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# Shifting Frames

## Conditional Indirect Effects of Contested Issues on Perceived Effectiveness Through Multiple Emotions

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**Abstract:** Prior research has found that exposure to news frames can cause emotional responses to political issues. Yet, little is known about how different combinations of news frames and issues relate to discrete emotions and whether these emotions, in turn, affect issue perceptions. The present study investigates these questions by testing whether (a) the effects of news articles, featuring highly versus moderately contested policy issues on perceived policy effectiveness (PPE), are mediated by three discrete emotions (anger, fear, and hope) and (b) if these effects depend on the type of generic news frame used (human interest vs. economic consequences). An online experimental survey ( $N = 405$ ) demonstrated that the effects of issue contestation on PPE were mediated by hope and anger, but not by fear. These effects were only apparent within a human interest frame. The theoretical and practical implications of these results are discussed.

**Keywords:** news framing effects, discrete emotions, contested issues, moderated mediation

On May 2013, *Le Monde diplomatique* published an article about the negative side effects of shale gas drilling – a much-debated policy issue. Aside from general information on the issue, the article introduced individual cases including one where a farming family had lost their beloved horse because of shale gas drilling: “It was our choice (. . .) She was my best friend” (Cantarow, 2013, para. 15). News fragments like these illustrate that our feelings or perceptions of an issue may be influenced by the way journalists frame a prevailing issue. Framing refers to the presentation of an issue in which some aspects receive more weight than others (Chong & Druckman, 2007a). In this case, the reader might feel either sympathy for the family or rather anger against the corporation for being responsible for the death of the horse.

A number of studies demonstrate that news media frequently make use of news frames that are emotionally arousing (e.g., Cho et al., 2003) in order to attract a greater audience (Semetko & Valkenburg, 2000) but also to facilitate their understanding of complex issues (Chong & Druckman, 2007a). Recently, scholars have shown how the effects of frames on political opinion or policy support are influenced by emotional responses (Aarøe, 2011; Lecheler, Schuck, & de Vreese, 2013). Under some conditions, pre-existing emotions will moderate the effect of a frame (Druckman & McDermott, 2008), but, most importantly, they are caused by frame exposure and function as mechanisms through which the effect of a frame unfolds (Gross & D’Ambrosio, 2004).

Consequently, most studies examine how different frames affect emotional responses (Aarøe, 2011; Myers, Nisbet, Maibach, & Leiserowitz, 2012), but do not take into account that it might be the political issue at stake that could determine an emotional response. Yet, as issues vary in their characteristics (Iyengar, 1991; Lecheler, de Vreese, & Slothuus, 2009) and emotions are sensitive to slight variations in external stimuli (Tong, Ellsworth, & Bishop, 2009), it is likely that different levels of an issue characteristic influence not only which emotions are sparked but also how these mediate framing effects. In this study, we determined whether three discrete emotions are affected by issues varying in their level of *contestation*, namely, the extent to which the opinion landscape is divided with regard to the issue at stake (Szczepiak & Taggart, 2004). More specifically, we examined how these emotions function as mediators to influence perceived policy effectiveness (PPE), an expectancy belief defined by the policy’s benefits.

Furthermore, we investigated these effects as a function of specific news frames, since these also differ in emotionality (e.g., Gross, 2008). For instance, news articles featuring individual cases, such as the human interest story mentioned previously, are more emotional than those emphasizing economic information (Semetko & Valkenburg, 2000). Correspondingly, the prevailing news coverage may function as a switch that moderates the direct effects of differing contested issues on emotional responses.

The present study used a survey experiment to investigate (a) the degree to which the effects of differently contested issues on PPE are mediated by different discrete emotions and (b) whether these effects are moderated by different news frames.

## Issue Contestation

Issue contestation refers to the way public opinion is organized on an issue (Szczerbiak & Taggart, 2004). As such, distinct issues may yield different types of opinion distributions. Here, we focus primarily on two levels of issue contestation, namely highly and moderately contested issues. Whereas the former is associated with a high-polarized opinion landscape in which the size of two contesting parties is roughly equal in size (Szczerbiak & Taggart, 2004), the latter refers to an opinion landscape in which public opinion is more scattered. That is, people hold mixed attitudes toward an issue.

Recently, Fowler, Gollust, Dempsey, Lantz, and Ubel (2012) pointed out that issues begin as inherently uncontested, but once they start to circulate in the media landscape, they will become more or less contested with diverse effects for public opinion. This fact, however, remains understudied in framing research, which often employs *one* contested and thus media-salient issue in study designs in order to show societally relevant framing effects (e.g., Lee, McLeod, & Shah, 2008). Frames are then varied within this issue to test how competitive<sup>1</sup> and/or repetitive exposure to these frames influence framing effects (e.g., Chong & Druckman, 2007b). Accordingly, it remains to be questioned whether and how issues varying in contestation affect policy support or other politically relevant attitudes and behaviors beyond the effects of news frames themselves.

