Seeking More Information and Conversations: Influence of Competitive Frames and Motivated Processing

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Abstract

A consistently growing body of research focuses on the concept of framing. The present study contributes to framing effects literature in three ways: the study examines frames in competitive environment, investigates the influence of motivated processing, and the effects on behavioral intentions of participants. The data were collected using an experiment embedded in a Web-based survey of participants employing the issue of civil liberties conflict. The study used a 2 (motivated processing) × 3 (framed conditions) between-subjects design. Findings show that in case of both the outcomes of behavioral intent, willingness to seek information and talk, motivated processing intensified framing effects and specifically so in the mixed frame condition.

In recent years, a prolific body of research on framing has developed from varied fields. The interdisciplinary nature of framing research has led to the varied definitions of frames and the employment of different methodologies. As the framing literature continues to grow considerably, a pattern of "dramatic growth in framing studies" (Weaver, 2007, p. 143) emerges. However, scholars have often called attention to several aspects of framing litera-ture such as the lack of clear operationalizations and conceptualizations (Scheufele, 1999, 2000; Scheufele & Tewksbury, 2007), lack of studies on antecedents of frames (Borah,

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2008, 2011; Carragee & Roefs, 2004), reduction of frames to issues and story topics (Carragee & Roefs, 2004), and lack of studies examining frames in competitive environment (Chong & Druckman, 2007a; Sniderman & Theriault, 2004).

The present study contributes to the literature on framing effects in three ways: first, the study examines frames in the competitive environment to clarify questions about effects of mixed frames. Second, to gain a more accurate understanding of the psychological mechanisms involved in emphasis framing, the study explicates the influence of motivated processing on framing effects. Previous research on framing effects has demonstrated several psychological processes involved; however, the role of motivated processing has not been studied. Third, the study tests the influence of frames on two outcomes of behavioral intent: willingness to seek information and willingness to talk. Many framing effect studies have examined the influence of frames on outcomes such as shifts in opinion or attitudes (e.g., Chong & Druckman, 2007b; Iyengar, 1990, 1991; Nelson, Oxley, & Clawson 1997; Shah, Domke, & Wackman's, 1996). However, framing effects studies investigating outcomes of behavioral intent have been fewer in the emphasis framing literature.

Frames and Framing Effects

Frames can mean the "devices embedded in political discourse" or the "internal structures of the mind" (Kinder & Sanders, 1996, p. 164). Hence, conceptually, framing has two broad foundations—sociological and psychological. Framing research emerging from the sociological foundations (Entman, 1991; Gamson & Modigliani, 1989; Gitlin, 1980; Goffman, 1974) focuses on the phrases, words, and images that are used to construct news stories (Druckman, 2001a). On the other hand, framing research developing from the psychological background (Domke, Shah, & Wackman, 1998; Iyengar, 1991; Kahneman & Tversky, 1984; Shah, Kwak, Schmierbach, & Zubric, 2004) concentrates on the frames in audiences' mind (Scheufele, 1999).

Framing, called a "fractured paradigm," (Entman, 1993, p. 51) has been defined in various ways and framing research embraces many methodologies (Borah, 2011; Chong & Druckman, 2007c; Gamson & Modigliani, 1989; Goffman, 1974; Nelson, Clawson, & Oxley, 1997; Pan & Kosicki, 1993, 2005; Scheufele, 1999, 2000; Shah, Domke, & Wackman, 1996). Equivalency[1] framing effects examine how the use of "different but logically equivalent words or phrases" (Druckman, 2001a, p. 228) influences individuals to alter their preferences. On the other hand, emphasis framing effects refer to the process where by emphasizing a subset of considerations in a message, individuals are led to focus on these considerations in their decision making. Unlike equivalency framing effects, the frames in emphasis framing are "not logically identical ways of making the same statement" (p. 230) but focus on different relevant considerations of the same issue.

Value Frames

Previous research has demonstrated that individuals use values to form issue opinions (e.g., Feldman, 1988; Rokeach, 1973). Value frames or "value conflicts" usually depicts

policy debates as a clash of basic values. By their very nature, political issues require choices to be made between competing values (Sniderman & Theriault, 2004). Value frames provide an interpretive framework to understand a political issue (Ball-Rokeach & Loges, 1996; Ball-Rokeach, Power, Guthrie, & Waring, 1990).

Scholars have paid much attention to the concept of value conflict (Gibson, 1998; Zaller, 1992). Value conflict is thought of as part of the explanation for unstable political attitudes amongst individuals (Nelson & Willey, 2001). Public opinion then becomes "rife with ambivalence: a mix of positive and negative inclinations born of value conflict" (p. 252). In framing effects studies, value conflict has been examined using many issues—civil liberties conflict (Nelson, Clawson, et al., 1997), gay rights (Brewer, 2002), and health care (Shah, Domke, & Wackman, 1996). However, fewer studies have inspected the influences on individuals exposed to both sides (e.g., Brewer, 2003) of the value conflict at the same time.

