

The Persuasion Effects of Interactive Commentary on Readers' Opinion*: Focused on Online Leisure News

온라인 덧글(Comment)의 설득효과:
온라인 레저 관광뉴스를 중심으로

Kim, Gyoung-Mo^{**} · Jeon, Joon-Hyun^{***}

김경모 · 전준현

Abstract

With the increasingly rapid diffusion of mass communication technology, media audience is able to take on a participatory role in their news consumption. To meet the audience's demand for interactivity, news organizations are discovering new modes of online services and investing more economic and editorial capital towards their online comment sections. As a result, these interactive features are changing the way audience consumes and shares information and the way that news are reported. In short, the online news experience transforms to a social experience with other news readers. This study shows that the commentary section of online news media affects readers' formation of opinions as well as their willingness to comment. In addition, the degree of persuasion effect is differentiated by topics, but not by the presentation of other readers' profiles..

Key Words : Leisure News(관광레저뉴스), News Reader's Opinion(뉴스구독자의견), Effects of Online News Commentary(온라인뉴스덧글효과)

* This research was financially supported by Hansung University.

** 건국대학교 산학협력중점교수, 연구 관심 분야: 가상현실관광, e-mail: gmkim@konkuk.ac.kr

*** 한성대학교 크리에이티브인문학부 조교수, 교신저자, 연구 관심 분야: VR투어리즘,
e-mail: naturaljeon@hansung.ac.kr

I . Introduction

Today, people are able to consume news through various platforms. With the proliferation of high-speed telecommunications infrastructures, the Internet has become a major tool for both news production and consumption. News organizations put their news online, and more people start to read news from there. According to a research from Pew Internet and American Life Project in 2006, more than 50 million Americans per day receive their news from the Internet.

For online news organizations, “hits” and “duration of stay” are two important indicators to attract online advertising agencies. In an effort to attract readers to the websites and to make them stay, many news organizations create online communities for readers to connect to others around the news articles. For example, many sites include comment sections, in which readers leave their opinions about the stories. This commentary function provides readers with a running account of opinions. By contributing their own comments, the online readers perceive that they interact with the journalist(s), editors and other readers. Light & Rogers (1999) suggested interactivity in online journalism effectively attracts more readers.

Unlike traditional forms of news interaction (e.g., Letters to editor), in which interaction is limited by the factors such as space (limited space on the printed page), time (deadlines inherently impose a staggered response to a story), and selective criteria, web-based comment sections set very few regulations on the conversation between readers and authors or editor. Schultz (1999) suggested that the Internet is a medium, which extends interactivity in journalism. Online commentary enables a conversation to develop not only between readers and authors or editor, but also between readers. For example, after one posts a comment, other readers can view the comment and reply to it as well.

Knowing that the Internet commentary changes the previous relationship between readers to readers, and readers to authors or editors, while this study is more interested in the former effect. The subjective is to discover the

effectiveness of online comments by other news consumers. We predict that a news consumer's opinion will not only be affected by the news stories, but also by the comments that others post. In other words, people's opinions towards a news story can be primed by other people's comments. For example, when people read repeated negative or positive comments toward a news story, they may consciously or unconsciously accept the majority opinions presented by these comments.

Further, this study is also interested in whether the persuasion effect of commentary will vary across topics of news, especially in the tourism and leisure topics. For instance, some readers may possess stronger political views than others by topics. In their case, it may be difficult to persuade them by simply oversaturating them with opposite opinions. However, people may be affected easier by the commentary on casual news such as the topic of sports, leisure, and entertainment. By taking those concepts, we explore to see whether the tourism news commentary has more persuasive to readers than other topics' commentaries.

II. Literature Review & Hypotheses

1. Participatory Journalism

In the past five years have terms like "citizen journalist", "social media", and "new media" begun to truly solidify in the lexicon. So, what do we make of online comment sections that are becoming commonplace for online news websites?

Jean K. Min, director of OhmyNews International, a Korean news website, describes commentary sections as integral forms of online participatory journalism:

"The readers, or news audience, are no longer passive consumers of news produced by a few privileged, arrogant reporters. They are active producers of the news they will consume at the end of the day. Participation in this great news sphere is realized for them either by joining OhmyNews as a citizen

reporter or by participating in the online forum offered at the very bottom of every story we publish” (Min, 2005).

