Social Indicators in Online News Environments: The Influence of Bandwagon Cues on News Perceptions

THESIS

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By

Natalee K. Seely

Graduate Program in Communication

The Ohio State University

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Thesis Examination Committee:

Erik Nisbet, Advisor

Dave DeAndrea

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Abstract

This study examines the role of social cues, such as rating systems and aggregate opinion indicators, on perceptions of online news credibility, quality and article sharing behavior. Additionally, the personality trait fear of social isolation was examined as a possible moderator. Social impact theory, the bandwagon effect and the interactive nature of online news media were used to hypothesize the effects of social cues on perceptions and intention to share news. In a 2 (high-involvement, low involvement) X 4 (high "likes," high star rating, low "likes," low star rating) between-subjects design, participants (N=325) were given a pre-test to measure fear of social isolation followed by a post-test which included a simulated Associated Press online news article about either college student loan interest rates (high involvement) or pre-kindergarten funding (low-involvement) with either positive or negative social cues. No significant effects were found regarding credibility perceptions; however, high star ratings in the low involvement story did effect quality perceptions and article share behavior in the direction hypothesized.

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Vita

June 2004	Cambridge High School
2008	B.A. Journalism, The Ohio State University
1970	M.A. History, Boise State University
2012 to present	Graduate Teaching Associate, School of
	Communication, The Ohio State University

Conference Papers

Dillon, K., Neo, R., Seely, N. (2014, April). Civil Keystrokes: Examining anonymity, politeness and civility in online newspaper forums. Paper presented at the annual meeting of the International Organization of Social Sciences and Behavioral Research.

Fields of Study

Major Field: Communication

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Literature Review

Introduction

Historical changes and advances in mass media have expanded scholarly thinking about social influence, specifically the influence of the collective opinion of anonymous others. At one time, the opinions and attitudes of those outside of one's personal network were seen as inconsequential to political behavior, but the media has allowed easier access to this information, which can be presented in interesting and innovative ways. The media has become increasingly successful at telling people not only what to think about, but what *others* think (Mutz, 1992, p.5).

One does not have to look far to find indicators of public opinion online. The abundance of social network sites such as Facebook and Twitter advertise the opinions of those within one's social network, as well as those outside of it. News websites have become more interactive, displaying consensus information, rankings and links to social networks prominently above a news story. The affordances of the Internet have made news consumption interactive, personalized, and participatory.

Around 37% of Internet users have contributed to the production of news, made an online comment about the news, or disseminated it via social network sites such as Facebook and Twitter (Purcell, 2010). Additionally, nearly 30% percent of Internet users have personalized their homepage to include news from particular sources or on topics of

interest (Purcell, 2010). Individual opinions and attitudes are consciously and subconsciously shaped by representations of consensus information prominently displayed on the screen (Mutz, 1992). Consuming the news online, therefore, has become a social experience rather than a personal experience.

Drawing on social influence theory, the proposed study will supplement a growing body of research on the persuasive effects of consensus information in the online environment, specifically news websites. Few studies have focused on the impact of usergenerated content on perceptions of newsworthiness and credibility or how online newsreaders use collaborative information to evaluate news (Metzger, Flanagin & Medders, 2010). Further examination may explain whether the bandwagon effect is amplified or dampened depending on situational factors such as involvement level, or individual differences, such as fear of social isolation. The unique affordances of the online environment demand a closer look into how individuals take collective opinion into account when forming judgments about online news content.

Social Influence

Although impersonal influence is mediated, and therefore indirect, it has implications for political behavior and thinking. The demand for information about the opinions of anonymous others has increased as society has become less dependent on interpersonal relationships (Calhoun, 1991).

Early research sought to understand social influence and its power over decisionmaking and behavior. Asch (1952) commented on Americans' prevailing desire for conformity and our "nation of sheep" which act and think based upon external forces rather than internal rational thinking (p. 400). Other scholars have labeled the majority of Americans "other-directeds" (Riesman, Glazer, Denney, 1950) who are eager to please (p.22) or more critically, as people blindly following the group and turning their backs on reality (Moscovici, 1985, p.395). While not all scholars are so critical, most agree that there are motivations at play that motivate individuals to conform.

Social impact theory posits there are two motivations for conforming—the need to be correct and the need to belong (Deutsch & Gerard, 1955). Informational and normative influences represent the need for accurate and valid attitudes as well as social approval or "social harmony with others" (p.162). Additionally, when it comes to social influence, size does matter. The social impact theory (Latane, 1981) and the social impact model (SIM) developed by Tanford and Penrod (1984) propose that the likelihood of conformity increases as the number of people holding the majority opinion increases.

Collective opinion, also referred to as consensus or aggregate information, may act as a substitute for issues, ideas and experiences we may not have or understand ourselves. In the absence of personal experience, individuals tend to see others'opinions as more like their own than they really are, often influencing perceptions of the salience or magnitude of a social issue (Tyler, 1984). Interestingly, consensus information has been shown to be more successful at influencing perceptions of the severity of an issue on a societal level, but not necessarily on a personal level (Davison, 1983).

Early studies on social influence show that group conformity has the power to shape individuals' practices and judgments, causing "manipulations of opinion" and the "engineering of consent" (Asch, 1955). To explore social influence, Asch conducted a

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series of experiments where a majority group influenced participants' judgments, causing them to give incorrect answers even though the correct responses were quite obvious.

The classic study (Asch, 1951) involved participants gathered in a room with a group of confederates who were told to match a line drawn on a card to a line of the same length on another card. The line choices were of varying lengths, but were different enough that the matching line would appear obvious. A series of trials took place, and the confederates all answered incorrectly for more than half of the trials. The participants agreed with the confederate majority's incorrect answers nearly 37 percent of the time, but under ordinary circumstances without the confederates, participants answered incorrectly less than one percent of the time (Asch, 1951). Additionally, as the number of confederates who answered incorrectly increased, so did the compliance of the participants. Subjects submitted "uncritically and painlessly to external manipulations by suggestion," with the sheer weight of numbers represented by the confederates acting as a cue (Asch, 1951, p.3).

Follow-up research on Asch's experiment altered the study to allow participants to respond anonymously after hearing the group member responses. Even under the cloak of anonymity, these participants made more errors than those who had not heard the group consensus, suggesting that the collective opinion was a trusted source of information (Deutsch & Gerard, 1955).

In another early study on group conformity, Sherif (1936) placed a group of participants in a dark room and asked them to watch a pinpoint of light and report how far it moved, when in fact, the light did not move. As the number of trials increased, the

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participants conformed to one another's responses more closely, and each group established their own social norm. When participants were tested alone a week later, they stuck with the initial group answers. The study indicates that because the dot of light remained stationary, participants reported the same responses because of suggestion or group pressure, resulting in a consensus agreement (Sherif, 1936).

