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The Effects of Framing and Advocacy Expectancy on Belief Importance and Issue Attitude

Jiawei Liu [a], Min-Hsin Su [b], Douglas M. McLeod [b], Joseph Abisaid [c], and Linqi Lu [a,d]

[a]Department of Communication, Cornell University; [b]School of Journalism and Mass Communication, University of Wisconsin-Madison; [c]Department of Communication Studies, University of Detroit Mercy; [d]College of Media and International Culture, Zhejiang University

ABSTRACT

Message frames have been found to influence relevant issue attitudes by influencing the weight of issue considerations emphasized in the message. As such message frames often originate from advocacy interest groups, this study investigates differences in the framing effects of advocacy groups, depending on whether the message fits readers' expectations for the communicators' issue position (expected advocacy) or not (unexpected advocacy). Across two issue topics, findings suggest that unexpected advocacy significantly influenced readers' perceived belief importance, which in turn influenced issue attitudes, whereas the same mediated path of framing effects was not supported in the case of expected advocacy.

When politicians, issue advocates, public relations professionals, and indeed journalists create messages for public consumption regarding issues of public concern, they often package information around a central organizing idea in order to facilitate audience issue understanding and interpretation. These structuring templates for message construction are referred to as frames (Gamson & Modigliani, 1987, 1989). For example, messages regarding the policy proposal to expand areas for offshore drilling may be framed in terms of its impact on energy supply, the economy, the maritime environment, or other considerations. Framing effects occur when considerations highlighted in a framed message are utilized by readers when they form their opinions on the issue (Entman, 1993; Scheufele, 1999). Though articles can build frames around multiple considerations, framing researchers often create stimulus messages that feature a single frame in order to isolate its effects.

CONTACT Jiawei Liu jl3992@cornell.edu Department of Communication, Cornell University, 493 Mann Library Building, Ithaca, NY 14853, USA.

Thus, what underlies framing, distinguishing it from other persuasion theories, is its applicability-based psychological mechanism (Price & Tewksbury, 1997). Framing as a media effects theory emphasizes a bounded rationality assumption, in which exposure to message frames alters the influence of considerations featured in the message relative to other possible considerations when individuals make subsequent judgments related to the issue at hand (Nelson & Oxley, 1999; Nelson, Oxley, & Clawson, 1997). This indirect path to persuasion mediated by changes in belief importance captures the unique nature of framing as a cognitive effects model.

In this process, it is important to note that audience members do not mindlessly or passively respond to frames to which they are exposed. Often there are situational factors that moderate the influence of framing effects (Liu, Lee, McLeod, & Choung, 2019; Liu & McLeod, 2019). Understanding the influence of these moderating factors is an important task for framing research. That is, there are important questions to be answered regarding the conditions under which framing effects occur, as well as how strong they are likely to be. For example, Druckman (2001a, 2001b) found that readers critically evaluated the sources of messages such that they were more likely to be influenced by frames delivered by a credible source as compared to a non-credible one.

Another contextual factor that might also affect the influence of frames, advocacy expectancy, remains understudied in framing research. Readers often make inferences about the source of the information in a message such as anticipating the particular position that a source is likely to take (Kelley, 1972). For example, when a member of an environmental protection group discusses the expansion of offshore drilling from the perspective of its impact on maritime environment (environment frame), readers will expect the person to use the frame to argue against offshore drilling (e.g., emphasizing that the policy will harm the environment) rather than in support of offshore drilling (e.g., highlighting that environmental concerns are overstated). Thus, the former advocacy confirms message recipients' expectancies whereas the latter is relatively unexpected. Previous literature on advocacy expectancy suggests that unexpected advocacy will be more powerful (Eagly & Chaiken, 1975, 1976; Eagly, Chaiken, & Wood, 1981).

Therefore, this study integrates advocacy expectancy theory and framing theory to propose that framing effects are more likely to occur when the communicator advocates unexpected positions rather than expected ones under a given frame and such effects on issue attitude will be mediated by altered belief importance (i.e., frames with unexpected advocacy affect readers' belief importance, which in turn influences their issue attitude).

Literature review

Framing effects mechanisms

At its core, framing focuses on how an event or issue is presented to the audience in a message (Gamson & Modigliani, 1987, 1989; Tversky & Kahneman, 1981). Frames can be embedded in different message units (McLeod & Shah, 2015) and at different levels of article structures (Pan & Kosicki, 1993). Political communication research typically adopts an emphasis framing approach to replicate and investigate competing views in real-world elite and media discourse (Druckman, 2001b) where emphasis frames use different sets of information to highlight contrasting aspects of the same issue (e.g., discussing federal assistance to the poor from the perspective of increased government spending versus humanitarianism).

Framing effects represent an indirect route to persuasion – influencing audience members' issue attitudes by affecting the importance of frame-relevant beliefs (Nelson & Oxley, 1999; Nelson et al., 1997). This mechanism reflects the nature of framing as a part of what is broadly known as "social construction of reality" (Gamson, Croteau, Hoynes, & Sasson, 1992); when readers lack firsthand experience with public issues or events, the beliefs/considerations they can generate and subsequently apply to issue interpretation are heavily dependent on how political and social forces (e.g., politicians and media professionals) present the issue (reconstructing the reality) in the message.

