Dealing with feelings: Positive and negative discrete emotions as mediators of news framing effects

Abstract: The underlying psychological processes that enable framing effects are often described as cognitive. Yet, recent studies suggest that framing effects may also be mediated by emotional response. The role of specific emotions in mediating the framing effect process, however, has yet to be fully empirically investigated. In an experimental survey design (n = 161), this study tests two positive (enthusiasm and contentment) and two negative emotions (anger and fear) as mediators of framing effects. Our results show that while anger and enthusiasm mediate a framing effect, contentment and fear do not. These findings deepen our understanding of which discrete emotions are relevant when studying mediated framing effects.

Keywords: framing effects, mediators, emotions, political opinions, experiments

1 Introduction

For many years, rational decision-making was seen as the basis of political communication research, with the role of emotions downplayed. Over time, however, scholars have come to acknowledge that emotions are a powerful and relevant force within the political communication process (for an overview, see Crigler and Just, 2012). This has also sparked interest in news framing effects research; studies have shown that emotions are integral components of news frames (e.g., Nabi, 2003) and that exposure to news framing can cause an individual to have specific emotional reactions (e.g., Druckman and McDermott, 2008; Gross and D’Ambrosio, 2004). Research has also demonstrated that certain frame types, such as episodic or conflict frames, can cause stronger emo-
tional response than others, for these frames describe events that are emotionally important to the individual (e.g., Aarøe, 2011; Gross and Brewer, 2007).

A next step in integrating the role of emotions into framing effects theory is to examine whether emotional responses also function as mediators when it comes to the effects of news frames on attitudes and opinions (e.g., Gross, 2008). While it is assumed that exposure to certain news frames will lead to emotional reactions, which in turn influence how attitudes and opinions are formed, this has few empirical foundations (Holm, 2012). Furthermore, the psychological and political literature strongly suggests that not all emotional reactions will have the same effects on political opinions (e.g., Lerner and Keltner, 2001), which warrants a test of different emotions as mediators of news framing effects.

This study thus examines if a number of key discrete emotions mediate framing effects on political opinions. Specifically, we contrast the effects of several positive and negative emotions as mediators in our study. We expect these emotions to be conceptually different and distinct in terms of their effects on political opinions – even if they share similar valence patterns (see, e.g., Holm, 2012; Nabi, 1999). With this study, we provide further building blocks for the integration of emotions into a predominantly cognitive model of the psychology of news framing effects.

2 News framing effects theory

News frames are patterns of interpretation that are used to classify information sensibly and process it efficiently. News framing stresses certain aspects of reality and pushes others into the background; it has a selective function. In this way, it suggests certain attributes, judgments, and decisions (e.g., Scheufele, 2000; Entman, 1993). Framing effect studies typically employ either equivalency or emphasis frames (Druckman, 2001). Equivalency frames refer to logically alike content, which is presented or phrased differently (e.g., Kahneman and Tversky, 1984). Emphasis frames are closer to ‘real’ journalistic news coverage and present “qualitatively different yet potentially relevant considerations” (Chong and Druckman, 2007a, p. 114). Effect research has, moreover, worked with alternative operationalizations of frames in the news, namely issue-specific and generic frames (Iyengar, 1991; Semetko and Valkenburg, 2000). Issue-specific frames pertain to a specific topic, while generic news frames are applicable to a wide range of topics. This wide application of generic frames makes it easier to compare framing effects across issues, and generic frames have
therefore been utilized in a variety of framing experiments (e.g., Lecheler and de Vreese, 2011).

Additionally, it is important to note that news frames used in empirical framing studies are often characterized by a specific valence (see e.g., Chong and Druckman, 2007b; Druckman, 2004; Lecheler and de Vreese, 2011; Nelson, Oxley, and Clawson, 1997). This valence alludes to one of the most fundamental characteristics of political discourse, namely that elites attempt to affect support for, or rejection of, an issue by emphasizing the positive or negative aspects of it – which is then reflected in news media coverage. Valence frames are often used in studies aimed at competitive framing effects, that is, in studies that test how exposure to frames that hold opposing views of an issue influence opinion formation (e.g., Chong and Druckman, 2007b; 2010; Sniderman and Theriault, 2004). However, although valence is also common in single-frame experiments (e.g., Nelson et al., 1997), authors frequently do no explicitly label their frames as being positive/negative. The importance of studying valence frames can be connected to the capacity of such frames to affect opinion and support for an issue (de Vreese and Boomgaarden, 2003), with neutral frames being more relevant only for issue interpretations (see also Bizer and Petty, 2005).