Frames in Competitive Environment

In previous experimental research on framing, scholars have focused largely on the difference of framing effects in single frame conditions; for instance, strategic vs. value framing, loss versus gain or episodic versus thematic (e.g., Iyengar, 1991; Nelson et al., 1997; Shah et al., 1996). However, there has been little research on the effects of multiple frame conditions, where the same subjects get both frames of an issue (Sniderman & Theriault, 2004). In general "the role of multiple competing frames has gone largely unexplored" (Chong & Druckman, 2007a, p. 101). Sniderman and Theriault, (2004) point out that to be able to capture what actually happens in politics, "it is necessary to have an additional condition in framing experiments, in which opposing frames are presented together" (p. 146). Arguing that the very nature of politics requires choices to be made between competing values, the authors consider "ambivalence" as key for framing effects (p. 137).

In the framing effects experiment on government spending, Sniderman and Theriault (2004) added a third condition where participants were exposed to both the frames of "getting ahead" and "higher taxes" (p. 146). Their results show that when participants are exposed to both sides of a political argument, there is an increased likelihood that their choices will be consistent with the participants' predispositions. Similarly, in another study on competitive framing, Brewer (2003) shows that when participants are exposed to both the equality and morality frames on the issue of gay rights, framing effects dampen in the mixed frame condition.

In one of most extensive studies on competitive framing, Chong and Druckman (2007b) examine the interplay of competitive frames with the quality and frequency of frames. Employing the issues of urban growth and civil liberties conflict, they conclude that frame competition "alters but does not eliminate the influence of framing" (p. 637; for details see Chong & Druckman, 2007b). Chong and Druckman (2007a) explain how conflicting information could stimulate "individuals to engage in conscious, deliberate assessments of . . . competing considerations" (p. 109). The authors discuss how the mixed frame condition could increase the possibility of evaluating information via the systematic route (Chong &

Druckman, 2007a, 2007b). Understanding the psychological mechanisms in the mixed frame condition was thus considered valuable for the framing literature.

Psychological Processes in Framing

Several different processes have been used to explain framing effects—accessibility explanation (Iyengar, 1990, 1991), priority explanation (Nelson, Oxley, et al., 1997), readjusting explanation using the associative network (Simon, 2001), motivational explanation using value frames (Shah, Domke, & Wackman's, 1996); applicability explanation (Price & Tewksbury, 1997), or suitability judgments explanation (Pan & Kosicki, 2005).

The extant literature on emphasis framing demonstrates that frames do more than just prime certain notions; rather, "they establish hierarchies among competing frames" (Nelson & Willey's, 2001, p. 263). Nelson and Willey's (2001) study suggest that frames activate existing beliefs and cognitions and influence decision-making processes by altering the "weight" of particular considerations about the issue. Pan and Kosicki, (2005) conceptualizes framing as a process of sense making in public deliberation. The authors describe the sequence of framing effects as "exposure to framing devices" ⟹ "activation" ⟹ "suitability judgments" resulting in the use of the suitable cognitions in understanding an issue (p. 186). However, little scholarly research has directly tested the psychological mechanisms involved in mixed frames.

Motivated Processing

The social psychology literature has given much attention to, as well as challenged the influence of motivation on attitudes (Festinger, 1957) and perceptions (Erdelyi, 1974). When individuals are motivated to be accurate, they process information more deeply, carefully using complex rules and more cognitive effort[2] (Kunda, 1990). The "least effort" principle assumes that, in general, individuals are "economy-minded souls" (Eagly & Chaiken, 1993, p. 330) and in most cases people prefer to use less effortful modes of information processing.

However, the least effort principle does not take into account the motivational concerns such as the desire to be accurate. The "sufficiency" principle of the heuristic-systematic model addresses the idea that efficient information processors tend to find a balance between "satisfying their motivational concerns and minimizing their processing efforts" (Eagly & Chaiken, 1993, p. 330). Specifically, this principle asserts that individuals will employ whatever effort is required to be able to accomplish a sufficient degree of confidence in their judgments (Chaiken, Liberman, & Eagly, 1989).

The sufficiency principle of the heuristic-systematic model, then, explains the motivation for more effortful processing. Research has demonstrated several variables that can motivate more effortful processing—personal relevance, task importance, responsibility for message evaluation, accountability, and need for cognition (Eagly & Chaiken, 1993). If participants in a framing effects experimental study are motivated to process

the information using more effort to gain judgmental confidence, it is possible that the processing mode could influence framing effects.

Druckman (2001a) concluded after his apt analysis of the psychological mechanisms involved in emphasis framing that "citizens use frames in a systematic and well-reasoned manner" (p. 245). The extant literature indicate that most of the time framing is not a passive automatic process. Instead it is a systematic process where individuals take an active part. Perhaps this is all the more true in the mixed frame condition where participants tend to be motivated to evaluate information more consciously (Chong & Druckman, 2007a, 2007b).

Framing Effects and Behavioral Intentions

There is much research that demonstrates how news framing influences information processing and the subsequent decision-making processes and shifts in attitudes (Iyengar, 1991; Nelson et al., 1997; Cappella & Jamieson, 1997; Druckman, 2004; Chong & Druckman, 2007b). Many of the equivalency framing effect studies explore preventive health care behaviors, such as vaccination (Gerend & Monday, 2008), or behaviors such as alcohol use (Gerend, 2008), organ donations (Reinhart, Marshall, Feeley, & Tutzauer, 2007), and healthy behavior in cancer care (Rotham, Bartels, Wlaschin, & Salovey, 2006). It is possible that equivalency framing, which primarily examines loss versus gain frames, is more suitable for studying behavioral outcomes in terms of health issues.

