (Mutz, 1998) and may also persuade news consumers in their determination of whether or not to actively represent their opinions (Han, 2003; Jeong & Kim, 2009). Furthermore, Internet users' perceptions of the climate of opinion may act to internalize individuals' behavior when voting anonymously (Mutz, 1998). Na (1995) revealed that people changed their attitudes for a period due to public opinion. Prior to elections, survey results featuring candidates influenced public attitudes more than news stories about those candidates. This finding indicates that other people's opinions of the candidates are more influential than factual information about the candidates in shaping individual attitudes. Audiences are able to change their opinions or behaviors along with the perceived climate of opinion, which is determined by reading other users' comments.

Cognitive Dissonance between Individuals' Opinions and Perceive Media Content

Internet news consumers experience a cognitive discrepancy when they read comments in response to news articles that are inconsistent with their own opinions. This situation inspires an aversive psychological state in order to alleviate the dissonance. In general, individuals are motivated to choose information consistent with their established attitudes or beliefs and avoid inconsistent information (Festinger, 1957).

Festinger (1957) developed a cognitive dissonance theory with a simple proposition. When people find themselves in a situation with two psychologically inconsistent cognitions, they experience dissonance; this is a “negative drive state.” Individuals experience this dissonance between their attitudes and behaviors or between others’ opinions and their own thoughts. For example, unexpected thoughts and opinions produce dissonance for people with existing knowledge and opinions, because people are unable to control this new information within themselves.

This negative intrapersonal state results in unpleasant feelings, thus motivating individuals to attempt to alleviate inconsistency between the cognitions. At that time, individuals utilize “coping mechanisms” to relieve stress arising from this uneasiness. They consciously strive to find a way to alleviate cognitive dissonance and establish consonant cognitions through “ego-defensive” behaviors. Individuals employ “self-justification” or “self-rationalization” to eliminate dissonance by altering their own attitudes, distorting the contradictory cognition, or finding and adding information to support their initial opinions.

Massaro (1997) suggested that the theory is essentially about “sense-making, how people try to make sense out of their belief, their environment, and their behavior- and thus try to lead lives that are (at least in their own minds) reasonable, sensible, and meaningful” (p. 129). Nisbett and Kunda (1985) have suggested that when a discrepancy occurs between an individual’s opinion and public opinion, that individual will distance himself from differing information or opinions of others in an effort to avoid conflict. The study indicated that people had a tendency to believe that their own attitudes were aligned with those of a large percentage of the public even when their opinions were not consistent with the majority.

In particular, people believed that their own opinion was consistent with public opinion even in instances when the media presented a contradictory point of view (Gunther & Christen, 2002); this interpretation is called hostile media perception. Auh and Park (2005) proposed that cognitive dissonance theory could act as a theoretical frame to explain the phenomenon of media hostile perception. When faced with cognitive dissonance, individuals used “coping mechanisms” to reduce their stress. People in this situation followed the process based on cognitive dissonance theory, including selective exposure, selective perception, selective retention, source derogation, and message disparagement. This process indicates why people perceive news media as biased. When Internet news consumers read a news story with conflicting comments in response on a news website, the readers may consequently perceive the news story negatively. Hostile media perception based on cognitive dissonance theory can explain this reaction.

Persuasion through Dual Processes

When people are exposed to influence attempts such as advertising or others’ opinions in the media or real life, they are more likely to change or adapt their attitudes, beliefs, and behaviors. Ciadini defined social influence as changes caused by external pressure and stated that social influence can be exercised through persuasion (Guadagno & Muscanell, in press). When news consumers read other users’ comments, they are likely to be influenced by the opinions presented. When they read comments in conflict with a news story, the comments will act as a contextual factor of an influence attempt. This persuasive perspective showing how news readers process opinions shared through comments and how comments influence news readers’ own

attitudes can be explained using two theoretical models: Elaboration Likelihood Model (ELM) and Heuristic-Systematic Model (HSM).

Petty and Cacioppo (1981) originally proposed ELM. In this model, there are two routes for changing individuals' attitudes: a central route and a peripheral route. When individuals think deeply about a persuasive message, they utilize the central route. Message processing occurs with higher elaboration regarding the benefit of the message. Consequently, attitude changes resulting from central message processing are long lasting. Conversely, in peripheral processing, individuals engage in surface thinking about the message by focusing on factors unrelated to the message (Guadagno & Cialdini, 2005), such as the quantity of persuasive messages or the attractiveness of the persuasive source. As a result, the duration of change is relatively short when the peripheral route is engaged.

Chaiken proposed HSM in 1980. This model also involves two routes to persuasion: systematic processing and heuristic processing. When individuals engage in systematic processing, they think about message content by exerting cognitive effort and considering the potential results of their attitude change. On the other hand, in heuristic processing, people engage less in thinking about persuasive messages systemically and instead depend on "decision cues or rules of thumb to make decisions about their attitude on the topic" (Guadagno & Cialdini, 2005, p. 99).

There are studies that address how persuasion processes occur differently according to communication modality, gender, and strategic or non-strategic ways. These factors are important for understanding how individuals process persuasive messages. Chaiken and Eagly (1976) studied how communication modality impacts the persuasion process based on ELM or HSM. Their findings revealed that people process persuasive messages presented in text form

differently than those received through different channels of communication. When people read a message that was difficult to understand, their degree of persuasion and comprehension was greater than when they listened to an audio message or viewed a videotaped message. However, with simple material, audiotaped and videotaped communication was more effective than a written message. Guadagno and Cialdini (2002) suggested that there is a gender difference in persuasion processes when comparing face-to-face discussion to e-mail discussion. Females who discussed a message's argument via face-to-face communication thought the argument was more persuasive than females who received the message via e-mail, regardless of the strength of the argument. On the other hand, male participants did not demonstrate a difference in perception between the two modes of communication.