Given the conjectural ‘existence’ of framing effects, one of the main goals of current studies is to describe the psychological processes that underlie framing effects. To date, most popular models of the psychology of framing effects specify several ways of cognitively processing frame information (e.g., Nelson et al., 1997; Price, Tewksbury, and Powers, 1997). For instance, framing effects are sometimes described as an accessibility effect (e.g., Iyengar, 1991), but can also be seen as being the product of a multitude of cognitive processes. For example, Chong and Druckman (2007a) argue that a consideration must first be available to the individual, that is, stored in memory for use. Second, this consideration must be accessible; its knowledge must also be ‘ready for use’. Third, depending on the context and motivation, a consideration may be consciously weighed against other considerations as a person decides about the applicability of his/her (accessible) interpretations. Along similar lines, another model combines these three processes with a fourth-learning-in which a frame functions by adding new beliefs to an individual’s belief content (e.g., Baden and Lecheler, 2012; Slothuus, 2008).

These processes clearly do not represent a comprehensive model of the psychological mechanisms that underlie framing effects – and extant studies contain references to a remaining ‘direct effect’ in their intermediary models (e.g., Lecheler and de Vreese, 2012). Interestingly, however, this ‘effect’ often remains underdiscussed; consequently, we do not know what these remnants really represent. Given the rising importance emotionality plays in political
decision-making and behavior, we consider emotions as a potential alternative or complementary explanation for how news framing effects come about (Kühne, 2012).

3 News framing effects and emotions

There are a number of studies that have empirically tested the influence of emotions on the framing effect process (e.g., Aarøe, 2011; Druckman and McDermott, 2008; Gross and Brewer, 2007; Gross and D’Ambrosio, 2004; Holm, 2012; Nabi, 2003; Schuck and de Vreese, 2012). In this literature, emotions are usually conceived of as “internal mental states representing evaluative reactions to events, agents, or objects that vary in intensity ... They are generally short-lived, intense, and directed at some external stimuli” (Nabi, 2002, pp. 289–290). This focus on emotional states thus excludes emotion as traits, which describe longer-lasting characteristics related to personality (e.g., Crigler and Just, 2012). An example of an emotional state is feeling ‘angry’ as a result of a certain personal event, whereas an emotional trait can describe someone who generally feels more or less comfortable in emotional situations (e.g., Maio and Esses, 2001).

One of two theories is generally used when emotions are studied in framing experiments: affective intelligence (Marcus, Neumann, and MacKuen, 2000) or appraisal theory (e.g., Lazarus, 1991). In affective intelligence theory, Marcus and colleagues explain habitual and novel political behavior on the basis of two affective systems, the dispositional and the surveillance system. The dispositional system monitors habitual behavior, while the surveillance system takes hold when a new and unknown situation is encountered. Together, these two systems regulate decision-making processes, and even the most basic reaction to a problem relies on affective processing. Appraisal theory suggests that the development of an emotional state depends on individual and subjective evaluations of that event. Following this argument, cognitive appraisal of a specific event precedes emotional response to a news frame (see, e.g., Gross, 2008; Kühne, 2012).