However, studying behavioral intentions in case of emphasis framing is not as frequent. One of the few studies examining behavioral intent explores the effects of emotions as frames on outcomes such as desired information seeking (Nabi, 2003). The results demonstrate how emotions such as fear and anger can influence information seeking differentially. Likewise, Boyle et al. (2006) examines the influence of frames on willingness to take expressive action in the case of national security and civil liberties. Their study demonstrates that individual-framed stories about a cause opposed by the participant and group-framed stories about a cause supported by the participant resulted in the most willingness to take expressive action.

In another study, Valentino, Beckmann, and Buhr, (2001) examine the influence of strategy versus issue frames on several variables including "intention to participate" (p. 356). Their findings show that individuals were less inclined to participate in the electoral process when exposed to the strategy frame. In a more recent study, Druckman and Bolsen (IN PRESS) examine the role of adding factual content to framed arguments on attitudes and behavior. Their findings show that although additional facts do not have an impact on attitudes, it does significantly strengthen the influence of frames on behavioral outcomes.

Examining framing effects on attitudinal shifts and opinion change is undoubtedly important; however, investigating the influence of news frames on behavioral intentions should not be neglected. The few studies mentioned above show that specific frames could influence the behavioral intentions of participants in different ways. And even though these behavioral intentions are not evidence of any behavioral change, they are nonetheless valuable.

Ambivalence and Uncertainty

Zaller and Feldman (1992) define ambivalence in terms of the distribution of considerations—"Most people possess opposing considerations on most issues, that is, considerations that might lead them to decide the issue either way" (p. 585). And these considerations determine the expression of public opinion (McGraw, Hasecke, & Conger, 2003). Ambivalence involves both positive and negative information components and value conflict is a common form of ambivalence (McGraw et al., 2003; Chong, 2000; Zaller & Feldman, 1992).

Pan and Kosicki (2005) call ambivalence a "necessary condition" for framing effects and they explicate the term as a psychological condition characterized by the "coexistence and potential relevance of conflicting cognitions" (p. 177). The authors point out how it is inevitable in the political world for a particular issue to be comprehended from various angles—for example, the issue of civil liberties conflict could be seen as a public safety issue or as a freedom of speech issue. More often than not, individuals will be exposed to both these values in the real world. The nature of the political or social issues, then, "by their very nature, requires choices be made between competing values" (Sniderman & Theriault, 2004, p. 140). The important question here is "How do individuals behave when they are faced with such competing values?" Another concept closely related to ambivalence is uncertainty, which is linked to "imperfect and incomplete information" (McGraw et al., 2003, p. 426). Downs (1957) defined uncertainty as the "lack of sure knowledge" (p. 77). Even though uncertainty is not the same as ambivalence (Pan & Kosicki, 2005), when faced with ambivalence, and especially when they are motivated to acquire judgmental confidence, individuals can perhaps feel uncertain or anxious. Relevant to this debate is also the work by Marcus, Neuman, and Mackuen (2000). In their model of affective intelligence, they contend that individuals become attentive to stimuli and seek additional information when they experience anxiety. Naming the phenomenon the "surveillance system" (p. 53), they explain that anxiety triggers a sense of danger and engages individuals in thought. Moreover, anxiety could assist the "consideration of opposing viewpoints" (MacKuen, Wolak, Keele, & Marcus, 2010). In the framing literature, Druckman and McDermott (2008) apply the same concept by examining the moderating role of emotions on frames.

It is viable that when individuals face conflicting values, they tend to seek more information, to minimize this ambivalence, anxiety, or uncertainty. However, it is important to keep in mind the differences between uncertainty and ambivalence. Both could lead to information seeking, and in case of the former additional information reduces uncertainty. On the other hand, additional information might heighten not reduce ambivalence (Alvarez & Brehm, 2002).

Information Seeking

Information seeking has been defined as the process by which individuals "purposefully make an effort to change their state of knowledge" (Cho & Lee, 2008, p. 549; Marchionini,

1995). Scholars contend that inconsistent information causes psychological discomfort (Hass, Katz, Rizzo, Bailey, & Moore, 1992; Nordgren, van Harreveld, & van der Pligt, 2006; Newby-Clark, McGregor, & Zanna, 2002). The cognitive consistency theories (Festingar, 1957) claim that individuals facing dissonance such as ambivalence would often seek to eliminate the psychological tension. Research also shows that one of the strategies individuals might use is seeking more information (Holbrook & Krosnick, 2005; McGraw & Bartels, 2005). Individuals might be able to minimize the dissonance with the help of new information (Zhao & Cai, 2008). The extant literature (e.g., Afifi & Weiner, 2004; Brashers, 2001) on information seeking supports the view that information seeking could be a potential strategy to cope with ambivalence (Zhao & Cai, 2008).