Berger (2002) argued that a non-strategic process is necessary for understanding the process of information seeking and acquisition. Individuals acquire a relatively large amount of information through non-strategic processes, although they do not purposely seek particular information. While identifying information through strategic processes, individuals also tend to gain supplemental information through non-strategic processes. When individuals determine what information is actually required to achieve their goals, they will choose from the range of information gained through non-strategic routes, which can be accumulated and mined by combining acquired information and new information.

So what will happen if people are exposed to influence attempts in the form of comments contrary to the content presented in the original news story? Incongruence and congruence are other factors that influence how people process persuasive messages. When Internet news consumers read opinion comments that are congruent with the tone and message of the news story, they may not think deeply about the news story, thus processing the information

through a peripheral route with low elaboration. Even when readers do not take the time to read comments in response to a news story, the presence of comments acts as a signal that influences readers' perceptions of the news. People may assess the importance of news through a heuristic process by simply noting whether or not there are comments or by checking the number of comments posted rather than actually reviewing all the comments. However, when readers are faced with comments that contradict the news story, they may experience unpleasant feelings and be motivated to alleviate the cognitive dissonance in several ways (Festinger, 1957). If readers actively process persuasive messages with high evaluation and are persuaded by the comments, they may also be inspired to assess the importance of the news by exerting the cognitive effort necessary to read others' opinions.

Based on the theory that there are many routes by which humans are influenced by others, this study focuses on audience perspective to reveal whether individuals' attitudes will change due to discrepancy. In addition, this study evaluates which factors affect the persuasion process by focusing on a scenario in which people have to process persuasive messages that contradict the content of a news story. These theories can explain and support the idea that when faced with an opinion opposed to those of others, an individual's drive alters his or her attitude. Therefore, the present study aims to investigate how comments influence online news readers' perceptions of public opinion and news evaluation.

The following hypotheses guide this study:

H1a: A pro news story will generate more positive attitudes than a con news story.

H1b: Pro comments will generate more positive attitudes than con comments.

H1c: The tone of news story and the tone of comments will interact such that news readers will perceive the news story differently when the tone of comments is

incongruent with the tone of news story.

Studies addressing third-person effect and hostile media perception have focused on subjective bias. Davison (1983) suggested that individuals believe others are greatly influenced by mass media messages but that they themselves are not easily persuaded. In addition, people believe the public is more strongly influenced than they are by undesirable messages. When a message has a high probability of creating a negative influence in society or a low relation with beneficial results, this third-person effect strengthens (Perloff, 2002). For example, messages regarding behaviors evaluated as negative, such as smoking or drinking, have been shown to have a high third-person effect, while messages related to positive behavior, such as a healthy sex life, demonstrate a low third-person effect (Banning, 2001; Jeong & Kim, 2006).

Most comments are evaluated as socially undesirable text, because Internet users often present their opinions without considering the credibility of their sources or their own responsibility through the expression of their thoughts (Ahn & Kim, 2003; Jeong & Kim, 2006; Yoon, 2000). In addition, the quality of online comments is generally low (Kim, 2004; Kim & Kim, 2005). Kim and Rhee (2005) suggested that online discussions act as mediated spaces for venting individual or group opinions that users cannot otherwise express due to social pressure. They also described online bulletin boards as places where impromptu and unreasonable opinions are exchanged. Furthermore, people perceive a difference between the climate of opinion on the Internet and in society offline. In their examination of the impact of online media comments on public opinion, Jeong and Kim (2006) found that people recognized the influence of online news comments on their own opinions but also indicated that the effect of these comments was greater for others than for themselves. The findings of other studies support the

idea that third-person effects weaken or disappear when messages are connected to positive results (Chapin, 2000; Gunther & Mundy; 1993; Jeong & Kim, 2006). If people think that comments have a high probability of resulting in a negative influence on society, the third-person effect will be stronger. Therefore, it is necessary to investigate how individuals perceive comments based on third-person effect, and the following related hypotheses were thus proposed:

H2: An Internet news reader will believe that the news story influences public opinion more strongly than it does his or her own opinion when reading comments that conflict with the tone of an Internet news story than when reading comments that reflect the tone of the story.

Kim and Kim (2005) found that more than half of all comments on an Internet news website refuted other posted comments. In particular, the stronger the commenter's confirmed attitude, the more he or she tended to disagree with the news coverage. Arpan and Raney (2003) investigated the hostile media effect on sports coverage in three different newspapers: a home-town paper, its cross-state rival university's town paper, and a neutral town paper. Although partisan groups read the same news story about their home-town college football team in each of the three news sources, they evaluated the news story as having a favorable perspective for the rival university football team.

If people displaying high involvement in an issue decide the news story opposes their own side, they consider the news story to be valueless (Giner-Sorolla & Chaiken, 1994). Schmitt et al. (2004) studied the discrepancy between individual opinion and perceived media coverage and found that participants evaluated media content as incorrect when the media content

presented facts that contradicted the individual's opinion. This result confirms the hostile media effect, which causes people who have a strong bias about an issue to perceive media coverage as also biased (Gunther & Christen, 2002).