Research has shown that frame exposure shifted the focus of readers' thoughts. For example, Price, Tewksbury, and Powers (1997) found that readers listed significantly more thoughts that corresponded to the frame adopted by the message. Brewer and Gross (2005) found that frames not only produced more frame-relevant thinking in readers, but also reduced the overall degree to which readers thought about the issue.

This underlying mental process of framing echoes the value-expectancy model in psychology, which suggests that one of the determining factors of the resulting issue attitude is how people weigh the importance of different considerations (Ajzen & Fishbein, 1980; Anderson, 1981). To what extent frame-corresponding considerations are utilized (as reflected by changes in belief importance/weight) in readers' attitude formation is often referred to as the applicability effects of issue framing (Price & Tewksbury, 1997). Concepts are linked to each other in a networked manner in readers' minds (Rumelhart, 1980) and changes in belief importance reflect the strengthening or weakening of the link between the issue and the consideration. Thus, frames function through making particular considerations more likely or less likely to be applied to issue interpretation. For example, research by Nelson, Clawson, and Oxley (1997) found that framing a group rally in terms of disruption of public order affected readers' tolerance of the rally by changing their perceived importance of public order values.

More important, in the process of reacting to frames, audience members are not easily manipulated by the communicator. Instead, research has shown that readers tend to engage in active evaluation of framed messages, which usually limits the power of framing effects (Brewer, 2001; Druckman, 2001a, 2001b; Liu et al., 2019; Shen & Edwards, 2005; Su, Liu, & McLeod, 2019). Thus, investigation is needed to find under what conditions framing effects occur.

Advocacy expectancy in framing effects

Although framing has been demonstrated to have indirect effects on issue attitudes by altering the importance of frame-relevant beliefs, there are many contextual factors that may condition the nature of framing effects (Chong & Druckman, 2007). For example, contextual cues that have been shown to be important include party cues (Slothuus & de Vreese, 2010), issue importance (Lecheler, Vreese, & Slothuus, 2009) and source cues (Druckman, 2001a, 2001b). Advocacy expectancy, another potential moderating factor that refers to whether the advocacy is one that is expected or unexpected coming from a particular interest group, has been largely overlooked in the existing framing literature.

When opposing advocacy groups compete to influence the public on an issue, it is common for them to adopt frames that are different in order to further their respective interests. For example, pro-choice groups on the issue of abortion may emphasize a woman's right to choose; whereas pro-life groups may stress the position that an abortion is murder because life begins at conception. Therefore, over time, certain frames come to be associated with particular attitude positions of such advocacy groups.

As audience members may take the characteristics of a source into account when evaluating a message (Kelley, 1972), advocacy sources are expected to take a particular issue position (Eagly et al., 1981). For example, we might expect an environmental advocate to take a position against the expansion of offshore oil drilling areas. If this expectancy is confirmed, readers may discount the validity of the message because the argument can be attributed to personal characteristics of the communicator (e.g. one's prior attitude and ideology) or situational constraints (e.g. one's group affiliation). Therefore, the advocacy featured in the message may be the result of a distorted view of the communicator due to skewed issue predispositions or the pressure of group membership (Eagly, Wood, & Chaiken, 1978; Wood & Eagly, 1981). By comparison, when the expectancy is disconfirmed, it increases the likelihood that readers will consider the advocacy as corresponding to the external reality of the issue as the unexpected position from the message contradicts other possible causes such as personal or situational factors (Eagly et al., 1981; Kelley, 1972).

More important, people are cognitive misers and they usually use source heuristics instead of engaging in effortful message processing (Priester & Petty, 1995). As even rational decision-makers show preferences toward confirmatory messages (Calvert, 1985), partisans can hardly be persuaded when they are exposed to messages from the other side inconsistent with their issue positions, and such opposing messages are more likely to lead partisans to backfire rather than shift their issue opinions (Berinsky, 2017). However, when opposing messages are from "surprising validators" (Glaeser & Sunstein, 2013, 2014), for example, when some elite Republicans go against their party interest and argue in favor of addressing climate change acknowledging the scientific consensus on the issue, they have been documented to be especially persuasive and may significantly reduce the partisan gap (Benigal & Scruggs, 2018). Thus, advocacy expectancy perceptions can influence the impact of an advocacy message given expectations based on the source's characteristics (Koeske & Crano, 1968; Mills & Jellison, 1967), and unexpected advocacies typically turn out to be more powerful than expected ones (Eagly & Chaiken, 1975, 1976; Hunt & Kernan, 1984; Hunt, Smith, & Kernan, 1989).

Similarly, in the context of framing research, Brewer (2002) notes that in some situations the same frame can actually be used to either argue for or against a policy. As such, interest groups may employ the same frame to feature an expected advocacy or an unexpected one. For example, one of the dominant frames that has been used by the proponents of building a border wall between the United States and Mexico emphasizes the need to stop violent criminals from coming across the border from Mexico. Although members of the public would expect messages framed around crime to come from the pro-wall advocates, when border wall supporters disseminate messages that immigrants who cross the border illegally are actually less likely to be convicted of crimes than U.S. citizens, this crime-framed message might be particularly impactful (at causing people to reject the pro-wall case) because it is relatively unexpected.