In this article, we propose that the degree of issue contestation functions as a contextual cue (e.g., Cho, de Zuniga, Shah, & McLeod, 2006; Igartua, Moral-Toranzo, & Fernández, 2014; Lecheler et al., 2009) or heuristic that speeds up information processing and thus issue-relevant beliefs. In this sense, the contestation cue or, more specifically, the meaning attached to the issue drives framing effects. Meanwhile, there is an accumulating body of research suggesting that the specific character of a frame covering a contested issue may trigger emotions (e.g., Aarøe, 2011; Myers et al., 2012) that correspondingly influences issue beliefs in ways that are consistent with the respective frame. Along this line, the effects of issue contestation on the audience's perceptions may pass through an emotional pathway, and this

effect is likely to interact with the type of frame applied to this issue.

## Emotions – A Psychological Mechanism

Research across different disciplines shows that emotions are a central force behind people's perceptions, cognitions, and behaviors (Ellsworth, 2013). This has also resonated among researchers studying framing who stress the need to go beyond cognitions (e.g., belief importance change; Nelson, Oxley, & Clawson, 1997) as psychological mechanisms of framing effects (Gross & D'Ambrosio, 2004). So far, studies have investigated emotions as outcome variables, as conditions of specific frames, but also as mediators of framing effects (see, for review, de Vreese & Lecheler, 2012). Here, we focus primarily on the role of emotions as mediators. Mediation in this case means that we view emotions as pathways (Tao & Bucy, 2007) through which the effects of issue contestation on PPE unfold as a function of a frame. In particular, we define emotions as distinct entities that arise spontaneously and intensely in response to a stimulus (Frijda, Kuipers, & Ter Schure, 1989). Studying emotions as discrete entities facilitates more nuanced and accurate predictions about the influence of a distinct emotion on an outcome following stimulus exposure. Especially in media studies, where stimuli are usually complex, discrete emotions offer the largest utility to identify more and unique effects (Nabi, 2010).

Previous studies on affective news framing effects (e.g., Aarøe, 2011; Gross, 2008) have often used appraisal theories as a parsimonious way to define the link between environmental contingencies and specific emotions. Central to these theories is the assumption that a stimulus is evaluated along different and rapidly occurring appraisal dimensions such as *valence* or *uncertainty*. The outcome of these appraisals subsequently determines which emotional response will be felt (Ellsworth, 2013; Roseman, 2013).

Similar to previous framing studies (e.g., Kühne, 2014), we draw on appraisal theory to form our hypotheses. We predict that differently contested issues in interaction with distinctive frames elicit anger, fear, and hope, which consequentially mediate effects on issue perception. We selected these emotions as our dependent variable because they vary along appraisal dimensions and have differing effects on perceptions (Frijda et al., 1989). For instance, anger is accompanied by a feeling of certainty that something negative has happened, which might in turn be effective in changing policy perceptions (Lerner & Keltner, 2001; Tiedens & Linton, 2001). Fear and hope, by contrast, are

<sup>1</sup> Issue contestation and competitive frames, although similar, need to be distinguished: The former is an issue or contextual characteristic that indicates *how something is* (Cho et al., 2006). Competitive news frames are contextual message-level characteristics that are built by pitting opposing viewpoints against each other (Chong & Druckman, 2007b).

future-oriented emotions and are preceded by an uncertainty appraisal (Baumgartner, Pieters, & Bagozzi, 2008; Lazarus, 1999). However, hope is, unlike fear, an inherently positive and approach-based emotion (Lazarus, 1999; Roseman, 2013), which should lead to more optimistic policy perceptions.

We also chose these emotions because they directly relate to issue contestation. If two issues are negatively covered in the news, then the coverage of a high-contested issue could be more negative and entail more uncertainty than a moderate-contested issue. High-contested issues may be more negative because the policy's advantages and disadvantages are both equally salient. Under these conditions, however, negative information will have a greater weight on how the issue is perceived (Baumeister, Bratslavsky, Finkenauer, & Vohs, 2001). Uncertainty derives from the fact that a high-contested issue increases the salience of only two opinion positions but forecloses other potentially relevant considerations. Yet, when the opinion landscape is divided, as it is under a high-contested issue, the risk rises that the endorsement of one but not another stance may threaten social relationships with other in-group members (Baumeister & Leary, 1995).

This means that different contestation levels carry uncertainty and valence in different ways, and exposure to differently contested issues should translate into different emotion patterns. More concretely, the negativity and increased uncertainty inherent in high-contested issues may provide fruitful ground for the increased experience of negative rather than positive emotions:

*Hypothesis 1a (H1a):* High-contested issues will elicit more anger and fear but less hope than moderate-contested issues.