Furthermore, Schmitt et al. suggested that the feelings of those who possess negative opinions about an issue were stronger than those with positive opinions. When they showed a balanced and neutral news story about genetically modified foods to partisan groups, individuals with positive viewpoints on the issue did not perceive negative aspects in the story. However, those with established negative views on the topic evaluated the balanced news story as presenting a positive perspective on the issue. Consequently, individuals who possess a negative perspective on any issue will perceive a story about that issue as biased and evaluate its news value as low. Furthermore, if these individuals read news that is inconsistent with their own opinions as expressed in the comments, the comments might play a role in facilitating the hostile media effect. Based on this premise, the following hypotheses were proposed:

H3: An Internet news reader who has a strong negative attitude about an issue will assess the value of a news story as being lower when comments in response to the story conflict with the story's tone as opposed to when they are in accord.

METHODOLOGY

Procedure

This study posted a questionnaire on SurveyMonkey and provided links to the questionnaire on the e-learning web pages of two university classes for an eight day period from November 8 to November 15, 2010. Data was then collected from participants' responses to the questionnaires.

Participants were tested individually, each reading instructions about the study and signing a consent form prior to completing the survey. Before responding to the survey questions, participants were asked to carefully read a news story and its associated comments presented on the computer screen. After reading the news story and comments, participants then answered the questions displayed on the computer screen. The time needed to complete the reading activity and survey was estimated to be approximately 20 minutes. A total of 120 self-administered surveys were completed and collected over the course of eight days.

Composition of Questionnaire

The online questionnaire included either an Internet news page without any comments or a news page with comments that had been manipulated by the researcher. The manipulated Internet news page was designed with visual format similar to those of actual Internet news websites that present a relatively factual tone. The manipulated Internet news page design was intended to create an environment similar to the real environment in which participants read and interact with Internet news.

The news story presented addressed "University Service," which refers to a bill under debate in some southern states that would provide all students at certain universities with part-

time jobs. This study based the pro and con attitudinal messages about “University Service” on materials originally developed by Wegener, Petty, and Smith (1995) in their study of the effect of mood on persuasive message processing. These messages have been used in published papers to investigate persuasive message processing (Clark & Wegener, 2009; Clark, Wegener & Fabrigar; 2008).

A total of six questionnaires were administered, and each questionnaire included one news story. Four manipulated comments were placed below the story in four of the six questionnaires. The comments included pro and con arguments in response to the news story. See Table 1 for a listing of the news stories and comments included.

A total of six different kinds of Internet news web pages were created to correspond with each of the six conditions (P/C, C/P, P/P, C/C, P/N, and C/N). The control groups read either a pro or a con news story with no comments. The congruence groups read either a pro news story with pro comments or a con news story with con comments. The incongruence group read either a pro news story with con comments or a con news story with pro comments.

Table 1 Six Conditions of News Stories and Comments

		Comments		
		Pro	Con	No
News story	Pro	P/P	P/C	P/N
	Con	C/P	C/C	C/N

The original messages used in Wegener et al.’s study (1995) were also applied in this study but were manipulated to resemble an online news story by posting a fictitious story

publication date and author. Images of the complete web pages presented are included in the appendix. The pro attitudinal news story is reproduced below:

A bill under debate in some states would give all students at some Southern universities the opportunity to attend college with drastically reduced tuition in exchange for working as part-time university staff members. The plan would have no impact on students choosing not to participate. In the new plan, the period of work would depend on the length of time left in the student's course of study, with a maximum requirement of two years of "University Service," even if the student takes longer than the two years to finish his or her coursework.

The counter attitudinal news story was presented as follows:

A bill under debate in some states would require all students at some Southern universities to work as part-time secretarial and maintenance staff. The plan requires students who choose not to participate in the program to pay Out-of-State tuition. In the new plan, the period of work would depend on the length of time left in the student's course of study, with a maximum requirement of four years of "University Service," even if the student takes longer than the four years to finish his or her coursework.

Comments were manipulated along with the tone of the news story. There were four comments that supported and four comments that opposed the tone of each news story. Comment quality, length, grammatical mistakes, and Internet slang are factors that can influence news readers' evaluation of the news. Kim and Sun (2006) revealed that when the quality of the comments in response to a news article was high, people evaluated the article itself as also being of high quality. For this reason, all positive and negative comments in response to the article on

“University Service” were written in complete sentences and presented rational arguments. All factors that could diminish the perceived quality of the comments, such as emoticons, misspellings, Internet slang, and excessive length, were intentionally excluded.

Comments supported or refuted both perspectives of the news stories. Pro attitudinal comments included the following:

1. “It will provide an opportunity for students to enhance their social life by meeting and getting to know other students with whom they otherwise would not have the chance to become friends. Anything that can help increase the quality of education at the university makes their degrees worth more in the real world.”
2. “I don’t agree with some peoples’ opinion that students will focus less on their academic study because they will lose studying time by participating in this service. I think this provision for university service by students will allow the universities to direct more money toward maintaining and increasing the quality of the faculty.”
3. “Students working in university services will help to alleviate the huge monetary pressure placed on a university’s budget that is currently dedicated to maintaining the physical upkeep of a university. With students performing basic services, money will become available for the fundamental purpose of the university: education.”
4. “Some people say that university services will eventually cause some monetary pressure on the university budget because of the training cost for them. However I have a different opinion that the option for students to provide university services will ensure that a college education will remain affordable. Reduced tuition would provide more opportunities for students pursuing a college degree to go to a university.”