For another example, when it comes to using animals in scientific research, where a member of an animal protection group frames the issue from an animal welfare perspective (animal welfare frame), this person may either argue against animal testing emphasizing that it is detrimental to animal welfare (expected advocacy) or argue in support of animal testing highlighting that concerns regarding animal welfare in scientific research are overstated (unexpected advocacy). We can expect that frames with unexpected advocacy are more likely to be influential with readers than frames with expected advocacy. In other words, when sources deliver an advocacy that runs counter to expectation, the considerations featured in the message may be given additional weight by readers.

Specifically, as the indicator of active use of frames in opinion formation is the altered importance of the corresponding beliefs, frames

with unexpected advocacy should be able to successfully affect the perceived importance of the corresponding considerations whereas frames with expected advocacy may fail to have the intended effects. For example, the importance of animal welfare considerations will be significantly affected when the communicator of the animal welfare frame (a member of the animal protection group) takes the position supporting rather than opposing animal testing. Thus, we propose the hypothesis below:

H1: Frames with unexpected advocacy are more likely to affect belief importance as compared to frames with expected advocacy.

Subsequently, in accordance with the indirect persuasion route of framing, changes in belief importance as a result of frame exposure should further exert influence on readers' issue attitudes. Thus, we pose the following hypothesis to address the mediating role of belief importance in framing effects.

H2: Belief importance will mediate the influence of frames to affect issue attitude.

Method

Design

Two public issue topics were selected for this study: the expansion of offshore oil drilling in coastal areas and the use of animals in scientific research. This study was part of a larger research project examining message effects regarding controversial public issues where respondents read messages on the two issue topics specified above and answered related questions. Each time respondents encountered an issue topic in the experiment, they were then randomized into one of the message conditions reading stimulus materials (if present) and answering questions. The order of issue topics was fixed. Experimental conditions relevant to our specific research purposes were included for analyses. In this study, we focused on two experimental conditions (conditions that featured expected versus unexpected advocacy messages from advocacy interest groups) and the control condition (treated as baseline). This study was approved by the University of Wisconsin-Madison Institutional Review Board, February 2018.

Stimulus material

In order to examine how advocacy expectancy affects issue framing effects, stimulus messages took the form of opinion pieces featuring arguments from a spokesperson of an interest group on the issue in focus (see the Appendix).

Specifically, in the context of offshore drilling, a spokesperson from the Sea Save Foundation (an ocean protection group) who adopted the environmental frame (highlighting the environmental impact of offshore drilling) either argued that offshore drilling is detrimental to the maritime environment (expected advocacy) or that concerns regarding offshore drilling on the maritime environment have been overstated (unexpected advocacy).

In the context of animal testing, a spokesperson from the Animal Rights Association (an animal protection group) who adopted the animal welfare frame (emphasizing the animal welfare perspective regarding using animals in lab research) either argued that animal testing is ethically wrong and inhuman (expected advocacy) or that animal welfare concerns have been exaggerated in scientific research (unexpected advocacy).

Participants

Undergraduate students from a large midwestern university were recruited to take the experiment-embedded survey in exchange for course extra credit. For the issue of offshore drilling, the sample size was 153 in the three conditions described above, and the demographics were as follows. The average age was 19.51 (Range: 18 to 23, SD = .95). 62.1% were female, and 37.9% were male. 85.0% were white, 2.0% were African American, 11.8% were Asian, and 1.3% were of other ethnicities.

For the issue of animal testing, the sample consisted of 153 respondents in the three conditions. The average age was 19.50 (Range: 18 to 23, SD = .93). 63.4% were female, and 36.6% were male. 85.6% were white, 3.3% were African American, 9.8% were Asian, and 1.3% were of other ethnicities.

Measures

Advocacy expectancy

For offshore drilling, respondents were asked to what extent the opinion of the person from the Sea Save Foundation featured in the article was representative of a typical environmental advocate on an 11-point scale where 0 = *not at all representative* and 10 = *extremely representative* (M = 5.40, SD = 2.84). Similarly, for animal testing, participants were asked to what extent the opinion of the person from the Animal Rights Association featured in the article was representative of a typical animal welfare advocate with the same 11-point scale (M = 5.94, SD = 2.91).

Issue attitude

Regarding offshore drilling, issue attitude was measured by a question that asked the respondents to what extent they opposed or supported the expansion of drilling for oil and gas in coastal states on a 7-point scale

where 1 = *strongly oppose* and 7 = *strongly support* (M = 3.25, SD = 1.47). For animal testing, issue attitude was measured by a question that asked the respondents to what extent they opposed or supported the use of nonhuman primates in scientific research with the same 7-point scale (M = 3.51, SD = 1.72).

Belief importance

For offshore drilling, belief importance was measured by asking the respondents when they formed their opinion on the issue, how important to them was each of the following considerations: a) "expansion of offshore drilling will seriously damage the maritime environment" and b) "environmental concerns regarding offshore drilling have been overstated," each on an 11-point scale from 0 = *not important at all* to 10 = *extremely important*. For animal testing, the corresponding items include: a) "animal testing is ethically wrong and inhuman" and b) "animal welfare concerns are exaggerated for animal testing." For each issue topic above, answer to item "b" was reverse-coded and then averaged with the answer to item "a" as the belief importance measurement (M = 6.53, SD = 1.85, r = .11 for offshore drilling and M = 6.00, SD = 2.05, r = .24 for animal testing, respectively).