This conceptualization is in consistent with media scholars like Bowman & Willis (2003), Dan Gillmor (2004), and Paulussen (2007), who describe participatory journalism as the “convergence of the roles of content producers and consumers” (Paulussen, 2007, p. 132).

2. Exposure Effect

Social psychology research has found a connection between exposure time and attitude (Bornstein, 1989; Zajonc, 1968). Zajonc (1968) found that when human objects are exposed repeatedly to an individual, they become linked to a familiar stimulus causing the individual to develop familiarity towards the object. Importantly, participants in Zajonc’s experiments generally did not cite prior exposure as a factor in generating their attitudes (e.g., Kunst-Wilson & Zajonc, 1980).

From over 200 experiments examining the exposure-effect relationship, Bornstein (1989) found that the exposure effect is “reliable and robust.” Furthermore, Slovic, Finucane, Peters, and MacGregor (2006) found that “unreinforced exposures were found to reliably enhance affect toward visual, auditory, gustatory, abstract, and social stimuli” (p. 8).

3. Spiral of Silence

Developed by Noelle-Neumann (1980), the spiral of silence theory is based on fear of reprisal or isolation from the majority. She defined a spiral of silence as “people keep quiet until, in a spiraling process, the one view dominated the public scene and the others disappear from public awareness as its adherents become mute” (Noelle-Neumann, 1993, p. 3). She suggests that people recognize public opinion with their “innate ability” or “quasi-statistical sense.” People have a fear of being rejected by the public, so they are willing to publicly state things that will be accepted positively. In contrast, they tend to be unwilling to express their opinion if they trust they are in the minority (Noelle-Neumann, 1980, 1993).

Public opinion plays a significant role in the spiral of silence theory. People tend to pay attention to the public opinion of their social surroundings and their common perceptions influence individual attitudes and behavior (Moy & Scheufele, 2000).

Furthermore, Huang (2006) supports the spiral of silence, demonstrating the difficulty people have in voicing their objection to opinions that are positively accepted by a majority.

4. Contagion Theory

Le Bon (1895) suggests that people tend to forfeit their personal responsibility and attitude when they feel they are surrounded by the anonymity of a crowd. According to this theory, the crowd is likely to be bonded together whether they are organized or spontaneous and this perceived homogeneity fosters anonymity. He claims crowds apply a hypnotic influence on their members. Significantly, the tendency of surrendering to the emotions of the crowd happens not only in face-to-face communication, but also in participatory online communication.

Taking social contagion theory further, Scherer and Cho (2003) suggest that individuals are eager to adopt the attitudes or behaviors of others in their social network group. In online social networking, communication networks work as mechanisms to deliver information, attitudinal messages, opinions, and the behaviors of others (Burt, 1980, 1987; Contractor & Eisenberg, 1990). Once members are exposed to a mechanism, they are likely to develop attitudes, beliefs, and assumptions similar to those of other members (Carley, 1991; Carley & Kaufer, 1993).

Based on the literature, we posit that individuals reading an online news story for the first time will be influenced by the aggregate opinions of past readers. We arrive at this hypothesis through the application of the above theories to this relatively new technology. Collaborative online news is intended to be the newest incarnation of a public forum where debate unfolds. Thus theories of mass communication, interpersonal communication, social psychology and cognition could be applicable to this burgeoning technology.

5. Two-step model of Social Influence

Also from the field of social psychology, research focusing on the influence of social groups on persuasion, the effects of ambiguity on attitude change, and discrepancy and its effects on social influence have begun to triangulate on phenomena central to the study of participatory online comment sections.

Examining the social influence of group standards on individual's opinions, Asch (1940) found that groups mirror media elites in the agenda setting sense, in that a group's social influence does not directly affect the valence of an individual's opinion but rather influences what opinions are salient to the group.

Combining this with several influential persuasion theories such as information integration theory (Anderson, 1981), the information-processing model (Boster, Mayer, Hunter, & Hale, 1980), and social judgment theory (Sherif & Hovland, 1961), Smith and Boster (2009) came up with a two-step model of social influence. The first step based on range frequency theory, explains how other people's interpretation of a message affects the opinion of other individual's nascent opinion of the same message. The second step, based on the linear discrepancy model (Hunter et al., 2006), describes how individual's attitudes change depending on how far from the consensus opinion their original attitudes fell on a continuum (Smith & Boster, 2009).