Early conformity studies illustrate that people's perceptions of the popular opinion of their peers can have consequences for their own attitudes and decisions. In other words, when a cause or trend gains popularity, others are more likely to go along with it because it is psychologically pleasing to do so. The knowledge of what other people think, therefore, may trigger what is commonly known as the bandwagon effect.

Bandwagon Effect

Historically, a bandwagon referred to the caravan which carried the band during a circus or parade, but since the 1840s when it was used to carry followers during political campaigns, the term bandwagon has come to represent a popular or successful cause (Coleman, 2003). In the 1890s, the phrase "jump on the bandwagon" became part of the common vernacular, meaning to join a growing movement or political cause. Economist Harvey Leibenstein (1950) was one of the first scholars to construct a model of bandwagon effects, describing the psychological effect of feeling better when doing as others do. Individuals have a desire to "join the crowd" and behave like their fellow man.

In the social sciences, the bandwagon effect describes the tendency for people to behave or think in certain ways because a large number of people have adopted that behavior or way of thinking (Allport, 1940). In other words, individuals are swayed more strongly if they see many people conforming to an idea, regardless of the underlying evidence. Decisions tend to be based on social pressure and suggestion, not rational thinking or decision-making (Allport, 1940).

Depending on the context or individual characteristics, reasons for the bandwagon effect vary, but research has pointed to two main causes of the phenomenon: social pressure to conform and deriving information from others (Marsh, 1985).

The mechanisms of bandwagon effects differ depending on what type of social influence is encountered. For example, the reasons to conform to popular opinion are likely different for someone in a room with physically present others than for an anonymous user viewing an opinion poll online. Subjects participating in Asch's conformity experiments were monitored, giving their responses in the presence of others. The physical presence of others and the presence of identifying information opens up a host of possible causes for the bandwagon effect in Asch's study, including fear of ridicule and desire for approval, but the underlying reasons for the bandwagon effect change when dealing with impersonal influence, or the influence of the collective opinions of others.

As discussed previously, the psychological mechanisms for bandwagon effects include the triggering of the consensus heuristic, satisfying the desire for correctness and the need to be within social norms and behavior (Festinger, 1950). In other words, the most popular opinion must be closest to the correct opinion. Another possible mechanism occurs with a kind of self-persuasion, explained by cognitive response theory (Petty & Cacioppo, 1986). When one is exposed to the opinions of others, a priming effect occurs.

Consensus information causes the individual to think of and rehearse arguments that explain that viewpoint, facilitating shifts in attitude.

The bandwagon effect has been studied extensively in the context of publicized pre-election polls, but results have been inconsistent (Brent, 1983; McAllister & Studlar, 1991). Studies of polling effects were born out of the concern that voters, especially the politically independent or on-the-fence voters, would adjust their vote to the majority view, as depicted by polling results.

Despite mixed results on pre-election polling studies, political polls are often seen as an important tool for campaigns. Campaign managers often commission polls, especially when their candidate is in the lead, with the expectation that other voters will be swayed to the "winning" side, thus crippling the losing side (Michalos, 1991). In Nicaragua's 1990 election, pre-election polling results were withheld from the public, as they were often viewed as propaganda (Morwitz & Pluzinski. 1996). Briefly in the past, several countries, including France, Canada and India, have banned pre-election polling for certain time periods before the official results were publicly announced (Bale, 2002).

There are a few explanations for why poll momentum facilitates the bandwagon effect. First, people simply prefer winners over losers, and second, people use poll results as a proxy of sorts for accurate information that they assume the poll respondents took the trouble to acquire themselves (Ansolabehere, 1994).

Previous studies, however, have been inconclusive on whether exposure to polls really influences voting behavior (Michalos, 1991). A 1994 study showed that exposure to actual Senate race poll results influenced participants' attitudes slightly in favor of the leading candidate, but did not influence their intention to vote (Ansolabehere, 1994).

In many studies, polling data influenced participants only under certain conditions. For example, polls are more influential when the election topic is unimportant (Areni et al., 1998), when the audience member is uncertain (Marsh, 1984), and when the poll results are inconsistent with strongly held opinions or values (Morwitz & Pluzinski, 1996). Group opinions are more likely to act as heuristics when an individual's predisposition or motivation to scrutinize the issue or argument is low or when the topic is considered unimportant (Areni, 2000).

Several studies have demonstrated that polling information is effective only for those with low commitment to the issue at hand, or when the issue was not relevant to the individuals (Darke et al., 1998; Ferrell, Areni & Wilcox, 1993). For example, a 1998 study found that consensus information in the form of poll numbers regarding a lowrelevance issue was significantly influential in attitude formation, even when the sample size was reportedly very small. The results indicated that poll information was also effective in the high-relevance condition, but only if the reported poll sample size was large (Darke et al, 1998). These findings are relevant to the current study, as involvement level will be manipulated using topic salience.

As demonstrated in the literature, bandwagon cues act as indicators of popularity. In the digital age, social consensus information and aggregate opinions can be more easily obtained and displayed on the screen, making the online news environment fruitful for the studying of bandwagon effects.

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Social Influence and the Internet

Public opinion and election polls remain an important part of political life, but the affordances of the Internet have allowed public opinion to be collected, aggregated and displayed in new ways. As new technologies emerge and avenues for mass communication become more numerous and complex, consensus information in the form of polls, "recommending information" and social media cues have popped up in the online environment, acting as proxies of sorts for traditional polls. For instance, a large number of Facebook "thumbs-up" next to an online news article about healthcare reform may take the place of a nationally representative public opinion poll. While these online social cues are not representative of the population, they may still be perceived as such, or influence evaluations of the news. The knowledge of the attitudes of anonymous others reaches individuals via mediated channels, therefore, mass media such as the internet acts as a conduit for bandwagon cues (Mutz, 1992).

Traditional journalism is based on a one-way flow of information—news is disseminated from the organization to the audience. Digital media has created a new age of "citizen media" (Gilmor, 2004). The audience has the opportunity to both consume and create the news, and this sense of agency empowers the self. Blogs, Wikipedia, news comment forums—these are examples of the "self as source" (Sundar, 2006). The audience transforms from passive to active, made possible by the navigability, modality and interactivity of digital media (Sundar, 2006).

While traditional media still have their place in society, online news consumption is growing. While television news remains the most popular news source, the Internet now surpasses radio and print in terms of consumption (Pew Research Center, 2012). As more individuals turn to the Internet for news, they face a dynamic environment filled with an abundance of information, but consumers have neither the time nor the resources to acquire it all. In response, consumers self-select based on their interests and preexisting values, and they may rely on heuristics to guide them in their news selection. Individuals use mental shortcuts as a coping mechanism in a digital world overloaded with information (Sundar, 2006). Coined by Fiske and Taylor (1984), the term "cognitive miser" refers to the tendency for individuals to utilize existing scripts and time-efficient methods to evaluate information, not necessarily out of laziness, but as a necessity.