Results

Offshore drilling

For manipulation check, when the spokesperson from the Sea Save Foundation argued that offshore drilling is detrimental to the maritime environment, it was rated by the respondents as more expected (M = 7.25, SD = 2.03) than when the spokesperson contended that the environmental concerns of offshore drilling have been overstated (M = 3.50, SD = 2.24), t (99) = 8.83, p < .001. Thus, our manipulation of advocacy expectancy was successful (see Table 1).

Regarding the influence of advocacy expectancy frames on belief importance (H1) and the mediating role of belief importance on issue attitude (H2),

Table 1. Variable means by experimental conditions (offshore drilling).

Condition	Environment frame – expected advocacy	Environment frame – unexpected advocacy	Control
Advocacy expectancy	7.25 (2.03) n = 51	3.50 (2.24) n = 50	–
Belief importance	6.86 (1.89) n = 51	5.91 (1.79) n = 50	6.80 (1.75) n = 52
Issue attitude	2.24 (1.18) n = 51	4.28 (1.33) n = 50	3.27 (1.16) n = 52

Standard deviations are in parenthesis.

results indicated that compared to the control group, the frame with unexpected advocacy had a significant impact on belief importance, B = −.89, *SE* = .36, *p* = .01, which in turn influenced respondents' issue attitude, B = −.40, *SE* = .04, *p* < .001. This indirect effect (tested using the bootstrap approach with 10,000 bootstrap samples) was significant, B = .36, *SE* = .15, 95% CI = [.08, .66]. By comparison, the effect of the frame with expected advocacy on belief importance was not statistically significant, B = .06, *SE* = .36, *p* = .86, although belief importance was significantly associated with respondents' issue attitude, B = −.40, *SE* = .04, *p* < .001. This indirect effect (tested using the bootstrap approach with 10,000 bootstrap samples) was statistically non-significant, B = −.03, *SE* = .15, 95% CI = [−.32, .26] (see Figure 1). Therefore, only the frame with unexpected advocacy was found to be effective in changing belief importance (supporting H1), and its subsequent effect on issue attitude was mediated through belief importance (supporting H2).

Animal testing

For animal testing, when the spokesperson from the Animal Rights Association argued that animal testing is ethically wrong and inhuman, it was rated by respondents as more expected (*M* = 8.08, *SD* = 1.65) than when the spokesperson contended that animal welfare concerns regarding animal testing have been exaggerated (*M* = 3.80, *SD* = 2.26), *t*(100) = 10.91, *p* < .001. Therefore, our manipulation of advocacy expectancy was successful (see Table 2).

With respect to the influence of advocacy expectancy frames on belief importance (H1) and the mediating role of belief importance on issue attitude (H2), results indicated that compared to the control group, the frame with unexpected advocacy significantly affected belief importance, B = −.84, *SE* = .40, *p* = .04, which in turn influenced respondents' issue attitude, B = −.49, *SE* = .05, *p* < .001. This indirect effect (tested using the bootstrap approach with 10,000 bootstrap samples) was found significant,

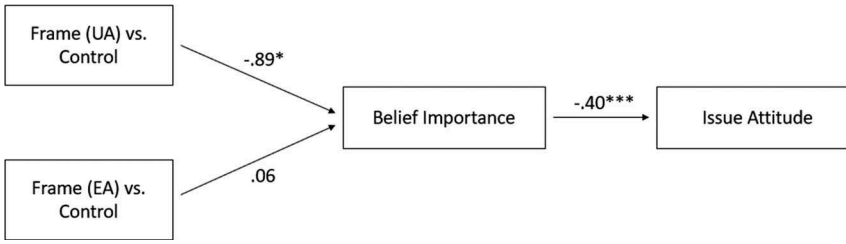

Figure 1. Mediating path of framing effects (offshore drilling).
UA, unexpected advocacy; EA, expected advocacy. *p** < .05, *p**** < .001.

Table 2. Variable means by experimental conditions (animal testing).

Condition	Animal welfare frame – expected advocacy	Animal welfare frame – unexpected advocacy	Control
Advocacy expectancy	8.08 (1.65) *n* = 51	3.80 (2.26) *n* = 51	–
Belief importance	6.18 (2.07) *n* = 50	5.49 (1.78) *n* = 51	6.33 (2.21) *n* = 51
Issue attitude	3.08 (1.74) *n* = 51	4.16 (1.59) *n* = 51	3.29 (1.65) *n* = 51

Standard deviations are in parenthesis.

B = .41, *SE* = .20, 95% CI = [.03, .84]. By comparison, the effect of the frame with expected advocacy on belief importance was not statistically significant, B = −.15, *SE* = .40, $p = .70$, although belief importance was a significant predictor of respondents' issue attitude, B = −.49, *SE* = .05, $p < .001$. This indirect effect (tested using the bootstrap approach with 10,000 bootstrap samples) was statistically non-significant, B = .08, *SE* = .21, 95% CI = [−.34, .48] (see Figure 2). Thus, only the frame with unexpected advocacy was found to be effective in altering belief importance (supporting H1), and its subsequent effect on issue attitude was mediated by changes in belief importance (supporting H2).