Similarly, communication theories such as uncertainty reduction theory (Berger, 1987; Berger & Calabrese, 1975), problematic integration theory (Bradac, 2001), and uncertainty management theory (Brashers, 2001) explain that information seeking is one of the primary strategies for coping with uncertainty. Nevertheless, it is important to note that both problematic integration theory and uncertainty management theory assume much broader approaches that include a multitude of factors involved in the process of uncertainty reduction and information seeking (for details, see Bradac, 2001; Brashers, 2001). For example, in the context of health communication, there are times when individuals avoid information seeking if they perceive that the information will cause them distress (Brashers, Goldsmith, & Hsieh, 2002). However, in general, the literature shows that in the cases of both ambivalence and uncertainty, or in the case of anxiety (Marcus et al., 2000; MacKuen et al., 2010; Druckman & McDermott, 2008) individuals are likely to seek more information.

Interpersonal Discussion

There is a prolific literature on the significance of political talk (McLeod, Scheufele, & Moy, 1999; Scheufele, 2000) for many deliberative outcomes. Research has shown that interpersonal discussion can lead to more participation in a civic forum (McLeod et al., 1999), or more political participation in general (Scheufele, 2000b); it could lead to increased engagement in further discussions (Burkhalter, Gastil, & Kelshaw, 2002; Dutwin, 2003) as well as reflection on issues (McLeod et al., 1999).

Moreover, several antecedents of political talk have also been studied such as motivation to deliberate (Burkhalter et al., 2002); media use (McLeod et al., 1999; Scheufele, 2000) or political interest (Kim, Wyatt, & Katz, 1999; Kwak, Williams, Wang, & Lee, 2005; McLeod et al., 1999). In a much-cited article, Burkhalter et al. (2002) clarify many conceptual issues in the deliberation literature. Among the many antecedents for talk, they discuss motivation to deliberate. Individuals are likely to deliberate only when they are sufficiently motivated to process the content, rather than when they are focused on peripheral cues.

Research has also shown that interpersonal discussion could be one way to seek more information (Berger & Calabrese, 1975; Planalp & Honeycutt, 1985). When individuals are faced with uncertainty, they tend to engage in "communication with one another in

order to better understand" (Planalp & Honeycutt, 1985, p. 2) the issue. Information seeking behavior can use different methods that range from seeking information from the media to interpersonal communication. Interpersonal discussion can be a way to find additional facts by "asking a person for information" (Brashers, 2001, p. 483). Hence, besides information seeking, willingness to engage in interpersonal discussion was added as the second outcome variable in the present study.

Research Hypotheses

The extant literature on framing effects demonstrates that the psychological processes involved in framing are complex and seems to involve the active participation of the individual. It is also clear from the review on competitive framing that individuals exposed to mixed frames are likely to be more ambivalent about an issue position. And seeking information to overcome this ambivalence and uncertainty could be a natural inclination for them. Moreover, individuals exposed to mixed frames would also tend to elaborate more on the information (Chong & Druckman 2007a, 2007b). Hence, examining the literature on motivated processing and competitive framing demonstrate the likelihood that individuals would seek more information if participants are motivated to process so that they can achieve judgmental confidence; and they are in an ambivalent situation, amplified by the exposure to competitive frames. Thus the following hypotheses are proposed:

> *Hypothesis 1a:* Participants motivated to process will show more willingness to seek information.
> *Hypothesis 1b:* Participants in the mixed frame condition will show more willingness to seek information.
> *Hypothesis 1c:* Among participants who are motivated to process, those exposed to the mixed frame condition will show most willingness to seek information.

Motivation to process information is considered an important antecedent for deliberation (Burkhalter et al., 2002). When individuals are inclined to reach judgmental confidence, they will process the information more carefully, which could lead to discussion. Moreover, amongst the diverse ways in which individuals could seek more information (Afifi & Weiner, 2004), interpersonal discussion is considered an important one (Berger & Calabrese, 1975; Planalp & Honeycutt, 1985). Not only would individuals tend to seek more information but they are also likely to participate in interpersonal discussion to reduce their ambivalence and uncertainty. As a result, the same hypotheses were tested for the second outcome variable—the willingness to talk.

> *Hypothesis 2a:* Participants motivated to process will show more willingness to talk.
> *Hypothesis 2b:* Participants in the mixed frame condition will show more willingness to talk.
> *Hypothesis 2c:* Among participants who are motivated to process, those exposed to the mixed frame will show most willingness to talk.

Method

Participants

The data in this study were collected using an experiment embedded in a Web-based survey of participants enrolled in undergraduate courses at a large Midwestern university. Their instructors offered extra credit for participation in this study. All potential participants were contacted by e-mail in the spring of 2009 and given the Web site of the online experiment. A total of 477 participants (70.2% female; 69.5% democrat and 22.7% republican; mean age = 20.44 years) completed the experiment over a 2-week period in April 2009.

Design and Procedure

The online experiment dealt with the issue of civil liberties conflict and consisted of both pre- and postmanipulation survey items. After answering the pretest questions, respondents were presented with manipulated stimuli in a news analysis story. The study used a 2 (motivated processing) × 3 (framed conditions) between-subjects design. Before reading the news story respondents were prompted to either of the processing modes. The three versions of the manipulated story portray the KKK rally either as a free speech issue, or a public safety issue, or both. The experimental design did not include a control condition, as testing the specific hypotheses for the study did not require a control condition.