We study the effects on PP, which is an expectancy belief that a policy brings about positive change. Work in health communication indicates that the perceived effectiveness of messages represents not only an important criterion for actual belief and intention changes but also a central construct that is influenced by both cognitive and affective factors (Dillard, Weber, & Vail, 2007). In essence, it refers to the persuasiveness of information. To date, most empirical work on framing effects has focused on voting intentions or opinions (see, for review, Chong & Druckman, 2007a) but less on perceived effectiveness of policies. Yet, going beyond these outcomes may be beneficial for the field of framing research: First, in its core, framing aims at shifting the importance of issue-relevant consideration, which then *could* be used as a framework for building political opinions (Chong & Druckman, 2007b; Dillard et al., 2007). Second, issue-relevant expectations are central to whether people are

willing to change attitudes and behaviors (Biggsby, Cappella, & Seitz, 2013; McDonald, Fielding, & Louis, 2013). Related to this, emotions may impact behaviors not directly but indirectly via perceptions (Baumeister, Vohs, DeWall, & Zhang, 2007). These indirect effects, however, are emotion-specific, which means that different emotions influence perceptions in ways that are congruent with the stimulus's core message (Dillard & Peck, 2001). This is also consistent with studies on risk or threat perception. For instance, Baumann and DeSteno (2010) demonstrated that angry people were faster in identifying a gun-holding person than those feeling disgust or fear. Differences between anger and fear are also apparent in risk estimates for terrorism. Fearful people view terror attacks as more likely and are more supportive of conciliatory policies than those feeling angry (Lerner, Gonzales, Small, & Fischhoff, 2003). Together, these studies underscore the contention that different negative emotions could function as lenses that ultimately lead to specific issue interpretations.

Building on this, if high- and moderate-contested issues translate differently into anger, fear, and hope, then each of these emotions should have a distinct impact on PPE. In particular, anger and hope, in contrast to fear, will function as mechanisms through which the effects of issue contestation unfold. Anger will be more effective than fear, because fear is uncertainty-oriented and may thus facilitate in-depth information processing (Nabi, 2002a). This in turn could slow down how fast people come up with a specific policy perception (see Baumann & DeSteno, 2010). Therefore, the direct association between fear and PPE should be either weak or completely absent. Second, we expect that the effects of anger on PPE will be negative because anger carries information that the situation is unpleasant and caused by someone else (Lazarus, 1991; Nabi, 2002a). Third, since hope is an inherently optimistic emotion (Lazarus, 1999), it should encourage a more holistic analysis of a situation and thus positively influence PPE:

*Hypothesis 1b (H1b):* Anger, but not fear, will have a negative impact on PPE.

*Hypothesis 1c (H1c):* Hope will have a positive impact on PPE.

*Hypothesis 1d (H1d):* The effects of issue contestation on PPE are mediated by anger and hope but not by fear.

## What Is the Role of the Frame?

Our second goal was to test whether the effects of issue contestation are influenced by distinctive news frames. News frames are "a central organizing idea or story line

that provides meaning to an unfolding strip of events... The frame suggests what the controversy is about, the essence of the issue” (Gamson & Modigliani, 1987, p. 143). That is, by leaving behind seemingly irrelevant aspects, frames allow the journalist to compose a simplified version of a complex problem.

Media framing research most often makes use of emphasis frames that accentuate some but neglect other issue-related aspects (D’Angelo, 2002; de Vreese & Lecheler, 2012). Scholars further distinguish *issue-specific* and *generic frames*. Issue-specific frames pertain to a specific topic, while generic frames are neither thematically nor culturally bounded, which makes them more suitable for basic studies on the psychology of framing effects (de Vreese & Lecheler, 2012). We test two generic frames: the *human interest frame* and the *economic consequences frame* (Semetko & Valkenburg, 2000). We selected these frames because both are frequently encountered in the news (Dirikx & Gelders, 2010). Further, we assume that the content of these frames has the potential to generate diverging emotional responses.

The economic consequences frame highlights financial advantages or disadvantages of an issue. Owing to its emphasis on “cold facts,” this frame is frequently deployed in broadsheet newspapers. By contrast, issues embedded in a human interest frame point out how policies affect individual cases or specific groups of people (Semetko & Valkenburg, 2000). By featuring an individual case, the issue becomes not only more personal but also more emotional (e.g., Aarøe, 2011).

So far, only few studies have tested the role of emotions vis-à-vis the human interest frame or economic consequences frame. An exception is the study by Lecheler and her colleagues (2013), who tested whether discrete emotions mediate the effects of an economic consequences frame only. Despite being characterized as a more factual-based frame (Semetko & Valkenburg, 2000), their findings demonstrate that this frame is also effective in evoking emotions.

Research on human interest frames and emotions is even more lacking as most studies focus on cognitive effects only (e.g., Price, Tewksbury, & Powers, 1997). However, there are a few studies investigating the *episodic news frame* (Iyengar, 1991), which is conceptually similar to the human interest frame (Gross, 2008): Both frames rely on emotion-laden rhetoric and individual cases to exemplify an issue (Semetko & Valkenburg, 2000). Research shows that episodic frames have strong effects on emotions, which consecutively shape policy support (Aarøe, 2011; Gross, 2008). The emotionality of these frame types is largely the result of using specific instances or “exemplars.”

As proposed by the exemplification theory, exemplars are more concrete and more vivid – basically, two qualities that are essential to a reader’s ability to adopt and understand another agent’s perspective (Zillmann, 1999). Exemplars, however, can also distort perceptions through heuristic thinking: For instance, some issues are assigned more importance because the salient exemplar seems to share more commonalities with a larger group or because it has been encountered more frequently (Kahneman & Tversky, 1973; Tversky & Kahneman, 1973).