Discussion

Overall, findings suggest that advocacy expectancy is an important factor to consider when predicting the influence of framing from advocacy groups: frames successfully affected issue attitude via altering belief importance when the communicator advocated an unexpected issue position. By comparison, when an expected advocacy was featured in the message, frames failed to change the importance of the corresponding considerations.

Such findings have several important implications. First, although both advocacy expectancy and framing have been investigated in research for decades, they have been treated as two largely separate and unrelated areas.

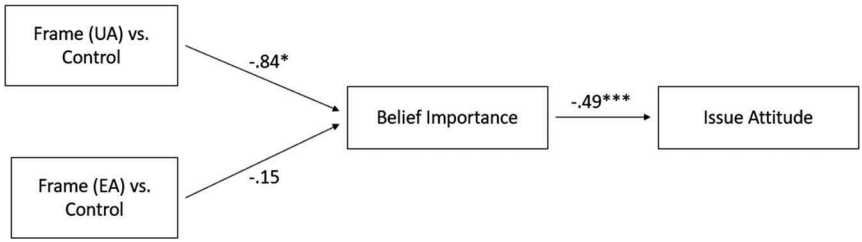

Figure 2. Mediating path of framing effects (animal testing).
UA, unexpected advocacy; EA = expected advocacy. $p^* < .05$, $p^{***} < .001$.

This study is the first to integrate the two theories to show that advocacy expectancy affects the influence of framing and thus it enriches literature on both areas. Similar to party cues (Slothuus & de Vreese, 2010) and source credibility cues (Druckman, 2001a, 2001b) that have been examined in framing research, advocacy expectancy also serves as a contextual cue determining the extent to which frame-relevant beliefs will be utilized by readers during opinion formation.

Second, findings suggest limits and boundaries for the framing effects of advocacy messages in light of the recognition of the presence of an active audience: that is, readers do not mindlessly respond to frame exposure. Instead, they seek for various cues to judge the utility of frames, which largely moderates the power of issue framing in achieving communicators' desired goals. Specifically, findings indicate that although communicators usually frame the issue to support a position that is consistent with their personal attributes (e.g., ideology and issue predispositions) and situational factors (e.g., group affiliation), such expected advocacy may also render frames less influential. In other words, when advocates employ frames that argue in favor of their perceived self-interest, it may reduce the perceived utility of the frame (as manifested in belief importance change) as a consideration when the audience makes subsequent judgments (such as responding to subsequent survey questions in the context of a framing effects experiment). The audience's recognition of the interests of issue advocates may reduce the influence of the messages these advocates produce. By contrast, when such advocates employ unexpected frames, their influence may be greater. Findings from this study demonstrate that unexpected advocacy contributes to the utility of frames in the eyes of the audience which in turn, increases the likelihood of attitude change. Moreover, unexpected advocacy is inherently more newsworthy (in terms of news values such as unusualness and conflict) and thus may draw more media attention further amplifying the message's impact.

Third, this study addressed the bias of framing research in political communication that the relationship between frames and issue positions was often fixed (confounding frames with issue positions). Previous literature overlooked the fact that one can argue in different directions under the same frame. As a result of such conventional approaches to the operationalization of frames, unexpected frames are often overlooked by researchers, and an environmental frame invariably features opposition to offshore drilling, arguing that the policy harms the environment. However, such conventional designs might be criticized as too idealistic and lacking ecological validity as Brewer (2002) found that the same frame was actually used to both argue for and against a given policy proposal. Therefore, our study brought in the idea of advocacy expectancy that echoed the fact that the relationship between frames and issue positions often varies in the real world.

Fourth, this study and its consistent findings across two issue topics provided further empirical evidence supporting framing as a unique media effects theory. Although what distinguishes framing from other persuasion theories is its indirect route to attitude change (Nelson & Oxley, 1999; Nelson et al., 1997), it is surprising that framing effects studies in political communication typically only looked at issue attitude as the outcome variable without investigating the mediating role of belief importance. In that case, many studies concluded that framing worked, but what they observed might not be framing effects because without capturing the mediating path it is not clear whether the effects can be confidently attributed to frames *per se*. As a result, emphasis framing has been criticized as overlapping with alternative media effects models (for a review, see Liu & Scheufele, 2016). In addition, even if the difference turns out to be significant when comparing the effects between two framed messages on issue attitude, it remains a question if one of the messages is effective or both are persuasive. Given such concerns, this study accentuated the mediating role of belief importance to more accurately capture the role of different types of advocacy expectancy (i.e., expected advocacy versus unexpected advocacy) in affecting the effectiveness of issue framing.

This study has limitations. First, the reason that respondents critically judged the utility of frames in this experiment might be that the stimulus material was featured as an opinion piece with an apparent persuasion attempt. Alternatively, frames can also be embedded in news articles that are often considered as informative rather than persuasive. Thus, it is possible that when an advocacy is presented in a news article rather than an opinion piece, readers might be more vulnerable to its influence. Second, this study did not examine competitive message framing conditions. As people are likely to encounter multiple messages on the same issue online, future research can build on our findings to develop more complex experimental designs to incorporate and investigate competitive message framing conditions in the context of advocacy expectancies. Third, we did not measure the perceived utility of frames directly in the experiment because we treated perceived importance of frame-relevant considerations as the indicator of frame utility. Last but not least, the use of student sample might hurt the generalizability of our findings. Literature suggests that using student subjects is not intrinsically problematic when it comes to randomized experimental designs aiming at drawing causal links (Druckman & Kam, 2011). The fact that we observed the same pattern of effects across two different issue topics have highlighted the external validity of the study. Nevertheless, future research on this topic might want to use a more nationally representative sample to see if the pattern of findings can be replicated across population groups.