Several recent studies have utilized the high-cue environment of the digital world. Social recommendation cues in the form of "diggs" on an online news feed was shown to influence participants' click likelihood, attention to the news feed as well as evaluations of newsworthiness and credibility. News feeds endorsed by many others were seen as more credible and important. (Xu, 2013). Another 2013 study found that people do in fact pay attention to and are influenced by the knowledge of aggregate opinions of others when consuming online news (Muchnik, Aral & Taylor, 2013). According to the study, people were more likely to like a news article if it was accompanied by positive bandwagon cues in the form of Facebook "Likes," even if the quality of writing was not excellent. On the other hand, unfair negative cues, in the form of Facebook "thumbs down", did not cause people to dislike the article.

The increasingly participatory and interactive nature of online news websites makes it a fruitful environment in which to study heuristics. Within cyberspace, the

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customary rules for making credibility assessments and evaluating messages break down, not only because of the sheer volume of information available, but because of the characteristics of websites and the ability for all sorts of user-generated content. (Callister, 2000). Judgments are often formed from multiple authorities based on peer networks, which manifest themselves through visual cues such as star ratings, recommendations, comments, and sharing information. Additionally, since web users typically do not spend long periods of time on sites, they develop strategies to evaluate messages quickly (Fogg et al, 2003). In other words, "peripheral cues are the rule of web use, not the exception" (Fogg, et al, 2003, p.15), especially when individuals can easily self-select news that agrees with pre-existing values.

User-generated content, whether it is deliberate or incidental, is one of several message types identified by computer-mediated-communication scholars (Walther & Jang, 2012). Affordances of online news sites invite, capture and display user-generated content, or aggregate user responses, often in the form of user comments or descriptive statistics showing ratings, votes and other site behaviors. Users often use this aggregate information, which stimulates cognitive heuristics, to assess source credibility and even perceptions of the opinion climate (Walther & Jang, 2012). Interactive communities, discussion boards, ranking systems, and links to social networks and other "talk-back" features are just a few ways in which participatory websites display these heuristics.

Furthermore, Sundar identified several online news cues that have been shown to influence perceptions of news quality, newsworthiness and credibility. Online news cues are typically categorized into computer-generated cues and user-generated cues (Sundar,

Knobloch-Westerwick & Hastall, 2007). Filtering technologies of computers, also known as news bots, customize and organize information of interest to the recipient. News botgenerated cues include news source, upload recency and related articles (Sundar, Knobloch-Westerwick & Hastall, 2007). These cues are dynamic and constantly updated in news websites (Sundar at al., 2007).

Though source cues have generally garnered more attention in news effects research, heuristics such as upload recency, indicating the number of hours and minutes since posted, and related articles, indicating the number of articles on the same topic, may also influence credibility perceptions. For instance, Sundar and colleagues (2007) found that the more related articles were listed next to an online news headline, the higher participants rated the article in newsworthiness and credibility. In a similar study, Knobloch-Westerwick (2013) found that a high Google search ranking influenced perceptions of information credibility and sponsor credibility.

In this context, the proposed study will focus on whether user-generated heuristics may act as bandwagon cues when consuming online news. In comparison to news bot cues, which are generated automatically without much human intervention, user-generated cues are driven by other users. Online news technology allows everyday users to act as information sources and gatekeepers—roles that are traditionally reserved for editors in a newsroom (Sundar & Marathe, 2010).

For instance, with the click of a button, an article can be "liked," shared or rated. By linking a story to one's social network site, inserting a comment into an online news forum, or giving a news story four out of five stars, users themselves create information which is typically aggregated and presented to other readers. The result is recommending information created by users, dubbed "popularity signals" or "bandwagon cues" (Fu, 2012). Thus, we may ask what implications bandwagon cues have on user perceptions.

An early study on user-generated cues found significant effects on readers' news perceptions when they were told stories were chosen for them by other audience members (Sundar & Nass, 2001). "User-selected" news stories were reported as more newsworthy and higher quality, and participants reported liking them more than stories chosen by news editors or self-selection. Results indicate that user-selected news is the "psychological favorite" (p. 65), perhaps because audience-selected news triggers the consensus heuristic.

Aggregated user information, such as number of views or shares, has also been studied as a potential bandwagon cue. Though this has not been studied extensively in the online news context, several studies have focused on commerce websites, such as Amazon.com, as well as video sharing websites such as YouTube. For instance, when faced with a selection of online videos, users were more likely to watch a video with a higher number of views (Fu, 2012). Similarly, other users' opinions were shown to influence perceptions of product quality and even purchase intention. In a 2008 study, a higher star-rating and sales rank on a product's web page led to more favorable product perceptions, even when faced with competing appeals from experts (Sundar, Oeldorf-Hirsch & Xu, 2008).

The current study will focus on aggregate user cues, but it should be noted that user-generated comments, often found at the end of online news stories, have also been the focus of several studies. A 2012 study found that even though online news readers were aware that user comments were not representative of the population, the comments still seemed to act as indicators of public opinion. From issues ranging from the death penalty to euthanasia, feedback from audience members shaped others' perceptions of social reality (Lee, 2012).

As shown by previous research, bandwagon cues trigger the heuristic that "If everyone likes it, it must be good." Clearly evaluations of news articles can be affected by these cues, but do these altered attitudes translate into behavior, such as sharing a news item with an online social network? According to Noelle-Neumann's (1993) spiral of silence theory, individuals are motivated to determine the climate of opinion on an issue before expressing their own opinion, because they would prefer not to feel isolated by expressing an unpopular viewpoint. Translating this into an online context, the endorsement of a news story (whether in the form of a high star-rating or a high number of "likes") may act as an indicator, however skewed, of a consensus among the majority of the public. This may lead to a higher willingness to share the story with peers both outside of and within the online environment. Typically this occurs through online or offline discussion about the story, posting a link to a news story on a social network or emailing the story to others. While the sharing of a news story does not necessarily indicate a direct expression of a specific opinion or attitude valence, it may represent an endorsement of an issue or topic. To explore the potential implications of news sharing behavior online, willingness to share will be a variable of interest in the current study.

In summary, the affordances of online news media allow for social influence indicators, such as aggregation of opinions and recommending information, to be displayed easily and prominently. There is evidence that suggests people do indeed care about what others think, even when those others are anonymous users without a face or a name. If social influence does translate into thee online context, as previous studies seem to indicate, by what mechanisms does the online bandwagon effect occur? The current study will focus on variables that may dampen or amplify the online bandwagon effect, such as involvement level and fear of social isolation, a personality trait developed from Noelle-Nuemann's spiral of silence theory.