Although both theories differ substantially in their placement of emotions in the framing effect processes, they both suggest that the traditional dichotomy of cognitive versus emotional processing may not hold (Spezio and Adolphs, 2007) – a proposition that informs many framing experiments as well as this study (see, e.g., Gross, 2008). We assume also that in framing research, affective processes play a decisive role when decisions are made after exposure to a frame.
4 Emotions as mediators of framing effects

One important aspect in understanding the role of emotional response in framing is to test whether it mediated the effects news frames can have on political opinions (see, e.g., Gross, 2008; Holm, 2012). As noted above, several studies of emotions and framing effects use emotions as moderators of framing. This means that these studies test whether previously induced emotional states (e.g., Druckman and McDermott, 2008; Witte and Allen, 2000) change the individual’s susceptibility to a news frame. Along these lines, there are also studies that investigate whether an emotional response convoked by a news frame moderates framing effects. For example, Aarøe (2011) shows that episodic frames cause more intense emotional response, which in turn strengthens the effects such frames have on policy support. Furthermore, this also suggests that emotional response could even mediate framing effects, a hypothesis tested by Gross (2008), who showed that the effects of episodic framing on issue support are mediated by the feeling of empathy.

While we can thus assume that emotions can be mediators of framing effects (see Holm, 2012), we do not know how different emotions vary in this role. The first step in understanding emotions as mediators is to determine which emotions are relevant in our context. This is, however, not an easy undertaking. In the extensive psychological literature, there exists a multitude of concepts and theories describing not only the antecedents and physiological and psychological consequences of emotions (e.g., Izard, 1977; 2007; Schachter and Singer, 1962; Scherer, 1984), but also different (and sometimes incompatible) lists of basic human emotions. Some studies draw on emotions, such as anger, fear, or disgust, as discrete concepts with discrete effects (e.g., Keltner, Ellsworth, and Edwards, 1993; Lazarus, 1991). Others emphasize that these emotions are not in fact distinct, but can be summarized into common dimensions, such as valence (positive/negative) or involvement (low/high) (e.g., Lang, 1980; Russell, 2003; Watson, Wiese, Vaidya, and Tellegen, 1999). While most framing researchers have made use of discrete emotions (e.g., Gross and Brewer, 2007), they have organized these emotions along differing dimensions (see Holm, 2012).

Variation can be expected based on several of these dimensions and therefore between emotions as well. Given our focus on valence frames, emotional valence is probably the first of these dimensions to consider. In the most general sense, one can then assume that positively framed news would lead to positive emotional response, whereas negative frames result in negative emotions. This assumption is supported by empirical evidence in political communication research, which shows that discrete negative emotions like anxiety,
anger, fear, or threat affect political attitudes and behavior negatively (e.g., Huddy, Feldman, and Cassese, 2007; Valentino, Brader, Gorenendyk, Gregorowicz, and Hutchings, 2011). Moreover, explicitly positive emotions such as enthusiasm, hope, or contentment have been found to positively affect political attitudes and participation (e.g., Brader, 2005; 2006).

However, given the presence of other dimensions that structure emotions, we can also assume that specific discrete emotions of similar valence could have discrepant effects on political opinions and behavior (e.g., Lerner and Keltner, 2001). This means that two frames that bear similar evaluative direction, but that differ in emotional appeal can have differential effects on political opinions (e.g., Holm, 2012).

When it comes to negatively valenced emotions, two emotions stand out, due partly because of the level of interest they receive in the literature, but also because they showcase how emotions of similar valence can cause substantially different effects: anger and fear. For instance, Lerner and Keltner (2001) find differential effects of anger and fear on risk perceptions, with fearful individuals displaying risk-averse behavior, whereas angry individuals reacted in risk-seeking manner to a decision problem (see also Huddy et al., 2007; Lerner et al., 2003; Valentino et al., 2011). Findings of this kind assume that emotions, such as anger and fear, differ substantially not only in intensity, but also in their behavioral implications or action and processing tendency (see Dillard and Peck, 2006). Existing research shows that while anger leads to confrontational behavior, fear is connected with retreat and avoidance. This also suggests differential effect patterns when it comes to the mediating role of emotions in the framing effect process, which is based on how a frame is processed. Previous research suggests that message-induced anger leads to more attention and more careful information processing (Turner, 2007). Nabi argues (1999, p. 303) that “angry people may be more, not less, careful processors, relying on both arguments and heuristics to make judgments”. Message-induced fear, however, is assumed to lead to a low willingness to process information (Nabi, 1999).