In conclusion, this study applied the wisdom derived from the advocacy expectancy theory to the context of framing effects research and found that across two public issue topics frames with unexpected advocacy were more

likely to be actively utilized by readers in opinion formation whereas frames with expected advocacy failed to produce the intended framing effects. Thus, advocacy expectancy should be considered as an important contextual cue that determines the power of issue framing.

Notes on contributors

Jiawei Liu is a Postdoctoral Associate in the Department of Communication at Cornell University.

Min-Hsin Su is a Ph.D. Candidate in the School of Journalism and Mass Communication at the University of Wisconsin-Madison.

Douglas M. McLeod is the Evjue Centennial Professor in the School of Journalism and Mass Communication at the University of Wisconsin-Madison.

Joseph Abisaid is an Assistant Professor of Communication Studies at the University of Detroit Mercy.

Linqi Lu is a Ph.D. student in the College of Media and International Culture at Zhejiang University and a visiting fellow in the Department of Communication at Cornell University.

ORCID

Jiawei Liu http://orcid.org/0000-0002-8389-0197

References

Ajzen, I., & Fishbein, M. (1980). *Understanding attitudes and predicting social behavior*. Englewood Cliffs, NJ: Prentice-Hall.

Anderson, N. H. (1981). *Foundations of information integration theory*. New York, NY: Academic Press.

Benigal, S. D., & Scruggs, L. A. (2018). Correcting misinformation about climate change: The impact of partisanship in an experimental setting. *Climatic Change*, *148*, 61–80. doi:10.1007/s10584-018-2192-4

Berinsky, A. (2017). Rumors and health care reform: Experiments in political misinformation. *British Journal of Political Science*, *47*, 241–262. doi:10.1017/S0007123415000186

Brewer, P. R. (2001). Value words and lizard brains: Do citizens deliberate about appeals to their core values? *Political Psychology*, *22*, 45–64. doi:10.1111/pops.2001.22.issue-1

Brewer, P. R. (2002). Framing, value words, and citizens' explanations of their issue opinions. *Political Communication*, *19*, 303–316. doi:10.1080/01957470290055510

Brewer, P. R., & Gross, K. (2005). Values, framing, and citizens' thoughts about policy issues: Effects on content and quantity. *Political Psychology*, *26*, 929–948. doi:10.1111/pops.2005.26.issue-6

Calvert, R. L. (1985). The value of biased information: A rational choice model of political advice. *The Journal of Politics*, *47*, 530–555. doi:10.2307/2130895

Chong, D., & Druckman, J. N. (2007). Framing public opinion in competitive democracies. *American Political Science Review*, *101*, 637–655. doi:10.1017/S0003055407070554

Druckman, J., & Kam, C. (2011). Students as experimental participants. In J. Druckman, D. Green, J. Kuklinski, & A. Lupia (Eds.), *Cambridge handbook of experimental political science* (pp. 41–57). Cambridge: Cambridge University Press.

Druckman, J. N. (2001a). On the limits of framing effects: Who can frame? *The Journal of Politics*, *63*, 1041–1066. doi:10.1111/0022-3816.00100

Druckman, J. N. (2001b). The implications of framing effects for citizen competence. *Political Behavior*, *23*, 225–256. doi:10.1023/A:1015006907312

Eagly, A. H., & Chaiken, S. (1975). An attribution analysis of the effect of communicator characteristics on opinion change: The case of communicator attractiveness. *Journal of Personality and Social Psychology*, *32*, 136–144. doi:10.1037/h0076850

Eagly, A. H., & Chaiken, S. (1976). Why would anyone say that? Causal attribution of statements about the watergate scandal. *Sociometry*, *39*, 236–243. doi:10.2307/2786516

Eagly, A. H., Chaiken, S., & Wood, W. (1981). An attribution analysis of persuasion. In J. H. Harvey, W. J. Ickes, & R. F. Kidd (Eds.), *New directions in attribution research* (Vol. 3, pp. 37–62). Hilldale, NJ: Erlbaum.

Eagly, A. H., Wood, W., & Chaiken, S. (1978). Causal inference about communicators and their effect on opinion change. *Journal of Personality and Social Psychology*, *36*, 424–435. doi:10.1037/0022-3514.36.4.424

Entman, R. M. (1993). Framing: Toward clarification of a fractured paradigm. *Journal of Communication*, *43*, 51–58. doi:10.1111/j.1460-2466.1993.tb01304.x

Gamson, W. A., Croteau, D., Hoynes, W., & Sasson, T. (1992). Media images and the social construction of reality. *Annual Review of Sociology*, *18*, 373–393. doi:10.1146/annurev.so.18.080192.002105

Gamson, W. A., & Modigliani, A. (1987). The changing culture of affirmative action. In R. G. Braungart & M. M. Braungart (Eds.), *Research in political sociology* (pp. 137–177). Greenwich, CT: JAI Press.