Moderators: Involvement and FSI

Of particular interest to this study is understanding what type of people may be more or less likely to conform to consensus information in online news. Early research, for example, by Crutchfield (1955), established personality types based on likelihood of conformity. Military leaders were categorized as either "independents" or "conformists" based on intellectual effectiveness, ego strength and maturity. Additional scholarship has focused upon personality factors such as self-monitoring, need for affiliation, need for conformity and need for social approval (e.g. Snyder, 1979; Stein, 1963; Strickland & Crowne, 1962; Zanna & Olsonm, 1982).

Individuals ranked high in the characteristics mentioned above typically exhibit a stronger need for the approval of peers and are more responsive to situational demands. Additionally, individuals who are more likely to seek social approval have been shown to conform more to the unanimous judgment of a group (Strickland & Crowne, 1962).

For this study, I have chosen to examine the bandwagon effect as it relates to two variables—involvement level as a situational factor and fear of social isolation as a personality trait (Hayes, Matthes & Eveland, 2011). These variables will be analyzed to pinpoint a possible moderating relationship between bandwagon cues and persuasion.

Involvement level has been studied extensively in persuasion and social influence literature, but less so in the online context. Petty and Cacioppo studied the concept extensively with regard to persuasion. High issue involvement, as characterized by Sherif (1973, p. 162) occurs when an issue has "intrinsic importance" or "personal meaning". Presumably, greater personal involvement with an issue leads to greater resistance to persuasion, mainly because high involvement enhances message-relevant cognitions. On the other hand, low involvement levels lead to greater reliance on heuristics, or "nonmessage cues" (Petty, Richard & Caciopo, 1979, p. 924). As such, simple cues have shown less of an impact when the receiver is highly involved with or knowledgeable about the message content.

For example, individuals under low involvement were more persuaded by a message after hearing an enthusiastic audience response compared to an unenthusiastic response, while highly-involved individuals relied more on argument quality (Axsom, Yates & Chaiken, 1987). Another study by the same authors (1987) found that when students were given information about the prevailing consensus opinion on a topic, their attitudes shifted toward that opinion, but only for students who had little knowledge or concern for the issue.

Levels of involvement, knowledge and commitment to a particular issue, have consistently shown to influence the magnitude of bandwagon effects in persuasion studies. For instance, individuals who are highly unknowledgeable about an issue are more likely to use the opinions of others as cues to indicate correctness (Mutz, 1992). Mutz tested this in a 1992 study by manipulating issues by involvement level. Participants in the low involvement condition, regarding the electoral college, were more likely to follow the suggested opinion, while those in the high-involvement condition, regarding the death penalty, did not feel as compelled to follow the suggested public opinion cues. A more recent study found that students with high content knowledge about a science issue demonstrated fewer reasoning flaws and utilized knowledge in decisionmaking more than those with a naive understanding of the issue (Saddler & Zeidler, 2004).

The second variable of interest is a personality trait known as fear of social isolation (FSI), which stems from the premise of spiral of silence theory (Hayes et al., 2008; Noelle-Neumann, 1974). The spiral of silence effect is the tendency to refrain from expressing a viewpoint when an individual perceives they are in the minority (Noelle-Neumann, 1974). According to spiral of silence, people have an inherent need to fit in with others, and they are more likely to express their opinions when that opinion aligns with the majority opinion.

Fear of social isolation is the force, in a sense, that drives the spiral of silence. The fear of isolation drives individuals to remain silent when they are in the minority, and eventually conform to the majority opinion (Noelle-Neumann, 1993). Early studies on this phenomenon yielded mixed results. A 1991 study found that college students holding the minority opinion were no less willing to be quoted on the record about that opinion than those holding the majority opinion (Katz & Baldassare, 1992). Another study found people were more likely to discuss an issue when they perceived their positions to be gaining support (Glynn & McLeod, 1984).

More recent studies have found that fear of social isolation is a trait more pronounced in some people than in others (Hayes et al, 2008). It is marked by the need to seek out the climate of opinion. Noelle-Neumann described the trait as a significant reason for why people imitate others. She described a "social nature" to humans, causing a "need to agree," in order to be well-liked and respected (1984, p.41).

The current study utilizes the FSI scale in the online environment. There is a lack of research dealing with spiral of silence within the bounds of computer-mediatedcommunication (Liu & Fahmy, 2009). The Internet has become an increasingly popular sphere where individuals discuss and consume news; therefore, it is a suitable context to test the boundaries of the theory. The fact that cyberspace affords anonymity could decrease the spiral of silence, but some studies have shown that fear of isolation persists online.

For example, Schulz and Roesller (2012) suggest that people are more likely to perceive a consonant climate of opinion in an online environment, which then reduces fear of isolation. But a recent study found that individuals were less likely to post a message in a forum when they perceived their opinion to be in the minority online, or when the messages in the forum opposed their views (Woong Yun & Park, 2011). Even though online users are anonymous, they may share a group identity with other users, leading to feelings of social pressure or anxiety (Ernste et al., 2007).

It is hypothesized that individuals higher in fear of social isolation will be more likely to notice and utilize bandwagon cues in their evaluation of a news article. Viewing recommending information that indicates praise for a particular new story, whether in the form of a high star rating or a high number of "likes," may influence someone high in FSI to agree with these cues, leading to sharing behavior. Additionally, although bandwagon cues are not representative of the entire population, they may be seen as valid indicators of public opinion, especially for those high in FSI. These social cues will be the only resource at hand to ascertain what others think of a particular news item. Even though the public's valence of opinion will not be known, the bandwagon cues will indicate a positive view of the news story.

Given the affordances of the Internet, online news readers are not just presented with a story, but also information about what others think about that story. Collective opinion has the power to influence decision-making, whether out of the desire for correctness, social pressure or the psychological need to belong. Research shows that people feel social pressure, not just from physically present individuals, but also from distant or abstract others (Cohen, 2003). Furthermore, the bandwagon effect tends to be stronger when dealing with an unfamiliar topic or when the issue is not of personal relevance (Mutz, 1992). Given the findings, it is expected that individuals under low involvement who read a news story with bandwagon cues will utilize those cues more when evaluating the story. In this study, utilizing the social cues translates to agreement with the positive sentiments expressed by others. Hence,

H1: Individuals under low involvement will perceive an online news story as more credible when accompanied by positive bandwagon cues compared to the same news story with negative bandwagon cues.

H2: Individuals under low involvement will perceive an online news story as of higher quality when accompanied by positive bandwagon cues compared to the same news story with negative bandwagon cues.

H3: Individuals under low involvement will be more willing to share an online news story when accompanied by positive bandwagon cues compared the same news story with negative bandwagon cues.

Individual differences have been shown to magnify or dampen the influence of consensus information. Fear of social isolation has been shown to cause individuals to scan the climate of opinion before expressing themselves. People high in this trait are less likely to express a minority viewpoint and more likely to conform to the prevailing public opinion (Morrison & Matthes, 2009). One goal of the current study is to test the spiral of silence theory within the context of computer-mediated-communication. Given the findings, it is expected that individuals high in FSI will utilize bandwagon cues, regardless of whether the story is of personal importance or not.