Also, of methodological concern to the present study is the extent to which a message's ambiguity (read: obscurity) is a factor in the valence of opinions and attitude change and formation vis-à-vis social influence.

6. Pictorial Effect

In this study, people's profiles include both names and their pictures. Miniard et al (1991) suggest that pictures can intensify the persuasion effect of messages, because the pictures provide more visual cues and details. Petty and Cacioppo's (1981, 1986a, 1986b) Elaboration Likelihood Model (ELM) also supports this concept. The ELM describes two routes to persuasion: the "central route," where a subject considers an idea logically, and the "peripheral route," in which the audience uses preexisting ideas and superficial qualities to be persuaded. For example, a picture can demonstrate the idea from different angles

by providing visual information as well as providing superficial qualities such as colorful images and striking effect.

Hereby, we set up the following hypothesis:

- H1: People who read an online news story containing predominantly negative / positive comments will have a more negative / positive opinion of the story.
- H2: The degree of the persuasion effect of online commentary will be differentiated by news topics.
- H3: A presence of users' pictures will increase the persuasion effects.

III. Methods

1. Overview

The researchers implement a quantitative method surveying college students' opinions on news articles across different topics before and after reading the comments. The researchers select a news article about the traveling to North Korea as the story of serious topic, and another news article about a newly released tablet device as the story of casual topic. While the students are reading the articles, they are asked to complete a set of questions about the articles as well as the comments.

2. Commentary Section

The researchers collected 10 positive comments and 10 negative comments for each news story. For the article about traveling to North Korea, the positive comments express a willingness to travel, while the negative comments reject to going to North Korea for a leisure purpose (traveling). For the article about the tablet device, the positive comments contain a favorable feeling toward cultural heritage in North Korea, whereas the negative comments contain the complaints about the hostile attitude to the current political situation with Republic of

Korea. In addition, the researchers create the commentators' profiles, including pictures and names.

3. Focus Groups.

Prior to selecting the two news articles, the researchers conduct a focus group using a convenient sample. The purpose of having this focus group is to find out what news articles the college students from the U.S consider as serious topic and casual topic. The result shows that politics and human right issues are considered as most serious topics, whereas entertainment and technologies are regarded as casual topics.

4. Participants

In 2020, Participants were recruited from undergraduate classes at a large American private university located in Upstate New York. They were promised extra credit for participation. 52 undergraduate students (Caucasian: 23, African-American: 11, Latino or Hispanic: 6, Asian: 10, Prefer not to say: 2) were recruited for the study. All participants signed an informed consent form before participating. Each participant was given two news articles in hard copy. There were four conditions for each article: 1) positive comments with commentators' profiles, 2) negative comments with commentators' profiles, 3) positive comments without commentators' profiles, or 4) negative comments without commentators' profiles. The conditions of the articles were randomly assigned to the participants.

5. Design and Procedure

The participants were not told the purpose of this research. After selecting their two articles with random conditions, the participants read the first article and complete several questions that asking their opinions. Next, they read the 10 comments, either all positive or negative, about this article and complete another set of questions. The participants followed the same steps for the second article. The order of completing the two articles should not affect the result.

6. Measurement

The persuasion effect of commentary was measured in two ways, willingness to provide comments, as well as the degree to which, their opinions towards the news articles change and opinions of news articles. This measurement consists of five questions. Example items include: "I would like to write a comment on this news topic", and "My opinion has been changed after reading a commentary section". For each question, the participants rank from 1 to 7 based on their perception from "strongly disagree" to "strongly agree", a typical seven-point Likert scale.

IV. Results

To test the hypotheses, repeated ANOVAs and independent t-tests were conducted. Repeated ANOVAs were used to test hypothesis 1 and 2 and an independent t-test was used to test hypothesis 3.