Gamson, W. A., & Modigliani, A. (1989). Media discourse and public opinion on nuclear power: A constructionist approach. *American Journal of Sociology*, *95*, 1–37. doi:10.1086/229213

Glaeser, E., & Sunstein, C. (2013). *Why does balanced news produce unbalanced views?* (NBER Working Paper 18975). Cambridge, MA: National Bureau of Economic Research.

Glaeser, E. L., & Sunstein, C. R. (2014). Does more speech correct falsehoods? *The Journal of Legal Studies*, *43*, 65–93. doi:10.1086/675247

Hunt, J. M., & Kernan, J. B. (1984). The role of disconfirmed expectancies in the processing of advertising messages. *The Journal of Social Psychology*, *124*, 227–236. doi:10.1080/00224545.1984.9922851

Hunt, J. M., Smith, M. F., & Kernan, J. B. (1989). Processing effects of expectancy-discrepant persuasive messages. *Psychological Reports*, *65*, 1359–1376. doi:10.2466/pr0.1989.65.3f.1359

Kelley, H. H. (1972). Attribution in social interaction. In E. E. Jones, D. E. Kanouse, H. H. Kelly, R. E. Nisbett, S. Valins, & B. Weiner (Eds.), *Attribution: Perceiving the causes of behavior* (pp. 1–26). Morristown, NJ: General Learning Press.

Koeske, G. F., & Crano, W. D. (1968). The effect of congruous and incongruous source-statement combinations upon the judged credibility of a communication. *Journal of Experimental Social Psychology*, *4*, 384–399. doi:10.1016/0022-1031(68)90065-6

Lecheler, S., Vreese, C. H. D., & Slothuus, R. (2009). Issue importance as a moderator of framing effects. *Communication Research*, *36*, 400–425. doi:10.1177/0093650209333028

Liu, J., Lee, B., McLeod, D. M., & Choung, H. (2019). Effects of frame repetition through cues in the online environment. *Mass Communication and Society*, *22* (4), 447–465. doi:10.1080/15205436.2018.1560475

Liu, J., & McLeod, D. M. (2019). Counter-framing effects of user comments. *International Journal of Communication*, *13*, 2484–2503.

Liu, J., & Scheufele, D. A. (2016). A revisionist perspective on framing effects. In W. R. Thompson (Ed.), *Oxford research encyclopedia of politics*. New York, NY: Oxford University Press.

McLeod, D. M., & Shah, D. V. (2015). *News framing and national security: Covering big brother*. New York, NY: Cambridge University Press.

Mills, J., & Jellison, J. M. (1967). Effect on opinion change of how desirable the communication is to the audience the communicator addressed. *Journal of Personality and Social Psychology*, *6*, 98–101. doi:10.1037/h0021217

Nelson, T. E., Clawson, R. A., & Oxley, Z. M. (1997). Media framing of a civil liberties conflict and its effect on tolerance. *American Political Science Review*, *91* (3), 567–583. doi:10.2307/2952075

Nelson, T. E., & Oxley, Z. M. (1999). Issue framing effects on belief importance and opinion. *The Journal of Politics*, *61*(4), 1040–1067. doi:10.2307/2647553

Nelson, T. E., Oxley, Z. M., & Clawson, R. A. (1997). Toward a psychology of framing effects. *Political Behavior*, *19*(3), 221–246. doi:10.1023/A:1024834831093

Pan, Z., & Kosicki, G. M. (1993). Framing analysis: An approach to news discourse. *Political Communication*, *10*, 55–75. doi:10.1080/10584609.1993.9962963

Price, V., & Tewksbury, D. (1997). News values and public opinion: A theoretical account of media priming and framing. In G. A. Barett & F. J. Boster (Eds.), *Progress in communication sciences: Advances in persuasion* (pp. 173–212). Greenwich, CT: Ablex.

Price, V., Tewksbury, D., & Powers, E. (1997). Switching trains of thought – The impact of news frames on readers' cognitive responses. *Communication Research*, *24*(5), 481–506. doi:10.1177/009365097024005002

Priester, J. R., & Petty, R. E. (1995). Source attributions and persuasion: Perceived honesty as a determinant of message scrutiny. *Personality and Social Psychology Bulletin*, *21*(6), 637–654. doi:10.1177/0146167295216010

Rumelhart, D. E. (1980). Schemata: The building blocks of cognition. In R. J. Spiro, B. C. Bruce, & W. F. Brewer (Eds.), *Theoretical issues in comprehension* (pp. 33–58). Hillsdale, NJ: Erlbaum.