In terms of positive valence, less is known regarding dissimilar effect patterns between emotions of similar valence. However, our assumptions regarding the difference between anger and fear hold true for another pair of discrete emotions: enthusiasm and contentment. The effect patterns for this pair of emotions mirrors that which was described above for anger and fear: While enthusiasm is related to mobilizing action tendencies and deep information-processing (Valentino et al., 2011), contentment supports immobility and the failure to process a message (Dillard and Peck, 2006).

We choose these two sets of emotions for our study not only because they have been the subject of study in political communication, but also because
they suggest differential effect patterns as mediators of news framing effects: enthusiasm, contentment, anger, and fear. More importantly, we argue that while all these emotions have the potential to be affected by positive or negative news framing, only anger and enthusiasm moderate the framing effect, and therefore induce opinion change. Given the research cited above, this implies that we assume that the effects of these emotions on political opinions are based on the information-processing style these emotions invoke. We formulate two sets of hypotheses, organized along valence as the overarching classification scheme:

H1a: News frames affect emotions, so that positive news frames result in increased positive emotions.
H1b: Enthusiasm mediates the effect of positive news framing on political opinion, whereas contentment does not.
H2a: News frames affect emotions, so that negative news frames result in increased negative emotions.
H2b: Anger mediates the effect of negative news framing on political opinion, whereas fear does not.

5 Method

To investigate the underlying psychological processes of framing effects on opinion, we conducted an online experiment among a sample of Dutch University students. As a research subject, we chose the issue of the enlargement of the European Union (EU). Specifically, we tested news framing effects on support for the economic development of the EU’s two newest members, Bulgaria and Romania. Unlike previous EU enlargements, the entry of Bulgaria and Romania into the EU in January 2007 received relatively little media attention. This made our experimental design easier to put into practice, because real-life pre-treatment exposure to one of our frames was less likely (e.g., Chong and Druckman, 2010).

5.1 General design

In a single-factor, post-test only, between-subjects experimental design, we randomly assigned participants to one of two conditions.¹ For each condition, we

¹ In the following, we report results based on two conditions (positive/negative emotions). In our original design, however, we operationalized four conditions with one emotion each (enthusiasm, contentment, anger, fear). We collapsed enthusiasm/contentment and anger/fear
chose two emotions relevant in the context of politics. We based this choice on Lazarus (1991) and Dillard and Peck (2006), arguing that while there are discrete emotions, these can be organized along common dimensions, such as valence (positive/negative). We thus manipulated two mediators per condition, resulting in the following two emotion-pairs participants could be exposed to: contentment/enthusiasm and fear/anger. These conditions represented alternative valence versions of a generic news frame, the “economic consequences” frame (see, e.g., Lecheler and de Vreese, 2011). The use of alternative versions of one generic frame ensures commensurability of the effects across conditions. External validity in our study is high, as both the positive and negative version of the economic consequences news frame are to be found in real political news coverage on EU integration and enlargement (e.g., Neuman, Just, and Crigler, 1992; Schuck and de Vreese, 2006; Semetko and Valkenburg, 2000). Affective mediator variables were measured in the post-test by using verbal self-report items. The dependent variable was opinion as issue-specific policy support.

5.2 Sample

We recruited a total of 161 Dutch University students (74% female,\(^2\) between the ages of 17 and 34 [\(M = 21.63, SD = 8.39\)] from a student database.\(^3\)

5.3 Procedure

In the experimental procedure, participants were exposed to one news article containing either of the two economic consequences frames (positive or negative). Then, all participants received the online post-test questionnaire, containing a manipulation check (see below) and the mediator and dependent

\(^2\) Females comprise the majority of our sample. Because there could be differences between men and women in processing emotional stimuli, we analyzed our data for women and men separately. This analysis did not provide substantially different result patterns. We also entered gender as a control variable into our analysis.

\(^3\) Druckman notes that “the behaviour of student participants does not significantly differ from the behaviour of non-student participants” (2001, p. 1046) and that there is reason to assume the generalizability of such a sample.
variables. A between condition randomization check on age, gender, and occupation performed at the outset of the analysis revealed successful randomization with no between-group differences for the sample.