The counter attitudinal comments were as follows:

1. "It is not reasonable to require all students to work as part-time staff in that there would be students who don't want to participate in the program. I don't want to be distracted from anything."
2. "I don't agree that this provision for university service by students will allow some Southern universities to direct more money toward maintaining and increasing the quality of the faculty. I think this university service will cause students to not have enough time to study."
3. "I think this university service is nothing but a plan for the schools to alleviate the huge monetary pressure placed on a university's budget. The budget is currently dedicated to maintaining the physical upkeep of a university, and the university would save money by using students to work in this plan."
4. "Some people say that the option for students to provide university services will ensure that a college education will remain affordable. However I have a different opinion that the university services will eventually cause monetary pressure on the university budget because of the training cost and the cost for making up for students' mistakes."
5. "I think the university service would not provide for all students. Even though they say this plan will have no impact on students choosing not to participate, those who do not participate in this plan will not get advantages. This service will promote an atmosphere of disharmony between two groups and students who don't want to participate in the university service will feel a sense of incompatibility."

The fifth counter attitudinal comment replaced the first counter attitudinal comment in a questionnaire of incongruence condition, because the pro news story did not include the message that the “University Service” was required all students.

On the questionnaire, participants answered questions about their attitudes, perceptions of public opinion, and evaluations of each news story and the related comments. To focus subjects’ concentration on the news stories, the instruction “Please read the news stories (and comments)” was placed before and after every reading section. After reading the stories and answering the related questions, participants responded to a few demographic questions to complete the survey.

Measurement

The analysis consists of independent and dependent variables and questions to verify the manipulation of news stories and comments.

Independent variable.

The major independent variable is the incongruence between the tone of the news story and the comments, which were manipulated by the researcher. First individual independent variable is a news tone (pro and con news story) and second one is a comments tone (pro and con comments tone), and third one is an experimental condition (control, congruence, and incongruence group).

Verification of manipulation.

Most studies on comment effects have been conducted using manipulated news stories and comments. Most Internet news sites feature a comment box below each news article. The manipulated stories used in the study provided a similar comment box format, and with the

exception of the control group, each news story was presented with four negative and four positive comments in response to the story.

For this study, it is necessary to verify news stories and comment manipulation by measuring the attitudes presented in the stories and comments as well as the equivalence of strength between the news story and comments. Therefore, a pilot test was conducted. First, the tone of the news stories was evaluated to determine whether participants recognized that one story had a positive perspective and the other presented a negative perspective. Second, the test was conducted to determine whether equivalence of argument strength between news stories and comments was maintained.

Attitudes for pro and con messages about “University Service” were measured by asking the two following questions: “How much do you agree with this story?” and “How strong do you think this comment argument is?” Both questions asked participants to respond using a 7-point Likert scale.

The results of the pilot test indicated that participants agreed with the pro attitudinal message ($M = 5.33$, $SD = 1.63$) more than the counter attitudinal message ($M = 2.20$, $SD = 1.32$; $t(28) = 5.78$, $p < .05$ (two-tailed)). They also perceived that the pro attitudinal message ($M = 4.67$, $SD = 1.18$) presented a stronger argument than the con attitudinal message ($M = 3.13$, $SD = 1.64$; $t(28) = 2.94$, $p < .05$ (two-tailed)). When comparing the strength of the arguments presented in the pro and con comments, participants perceived that the pro comments ($M = 4.30$) as stronger than the con comments ($M = 3.95$). Overall, participants believed that the pro attitudinal messages and comments were slightly stronger than the con attitudinal messages and comments.

Dependent variables.

This study involves the following dependent variables: news story perception, perception of public opinion (third-person perception), and news evaluation.

The news story perception deals with how participants perceive the news story and comments. Participants' attitudes were measured using a combination of the following two questions: "Is this positive news for students?" and "Please indicate your position on the proposed bill." The first question used a 7-point Likert scale anchored by "none" and "a great deal," while the second question solicited responses on a 7-point Likert scale anchored by "strongly unfavorable" and "strongly favorable." Cronbach alpha coefficient was .95.

To measure the perception of participants' own opinions as well as their perceptions of public opinion, the following two statements were presented to measure the impact of the news story: "This news story disturbs me" and "This news story will disturb others." Both questions asked participants to respond using a 7-point Likert scale anchored by "strongly disagree" and "strongly agree." Cronbach alpha coefficient was .79.

News evaluation was measured using four out of six dimensions of news credibility and comprehensibility adapted from Lang, Potter, and Grabe (2003), Kim and Sun (2006), and Schmitt et al. (2004). Participants rated the manipulated news stories and comments on a 7-point semantic scale including the following descriptors: informative, trustworthy, important, and interesting.

The survey closed with questions about participants' use of Internet and mass media along with basic demographic information about respondents' age, gender, and level of education.

RESULTS

A total of 120 University of Alabama students (20 students per group) participated in this study. The gender breakdown of participants was 36.7% men and 63.3% women. The average age of participants was 19 years old. Of these participants, 74.2% read online news at least once a week, while 60.8% of them read a newspaper at least once a week. Both those who read online news (83.3%) and those who read a newspaper (82.5%) spent an average of less than 20 minutes at a time reading news. Among the people who read Internet news for more than 20 minutes at a time, men (27.3%) spent more time reading news than women (10.5%). The major source that participants used to access news was the Internet (44.4%) and second most accessed source was television (40.0%). Among people who chose the Internet as a major source of news, men (50.0%) accessed more news online than women (40.8%). Women (42.1%) received news from television more often than men (36.4%). Of the participants, 83.3% read comments but 70% never wrote comments on news websites. Only 16.7% of participants indicated they never read comments responding to online news stories.

This study conducted a 2 (news tone: pro and con news story) x 3 (comments tone: pro, con, and no comments) between-group analysis of variance to compare the effect of news tone and comments tone on participants' attitudes toward the news issue presented. A 2 (news tone: pro and con news story) x 3 (experimental condition: control, congruence, and incongruence group) between-group analysis of variance was also conducted to compare the effect of news tone and three experimental condition on participants' attitudes toward the news issue.