Scheufele, D. A. (1999). Framing as a theory of media effects. *Journal of Communication*, *49*(1), 103–122. doi:10.1111/j.1460-2466.1999.tb02784.x

Shen, F., & Edwards, H. H. (2005). Economic individualism, humanitarianism, and welfare reform: A value-based account of framing effects. *Journal of Communication*, *55*(4), 795–809. doi:10.1111/j.1460-2466.2005.tb03023.x

Slothuus, R., & de Vreese, C. H. (2010). Political parties, motivated reasoning, and issue framing effects. *The Journal of Politics*, *72*(3), 630–645. doi:10.1017/S002238161000006X

Su, M. H., Liu, J., & McLeod, D. M. (2019). Pathways to news sharing: Issue frame perceptions and the likelihood of sharing. *Computers in Human Behavior*, *91*, 201–210. doi:10.1016/j.chb.2018.09.026

Tversky, A., & Kahneman, D. (1981). The framing of decisions and the psychology of choice. *Science*, *211*(4481), 453–458. doi:10.1126/science.7455683

Wood, W., & Eagly, A. H. (1981). Stages in the analysis of persuasive messages: The role of causal attributions and message comprehension. *Journal of Personality and Social Psychology*, *40*, 246–259. doi:10.1037/0022-3514.40.2.246

Appendix: Stimulus material

Offshore Drilling: Environment Frame – Expected Advocacy

Kevin Haywood: Expansion of Offshore Drilling Will Seriously Damage the Maritime Environment

H.R. 4239: SECURE American Energy Act was introduced today in the U.S. House of Representatives. The bill aims to increase domestic energy production in the United States. One provisions of this bill that is likely to attract considerable debate is a measure to facilitate the expansion of offshore oil and gas drilling in coastal states.

Congress is expected to hear testimony this week from experts in various fields. The main argument against the Act is that the expansion of offshore drilling will cause tremendous damage to the maritime environment in various ways, as noted by Kevin Haywood, a spokesperson from the Sea Save Foundation.

"One of the biggest environmental threats from offshore drilling is an oil spill. The associated costs for a catastrophic oil spill are very high, making complete cleanup nearly impossible. The oil will stick in the sediment for decades," said Haywood. In addition, offshore drilling will make the U.S. more dependent on fossil fuels. The burning of oil contributes to the carbon pollution that is driving climate change, warming the oceans, raising sea levels, and threatening communities and coasts …

If passed, the Act would take effect around the end of 2018. Its influence still remains to be seen.

Offshore Drilling: Environment Frame – Unexpected Advocacy

Kevin Haywood: Environmental Concerns regarding Offshore Drilling Overstated

H.R. 4239: SECURE American Energy Act was introduced today in the U.S. House of Representatives. The bill aims to increase domestic energy production in the United States. One provisions of this bill that is likely to attract considerable debate is a measure to facilitate the expansion of offshore oil and gas drilling in coastal states.

Congress is expected to hear testimony this week from experts in various fields. To many people's surprise, the act was supported by a group of environmental protection advocates. The main argument in favor of the Act is that environmental concerns regarding offshore drilling have been largely overstated by opponents, as noted by Kevin Haywood, a spokesperson from the Sea Save Foundation.

"Companies have to do sufficient assessments and tests when determining the best location of drilling to minimize the environmental impacts, as required by law. Thus, drilling today is done in a more environmentally friendly way," said Haywood. In addition, improved spill prevention technologies have made offshore drilling today much safer than ever before. As companies utilize robust computer-assisted management and close monitoring, oil spill is extremely unlikely …

If passed, the Act would take effect around the end of 2018. Its influence still remains to be seen.

Animal Testing: Animal Welfare Frame – Expected Advocacy

Gerald Miller: Animal Testing Is Ethically Wrong and Inhumane

A series of university public hearings at Johns Hopkins University are scheduled next week on a controversial proposal intended to eliminate the use of nonhuman primates in scientific research, providing a venue for heated debate among students and faculty members supporting and opposing the proposal.

Supporters of the proposal argue that testing on animals is ethically wrong and inhumane. Among the most vocal supporters of the ban is a spokesperson Gerald Miller from the Animal Rights Association.

According to Miller, animals are merely treated as disposable tools; hundreds of millions suffer and die in laboratory every year. "They are routinely subjected to physical and psychological torment during their lifetime." Moreover, Miller argues that laboratory animals often live in terrible conditions. They are kept in isolated cages with irregular feeding times and low-quality meals, causing some of them to develop neurotic types of behavior, such as biting themselves …

For now, the issue remains an elusive one for the University hearing board to rule on. Advocates from both sides of the debate are expected to testify during the hearing.

Animal Testing: Animal Welfare Frame – Unexpected Advocacy

Gerald Miller: Animal Welfare Concerns are Exaggerated for Animal Testing

A series of university public hearings at Johns Hopkins University are scheduled next week on a controversial proposal intended to eliminate the use of nonhuman primates in scientific research, providing a venue for heated debate among students and faculty members supporting and opposing the proposal.

The proposal to ban animal testing has met with unexpected opposition from a group of animal welfare advocates. They argue that animal welfare is not as much of a concern when it comes to using animals in research. Among the most vocal opponents of the ban is a spokesperson Gerald Miller from the Animal Rights Association.

According to Miller, animals are treated well. "To ensure the validity and reliability of the test results, researchers often take extreme caution to ensure laboratory animals are in a good condition over the course of their experiments." Moreover, Miller argues that animal research is now highly regulated by the government, with laws in place to protect animals from mistreatment in the lab. All proposals to use animals in research must be approved by both state laws and federal-level regulations before proceeding …

For now, the issue remains an elusive one for the University hearing board to rule on. Advocates from both sides of the debate are expected to testify during the hearing.