5.4 Stimulus material

The stimulus material consisted of one news article per treatment condition (see the appendix for sample stimulus). In designing the news articles, we followed the example of Lecheler and de Vreese (2011): Each news article contained one version of an economic consequences frame, varied by valence. This focus on positive/negative valence enabled the chosen emotions to be embedded in the frames (enthusiasm/contentment, anger/fear). Specifically, we operationalized the four emotions within the news frames by integrating valenced evaluations that were likely to cause the specific emotions we wanted to manipulate (see, e.g., Gross, 2008). Whenever the frame offered a valenced evaluation, a number of emotional dimensions related to the chosen emotion was named (e.g., enthusiasm = ‘thrilling’ or ‘exciting’; anger = ‘unacceptable’ or ‘offensive’).

We manipulated an article about investment in the Bulgarian and Romanian markets after the countries’ accession in 2007 (see Lecheler and de Vreese, 2011). Given the design of the study, it was better to use constructed rather than published news articles, as the use of real news coverage would have reduced the commensurability between conditions. We made sure to choose an issue that can logically be presented in terms of economic consequences as well as in an emotional way, which is the case for EU enlargement (e.g., de Vreese, Peter, and Semetko, 2001; Semetko and Valkenburg, 2000). We undertook significant effort to adjust the news articles to the common layout and editorial style of Dutch news articles. Following the example of other studies, we kept the basic core information within each news article identical, while some sections in the story pointed out alternative economic consequences (e.g., Price et al., 1997).

5.5 Manipulation checks

A manipulation check question asked respondents if the article they had just read was either more negative or more positive in tone in terms of the role of Bulgaria and Romania in the EU (1 = very negative to 7 = very positive) and revealed successful manipulation. Respondents in the positive condition rated
the stimulus article more positively \((M = 5.00, SD = 1.50)\) compared to respondents in the negative condition \((M = 2.48, SD = .94)\) \((F(3,120) = 38.82, p < .001)\).\(^4\)

### 5.6 Measures

#### 5.6.1 Emotions

We measured four mediator variables, corresponding with our stimulus manipulation: enthusiasm/contentment and anger/fear. Using a seven-point scale (1 = *strongly agree* to 7 = *strongly disagree*), we measured the extent to which an individual felt the specific emotion in reference to the study issue (“When thinking about the agreement between the EU and Bulgaria and Romania, I feel enthusiastic/content/afraid/angry”) (enthusiasm: \(M = 3.20, SD = 1.29\); contentment: \(M = 3.46, SD = 1.30\); anger: \(M = 2.85, SD = 1.43\); fear: \(M = 3.48, SD = 1.51\)).

#### 5.6.2 Opinion

Following previous studies, the dependent variable – issue-specific policy attitude – was operationalized as perception of economic benefits of Bulgaria and Romania within the EU market. It was measured with one item on a seven-point scale, with higher scores indicating greater support for the issue \((M = 3.55, SD = 1.26)\) (“To what extent do you support the idea that an agreement for economic cooperation between the EU and Bulgaria and Romania will be profitable for investors?”) (e.g., Druckman and Nelson, 2003; Nelson and Oxley, 1997).

### 6 Results

In our analysis we tested the effect of positive and negative news framing on political opinions and the mediating role of different discrete emotions. Our

\(^4\) A randomization check revealed successful randomization with no between-group differences with regard to relevant socio-demographic characteristics such as gender, \(\chi^2(3) = .85, p > .05\), age, \(F(3, 119) = .24, p > .05\), income, \(F(3, 110) = .82, p > .05\), and education, \(F(3, 118) = 2.62, p > .05\). The random selection of subjects means that there are no initial differences between the different groups and that between-group differences detected later on as part of the posttest constitute evidence that subjects responded differently to the respective experimental intervention.
main assumption was that positive and negative news framing contributes to more positive and negative emotional responses, which, in line with the valence of the respective frame, are expected to affect subsequent opinions regarding the issue at stake and. We therefore test enthusiasm, contentment, anger, and fear as mediators for the effect of positive and negative news framing on opinion (Figure 1).