The hypothesis 1a stated that a pro news story will generate more positive attitudes than a con news story. The results of hypothesis 1a indicated that there was a significant main effect for the news tone on participants' attitudes toward the news story, $F(1, 114) = 172.14, p < .05, \eta_p^2$

= .602, indicating that participants perceived the pro news story ($M = 5.11$, $SD = 1.31$) more positively than when they read the con news story ($M = 2.29$, $SD = 1.26$).

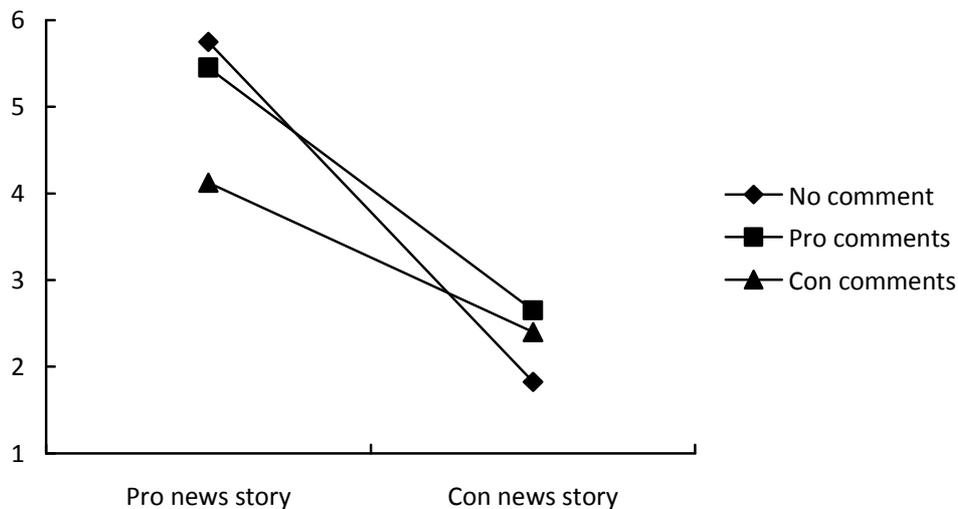
The hypothesis 1b stated that pro comments will generate more positive attitudes than con comments. The results of hypothesis 1b indicated that there was a significant main effect for the comments tone on participants' attitudes toward the news story, $F(2, 114) = 4.65$, $p < .05$, $\eta_p^2 = .075$, in that participants who read pro comments ($M = 4.05$, $SD = 1.63$) possessed a more positive attitude than participants who read no comments ($M = 3.79$, $SD = 2.24$) and those who read con comments ($M = 3.26$, $SD = 1.76$) toward the news story.

The hypothesis 1c stated that a tone of news story and a tone of comments will interact such that news readers will perceive the news story differently when the tone of comments is incongruent with the tone of news story. The results of hypothesis 1c indicated that the interaction of these main effects was significant, $F(2, 114) = 8.75$, $p < .05$, $\eta_p^2 = .133$. A test of simple effects revealed that the news tone was significant for the pro news story, $F(2, 114) = 10.82$, $p < .05$, $\eta_p^2 = .159$. When participants read the pro news story, those who did not read comments ($M = 5.75$, $SD = .95$) perceived the news story more positively than did participants who read con comments ($M = 4.13$, $SD = 1.38$). In addition, the participants who read pro comments ($M = 5.45$, $SD = .99$) perceived the news story more positively than the participants who read con comments did. In addition, when participants read the con news story, those who read pro comments ($M = 2.65$, $SD = 1.11$) also perceived the news story more positively than the participants who read did not read comments ($M = 1.83$, $SD = 1.13$).

A test of simple effects also revealed that the tone of the comments significantly impacted participants' attitudes in the news tone: no comments, $F(1, 114) = 111.42$, $p < .05$, $\eta_p^2 = .494$, the pro comments, $F(1, 114) = 56.70$, $p < .05$, $\eta_p^2 = .332$, and the con comments, $F(1,$

114) = 21.52, $p < .05$, $\eta_p^2 = .159$. The difference of attitudes toward the news tone between the pro news story and the con news story was strongest among the no comments group (pro news story $M = 5.75$, $SD = .95$, con news story $M = 1.83$, $SD = 1.13$), followed by the pro comments group (pro news story $M = 5.45$, $SD = .99$, con news story $M = 2.65$, $SD = 1.11$), and the con comments group (pro news story $M = 4.13$, $SD = 1.38$, con news story $M = 2.40$, $SD = 1.42$). Post-hoc comparisons using Fisher's LSD indicated a significant difference in news readers' attitudes between the pro comments group ($M = 4.05$, $SD = 1.76$) and the con comments group ($M = 3.26$, $SD = 1.63$).

Figure 1 Estimate Marginal Means of News Story Perception



The hypothesis 2 proposed that an Internet news reader will believe that the news story would have a stronger influence on public opinion than on his or her own opinion when reading comments contradictory to the tone of an Internet news story than when reading those in accord. To compare the difference between participants' own opinions and their perceptions of public opinion (third-person perception), this study conducted a 2 (news tone: pro and con news story) x

3 (experimental condition: control, congruence, and incongruence group) between-group analysis of variance. Values of third-person perceptual bias were computed by subtracting values of participants' own perceptions from the values of participants' perceptions of public opinion. The result of hypothesis 2 stated that there was not a significant main effect for the tone of the news story, $F(1, 114) = 6.18, p > .05, \eta_p^2 = .051$, and for the experimental groups, $F(2, 114) = 3.13, p > .05, \eta_p^2 = .005$. As a result, the hypothesis 2 was rejected.