H4: As fear of social isolation increases, perceptions of article credibility and quality will increase when accompanied by positive bandwagon cues, regardless of involvement level.

Methodology

Participants and Procedure

Undergraduates at a large Midwestern university (N=325) participated in this survey experiment in exchange for communication course credit. Participants first completed an online pretest questionnaire measuring fear of social isolation, attitudes about pre-kindergarten funding and student loan interest rates, news consumption, Internet and social media use and other demographic control variables. Several days later, participants were randomly assigned to one of eight experimental conditions in the form of Associated Press news stories embedded within an online survey (See Appendix A). Specifically, a 2 (low involvement, high involvement) X 4 (cue environment: high "likes," high star rating, low "likes," low star rating) between subjects design was used. After participants viewed the stimulus, they completed a posttest questionnaire regarding perceptions of news credibility, article quality and article sharing behavior. A manipulation check asked participants what the topic of the news article was and whether they thought most people liked the story. (See Appendix B for full questionnaires). *Stimulus Materials*

Stimulus materials took the form of simulated Associated Press news stories about student loan interest rates (high involvement) or government funding of prekindergarten programs (low involvement). The student loan interest rates story detailed the recent passage of a bill that kept interest rates from doubling and tied rates to financial markets, and the pre-kindergarten funding story detailed the decrease in federal funding of such programs and the costs and benefits of less funding. College student loan interest rates are of personal importance to many college students, as nearly 40 percent of all households headed by someone younger than 35 had student loan debt. Additionally, nearly 7.4 million university students are affected by changes in loan interest rates. Both stories were written with a neutral tone, presenting balanced arguments on both sides of the issue. The articles were designed to look like an online news story from the Associated Press website, complete with the AP logo and web page footer.

Displayed above the news article was a rectangular area with two types of bandwagon cues in the form of Facebook "Likes" or star rating, while the number of article views remained the same across conditions. The high "Likes" condition displayed 26,112 Facebook thumbs up symbols, with 132 Facebook thumbs down symbols. The low "Likes" condition displayed 26,112 thumbs down symbols and 132 thumbs up symbols. The high star rating condition displayed a 4.5 out of 5 star rating, while the low star rating condition displayed a 1.5 out of 5 star rating. Articles in all conditions displayed a cue stating that the news story had been viewed 28,673 times (See Appendix A).

Independent Variables

Several independent variables and demographic control variables were included in the analysis. Participants were measured on variables including age (M= 21.6, SD=3.6) and gender (69.8% female). Participants were asked if they had children attending college (Yes=1.2%), whether they had children under the age of 5 (Yes=1.8%) and whether they had taken out federal loans for educational expenses (Yes=50.8%). Likelihood of taking out federal student loans in the future was assessed with a 7-point scale (1=*Very unlikely*, 7=Very likely, M=4.5, SD=2.28). Political ideology was assessed by asking participants how they thought of themselves in terms of social and economic issues and averaging those responses (1= Very Liberal, 2= Very Conservative, M=4.22, SD=1.55).

Fear of Social Isolation (Hayes, Mathes & Eveland, 2013) was measured using a modified index containing five items on a 5-point scale, ranging from "Strongly agree" to "Strongly disagree" (α =.795, *M*=3.71, *SD*=.73). Specific items included: "It is scary to think about not being invited to social gatherings by people I know," and "It would bother me if no one wanted to be around me."

News consumption habits were measured by asking participants how often they consume news on outlets such as talk radio, television, online news websites, newspapers or political blogs, on a 7-point scale (1=*Never*, 7=*Daily*). The five items were averaged into an overall measure of online news consumption ($\alpha = .668$, *M*=3.63, *SD*=1.14).

Internet use was measured by asking participant how often they engaged in certain online activities, such as sharing political opinions, gaming, shopping, emailing, watching movies, reading the news and seeking information. Responses were measured on a 7-point scale (1=*Never*, 7=*Daily*) and averaged into an overall measure of Internet use (α =.509, *M*=4.96, *SD*=.74).

Social network use was assessed by asking participants how often they follow social networking websites such as Facebook, Twitter, Livejournal, LinkedIn, Youtube

and Pinterest, with response choices on a 7-point scale (1=*Never*, 2=*Daily*). Responses were averaged into an overall scale of social network use (M=3.94, SD=.905).

Relevance of student loan interest rates and pre-kindergarten funding were each measured with items about issue importance in general and if the issue concerned them, on a 5-point scale (1=*Strongly disagree*, 5=*Strongly agree*). Reponses to the two items were averaged into measures of relevance of student loan interest rates (M=3.97, SD=.804) and of prekindergarten funding (M=2.86, SD=.804).

Media trust, another control variable, was measured using three items: "In general, I trust the news media to do what is right," "In general, I trust the news media to tell the truth," and "In general, I trust the news media to be objective." Response choices were on a 5-point scale (1=*Strongly disagree,* 2=*Strongly agree*) and averaged into an overall measure of media trust (α =.79, M=2.74, SD=.848).

Dependent Variables

Outcome variables included perceived credibility of the news article, perceived quality of the news article and willingness to share the news article.

Perceived credibility was measured using five items taken from Gaziano and McGrath's (1986) news credibility scale. The five items asked their level of disagreement and agreement, on a 5-point scale, with statements describing the news story. Specific items included, "In my opinion the news story I just read is trustworthy," and "In my opinion, the news story I just read is objective." Other items described the story as balanced, credible and manipulative. Responses to the five items were averaged into an overall measure of perceived credibility (α =.695, *M*=3.48, *SD*=.55).

Perceived quality of the news story was measured using five items asking participants' level of disagreement or agreement, on a 5-point scale, with statements about the news story, which included "In my opinion, the article I just read is well-written." Other items described the story as informative, high-quality, accurate, and biased. Responses were averaged into an overall measure of perceived quality (α =.67, *M*=3.52, *SD*=.49).

Willingness to share the article was measured with six items asking participants' level of disagreement or agreement, on a 5-point scale, with certain sharing behaviors. Specific items included, "I would be willing to share this news story with my online social network" and "I would email this news article to friends and family." Other items asked about "Liking" the article on Facebook, talking about the article with others, posting it to a social networking site, and recommending the article to others. Responses were averaged into an overall measure of willingness to share the story (α =.86, *M*=2.50, *SD*=.80).

Manipulation Check

A manipulation check was conducted in the post-test survey to assess whether participants understood the subject matter of the article they read. Of the 325 participants, 304 accurately answered the manipulation check question. An indicator check was also conducted to assess whether participants perceived there to be social cues in favor of the story. Results found that 201 participants were either accurately answered the indicator check, or responded with "not sure," while 103 participants failed the indicator check. A crosstabs calculation revealed that of the 325 participants, 106 did not accurately answer both the manipulation check and the indicator check. Participants who failed the indicator check were excluded from the following analyses.