Early accounts of mediation analyses have been largely based on the ‘causal-steps approach’ introduced by Baron and Kenny (1986). According to this approach, mediation occurs under the condition that (1) there is a significant main effect of the independent variable on the dependent variable when the presumed mediating variable is not controlled for; (2) the independent variable has a significant effect on the mediator variable(s) (path $a1$–$a4$ in Figure 1 above); and (3) the mediator variable(s) has a significant effect on the dependent variable (path $b1$–$b4$ in Figure 1 above) while the effect of the independent
variable on the dependent variable is simultaneously controlled for and decreases compared to the direct main effect (path $c'$ in Figure 1 above).

However, more recent research has pointed to the shortcomings of the causal-steps approach (Hayes, 2009) as lacking in power and suffering from high Type II error rates (e.g., MacKinnon, Lockwood, Hoffman, West, and Sheets, 2002; MacKinnon, Lockwood, and Williams, 2004). In line with recent calls for more formal tests of the significance of specific indirect effects in mediation analyses, we apply the method introduced by Preacher and Hayes (2004; 2008). These authors recommend the use of bootstrapping techniques when formally assessing mediation as the most powerful method to obtain confidence limits for specific indirect effects (see also Shroùt and Bolger, 2002; Williams and MacKinnon, 2008). Bootstrapping is a nonparametric re-sampling procedure and an estimation strategy that improves power of a model, as it accurately gauges the empirical sampling distribution of the test statistic (see MacKinnon et al., 2004; Preacher and Hayes, 2004; Shroùt and Bolger, 2002). Preacher, Rucker, and Hayes (2007) recommend bootstrap confidence intervals as the most powerful method to assess the significance of indirect effects. Applying this method, we can generate 95% bias-corrected accelerated confidence intervals (95% bca CI) on the basis of 5,000 bootstrap samples for specific indirect effects, testing for multiple mediators simultaneously (Preacher and Hayes, 2008). If this interval does not include zero, the indirect effect significantly differs from zero. Applying this method to our study context, we formally assessed if the effect of positive and negative news framing on opinion was mediated by different positive (contentment/enthusiasm) and negative (anger/ fear) discrete emotions. We used Preacher and Hayes’ (2008) INDIRECT Macro in SPSS to conduct the analysis.

Our analysis shows a significant main effect of positive news framing (vs. negative framing) on opinion in the expected direction ($b = .92$, $SE = .21$, $p < .001$). Thus, positive news framing did contribute to higher levels of support for the political issue at stake. In a next step, we investigated if positive and

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5 The same authors have also warned of the routine use of the most commonly applied formal mediation test, the Sobel test or product-of-coefficients approach (Sobel, 1982; 1986), since this test is only suitable for large sample sizes. For smaller samples the assumption of multivariate normality, upon which the Sobel test is based, is usually violated – that is, the assumption that the sampling distribution of the total and specific indirect effects is normal.

6 Bootstrapping implies that each indirect effect is estimated multiple times by repeatedly sampling cases with replacement from the data and estimating the model in each resample.

7 Given the limitations associated with standard normal-theory tests of indirect effects that we referred to earlier (i.e., assuming normality of the sampling distribution of the conditional indirect effect).
negative discrete emotions in response to both news frames mediated this effect. We did not combine different positive or negative emotions in our analysis, but tested these separately as to their mediating function. Results showed significant indirect effects of positive and negative news framing on opinion via the mediators ‘enthusiasm’ \( (b = .31, SE = .12) \) (95% bca CI: .126; .672) and ‘anger’ \( (b = .12, SE = .12) \) (95% bca CI: .017; .342) in the expected direction. Positive news framing had a positive effect on enthusiasm \( (b = .83, SE = .22, p < .001) \), which in turn contributed to higher levels of support regarding the political issue at stake \( (b = .37, SE = .11, p < .01) \). At the same time, there was a negative effect on anger \( (b = −.67, SE = .26, p < .05) \), which contributed to a more negative opinion \( (b = −.19, SE = .08, p < .05) \). Contentment \( (b = .89, SE = .22, p < .001) \) and fear \( (b = −.88, SE = .26, p < .01) \) were also both affected by the news framing in the expected direction; however, neither contentment \( (b = .15, SE = .12, p > .05) \) nor fear \( (b = .02, SE = .07, p > .05) \) had a significant impact on opinion.