The hypothesis 3 proposed that an Internet news reader who has strong negative opinions toward the issue will evaluate the news story value as being lower when the comments are in conflict with the tone of the news story than when they are in accord. In order to compare news evaluation between congruence and incongruence groups, values of four dimensions for news evaluation were combined. Participants who disagreed with the concept of "University Service" ($n = 39$), members of the partisan group, were selected for a control group ($n = 13$), a congruence group ($n = 13$) and an incongruence group ($n = 13$) using the question "How much do you agree with this news item?" Then, a 2 (pro and con news story) x 3 (control, congruence, and incongruence group) between-group analysis of variance was conducted.

The result of hypothesis 3 indicated that there was no significant main effect for the tone of the news story, $F(1, 35) = .019, p > .05, \eta_p^2 = .001$, and the experimental groups, $F(1, 35) = 3.26, p > .05, \eta_p^2 = .085$. Furthermore, an interaction between the two factors did not exist, $F(1, 35) = 3.26, p > .05, \eta_p^2 = .085$. Therefore, the hypothesis 3 was not supported.

DISCUSSION

The purpose of this study was to examine how comments associated with Internet news stories influence individual readers' attitudes and their perceptions of how news stories influence public opinion when comments are consistent or inconsistent with the tone of a news story. Another purpose of this study was to investigate how news readers evaluate an Internet news story when the comments are inconsistent with the news tone. The assumption that news readers' opinions can be influenced by comments in response to a news article was based on previous research findings that found that opinions expressed in user posts had significant effects on news readers' attitudes toward all news issues (Yang, 2008). This study focused on the situation in which comments in response to a news story conflict with the tone of the news story in light of the belief that comments may act as persuasive messages representative of public opinion. The news web page for the survey in this study was manipulated to resemble a news story from the *Crimson Tide*, one of the campus newspapers at the University of Alabama. A total of six web pages were provided. Participants in the experimental groups viewed one of these pages with either a positive or negative news story along with either negative or positive comments in response. Participants in the control groups read either a positive or negative news story with no associated comments.

The results of this study indicate that there were significant main effects for the tone of the news story and for the tone of the comments on participants' attitudes toward the news issue. Participants who read pro news story perceived the news issue more positively than the participants who read con news story. In particular, when participants read the pro news story, those who read pro comments and those who did not see comments perceived the news issue more positively than those who read comments that were contrary to the news tone. This finding

indicates that comments including opinions opposing the news tone effectively weaken news readers' attitudes toward the news story. As such, comments that argue against or refute the content of a news story act as persuasive messages that may alter or weaken readers' opinions.

In addition, participants perceived the news issue more positively when they read the pro comments than when they read the con comments. The difference in participants' attitudes between the pro and the con news story was strongest in the no comments group, followed by the pro comments group and finally the con comments group. Opinion difference was reduced more among participants who read comments compared to those who did not. Moreover, participants' opinion difference was reduced when they read comments that were contradictory with the news tone compared to when they read comments that were consistent. This result indicates that participants' differences in attitudes between the two news stories depended on whether or not they read comments as well as the tone of the comments they read.

The assumptions about individuals' perception toward comments based on third-person effect and hostile media effect were rejected. In some studies, comments have been considered by participants to have a high probability of negative influence in society (Ahn & Kim, 2003; Jeong & Kim, 2006; Yoon, 2000). When people assess the messages communicated through comments as being negative, the third-person effect is strengthened. For this reason, it was assumed that the readers' perceptions of the comments in this study would inspire the third-person effect. However, contrary to this expectation, participants who read comments conflicting with the news story did not perceive that others would be more influenced than they would by the discrepancy in tone between the news story and the responding comments.

This study also anticipated that a hostile media perception would arise from the discrepancy in tone between the news story and the comments. This effect would lead a partisan

group who reads a news story that is inconsistent with opinions expressed in the comments to perceive the story as biased and consequently evaluate the story's news value as being low. This hypothesis was based Schmitt et al.'s (2004) study in which participants evaluated media content as being incorrect when the media content presented facts that contradicted readers' opinions. However, the results of this study led to the rejection of this assumption.

Based on this study's results, when the comments contradicted the news story's tone, participants might experience a change in attitude toward the news stories. Others' opinions expressed in comments can play an important role in motivated Internet news readers' interaction with news stories, supporting the results of other studies that indicate that the process of shaping individuals' opinions might be more active through the Internet than through television or newspapers, because the Internet allows for interactivity (Yang, 2008). Furthermore, as people grow increasingly dependent on Internet media to solve problems and gain information, the effect of online commentary may strengthen in the future. Viewing ideas in an Internet news story and the associated opposing comments may weaken readers' opinions. In other words, Internet news readers may be swayed by opinion leaders on the Web regardless of whether or not their opinions are valid.

There are some limitations to this study. First, most previous studies evaluating the effects of online news comments were conducted in the real world, allowing researchers to examine the effects of actual comments in natural situations, resulting in high ecological validity. In the present study, participants were required to read all the comments associated with the news story in order to measure the effects of those comments. This requirement was necessary, because the comment effects could not be properly measured if participants stopped reading the news story partway through, as often occurs in real-world situations. Also, while real news web

pages contain pro and counter comments in the same discussion space, only one tone of comments was assigned to each manipulated news story.

Second, one of the reasons that the third-person effects and hostile media perception toward individuals' attitudes toward the news issue did not exist could be due to the quality of the comments used in the study. To avoid the impact of comment quality on readers' opinions, all factors that are known to influence participant bias were excluded, including Internet slang, misspelling, and short and emotional responses. The quality of comments on real news websites is frequently lower than that of the comments used in this study. In this sense, a manipulation of comments might reduce the readers' negative perceptions related to poorly-written comments, preventing the occurrence of the third-person perception.