Results

For *H1*, ANCOVA (analysis of covariance) analysis indicated no significant effects of social cue environment on credibility perceptions of the news article for participants who viewed the pre-kindergarten story. While those in the low involvement/positive cue condition did report the article as more credible (M=3.348, SD=.067) than the low involvement/negative cue condition (M=3.214, SD=.093), the mean difference was not significant. Covariates included in the model were age, type of social indicator, whether participants understood the subject matter of the article, gender, political ideology, whether participants had children of pre-kindergarten age, whether they had college-aged children or whether they had taken out federal student loans. There were, in fact, significant differences between the low and high involvement groups, in that participants reported the student loan interest rate article in both the positive cue condition (M=3.632, SD=.066) and the negative cue condition (M=3.462, SD=.088) as more credible than the pre-kindergarten article with both positive and negative cues F(3,211)=5.094, p<.005.

For *H2*, ANCOVA analysis did find a significant main effect of positive social cues on perceptions of article quality within the low involvement condition *F*(3, 211)=3.756, p<.05. Results show that those who viewed the pre-kindergarten story with positive social cues found the article of higher quality (*M*=3.547, *SD*=.058) than those who viewed the same article with negative social cues (*M*=3.289, *SD*=.08), as predicted.

The same covariates were included in the model. Additionally, it seems positive social cues had a marginally significant effect on quality perceptions within the high involvement condition as well, p=.069, with those who viewed the student loan story with positive cues rating it higher quality (M=3.594, SD=.057) than those who viewed the same story with negative social cues (M= 3.419, SD=.077).

For *H3*, ANCOVA analysis also found a significant main effect of positive social cues on article sharing intentions within the low involvement condition F(3, 211)=4.204, p<.001. Those who viewed the low-involvement story with positive social cues were more willing to share the story (M=2.417, SD=.094) than those who viewed the same story with negative social cues (M=1.985, SD=.13), as expected. Covariates in the analysis again included age, gender, political ideology, whether participants had children of pre-kindergarten age, whether they had college-aged children or whether they had taken out federal student loans. Additionally, participants were significantly more willing to share the high-involvement story than the low involvement story, regardless of cue valence.

To test *H4*, regarding the possible moderating effect of the personality trait fear of social isolation on perceptions of article credibility and quality, possible interaction effects in multiple linear regressions were examined. Hypothesis 4 predicted that as fear of social isolation increased, credibility and quality perceptions would also increase with the presence of positive social cues, regardless of the topic of the news article. To test this, a multiple regression was conducted, controlling for involvement in addition to the same control variables used in the ANCOVA analyses, and creating dummy variables for

the positive cue conditions. In the model containing an interaction between FSI and positive social cue, the interaction was not significant in explaining perceptions of news credibility (β =.457, p =.14) or news quality (β =.412, p=.183).

Post-Hoc Analysis

To determine whether differences existed between groups based on indicator type (star rating or "Likes"), ANCOVA analyses were run again with the conditions separated into eight groups show more refined differences between indicator type. While no significant differences were found between groups regarding the first dependent variable, credibility perceptions, results of a Bonferroni yielded some interesting findings that suggest the star-rating cue may be a stronger predictor of news perceptions.

A Bonferroni test showed a marginally significant result indicating there may be differences between the star-rating and Facebook "Likes" cue type. It seems that within the low involvement condition, the star rating was most impactful in influencing negative perceptions of news quality. Those who viewed the pre-kindergarten story with a low star rating found the story to be of less quality than those who viewed the same article with low "Likes" (MD=.342, SE=.113, p=.074). In fact, the low star rating cue type in the low involvement condition resulted in the lowest mean compared to all other conditions.

In terms of willingness to share the news article, the results of a Bonferroni test showed a marginally significant effect regarding star-rating, similar to what was found regarding perceptions of article quality. Those who viewed the low-involvement article with a low-star rating were less likely to share the news story compared to those who viewed the same article with low "Likes" (MD=.483, SE=.172, p=.152).

It is possible that social media use plays a role in whether individuals notice or utilize social cues in online news environments. Heavy social media users may be more likely to use heuristics to make decisions and process information when browsing online information, perhaps out of habit or experience. According to the Elaboration Likelihood Model (Petty & Cacioppo, 1986), when an individual lacks motivation and ability, mental shortcuts are often relied upon. Often environmental characteristics of a message or external cues are used in decision-making. In the current study, those cues come in the form of star-ratings and Facebook "Likes." It may be possible that heavy social media users care about what other people think more than low social media users, or that they utilize heuristics more out of habit, as they are surrounded by social cues in the online social networks they frequent. Another possibility is that heavy social media users are more distracted by the amount of information they come across on social media websites, and thus rely more on simple cues for evaluations and decision-making.

To test this hypothesis, a multiple linear regression was conducted testing the interaction between social media use and positive indicator conditions. Results found that the interaction term was not significant regarding perceptions of article credibility, but the interaction term was significant regarding perceptions of article quality. Social media use amplified the effect of the manipulation, R^2 *Change*=.016, (β =.627, p<.05).

Discussion

This study attempted to identify a relationship between social cues, displayed as aggregate opinion indicators and rating systems, and perceptions of online news. While no support was found for *H1* regarding effects on credibility perceptions, significant findings supported both both *H2* and *H3*, in terms of perceptions of news article quality and article sharing intentions.

Hypothesis 1 regarding perceptions of credibility was not supported in this study. It was hypothesized that in the low involvement condition (participants who viewed the pre-kindergarten news article), perceptions of credibility would increase with the presence of positive bandwagon cues in the form of high "Likes" and a high star rating, and diminish with the presence of negative bandwagon cues in the form of low "Likes" and a low star rating. While the resulting means trended in the predicted direction, the effect was not significant (p=.240). It is possible that low power undermined the effect, and the analysis might have benefited from a larger sample size. It is also possible that social cues simply have an effect on some perceptions, such as quality and article sharing behavior, but not on other perceived traits of an article such as credibility.

Although no hypotheses were made regarding perceptions of the lowinvolvement story compared to perceptions of the high-involvement story, results did find that participants found the high-involvement story more credible than the low involvement story, regardless of the valence of social cues or indicator type (stars or "Likes"). According to Elaboration Likelihood Model of persuasion, individuals will centrally process issues of high personal relevance, leading to higher scrutiny of the information (Chaiken & Eagly, 1989). Credibility of the information and the sources will be a higher priority for highly-involved individuals, perhaps leading participants to ignore the social cues and focus primarily on the information and content in the article. The article information seemed to be judged as more credible than social cues for those in the highinvolvement condition.