Manipulations

The subjects were exposed to the first manipulation in order to vary the motivation in their processing of the news story. In order to manipulate motivated processing,[3] half of the participants read a prompt before they read the news article saying,

> You have been randomly selected to read the following news story. After reading the news story you will be asked to answer a few questions related to the news story. Read the information very carefully and take your time making your decision. You will be asked to justify your final judgment by telling us your reasoning. Think carefully about each piece of information and be prepared to defend your decision.

While the other half of the participants read the prompt saying, "In everyday life, people are often in a hurry when they read news articles. We are interested in your general impressions from a casual reading."

The psychological origins of framing lie in Kahneman and Tversky's (1979, 1984) work that examined the effects of identical decision-making scenarios presented differently. However, it is not always relevant or possible for political communication studies to present identical situations in two different ways. The difference in presentation of the same information works well in the field of economics—a definition, which sometimes

could be too narrow for political communication researchers. As a result, the manipulations for this study are based on Druckman's (2001a) definition of emphasis framing—by high-lighting a few relevant considerations individuals can be led to concentrate on these aspects in their decision-making process.

The issue of civil liberties conflict has been employed in several framing effects studies. Nelson et al. (1997) used the issue in their study on framing effects and tolerance; Druckman (2001b) used it to understand the moderating effects of source credibility, whereas Chong and Druckman (2007b) employed the same issue to investigate strength of frames in competitive environment. The present study found the issue relevant to investigate the effects of the same frames on behavioral intent, being able to replicate the findings from the previous studies on attitudinal shifts and opinion at the same time.

The framed news story presented the civil liberties conflict as a free speech, public safety issue, or both. All three news stories were structured identically. They appeared to have been taken from *The Star Tribune*, a local Minnesota newspaper. The stories were written using journalistic standards and were based on the manipulation materials from prior studies such as Nelson et al. (1997), Druckman (2001b), and Chong and Druckman, (2007b). The placement and length of the quotes remained the same in all three versions; however, the content of the quotes differed according to the frame. The public safety frame presented possible concerns about the rally that was to be held at Minnesota State University. Direct quotes from school authorities showed the concerns about the safety of the students if the permission to hold the rally is given. While the free speech framed news story, it presented arguments about the KKK's rights to hold the rally. Although the stories used different quotes and arguments to emphasize the manipulated frame, the stories used similar wording and phrasing as much as possible. The story in the mixed frame condition had quotes emphasizing both the public safety and free speech frame.

Dependent Variables

Information seeking. The variable was constructed by averaging participants' scores on five items to create an index for likelihood of seeking information (Cronbach's $\alpha = .91$, $M = 3.41$, $SD = 1.61$). The items contained in the index asked participants to rate their likelihood of seeking more information pertaining to the issue of civil liberties conflict. The five items measured on an 8-point Likert-type scale (0 = *strongly disagree* to 7 = *strongly agree*) were "Seek more information supporting your own side of the issue," Seek more information supporting the other side of the issue," "Seek more information that offers a balanced view on the issue," Seek more opinions supporting your own side of the issue," and "Seek more opinions supporting the other side of the issue."

Talk. This variable was captured with a mean scale of two items ($r = .56$, $M = 4.07$, $SD = 1.57$). Both items were measured on an 8-point scale and participants were asked about the likelihood of talking about the civil liberties issue with "people who agree with you" and "people who disagree with you."

Table 1. Analysis of Variance for Willingness to Seek Information

Variables	df	MS	F	p	η²
Issue opinion	1	47.87	20.11	.00	.03
Gender	1	3.58	1.50	.26	.00
Motivated Processing	1	10.31	4.33	.04	.00
Error	462				

Control Variables

Even though the study used a randomized experimental design, two common control variables are used—gender (70.2% female) and issue opinion ($M = 3.68$, $SD = 1.49$). To control for respondents' pretest opinion on the issue of civil liberties, the study used a single item, which asked respondents to rate their agreement on an 8-point scale with the statement "Guaranteeing individual freedom is important, even if law and order suffer to some extent."

Manipulation Check

After being exposed to the motivated processing manipulation and stimulus materials, participants were asked to respond on an 8-point scale (0 = *strongly disagree* to 7 = *strongly agree*) to the following items about the news article: "I paid attention to it," "It made me think about this issue," and " My mind wandered while I was reading the news story." The third item was reverse coded. The manipulation check showed successful manipulation for motivated processing ($t = -. 4.75$, $p < .001$).

Results

To test the hypotheses, a series of ANOVAs and ANCOVAs were applied. These analyses controlled for both the gender and pretest opinion regarding the issue of civil liberties. The study first examined the main effects of motivated processing on willingness to seek information. Findings show that the first hypothesis of the study is supported as motivated processing increases willingness to seek information $F(1, 462) = 4.33$, $p < .05$, $\eta^2 = .00$. The estimated marginal means for each cell are shown in Table 1. However, despite the significant result, the effect size is zero; hence this finding should be interpreted with caution. Due to the controversies regarding the problems of partial η^2 generated in the SPSS computer software, this study used η^2 for effect size, which is a more conservative measurement than the partial η^2 (see Levine & Hullet, 2002).

The next hypothesis tested the effects of frames on information seeking as well as the interaction between frames and processing. The ANCOVA model demonstrates a significant main effect of frames $F(2, 457) = 4.37$, $p < .01$, $\eta^2 = .01$ on information seeking. However, the main effects of motivated processing do not remain significant anymore. The estimated marginal means for each cell are shown in Table 3.