In sum, we expect the effects of issue contestation via emotions to be more pronounced under a human interest frame than under an economic one because news featuring individuals are more personal and emotionally engaging (e.g., Gross, 2008).

*Hypothesis 2 (H2):* The effect of issue contestation on PPE via emotional responses is moderated by frame type in that a human interest frame – as opposed to an economic consequences frame – yields stronger effects.

## Method

### Design

The present study is a 2 (contestation: high vs. moderate) × 2 (frame: human interest vs. economic consequences), between-subjects survey-embedded online experiment. To avoid confounding by valence, all stimuli were kept negative. We selected two energy policies in The Netherlands: (a) a high-contested policy for shale gas drilling and (b) a moderate-contested one for the expansion of onshore wind parks.<sup>2</sup> We sought issues that would weigh equally in terms of their media salience (Lecheler et al., 2009).<sup>3</sup> Indeed, the timing of the study was convenient as the implementation of both policies was still under debate in The Netherlands and thus they have repeatedly received media attention. Therefore, our survey not only captures the prevailing public opinion of both policies but also experiments with them.

### Sample

Our respondents were recruited in The Netherlands via a market research agency. Out of 510 respondents, 24 participants were excluded owing to not finishing the survey and an additional 35 were filtered because they were

<sup>2</sup> According to Peil.nl (2013), 35% of the Dutch supported shale gas fracking in The Netherlands and 44% opposed it. While support for wind energy appears to be widespread, actual wind project initiatives often meet with public resistance.

<sup>3</sup> Media salience was determined by the frequency with which issues have received media attention. Additionally, surveys and governmental and scientific papers were consulted.

below (6 min) or above (2 hr 30 min) the average reading time (21 min 13 s). The resulting sample size was  $N = 405$  with the number per condition ranging between  $N = 100$  and  $104$ .<sup>4</sup> The randomization was successful in terms of gender:  $\chi^2(3, 405) = .32, p = .96$ ; education:  $\chi^2(18, 405) = 11.15, p = .89$ ; income:  $\chi^2(18, 405) = 21.89, p = .24$ ; political orientation:  $F(3, 401) = .31, p = .82$ ; and age:  $F(3, 401) = .32, p = .81$ .

## Stimulus and Procedure

Participants were exposed to one of four constructed newspaper articles (available from the corresponding author upon request) because these articles allow more control than published ones. To keep the articles as realistic as possible, we collected information from various news and science articles via LexisNexis. We filtered economic- or individual-oriented arguments that were relevant for either policy. Using actual information facilitated the authentic character and the external validity of the constructed articles. Based on the sampled information, four articles were written in accordance with a Dutch newspaper writing style. Further, for purposes of commensurability, all articles contained details that would reappear regardless of the issue.

Moreover, to ensure that the obtained effects were indeed attributable to different contestation levels, we added two paragraphs containing issue-specific cues that were reflecting the actual public opinion landscape of both issues: While wind energy was described as “less contested” than alternative energy resources, shale gas was characterized as a “highly contested issue” among the Dutch population. To strengthen these claims, we added another sentence qualifying this information as a finding obtained by a well-known research institute.

## News Frames

To make the articles within each frame more comparable, we used the same core arguments, differing in their reference to the respective issue characteristic: Whereas both economy-oriented articles stressed the economic inefficiency of wind energy or shale gas, the human interest articles presented the testimony of a woman expressing concern about potential social and health-related problems of the energy policy. The two human interest articles differed only in terms of the woman’s first-hand versus second-hand experience with the salient issue. This was

necessary, because unlike shale gas, wind energy is an established source in The Netherlands.

## Measures

### Control Variables

Drawing on past research, we measured participants’ age, sex, media trust ( $M = 4.21, SD = 1.28$ ), and political orientation ( $M = 6.13, SD = 2.22$ ) prior to treatment. Media trust was measured with one item asking respondents to indicate their trust in news media. Answers were given on a scale from 1 (= *not at all*) to 7 (= *a lot*). Political orientation was gauged with a single item by asking participants to indicate their own position on a scale from 1 (= *left*) to 10 (= *right*). Moreover, based on the temporal variation of both issues, we implemented an item in the post-test section measuring participants’ perceived temporal distance of the issue.<sup>5</sup> This measure was also controlled for in the analyses.