Hypothesis 1 was partially supported. Repeated ANOVA analysis showed that the participants kept existing their opinions after they were exposed to the comments that express similar point of view $p = .00$, $\eta^2 = .949$. They were more likely to agree with news article ($M = 5.43$, $SD = .34$) before reading positive condition comments in the both serious and casual topic ($M = 4.15$, $SD = .11$). Also, there was a tendency that the participants' opinion about either a serious or casual topic change after being exposed with opposite comments $p = .16$, $\eta^2 = .636$.

Hypothesis 2 was supported. Repeated ANOVA analysis showed that there was difference of the degree of persuasion effect by topic. The degree of persuasion effect was measured by the degree to which, the participants' opinion change between pretest and posttest $F(1, 26) = 26.70$, $p = .00$, $\eta^2 = .81$. Participants who read casual topic news are more persuaded by other readers' comments ($M = -2$, $SD = 2.78$) than those who read serious news ($M = .71$, $SD = 3.25$).

〈Table 1〉. Repeated ANOVA for measuring Persuasion Effect

News Topics	M (SD) n = 25	Opinion Change (Consists of five questions)	
		p	η^2
Traveling to North Korea	.71 (3.25)	0.05	.01
Talking about newly released tablet device	-.2 (2.78)	0.00	.57

a Responses were coded 7 = strongly agree, 6 = agree, , 5 = more or less agree, 4 = undecided, , 3 = more or less disagree, 2 = disagree, 1 = strongly disagree.

Hypothesis 3 was not supported. An independent t-test showed that there was no significant difference of participants' opinion by other commenter's' profiles.

V. Discussion

When readers access an online news portal for information, they are presented with more than news stories. For example, online commentary sections have become a common feature of online news media.

The findings of this research suggest that online comments have effects on people's formation of opinions. Hypothesis I, the prediction that people who read an online article containing predominantly negative/positive comments will have a more negative/positive opinion of the article, is partially supported. By asking the participants' to answer several questions before showing the comments, the researchers can pretest their existing opinions about the article. The research confirms that, the participants who already have opinions toward either a serious or casual topic keep their existing opinions after being exposed to the comments expressing the similar point of view. Furthermore, the participants, who already have opinions toward either a serious or casual topic, change their existing opinions after being exposed to a context of comments expressing an opposite point of view. One possible explanation is that their pre-existing opinions are not strong enough, or the comments provide them with better knowledge of the issues. The result shows that the participants agree that the comments help them to get a richer understanding of the issue. Moreover, we anticipate that the

participants may feel more confident about their opinions after reading comments that are in agreement with them. However, the result does not show a significant difference.

Hypothesis II, which anticipates that the degree of the persuasion effect of online commentary will be differentiated by news topics, is also partially supported. The persuasion effect in this study is defined as both the capacity to change existing opinions and to change the willingness to comment. For example, the researchers find that, the participants, who already have positive opinions toward a serious topic, become more willing to comment, after being exposed to a context of positive comments. The participants may feel more encouraged by others, who have the similar point of view, and therefore become more willing to provide his/her opinions. In terms of the different effects between topics, this research finds that the capacity to change existing opinions does not differ from the serious topic to casual topic. However, the latter effect, which is to change the willingness to comment, shows stronger in a casual topic than a serious topic. The effect of others' comments appears to be more dramatic for the casual topic than the serious one. The researchers do not find a significant result whether opposite comments make the participants more willing to comment or less willing to comment.

The presentation of the profiles, including names and pictures, does not affect the effect of persuasion. The presentation of profiles aims to enhance the level of perceived online social presence while the participants are reading the comment. Even though many scholars have suggested that more social presence makes people more immersed into the environment, this research do not find a supportive result. This research collects some interesting pilot data on the topic of how online comments influence people's opinions. On top of the positive/negative comments, the researchers include two other variables, which are topic and online profile, to further investigate whether the effect differs across various conditions.

With the newspaper business in an existential state of flux, publishers are looking to create new revenue streams by introducing interactive and multimedia features to their online content in an attempt to manufacture new space for advertising. As such, reader commentary sections will become increasingly

important to online news producers, publishers, and editors, as these sections prolong the duration of page visits and number of page views, metrics that boost advertising revenue.