Table 2. Analysis of Covariance for Willingness to Seek Information

Variables	df	MS	F	p	η²
Issue opinion	1	61.76	25.44	.00	.05
Gender	1	6.07	2.50	.11	.00
Frames	2	10.61	4.37	.01	.01
Motivated Processing	1	4.60	1.89	.16	.00
Frames X Motivated Processing	2	8.81	3.63	.02	.01
Error	457				

Table 3. Estimated Marginal Means for Willingness to Seek Information

	Free speech frame	Public safety frame	Mixed frame
Nonmotivated processing	3.29, SE = .18	3.31, SE = .17	3.34, SE = .16
Motivated processing	3.12, SE = .18	3.35, SE = .16	4.08, SE = .18

Note: Issue opinion and gender are used as covariates in this analysis

Table 4. Analysis of Variance for Willingness to Talk

Variables	df	MS	F	p	η²
Issue opinion	1	45.86	19.22	.00	.03
Gender	1	2.87	1.20	.27	.00
Motivated Processing	1	12.49	5.23	.02	.01
Error	462				

In addition, pair-wise comparisons showed that mixed frame ($M = 3.70$, $SE = .12$) is significantly different from the public safety ($M = 3.34$, $SE = .12$, $p < .005$) as well as the free speech frame ($M = 3.18$, $SE = .13$, $p < .001$). The ANCOVA model reveals a significant interaction pattern $F(2, 457) = 3.63$, $p < .05$, $\eta^2 = .01$ supporting the third hypothesis, as reported in Table 2. The interaction effect shows that motivated processing increases willingness to seek information only in the mixed frame condition (Figure 1).

The second set of hypotheses was included to test the influence of motivated processing and frames on a second behavioral outcome, willingness to talk. The ANOVA model shows that results of Hypothesis 1 were replicated. Motivated processing increased the willingness to talk $F(1, 462) = 5.23$, $p < .05$, $\eta^2 = .01$, as reported in Table 4.

Next, the effects of frames and interaction between motivated processing and frames were tested on willingness to talk with an ANCOVA model. The main effects of motivated processing remain significant $F(1, 458) = 5.10$, $p < .05$, $\eta^2 = .01$; however, both effect of frames and the interaction were not significant. The estimated marginal means for each cell are shown in Table 5.
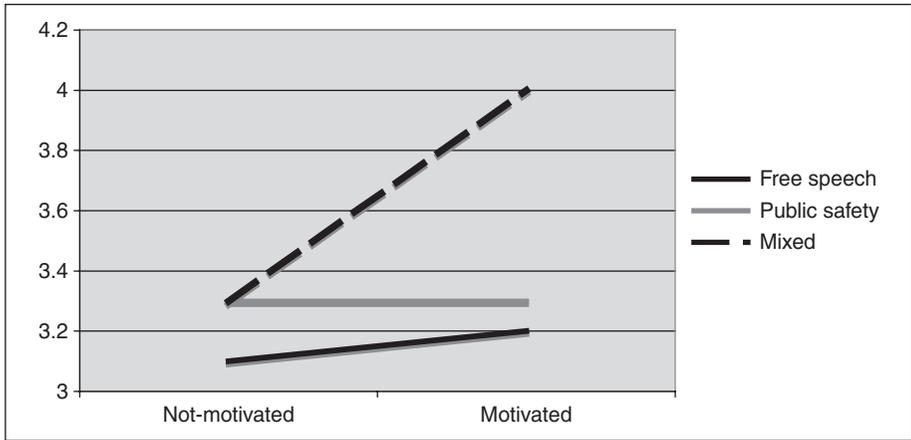
Figure 1. Interaction effects of motivated processing and mixed frame on information seeking

Additional pair-wise comparisons shows that there is a significant difference between motivated processing ($M = 4.45$, $SE = .18$) and nonmotivated processing ($M = 3.90$, $SE = .16$) in case of participants in the mixed frame condition ($p < .05$). To investigate this significant difference in detail, a dummy variable was constructed comparing mixed motivated processing and mixed nonmotivated processing. An ANOVA model shows that motivated processing and mixed frame caused the most willingness to talk $F(1, 155) = 5.81$, $p < .01$, $\eta^2 = .03$, a result replicating the interaction of motivated processing and mixed frame in case of information seeking (Table 6).

Additional Analysis

Besides testing the hypotheses, the present study conducted some additional analysis to test the influence of frames on attitudinal variables. These additional analyses were conducted to test if the effects of frames on attitude from prior studies were replicated. The question asked was "Do you think the University of Minnesota should allow or not allow the Klan to hold a rally in campus?" measured on an 8-point scale, where 0 = *definitely should not allow* and 7 = *definitely should allow* ($M = 3.18$, $SD = 1.39$). An ANOVA model shows the significant main effects of frames on attitude toward the rally $F(1, 475) = 7.30$, $p < .001$, $\eta^2 = .03$. More specifically, the results show that participants exposed to the free speech frame were most supportive of the rally on campus, the participants exposed to the public safety frame were least supportive, while participants exposed to the mixed frame were in between. The estimated marginal means for each cell are shown in Table 7.