### Manipulation Checks

The first manipulation check assessed the article’s valence ( $M = 5.41, SD = 1.28$ ). Participants were asked to indicate the extent to which the policy’s consequences mentioned in the article were 1 (= *positive*) or 7 (= *negative*). Second, they evaluated the prevailing news frame ( $M = 3.95, SD = 1.92$ ). Answers were given on a 7-point semantic differential ranging from 1 (= *economic consequences*) to 7 (= *personal consequences*). Next, we tested the extent to which the respective issue was perceived as contested. We used two items: One measured the article’s level of issue contestation and the other participants’ perceived issue contestation. The rationale for the second item was that we expected participants’ responses to be influenced by their personal views of wind energy or shale gas. Responses ranged from 1 (= *high contestation*) to 7 (= *low contestation*). Before analyzing the data, the items were reverse coded and collapsed to form an average level of contestation, with higher scores indicating more contestation. Its reliability was good ( $\alpha = .71$ ). Our manipulation checks for issue contestation,  $F(3, 401) = 9.40, p < .001, \eta^2 = .07$ , and news frame,  $F(3, 401) = 66.09, p < .001, \eta^2 = .33$ , were significant. That is, the issue of shale gas as opposed to wind energy was perceived as more contested and the human interest frame contrary to the economic frame was rated as more personal. Valence was, as expected, not significant,  $F(3, 401) = 2.24, p = .08, \eta^2 = .016$ . Together, these findings corroborate our manipulations and thus give way to testing the hypotheses.

<sup>4</sup> We had a control group ( $N = 46$ ) that differed significantly from the high-contested issue within the human interest frame on anger ( $M_{dif} = -1.19, SE = .29, p = .001$ ), fear ( $M_{dif} = -.78, SE = .27, p = .04$ ), and hope ( $M_{dif} = .85, SE = .27, p = .01$ ) as well as from a high-contested issue within the economic consequences frame on hope ( $M_{dif} = .73, SE = .25, p = .04$ ).

<sup>5</sup> Temporal distance was originally part of the manipulation, but did not work as intended. We used it as a covariate, because it had a marginal impact on one of the mediators.

## Mediators – Discrete Emotions

Following stimulus exposure, participants evaluated their emotional state during stimulus exposure (e.g., “To what extent did you feel angry while reading the article?”). Each discrete emotion was rated at a time on a 7-point scale, with higher scores indicating a stronger emotional response ( $M_{\text{anger}} = 3.66$ ,  $SD = 1.69$ ;  $M_{\text{fear}} = 2.66$ ,  $SD = 1.56$ ;  $M_{\text{hope}} = 2.78$ ,  $SD = 1.41$ ).

Similar to previous studies (e.g., Holbert & Hansen, 2008), anger was operationalized as a latent variable comprising measures of anger and disgust. We selected this approach because research highlights that laypeople do not differentiate anger and disgust in the same way as scholars do (Nabi, 2002b). Also, both emotions were highly correlated ( $r = .74$ ) and shared a comparable correlation with PPE ( $r_{\text{anger}} = -.14$ ,  $r_{\text{disgust}} = -.16$ ).

## Dependent Variable – PPE

We created a 3-item scale measuring the likelihood with which the issue was perceived as effective (e.g., “How likely or unlikely do you expect the just mentioned energy resource to be cost-effective [create job opportunities; make an important contribution towards achieving the renewable energy goals in 2020]?”) Answers ranged from 1 (*very unlikely*) to 7 (*very likely*) with higher scores implying that the respective issue was perceived as more effective ( $M = 3.45$ ,  $SD = 1.39$ ). The internal consistency was good ( $\alpha = .81$ ).

## Data Analysis

The dependent variables were the discrete emotions and PPE. We controlled for age, sex, political orientation, media trust, and temporal distance.<sup>6</sup> Our findings did not change when issue importance was included; therefore, it was not considered in the analyses. The indirect and conditional indirect analyses were tested with PROCESS (Hayes, 2013) using 5,000 bootstrap samples and 95% bias-corrected and accelerated bootstrap confidence intervals (BCa-CI) for significance testing. Issue contestation was dummy-coded as follows: moderate-contested issue = 0 and high-contested issue = 1.

## Results

### Effects of Issue Contestation on Discrete Emotions

We predicted that a high-contested issue would trigger more anger and fear but less hope than a moderate-contested one

(H1a). To test this hypothesis, we ran the analysis per news frame: Within the human interest frame, there was a significant difference between high- and moderate-contested issues,  $V = .12$ ,  $F(4, 191) = 6.19$ ,  $p < .001$ ;  $\eta^2 = .115$ . All negative emotions were consistently higher in the high-contested than in the moderate-contested issue (e.g., anger:  $M_{\text{shale}} = 4.20$ ,  $SE = .16$  vs.  $M_{\text{wind}} = 3.59$ ,  $SE = .16$ ).<sup>7</sup> Hope<sub>a</sub> ( $M_{\text{shale}} = 2.51$ ,  $SE = .13$  vs.  $M_{\text{wind}} = 2.95$ ,  $SE = .13$ ) and PPE<sub>b</sub> ( $M_{\text{shale}} = 3.39$ ,  $SE = .13$  vs.  $M_{\text{wind}} = 4.05$ ,  $SE = .13$ ), by contrast, were significantly lower in response to the high- than to the moderate-contested issue (see Figure 1).