This study showed that changing (reinforcing) people's intention to travel may not be easy by showing others favorable comments to travel. In other words, people can be easily persuaded their opinions in casual topics which cannot affect their lives/behaviors. However the result showed that the traveling topic could not persuade as much we expected. We presume this result because 1) traveling costs 2) leisure and traveling are his/her strong personal preference. Therefore, other factors attracting people in leisure/travling should be considered in order to plan them actual travel or take a leisure.

As readers become more familiar with these features and the online news/information industry continues to implement interactive features this topic should continue to be researched in depth.

VI. Limitations and Future Research

For this study, we constructed the news articles with predominantly positive or negative comments. However, the ratio of positive to negative comments varies considerably on most major daily online news portals, an observation that deserves to be studied further. For instance, what factors or types of news stories can produce the strongest, most emphatic, impassioned comments? Future research should also look at the variance of positive and negative comments and its effects on reader opinions (e.g., two negative comments with eight positive comments, or three positive comments with seven negative comments). In addition, there have been many type of online information channels other than s news channel (e.g., Youtube, SNS, etc), and those channel are getting more influencing to public (Kim, 2020). We chose North Korea as a place to travel in this study because we tried to find the place to where participants had not been. In addition, this study was taken in North America, therefore we should think about a possibility of participants' prejudice toward North Korea. This should be address in the future study.

References

- Anderson, N. H. (1981). *Foundation of information integration theory*. New York: Academic Press.
- Asch, S. E. (1940). Studies in the principles of judgments and attitudes: II. Determination of judgments by group and by ego standards. *Journal of Social Psychology*, 12, 433-465.
- Bornstein, R. F. (1989). Exposure and affect: Overview and meta-analysis of research, 1968-1987. *Psychological Bulletin*, 106, 265-289.
- Boster, F. J., M. E. Mayer, J. E. Hunter & J. L. Hale (1980). *Expanding the persuasive arguments explanation of the polarity shift: A linear discrepancy model*. In D. Nimmo (Ed.), *Communication yearbook 4*, 165-176.
- Bowman, S. & C. Willis (2003). *We Media: How audiences are shaping the future of news and information*. Report for The Media Center at The American Press Institute.
- Bruns, A. (2005). *Gatewatching: Collaborative Online News Production*. Peter Lang New York.
- Bucy, E. P. (2003). Media credibility reconsidered: Synergy effects between on air and online news. *Journalism and Mass Communication Quarterly*, 80 (2), 247-264.
- Burt, R. S. (1987). Social contagion and innovation: Cohesion versus structural equivalence. *American Journal of Sociology*, 92, 1287-1335.
- Burt, R. S. (1992). *Structural holes: The social structure of competition*. Cambridge, MA: Harvard University Press.
- Burkhardt, M. E. (1994). Social interaction effects following a technological change: A longitudinal investigation. *Academy of Management Journal*, 37, 868-896.
- Carey, J. W. (1988). *Communication as culture: Essays on media and society*. Boston: Unwin Hyman.
- Carley, K. (1991). Designing organizational structures to cope with communication breakdowns: A simulation model. *Industrial Crisis Quarterly*, 5, 19-57.
- Carley, K. M. & D. S. Kaufer (1993). Semantic connectivity: An approach for analyzing symbols in semantic networks. *Communication Theory*, 3, 183-213.
- Cohen, B. C. (1963). *The Press and Foreign Policy*, Princeton, New Jersey: Princeton University Press.