Table 5. Estimated Marginal Means for Willingness to Talk

	Free speech frame	Public safety frame	Mixed frame
Nonmotivated processing	3.87, SE = .18	3.96, SE = .17	3.90, SE = .16
Motivated processing	4.00, SE = .18	4.26, SE = .16	4.45, SE = .18

Note: Issue opinion and gender are used as covariates in this analysis

Table 6. Analysis of Variance for Willingness to Talk Using a Dummy Variable Comparing Mixed Motivated Processing and Mixed Nonmotivated Processing

Variables	df	MS	F	p	η^2
Issue opinion	1	32.05	14.85	.00	.08
Gender	1	5.11	2.36	.12	.01
Mixed Frame dummy	1	12.53	5.81	.01	.03
Error	155				

Table 7. Estimated Marginal Means for Attitude on Allowing Rally on Campus

Free speech frame	3.06, SE = .17
Public safety frame	2.16, SE = .16
Mixed frame	2.54, SE = .16

Discussion

As with all research, this project also comes with some limitations. The study uses a student sample. Although a heterogeneous college student sample may not "differ drastically from that of most other groups" (Nelson et al., 1997, p. 571), testing the hypotheses in an adult sample could provide additional information in the direction of processing messages. This study also tested the hypotheses with only one issue; therefore, replicating the study with a different issue and frames is important. Moreover, the dependent variables are behavioral intention questions, so there is no evidence of the effects on behavior.

Despite these limitations, the present study calls attention to two fundamental issues in framing effects studies. Does motivated processing change how framing affect individuals? And how do mixed frames affect the outcomes of behavioral intent? Findings illustrates that in the case of the two behavioral intent variables, willingness to seek information and talk—motivated processing can intensify framing effects and specifically in the mixed frame condition.

There can be several possible explanations for these findings. First, ambivalence is key to framing effects (Pan & Kosicki, 2005; Sniderman & Theriault, 2004), a condition when individuals employ frames to reach reconciliation amongst multiple values. When participants are exposed to the mixed frame, they strive to come to a consensus. In the case of

outcomes such as issue opinions, prior research has shown that individuals in the mixed frame move more toward their preexisting values or the frames cancel each other. The present study also finds that in the case of attitudinal outcomes, the mixed frame lies in between the two frames, freedom of speech and public safety, and the participants are in the middle ground when they are exposed to both frames.

However, in the case of behavioral intent such as information seeking and talk, the mixed frame condition does not cancel framing effects. Instead, in the mixed frame condition, individuals are more willing to seek information and indulge in interpersonal discussion. Research shows that information seeking is a possible strategy to cope with ambivalence (Zhao & Chai, 2008; see also, Afifi & Weiner, 2004), uncertainty (Anderson, 2006; Brashers, 2001; Choudhury & Gibbs, 2009), or anxiety (Druckman & McDermott, 2008; MacKuen et al., 2010; Marcus et al., 2000). Except for times when individuals avoid information altogether in order to maintain ambiguity (e.g., from Zhao & Chai, 2008), information seeking is the likely behavioral response when individuals are motivated to resolve ambivalence, uncertainty, or anxiety.

The analysis employing the second behavioral variable, willingness to talk, replicates these findings. Although the main effects of the three frames were not significant, pairwise comparisons and the analysis using a dummy variable once again demonstrate that motivated processing and the mixed frame condition caused the most willingness to talk. Prior research shows that interpersonal discussion can be employed for seeking more information. Moreover, Burkahlter et al. (2002) discuss how individuals are willing to deliberate only when they are motivated to process the information. This is exactly what the interaction between motivated processing and mixed frame demonstrates in case of both the outcome variables. Individuals exposed to both public safety and free speech frames find themselves in an ambivalent position. It is possible that in order to resolve this value-conflict and possible uncertainty participants show willingness to seek more information.

Second, it is also important to note that participants in the motivated condition are inclined to reach a judgmental confidence. These respondents have been told that they will have to justify their decision and should read the news story carefully. Finally, when individuals are exposed to competitive frames, they tend to engage in conscious assessments of the information (Chong & Druckman, 2007a, 2007b). When participants face the two conflicting values in the mixed frame condition, they consciously elaborate the information and they are motivated to justify their decisions. As a result, participants tend to seek additional information and indulge in interpersonal discussion. This is a consequential finding, which shows that frames could behave differently depending on the outcomes or even the kind of frames studied. Different from what prior research has demonstrated in mixed framing studies, these findings paint a revisionist picture of the mixed frame literature. Future research should delve more into this aspect.

Findings from the present study have significant implications for deliberative outcomes. Previous research clearly demonstrates the importance of interpersonal discussion for many deliberative outcomes such as knowledge and participation. Scholars have shown that the increase in interpersonal discussion intensifies reflection on issues and leads to more participation (Mcleod et al., 1999) or increase in knowledge (Scheufele, 2000). More

interestingly, Kim and Kim (2008) contend that everyday political talk "is the fundamental underpinning of deliberative democracy" (p. 51). They further explain that through every-day political discussion, individuals are able to construct their identities, increase mutual understanding, form considered opinions, and overall build the resources for a deliberative democracy. These findings also have important real-world implications such as for the understanding of communication effects. Individuals are exposed to multiple media frames in a day-to-day life. More often than not, individuals encounter multiple arguments of an issue. As pointed out by Sniderman and Theriault (2004), in real politics, individuals can-not be restricted to the exposure of one frame; rather, they are exposed to opposing views and "their attention often is caught by the clash of argument" (p. 146).