Within the economic consequences conditions, there were no significant differences between high- and moderate-contested issues on discrete emotions and PPE,  $V = .02$ ,  $F(4, 194) = .91$ ,  $p = .46$ ,  $\eta^2 = .018$ . Figure 1 shows that the means for the negative emotions (e.g., fear:  $M_{\text{shale}} = 2.55$ ,  $SE = .15$  vs.  $M_{\text{wind}} = 2.55$ ,  $SE = .14$ ), hope ( $M_{\text{shale}} = 2.65$ ,  $SE = .14$  vs.  $M_{\text{wind}} = 2.98$ ,  $SE = .14$ ), and PPE ( $M_{\text{shale}} = 3.03$ ,  $SE = .13$  vs.  $M_{\text{wind}} = 3.32$ ,  $SE = .13$ ) are comparable across both issues.

Overall, these findings provide only tentative support for the assumption (H1a) that high-contested issues will elicit more anger and fear but less hope than moderate-contested issues. In fact, what we see here is that the expected effects are only present under a human interest frame but not when the article highlights economic consequences.

## Parallel Multiple Mediation Analysis

Next, we hypothesized that, unlike fear, anger would lower and hope would increase PPE (H1b, c) and therefore mediate the effects of issue contestation on PPE (H1d). Here, we present first the multiple mediation within the human interest frame and then within the economic consequences frame.

### Multiple Mediation Within the Human Interest Frame

The effect of the issue was significantly related to anger ( $b = .62$ ,  $SE = .23$ ,  $p = .007$ ), fear ( $b = .70$ ,  $SE = .23$ ,  $p = .002$ ), and hope ( $b = -.44$ ,  $SE = .19$ ,  $p = .02$ ). Thus, the direction of the effects was in line with our expectations.

Concerning the direct effects, fear was not related to PPE ( $b = -.01$ ,  $SE = .06$ ,  $p = .83$ ). The effects of anger ( $b = -.13$ ,  $SE = .06$ ,  $p = .03$ ) and hope ( $b = .39$ ,  $SE = .06$ ,  $p < .001$ ) were both significant and in the expected direction. These findings were also apparent in the mediation analysis,

<sup>6</sup> Lecheler et al. (2009) showed that issue importance could influence people's beliefs.

<sup>7</sup> An *a* refers to  $p < .05$  and *b* refers to  $p < .01$ .

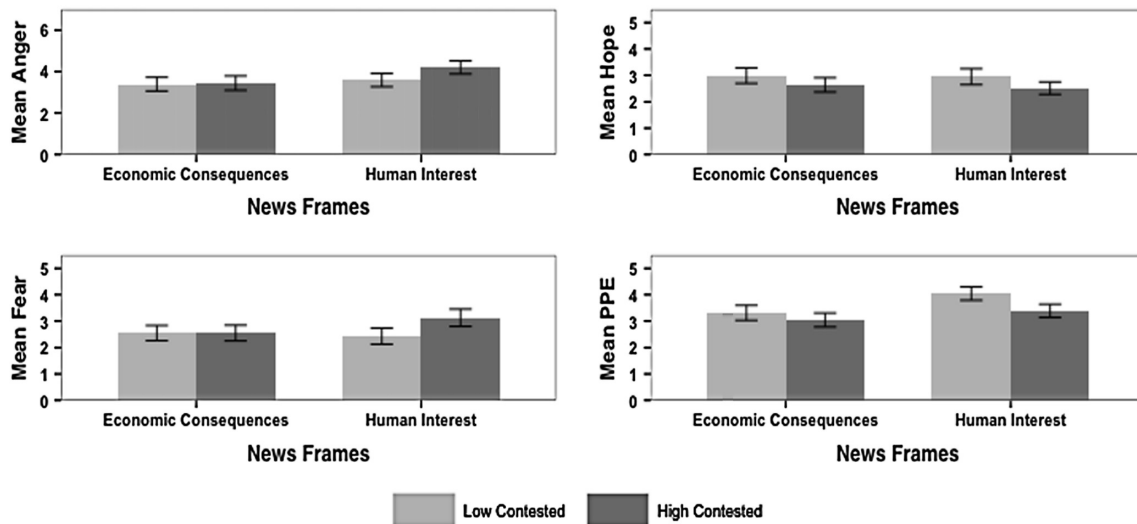


Figure 1. Means as a function of issue contestation and news frame.

Table 1. Effects of multiple mediation on PPE per human interest frame (HIF) and economic consequences frame (ECF) using bootstrap intervals

	Point estimate ( <i>boot SE</i> )	95% CI	
		Lower limit	Upper limit
<b>HIF mediators</b>			
Total	-.26 (.10)	-.48	-.09
Anger	-.08 (.05)	-.23	-.01
Fear	-.01 (.05)	-.10	.08
Hope	-.17 (.08)	-.36	-.03
<b>ECF mediators</b>			
Total	-.14 (.09)	-.33	.03
Anger	-.005 (.03)	-.09	.06
Fear	-.000 (.02)	-.05	.04
Hope	-.13 (.09)	-.31	.02

Note.  $N_{HIF} = 201$ .  $N_{ECF} = 204$ . PPE = perceived policy effectiveness.

revealing a total indirect effect of issue contestation on PPE via discrete emotions (point estimate [PE]:  $-.26$ , BCa-CI:  $-.48$ ;  $-.09$ ). The effect was negative, suggesting that participants who read about the high-contested issue perceived the policy to be on average less effective than those reading about the moderate-contested issue. Therefore, our expectation was supported.