Turning to perceptions of news article quality, those in the lowinvolvement condition did rate the positive social cue story as higher quality than the negative social cue story, thus supporting *H2*. Post-hoc analyses also indicated that a low star rating seemed to be the most impactful cue regardless of involvement level. These results indicate that under some circumstances, starrating cues may be more effective than Facebook "Like" cues when it comes to news perceptions. In many cases, pictures are more easily recognized and recalled than text (Paivio & Csapo, 1973). While the Facebook "Like" indicator included mostly numbers, the star-rating included pictures of stars, which are not only wellknown symbols but were also a brightly-colored yellow. Possibly, the star-rating indicator type is simply more eye-catching or visually appealing than the Facebook "Likes" indicator type.

Another possibility for these results is that the Facebook "Likes" indicator type showed alternate viewpoints by including a ratio of "Likes" to "Dislikes." The favorable cue condition did show significantly more "Likes," but the sheer fact that a few thumbs down "Dislikes" were also shown weakens the assumptions of Social Impact Theory. Consistent with the classic Asch experiments, as long as an alternate viewpoint is shown, participants may have felt less pressure to conform to the majority. The star-rating did not display the same type of valence as the "Likes" cue type, leading to a more one-sided display of public opinion.

Alpha levels for post hoc analysis regarding the effect of indicator type were only marginally significant, at p=.074, for quality perceptions and nonsignificant, p=.152, for article sharing intentions. However, these results may be meaningful because of the unfortunate weakness of the stimulus manipulations (as shown by the manipulation check) as well as the low sample size. In addition, when conducting the ANCOVA analysis in SPSS, Bonferroni adjusted p-values were calculated in order to adjust alpha levels based on the number of comparisons made to protect against the possibility of type I error due to the number of comparisons.

Another possibility is that participants were more accurate in answering the indicator check questions when they were shown an article with star-ratings. But

when running a chi-square test on results of a crosstabs between indicator type and the indicator check variable, the percentage of participants who answered the indicator type question did not differ significantly by indicator type.

Support was also found for *H3*. Participants who viewed the pre-kindergarten story were significantly more likely to share it when it contained positive social cues compared to when it contained negative cues, as predicted. Post-hoc analyses also found a marginally significant difference between the star-rating and "Likes" cue type within the low-involvement condition, regarding willingness to share the story, again suggesting a difference between star-ratings and "Likes" in terms of attention or visibility.

And similarly to the credibility perceptions, those who viewed the highinvolvement story were more willing to share the story compared to those who viewed the low-involvement story, regardless of social cue valence . These results make sense, as topic with high personal relevance will be more interesting and appealing to a reader, thus explaining the higher sharing behavior intention.

Those high in the personality trait fear of social isolation were not more likely to utilize positive social cues when making credibility and quality assessments, as indicated by the multiple regression analyses. According to Noelle-Neumann (1974), it is the fear of being isolated that prompts individuals to seem out the climate of opinion and conform to it. It is possible that the cloak of anonymity afforded by the Internet muffled any effects that would have been seen if participants were identified or their responses were somehow traced back to them. Individuals high in FSI may feel less restricted in their opinion expression because they remain anonymous. Thus, the lack of a physical presence of other people, coupled with the cloak of anonymity, may act as a protection from any negative sanctions individuals might feel if their opinion was in the minority (Yun & Park, 2011). If the study had been based more on persuasion regarding attitudes or opinions about issues, the results may have been different. While this study did measure a form of persuasion, it was based simply on evaluations of the news article itself, and did not measure attitudes or opinions about federal loans or pre-Kindergarten funding as issues. Future studies might find that when participants high in FSI are probed about their viewpoints on an issue, not just characteristics of a news article, they would be more likely to adhere to the majority opinion because this type of expression is perceived as more of a revealing and explicit statement. Thus, individuals might feel more vulnerable to negative sanctions if they express an attitude on an issue rather than just an attitude about characteristics of a news story.

Post-hoc analyses revealed that heavy social media use was a significant predictor of perceptions of news quality. A 2011 study (Zhong, Hardin & Sun) found that those who used social network sites less often were more likely to engage in effortful thinking. Additionally, individuals who spent more time on social network sites were more likely to be multi-taskers. These findings point to a possible link between social media users and personality traits, which may lead to more or less effortful thinking—a possible explanation for why heavy social media users would engage in less systematic processing and more heuristic processing, thus utilizing social cues in online news.

The study had several limitations that must be taken into consideration. The results suggest that for a high number of participants, the social cue manipulations were

not effective, as shown in the manipulation check results. Since the cue valence manipulations were either not effective, or because participants were not sufficiently motivated to pay attention to what other people thought about the story, future studies on social cues and online news would benefit from larger sample size and a pilot test to measure perceived valence and ensure participants understood the meaning of social cue indicators.

Additionally, the study may have benefited from a few questions dispersed throughout the post-test to measure cognitive attention. Berinsky (2012) recommends using instrumental manipulation checks, also known as "screeners," to show participants are paying attention while taking a survey by performing a simple yet illogical task, and then excluding the cases that failed. This type of manipulation check may have weeded out participants who did not utilize the social indicators due to inattention.

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Appendix A: Stimulus





Pre-K programs take hit

AP Newswire | September 10, 2013 5:46pm

WASHINGTON (AP) – Funding for pre-kindergarten programs took a hit last year, as the federal and state governments are spending less per child than a decade ago.

Adjusted for inflation, per-student funding has been cut by more than \$1,000 during the last decade. A recent study shows nearly 42 percent of children enrolled in pre-K programs are attending schools that meet fewer than half of the quality standards of the National Institute for Early Education.

"Pre-K programs should not be considered a luxury anymore," said Steve Barnes, director of the NIEE. "These programs have been shown to increase a child's chances of succeeding in school and in life."

Proponents of increased government spending on pre-K programs cite research from the Early Education Institute showing children who complete quality pre-K programs enter school more prepared cognitively, emotionally and socially, and are less likely to be held back or need special education services in grade school and high school.

"Quality Pre-kindergarten programs need funding for qualified teachers with adequate training, smaller class sizes, technology and materials," said Barnes. "And the government has an obligation to provide low-income children with the opportunity to attend."

Other state representatives argue that cuts to pre-K funding are necessary in the wake of the lingering effects of the 2008 economic downturn.

"It's a rough time right now, and we have to make cuts somewhere. There just isn't enough money to go around," said Rep. Mike Fords.

"If we don't decrease the pre-K budget, we are forced to make spending cuts in other areas," said Fords. "These cuts could cause students to be dropped from existing preschool programs or military schools, or force higher student fees."







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"Pre-K programs should not be considered a luxury anymore," said Steve Barnes, director of the NIEE. "These programs have been shown to increase a child's chances of succeeding in school and in life."

Proponents of increased government spending on pre-K programs cite research from the Early Education Institute showing children who complete quality pre-K programs enter school more prepared cognitively, emotionally and socially, and are less likely to be held back or need special education services in grade school and high school.

"Quality pre-kindergarten programs need funding for qualified teachers with adequate training, smaller class sizes, technology and materials," said Barnes. "And the government has an obligation to provide low-income children with the opportunity to attend."