With a quick examination of the number of articles on framing indexed in "communica-tion abstracts," Weaver (2007) demonstrates the growth of framing studies in the last decades. He speculates that the rise of interest in framing is due to "the ambiguity or the comprehensive nature of the term" (p. 144). Indeed, scholars over the years have bemoaned the lack of conceptualizations and operationalizations in framing studies and areas of fram-ing research that are neglected. The present study attempted to clarify some of these con-cepts related to framing effects in competitive environments and processing mechanisms and thereby contribute to the development of the theory.

Appendix A

Free Speech News Story

Headline: Possible Rally Tests University's Commitment to Free Speech

The importance of protecting free speech has become a central issue at Minnesota State University. Last month, the Ku Klux Klan, a White supremacist group, requested a permit to hold a rally on the campus during the fall of 2009. School officials will decide whether to approve or deny the group's request in July.

Numerous courts have ruled that the U.S. Constitution ensures that groups such as the Klan have the right to speak and hold rallies on public grounds and that individuals have the right to hear the group's message if they are interested. While it is true that past Klan's appearances have been marked by violent clashes between supporters and counterdemon-strators, who show up to protest the Klan's racist activities. In one confrontation last October in Minnesota, several bystanders were injured by rocks thrown by Klan supporters and protesters. Usually, a large police force is needed to control the crowds.

Opinion about the speech and rally is mixed. **Many students, faculty and staff worry about the rally, but support the groups' right to speak. David Gill, a professor in the law school, remarked, "I hate the Klan, but they have the right to speak, and people have the right to hear them if they choose. We may have some concerns about the rally, but the right to free speech takes precedence over people's fears about what could happen."**

(continued)

Appendix A (continued)

Public Order News Story

Headline: Possible Rally Raises Concerns About Protecting Students

The importance of protecting the community and safety of the campuses has become a central issue at Minnesota State University. Last month, the Ku Klux Klan, a White supremacist group, requested a permit to hold a rally on the campus during the fall of 2009. School officials will decide whether to approve or deny the group's request in July.

Numerous courts have ruled that the U.S. Constitution ensures that groups such as the Klan have the right to speak and hold rallies on public grounds, and that individuals have the right to hear the group's message if they are interested. While it is true that past Klan's appearances have been marked by violent clashes between supporters and counterdemonstrators, who show up to protest the Klan's racist activities. In one confrontation last October in Minnesota, several bystanders were injured by rocks thrown by Klan supporters and protesters. Usually, a large police force is needed to control the crowds.

Opinion about the speech and rally is mixed. **Many students, faculty and staff expressed great concern about campus safety and security during the Klan rally. David Gill, a professor in the law school, remarked, "Freedom of speech is important, but so is the safety of MSU community and the security of our campuses. Considering the violence at past KKK rallies, I don't think the University has an obligation to allow this to go on. Safety must be our top priority."**

Mixed Frame News Story

Headline: Possible Rally Raises Questions About Public Safety Versus Free Speech

The importance of protecting free speech versus public safety has become a central issue at Minnesota State University. Last month, the Ku Klux Klan, a white supremacist group, requested a permit to hold a rally on the campus during the fall of 2009. School officials will decide whether to approve or deny the group's request in July.

Numerous courts have ruled that the U.S. Constitution ensures that groups such as the Klan have the right to speak and hold rallies on public grounds, and that individuals have the right to hear the group's message if they are interested. While it is true that past Klan's appearances have been marked by violent clashes between supporters and counterdemonstrators, who show up to protest the Klan's racist activities.In one confrontation last October in Minnesota, several bystanders were injured by rocks thrown by Klan supporters and protesters. Usually, a large police force is needed to control the crowds.

Opinion about the speech and rally is mixed. **Many students, faculty and staff expressed great concern about campus safety but also considers the groups' right to speak. David Gill, a professor in the law school, remarked, "Freedom of speech is important, but so is the safety of MSU community and the security of our campuses.**

Appendix A (continued)

There are valid public safety concerns about these rallies. Nonetheless even such groups have the right to free speech and denying them this right might do more damage to the University's reputation than allowing the rally to go forth. The University will have to consider both these issues before taking a decision. This might be a case of extending basic rights to even the most offensive groups."

Note: The materials that varied between the three news stories are in boldface. This material appeared in normal type in the experiment.

Notes

1. Kahneman and Tversky (1979, 1984) were the first to demonstrate how different presentations of essentially the same information can have an impact on people's choices. They found that individuals were inclined to take risks when "losses" are highlighted. But when the same information is presented in terms of "gains," individuals shy away from risks. Druckman (2001a, 2004) names this type of framing effects as equivalency framing effects.
2. It is important to note the difference between motivated processing and motivated reasoning (for details see Druckman, Kuklinski & Sigelman, 2009). The present study manipulates motivated processing.
3. The author would like to thank Professor Albert Gunther for his help in the design of the motivated processing manipulations.

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Bio

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