Of the selected discrete emotions as shown in Table 1 (top), only hope (PE:  $-.17$ , BCa-CI:  $-.36$ ;  $-.03$ ) and anger (PE:  $-.08$ , BCa-CI:  $-.23$ ;  $-.01$ ) turned out to be significant mediators of the relationship between issue contestation and PPE. That is, on average the high-contested issue elicited less hope but more anger than the moderated-contested one. These findings imply that people who experienced more hope perceived the policy still to be effective, whereas those who responded with more anger downgraded the policy's effectiveness. Overall, the findings within the

human interest frame provide support for our hypotheses (H1b-d).

### Multiple Mediation Within the Economic Consequences Frame

The results did not reveal a relative effect of issue contestation on any of the discrete emotions (anger:  $b = .04$ ,  $SE = .24$ ,  $p = .87$ ; fear:  $b = .002$ ,  $SE = .20$ ,  $p = .99$ ; hope:  $b = -.33$ ,  $SE = .20$ ,  $p = .10$ ). Concerning the direct effects, there was a significant positive effect of hope ( $b = .41$ ,  $SE = .06$ ,  $p < .001$ ) and a negative significant effect of anger ( $b = -.13$ ,  $SE = .06$ ,  $p = .04$ ), while fear ( $b = -.07$ ,  $SE = .08$ ,  $p = .36$ ) was unrelated to PPE. Table 1 (bottom) reports that these findings were also reflected in the absence of a total indirect effect (PE:  $-.14$ , BCa-CI:  $-.33$ ;  $.03$ ) and any specific indirect effects.

Therefore, the mediation hypothesis (H1d) of a total indirect effect via discrete emotions was only supported for the human interest frame. More specifically, when both issues were embedded in this frame, only hope and anger yielded a specific indirect effect. Consistent with our expectations, there was no specific indirect effect via fear (H1b, c supported).

### Conditional Indirect Effect as a Function of Frame

The mediation analyses provide tentative support for our second hypothesis, namely, that the indirect effect of issue contestation through discrete emotions on PPE would vary as a function of the frame (H2). To test this contention



**Table 2.** Conditional indirect effects of issue contestation on PPE per news frame using bootstrap confidence intervals

Mediators	Point estimate ( <i>boot SE</i> )	95% CI	
		Lower limit	Upper limit
ECF Anger	-.00 (.03)	-.07	.05
HIF Anger	-.07 (.04)	-.17	-.01
ECF Fear	.00 (.01)	-.03	.03
HIF Fear	-.03 (.04)	-.12	.04
ECF Hope	-.13 (.08)	-.29	.02
HIF Hope	-.17 (.08)	-.34	-.03

Note. PPE = perceived policy effectiveness. HIF = human interest frame. ECF = economic consequences frame.

more formally, we dummy-coded the news frames variable (economic = 0; human interest = 1) and ran a conditional indirect analysis.

Controlling for the presence of the other variables, only the interaction between issue contestation and the frame on fear ( $b = .71, SE = .31, p = .02$ ) was significant. The interaction effect on anger ( $b = .58, SE = .33, p = .08$ ) was marginally significant. There was no significant interaction effect on hope ( $b = -.10, SE = .27, p = .71$ ).

As presented in Table 2, our hypothesis was only supported for the effect of issue contestation on PPE through hope and anger as a function of the human interest frame. Under this frame, the effect via hope was negative and significantly different from zero (PE:  $-.17$ ; BCa-CI:  $-.34$ ;  $-.03$ ). That is, for the high- as opposed to the moderate-contested issue, feelings of hope decreased relatively more. Similarly, within the human interest frame, the indirect effect (PE:  $-.07$ , BCa-CI:  $-.17$ ;  $-.01$ ) via anger was negative, suggesting that angry participants judged the policy to less effective. Meanwhile, we found no significant conditional indirect effects via fear. Within the economic frames none of the indirect effects were significant.

In line with our second hypothesis, the findings showed that the combination of a human interest frame and a high-contested issue significantly influences hope and anger, which in turn determine the extent to which the respective issue will be perceived as effective.

## Discussion

The present study provides evidence that the effects of news articles featuring issues characterized by different levels of contestation on PPE are mediated by emotions and that these effects depend on the prevailing news frame. More specifically, we found that the effects of the high-versus moderate-contested issue on three discrete emotions were more pronounced when these issues were embedded within a human interest frame rather than an economic consequences frame. However, within the former, only

hope and anger but not fear turned out to be significant mediators of the effects of issue contestation on PPE. These results are consistent with studies on episodic news frames (e.g., Aarøe, 2011; Gross, 2008) but also advance framing research by showing that human interest frames are indeed more emotionally arousing than economy-oriented frames and that not all emotions function equally well as psychological mechanisms.