Other state representatives argue that cuts to pre-K funding are necessary in the wake of the lingering effects of the 2008 economic downturn.

"It's a rough time right now, and we have to make cuts somewhere. There just isn't enough money to go around," said Rep. Mike Fords.

"If we don't decrease the pre-K budget, we are forced to make spending cuts in other areas," said Fords. "These cuts could cause students to be dropped from existing preschool programs or military schools, or force higher student fees."



Congress reaches deal on loan rates

AP NewsWire I Septemer 10, 2013 5:46 p.m.

WASHINGTON (AP) – The Senate ended a lengthy battle in July by passing a short-term bipartisan measure to keep federal student loan interest rates from doubling.

Under the deal, undergraduates will borrow at a 3.9 percent interest rate for subsidized and unsubsidized loans. Graduate students will have access to loans at 5.4 percent, and parents will borrow at 6.4 percent. The rates would be locked in for that year's loan, but each year the loan could be more expensive than the last, according to White House officials.

The compromise was reached after a summer of negotiations, with lawmakers at odds over how loan rates should be set in the future. Both sides agreed, however, that doubling rates would be bad news for students.

The legislation links student loan interest rates to the financial markets. Lower rates will be offered this fall because the government can borrow money cheaply at this time. If the economy improves in the coming year, it will become more costly for the government to borrow money, and that cost would be passed on to students.

"We all know college expenses are a burden for graduating students and young families," said Sen. Jack Reed, of Illinois. "This deal was a sensible and realistic approach."

With a cap in place, undergraduate interest rates cannot exceed 8.25 percent.

About 11 million students this year are expected to have lower interest rates, saving the average undergraduate \$1,500 on interest charges.

While many lawmakers called the deal a success, others said it was only a small fix to a bigger problem.

"More work needs to be done," said Sen. Hugh Greggs, of Indiana. "The legislation does nothing to address the bigger problems, which include over-borrowing and the mounting student debt crisis."





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Appendix B: Questionnaires

Pre-Test

Internet/Social Media Use

Q. How often do you use the following outlets to get news? (Talk Radio, Television News, Online News Websites, Political Blogs, Newspapers-print or online)

Q. On average, how often do you use the Internet to do the following activities? (Share political opinions, Play games, Shop, Use social media, Email friends and family, Watch movies, shows and clips, Read the news, Use search engines to find information)

Q. How often do you use the following social networking websites? (LiveJournal, Facebook, Twitter, LinkedIn, Pinterest, YouTube)

Q. Online news websites often allow readers to type comments at the end of a news story. How often do you read the comments left by others following online news articles?

Attention to News Topics

Q. There are many different topics in the news today. How much attention do you pay to the following news topics? (Student loan interest rates, Climate change, Nanotechnology, Federal deficit, Pre-kindergarten funding, National security, Immigration reform)

Q. How likely are you to seek out more information about the following news topics? (Student loan interest rates, Climate change, Nanotechnology, Federal deficit, Pre-kindergarten funding, National security, Immigration reform)

Q. How much attention do you pay to what other people around you think about stories in the news?

Q. How much attention do you pay to public opinion polls about political issues and candidates?

Media Trust

Q. In general, I trust the news media to do what is right.

Q. In general, I trust the news media to tell the truth.

Q. In general, I trust the news media to be objective.

Issue Importance

Q. The increase or decrease of undergraduate student loan interest rates is an important issue.

- Q. The federal government's funding of pre-kindergarten programs is an important issue.
- Q. The increase of federal undergraduate student loan interest rates is an issue that concerns me.

Q. Government funding for Pre-Kindergarten programs is an issue that concerns me.

Attitudes

Q. Some people say that Congress should make an effort to pass legislation to keep student loan interest rates low or cap them at a low rate. Other people say that the government should stay out of it, and the financial market should set

the interest rates, which means rates could fluctuate widely. In your opinion, how beneficial would it be for Congress to approve a bill to cap student loan interest rates?

Q. Some people say that the federal government should invest more money in Pre-Kindergarten programs. Others say the federal government should cut spending on Pre-Kindergarten programs and let the individual states handle funding. In your opinion, how important is it that the federal government increase spending on Pre-Kindergarten programs?

Q. Congress should take action to prevent undergraduate student loan interest rates from increasing.

Q. Congress should pass legislation that allocates federal funds for Pre-Kindergarten programs.

Q. The financial market, and not Congress, should control undergraduate student loan interest rates, even if it means that interest rates could double.

Q. In your opinion, how beneficial would it be for Congress to approve a bill that would keep undergraduate student interest rates from increasing?

Q. In your opinion, how beneficial would increased funding for Pre-Kindergarten programs be for the children who enroll in them?

Fear of Social Isolation

Q. It is scary to think about not being invited to social gatherings by people I know.

Q. One of the worst things that could happen to me is to be excluded by people I know.

Q. It would bother me if no one wanted to be around me.

Q. I dislike feeling left out of social functions, parties or other social gatherings.

Q. It is important to me to fit into the group I am with.

Ideology

Q. When thinking about economic issues, how would you describe your political views?

Q. When thinking about social issues, how would you describe your political views?

Q. Generally speaking, when it comes to political parties, how would you best describe yourself?

Control Variables

Q. Do you have children under the age of 5yrs old?

Q. Do you have children who are attending college or will be attending college soon?

Q. Have you taken out any federal student loans to help pay for the costs of college tuition and/or room and board?

Q. What is the likelihood that you will need to take out a federal loan for college costs sometime in the future?

- Q. What year were you born?
- Q. What year are you in college?

Post-Test

Introduction

On the next page, you will see an online news story from the Associated Press. It may take a few moments to appear. Please read the article carefully. The story will remain on the screen for a minimum of 60 seconds, but you may take as long as you need to read it. Once 60 seconds have elapsed, the >> button will appear. You will then be asked a few questions about the article.

The next set of items is a list of statements and questions asking your evaluation of the news article you just read. Please read each statement carefully and tell us how much you agree or disagree with each one.

Perceived Credibility

Q. In my opinion, the news story I just read is...(Trustworthy; Objective, Balanced, Credible, Manipulative)

Perceived Quality

Q. In my opinion, the news article I just read is...(Well-written, Informative, High-quality, Accurate, Biased)

Willingness to Share Story

Q. I would "Like" this news article on Facebook.

Q. I would be willing to share this news article with my online social network.

Q. I would email this news article to friends and family.

Q. I would post this news article on my social network website.

Q. I would recommend this news article to people in my online social network.

Q. I would talk about this article with friends and family.

Manipulation/Indicator Checks

Q. Did the news article you just read contain links to social network sites, such as Facebook and Twitter?

Q. Do you think most people liked or disliked the article you just read?

Q. Do you think most people rated the article low or high?

Appendix C: Bar graph showing marginal means of DVs