Third, this study manipulated Wegener et al.'s (1995) pro and counter attitudinal messages to resemble a news story. These messages were written in such a way as to inspire different emotions when participants read the pro message or the counter message. However, the news tone should be manipulated in order to possess an equivalent persuasive power between the pro and counter message to the exclusion of beneficial or non-beneficial values. A counter attitudinal message causes readers to feel negatively toward the news topic. This reader mood might act as another variable influencing change in participants' attitudes. If balanced and nonbiased news stories that merely have opposite perspectives are used in a future study, a more valid result could be obtained.

Finally, this study includes a limitation regarding the methodology employed. Participants' attitudes and third-person effect were measured using only one or two questions. The third-person and hostile media effects may be rejected because the measure was not thorough enough to identify participants' attitudes or perceptions. Future studies should create

measures for multiple dimensions by focusing on each variable. Moreover, the research range needs to be broadened. This study was conducted with college students, meaning that the results cannot be generalized to Internet news readers of an older age range. A broader sample should be considered for a future study to improve the generalizability of the findings.

The results of this study may provide researchers and practitioners with data useful for understanding how news readers are influenced by others' opinions, assuming comments provided by others change news readers' attitudes toward a certain news story. Internet news readers' opinions regarding news stories are too various to count. A study using several new story topics and an exact measure of the pre-existing attitudes of readers would provide stronger validity. If future researchers compensate for these weak points, more thorough and valid research could be conducted to contribute to the existing scholarship addressing the effects of comments on readers of news websites.

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APPENDIX

Questionnaire

You will see a news story about “University Service.”

After reading the news story (and comments), please answer the following questions.

Stimulus

These questions ask you about your opinion about the University Service issue.

	Strongly disagree	Disagree	Somewhat disagree	Neutral	somewhat Agree	Agree	Strongly agree
1. How much do you agree with this news item?	<input type="checkbox"/>						
	None	Little	A little	Some what	Much	Very much	A great deal
2. Is this positive news for students?	<input type="checkbox"/>						
	Strongly disagree	Disagree	Somewhat disagree	Neutral	somewhat Agree	Agree	Strongly agree
3. This story disturbs me.	<input type="checkbox"/>						
	Strongly unfavorable	unfavorable	Somewhat unfavorable	Neutral	Somewhat favorable	favorable	Strongly favorable
4. Please indicate your position on the proposed bill.	<input type="checkbox"/>						
	Strongly disagree	Disagree	Somewhat disagree	Neutral	Somewhat Agree	Agree	Strongly agree
5. This story will disturb others.	<input type="checkbox"/>						

4-1. On average how often do you spend time reading online news?

- 1) Never
- 2) About once a month
- 3) About once a week
- 4) 2~3 times a week
- 5) Every day
- 6) More than two times a day

4-2. On average how often do you spend time reading a newspaper?

- 1) Never
- 2) About once a month
- 3) About once a week
- 4) 2~3 times a week
- 5) Every day
- 6) More than two times a day

4-3. On average how often do you spend time watching television news?

- 1) Never
- 2) About once a month
- 3) About once a week
- 4) 2~3 times a week
- 5) Every day
- 6) More than two times a day

5-1. On average how much time do you spend visiting a news website?

- 1) Less than 5 minutes
- 2) 5 -9 minutes
- 3) 10 – 19 minutes
- 4) 20-29 minutes
- 5) 30 minutes- 1 hour
- 6) More than 1 hour

5-2. On average how much time do you spend reading a newspaper?

- 1) Less than 5 minutes
- 2) 5 -9 minutes
- 3) 10 – 19 minutes
- 4) 20-29 minutes
- 5) 30 minutes- 1 hour
- 6) More than 1 hour

5-3. On average how much time do you spend watching television news?

- 1) Less than 5 minutes
- 2) 5 -9 minutes
- 3) 10 – 19 minutes
- 4) 20-29 minutes
- 5) 30 minutes- 1 hour
- 6) More than 1 hour

6. When you read the news on the news website, how often do you read the comments?

- | | | |
|-----------------|--------------------|-----------|
| 1) Never | 2) Very rarely | 3) Rarely |
| 4) Occasionally | 5) Very frequently | 6) Always |

7. When you read the news on the news website, how often do you write comments?

- | | | |
|-----------------|--------------------|-----------|
| 1) Never | 2) Very rarely | 3) Rarely |
| 4) Occasionally | 5) Very frequently | 6) Always |

8. What is your major news source? (Choose only one)

- | | | |
|---------------|-------------|-----------------|
| 1) Television | 2) Internet | 3) Newspapers |
| 4) Radio | 5) Magazine | 6) others _____ |

Stimulus

Figure 2 Web page of Control Group 1



News in Brief

November, 01, 2010, 14:21:56

A bill under debate in some states would give all students at some southern universities the opportunity to attend college with drastically reduced tuition in exchange for working as part-time university staff members. The plan would have no impact on students choosing not to participate. In the new plan, the period of work would depend on the length of time left in the student's course of study, with a maximum requirement of two years of "University Service," even if the student takes longer than the two years to finish his or her coursework.
(more to come later)

CONTACT: Hyonjin Ahn, 205/394-7775, hahn3@bama.ua.edu

Figure 3 Web page of Control Group 2

UA NEWS

News in Brief

November, 01, 2010, 14:21:56

A bill under debate in some states would require all students at some southern universities to work as part-time secretarial and maintenance staff. The plan requires students who choose not to participate in the program to pay Out-of-State tuition. In the new plan, the period of work would depend on the length of time left in the student's course of study, with a maximum requirement of four years of "University Service," even if the student takes longer than the four years to finish his or her coursework. (more to come later)

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Figure 4 Web page of Congruence Group 1

UA NEWS

News in Brief

November, 01, 2010, 14:21:56

A bill under debate in some states would give all students at some southern universities the opportunity to attend college with drastically reduced tuition in exchange for working as part-time university staff members. The plan would have no impact on students choosing not to participate. In the new plan, the period of work would depend on the length of time left in the student's course of study, with a maximum requirement of two years of "University Service," even if the student takes longer than the two years to finish his or her coursework.