Our study extends previous attempts to disentangle how and under which conditions contested issues are likely to impact policy support as well as politically relevant behaviors (e.g., Nisbet, Hart, Myers, & Ellithorpe, 2013). Here, we demonstrate that high- as opposed to moderate-contested issue increases the audience's feelings of fear and anger, but also lowers hope and effectiveness beliefs. These findings suggest that both the issue's contestation level as well as the rhetorical environment in which it is discussed have important political implications. Accordingly, research using contested issues for the studied frame should adopt a more differentiated view on contestation and examine whether the frame content is more likely to elicit emotions. If it does, a focus on emotional mechanisms is an important criterion for understanding the public's issue perceptions.

Moreover, our study makes an important contribution to the framing literature as we tested conditional indirect effects via several emotions at once. By doing so, we were able to specify not only the psychological mechanisms through which the effects of issue contestation on the individual's perceptions unfold, but also under which frame these effects are most likely to occur. In particular, by showing that hope is an equally valuable pathway as enthusiasm (e.g., Lecheler et al., 2013) or compassion (e.g., Aarøe, 2011; Gross & D'Ambrosio, 2004), we not only extend prior work on framing effects but also stress the need for more research to understand the function of hope with regard to other variables; especially because we currently lack further insight into if and how hope will function compared with other emotions. Next, the fact that hope arises only in response to a contested issue under a human interest frame suggests that this mechanism may be content-specific rather than general. Accordingly, the question arises of whether other generic frames such as a morality frame are also effective in generating hope.

The fact that issues embedded in emotionally charged frames are also more effective in shaping issue perceptions is also consistent with extant framing research (e.g., Gross, 2008). Yet, our findings supplement these works by demonstrating that these effects are not exclusively driven by a salient or strong frame (Aarøe, 2011), but by an issue's contestation level. Furthermore, our findings reinforce Price and colleagues' (1997) notion that other factors than the salient frame will influence what and how people form their opinions. This stresses the need for a more integrative

perspective in framing research where frames, issue characteristics, and emotions are recognized as essential components in the generation of specific framing effects.

The findings concerning the effects of anger, fear, and hope emphasize the importance of studying *discrete* emotions in framing research. This resonates with previous research (e.g., Nabi, 2010) proposing that the focus on discrete emotions allows not only for the generation of fine-grained predictions, but also for the possibility of disentangling complex effects. Indeed, from a valence perspective, we would have expected that both negative emotions, anger and fear, would have the same impact on PPE. Yet, our data show that anger but not fear mediates the effects of issue contestation, which means that the former had a larger impact on people's perceptions.

Our study has a few caveats. Given time constraints, we could not determine the extent to which different appraisal dimensions are embedded within differently contested issues. Accordingly, our arguments concerning the relationship between appraisals and issue contestation remain theoretical. For instance, we can only assume that differently contested issues contain variable cues of certainty appraisals (e.g., Lerner et al., 2003), which then elicits anger and fear. Follow-up studies could measure appraisals in a pilot before running a similar experiment. Next, our findings convey only information on issue contestation at the media level rather than the population level because we used existing polls as a reference point for contestation. This limitation could be overcome by testing *perceived* issue contestation prior to stimulus exposure. Also, given that the pretest did not assess actual issue beliefs, we lack a baseline measure that helps determining the extent to which these may have affected our findings. Yet, since we were primarily interested in between-subject variance and the underlying basic psychological structures (e.g., belief creation), a post-test-only design was a valid choice, especially because it lowers the risk of sensitizing participants toward the research focus (Nickerson, 2013). Additionally, our operationalization of PPE differs from previous studies by focusing specifically on expectations regarding a policy's implications rather than on how these were processed (see, for clarification, Yzer, LoRusso, & Nagler, 2014). Therefore, we need replication studies to strengthen its application. Finally, similar to previous research (e.g., Gross, 2008; Igartua et al., 2012), we tested our hypotheses with single message stimuli specific to one issue. While this approach lowers the risk of overstating effects (Druckman & Leeper, 2012), it limits the generalizability of our findings. Accordingly, follow-up research should try replicating our findings with multiple messages as well as consider other similarly contested issues.

These limitations notwithstanding, our findings demonstrate that the way journalists frame contested policy issues

influences not only which emotions are triggered but also how these will determine issue-relevant expectancies. To the extent to which the coverage emphasizes individual-level consequences, policy makers can expect to face more difficulties in convincing the public of a policy's necessity, as most of the public will perceive it to be ineffective. By contrast, a focus on economic consequences may represent fewer impediments and thus facilitate the policy's implementation. These results have practical implications for policy makers and journalists. Especially when a policy is urgent or yields benefits only in the long run, both parties need to ensure access to more transparent information on the underlying reasons and potential consequences of that policy. This will not only strengthen public understanding, but also maintain governmental trust, which is essential to a healthy democracy.

To conclude, the findings offer a new perspective on how different generic frames may function in relation to differently contested issues as well as how discrete emotions in parallel may mediate these effects. We hope that future studies will consider these contingencies and mechanisms when trying to unravel framing effects across different issues and context.

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