- Contractor, N. S. & E. M. Eisenberg (1990). Communication networks and new media in organizations. In J. Fulk & C. W. Steinfield (Eds.), *Organizations and communication Technology*, 143-172.
- Dewey, J. (1954). *The public and its problems*. Denver: Swallow.
- Graber, D. A. (2000). *Media power in politics* (4th ed.). Washington, D.C.: CQ Press.
- Gillmor, D. (2004). *We the media. Grassroots journalism by the people, for the people*. Sebastopol: O'Reilly.
- Huang, H. (2005). A Cross Cultural Test of the Spiral of Silence, *International Journal of Public Opinion Research*, 17(3), 324-5.
- Kim, W. H. (2020). The Effect of Sympathy and Identifying of SNS Tourism Information on Tourism Behavior Intention: Focusing on the Moderating Effect of Travel Contents Producing Experience. *Journal of Tourism & Leisure Research*, 32(1), 93-113.
- Kunst-Wilson, W. R. & R. B. Zajonc (1980). Affective discrimination of stimuli that cannot be recognized. *Science*, 207, 557-558.
- Le Bon, G. (1895). *The crowd: A study of the popular mind*. London: Ernest Benn.
- Light, A. & Y. Rogers (1999). Conversation as publishing: The role of new forums on the Web. *Journal of Computer Mediated Communication*, 4, (4).
- Lippmann, W. (1925). *The phantom public*. New York: Harcourt, Brace.
- McCombs, M. & D. Shaw (1972). The Agenda-Setting Function of the Mass Media. *Public Opinion Quarterly* 36.
- Min, Jean K. (2005). *Journalism as a Conversation. Neiman Reports: Citizen Journalism*
Retrieved from
<http://www.nieman.harvard.edu/reports/article/100562/Journalism-as-a-Conversation.aspx>.
- Miniard, P. W., S. Bhatla, K. R. Lord, P. R. Dickson & H. R. Unnava (1991). Picture-based Persuasion Processes and the Moderating Role of Involvement. *Journal of Consumer Research*, 18, 92-107.
- Moy, P. & D. A. Scheufele (2000). Twenty-five years of the spiral of silence: a conceptual review and empirical outlook. *International Journal of Public Opinion Research*, 12 (1), 3-21.
- Noelle-Neumann, E. (1974). The spiral of silence: a theory of public opinion. *Journal of Communication*, 24, 43-51
- Noelle-Neumann, E. (1984). *The Spiral of Silence*. University of Chicago.

- Noelle-Neumann, E. (1993). *The Spiral of Silence: Public Opinion: Our Social Skin*. University of Chicago.
- Paulussen, S., A. Heinonen, D. Domingo & T. Quandt (2007). Doing it Together: Citizen Participation in the Professional News Making Process, *Observatorio(OBS*)*, 1(3).
- Petty, R. E. & J. A Cacioppo (1986). *Communication and persuasion: Central and peripheral routes to attitude change* New York: Springer-Verlag.
- Pew Internet & American Life Project (2006). *Online news: For many home broadband users, the Internet is a primary news source* Retrieved from http://www.pewinternet.org/pdfs/PIP_News.and.Broadband.pdf.
- Pew Internet Research (2010). *Americans Spending More Time Following the News Ideological News Sources: Who Watches and Why*. Retrieved from <http://people-press.org/report/652/>
- Rosen, J. (1999). The Action of the Idea: Public Journalism in Built Form', in Theodore Glasser. *The Idea of Public Journalism*, 21-48.
- Scherer, C. W. & H. C. Cho (2003). A social network contagion theory of risk perception. *Risk Analysis*, 23(2), 261-267.
- Schultz, T. (1999). Interactive Options in Online Journalism: a Content Analysis of 100 U.S. Newspapers, *Journal of Computer-Mediated Communication*, 5(1).
- Sherif, M. & C. I. Hovland (1961). *Social Judgment*. New Haven, CT: Yale University Press.
- Slovic, P., M. Finucane, E. Peters & D. MacGregor (2006). *The effect heuristic, Intuitive judgment: Heuristics and biases*. Cambridge University Press.
- Smith, R. A. & F. J. Boster (2009). Understanding the Influence of Others on Perceptions of a Message's Advocacy: Testing a Two-Step Model. *Communication Monographs*. 76(3), 333-350.
- Sundar, S. S. & C. Nass (2001). Conceptualizing sources in online news. *Journal of Communication*, 51, 52-72.
- WAN (2006). *Trends in Newsrooms 2006*. Paris: World Association of Newspapers/ World Editors Forum.
- Zajonc, R. B. (1968). Attitudinal effects of mere exposure. *Journal of Personality and Social Psychology*, 9.
- Zajonc, R. B. (1980). Thinking and feeling: Preferences need no inferences. *American Psychologist*, 35, 151-175.

- Zhou, Y. & P. Moy (2007). Parsing framing processes: The interplay between online public opinion and media coverage. *Journal of Communication*, 57, 79-98.

2021년 09월 29일 원고 접수

2021년 10월 19일 수정본 접수

2021년 10월 25일 최종 수정본 접수 및 게재확정

3인 익명심사 필