(more to come later)



LetsDance It will provide an opportunity for students to enhance their social life by meeting and getting to know other students with whom they otherwise would not have the chance to become friends. Anything that can help increase the quality of education at the university makes their degree worth more in the real world. Nov. 01, 2010 16:32:20



Veronica I don't agree with some people's opinion that students will focus less on their academic study because they will lose studying time by participating in this service. I think this provision for university service by students will allow the universities to direct more money toward maintaining and increasing the quality of the faculty. Nov. 01, 2010 18:44:02



RKA034 Students working in university services will help to alleviate the huge monetary pressure placed on a university's budget that is currently dedicated to maintaining the physical upkeep of a university. With students performing basic services, money will become available for the fundamental purpose of the university: education. Nov. 01, 2010 23:59:43



Marksd Some people say that university services will eventually cause some monetary pressure on the university budget because of the training cost for them. However I have a different opinion that the option for students to provide university service will ensure that a college education will remain affordable. Reduced tuition would provide more opportunities for students pursuing a college degree to go to a university. Nov. 02, 2010 02:03:42

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Figure 5 Web page of Congruence Group 2

UA NEWS

News in Brief

November, 01, 2010, 14:21:56

A bill under debate in some states would require all students at some southern universities to work as part-time secretarial and maintenance staff. The plan requires students who choose not to participate in the program to pay Out-of-State tuition. In the new plan, the period of work would depend on the length of time left in the student's course of study, with a maximum requirement of four years of "University Service," even if the student takes longer than the four years to finish his or her coursework. (more to come later)



LetsDance It is not reasonable to require all students to work as part-time staff in that there would be students who don't want to participate in the program. I don't want to be distracted from anything. Nov. 01, 2010 16:32:20



Veronica I don't agree that this provision for university service by students will allow some southern universities to direct more money toward maintaining and increasing the quality of the faculty. I think this university service will cause students to not have enough time to study. Nov. 01, 2010 18:44:02



RKA034 I think this university service is nothing but a plan for the schools to alleviate the huge monetary pressure placed on a university's budget. The budget is currently dedicated to maintaining the physical upkeep of a university, and the university would save money by using students to work in this plan. Nov. 01, 2010 23:59:43



Marksd Some people say that the option for students to provide university services will ensure that a college education will remain affordable. However I have a different opinion that the university services will eventually cause monetary pressure on the university budget because of the training cost and the cost for making up for students' mistakes. Nov. 02, 2010 02:03:42

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Figure 6. Web page of Incongruence Group 1



News in Brief

November, 01, 2010, 14:21:56

A bill under debate in some states would give all students at some southern universities the opportunity to attend college with drastically reduced tuition in exchange for working as part-time university staff members. The plan would have no impact on students choosing not to participate. In the new plan, the period of work would depend on the length of time left in the student's course of study, with a maximum requirement of two years of "University Service," even if the student takes longer than the two years to finish his or her coursework.

(more to come later)



LetsDance I think the university service would not provide for all students. Even though they say this plan will have no impact on students choosing not to participate, those who do not participate in this plan will not get advantages. This service will promote an atmosphere of disharmony between two groups and students who don't want to participate in the university service will feel a sense of incompatibility. Nov. 01, 2010 16:32:20



Veronica I don't agree that this provision for university service by students will allow some southern universities to direct more money toward maintaining and increasing the quality of the faculty. I think this university service will cause students to not have enough time to study. Nov. 01, 2010 18:44:02



RKA034 I think this university service is nothing but a plan for the schools to alleviate the huge monetary pressure placed on a university's budget. The budget is currently dedicated to maintaining the physical upkeep of a university, and the university would save money by using students to work in this plan. Nov. 01, 2010 23:59:43



Marksd Some people say that the option for students to provide university services will ensure that a college education will remain affordable. However I have a different opinion that the university services will eventually cause monetary pressure on the university budget because of the training cost and the cost for making up for students' mistakes. Nov. 02, 2010 02:03:42

CONTACT: Hyonjin Ahn, 205/394-7775, hahn3@bama.ua.edu

Figure 7 Web page of Incongruence Group 2

UA NEWS

News in Brief

November, 01, 2010, 14:21:56

A bill under debate in some states would require all students at some southern universities to work as part-time secretarial and maintenance staff. The plan requires students who choose not to participate in the program to pay Out-of-State tuition. In the new plan, the period of work would depend on the length of time left in the student's course of study, with a maximum requirement of four years of "University Service," even if the student takes longer than the four years to finish his or her coursework. (more to come later)



LetsDance It will provide an opportunity for students to enhance their social life by meeting and getting to know other students with whom they otherwise would not have the chance to become friends. Anything that can help increase the quality of education at the university makes their degree worth more in the real world. Nov. 01, 2010 16:32:20



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RKA034 Students working in university services will help to alleviate the huge monetary pressure placed on a university's budget that is currently dedicated to maintaining the physical upkeep of a university. With students performing basic services, money will become available for the fundamental purpose of the university: education. Nov. 01, 2010 23:59:43



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