The explained variance of the full mediation model \( (R = .44) \) significantly increased compared to the direct effects model \( ((R = .12), F(4, 121) = 18.38, p < .001) \). Accordingly, compared to the total effect \( (b = .92, SE = .21, p < .001) \), the direct effect of the news frames on opinion, controlling for discrete emotions, is considerably lower; it did however remain significant \( (b = .38, SE = .19, p < .05) \).\(^8\)

Our analyses thus provide support for both sets of research hypotheses. Positive and negative news framing does affect emotional responses, which, in turn, contribute to higher or lower levels of support regarding current political issues (H1a and H2a). More specifically, and in response to H1b and H2b, while we can confirm that while positive and negative news framing does affect all four discrete emotions under investigation, only two of them – anger and enthusiasm – were shown to also affect subsequent opinions, the other two – fear and contentment – did not.

### 7 Discussion

An increasing number of scholars have been integrating emotions into the study of news framing effects (e.g., Aarøe, 2011; Gross, 2008; Gross and Brewer, 2007;

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\(^8\) Preacher and Hayes (e.g., 2004) state that mediation analysis does not depend on full mediation (i.e., the vanishing of the direct effect once mediators are entered into the analysis), but on whether there is indeed a significant indirect effect. This way of understanding mediation analysis has been adapted in the literature (see Hayes, Preacher, and Myers, 2011 for an overview), and Baron and Kenny’s condition of “full mediation” has been criticized in numerous studies by Hayes and other researchers (e.g., MacKinnon, 2008; MacKinnon et al., 2002).
Gross and D’Ambrosio, 2004; Holm, 2012). In this study, we follow this development and devised a straightforward test as to the role a number of key emotions play in news framing effects theory. We integrated four emotions into a framing experiment, testing how influential each of these emotions is in the framing process. We find that (1) news frames caused emotional responses, which led to higher or lower levels of support for a political issue. What is more, we show that (2) only some emotions (in our case, anger and enthusiasm) significantly mediated the framing effect, whereas others (contentment and fear) did not. Our results illustrate that the same emotions that result in deep processing, namely anger and enthusiasm, also actively change opinions, whereas non-mobilizing emotions, contentment and fear, do not affect opinions. We consider this study an important step away from the ‘cognitive bias’ in news framing effects research.

In the most general sense, we showed that exposure to news frames that bear emotional relevance will invoke emotional reactions. This brings our research into accordance with other studies in this field (e.g., Aarøe, 2011; Gross, 2008). However, we also empirically showed that such emotional reactions can also lead to opinion change (see Holm, 2012). Specifically, we could show that only when participants felt angry or enthusiastic, did this emotional response mediate framing effects on political opinions. While this finding does add to our understanding of specific emotions within framing research, we also want to argue that this effect pattern could be different for other frame types, issues, or dependent variables. For example, in the case of knowledge gain as an outcome of news framing, scholars may wish to study the impact of strong positive emotions, such as passion, hopefulness or enthusiasm. Positive emotions have been neglected in the past, but might have a motivating impact (see Holm, 2012). Along the same lines, different negative emotions are important when researching the influence of news frames that deal with heavily politicized or controversial topics. By connecting specific emotions to particular dependent variables, issues, events, frame types, or contexts, scholars can provide further building blocks for constructing a comprehensive model of the psychology of framing effects.

Our findings regarding the differential effects of anger/enthusiasm versus contentment/fear when it comes to effects on political opinions thus show how important a systematic study of discrete emotional responses is in this context. While we do believe that emotions can be classified according to a valence model, our findings show that there are other relevant dimensions for understanding how news framing effects come about. Anger and enthusiasm can both be classified as emotions high in arousal and low in avoidance-behavior (e.g., Russel and Mehrabian, 1977; Valentino, Hutchings, Banks, and Davis,
This means that they have potentially ‘stronger’ effects on a dependent variable such as opinion, which would correspond with with previous findings that these emotions mobilize citizens to actively support or dismiss a proposal. Along these lines, contentment, however, is a low arousal emotion (Dillard and Peck, 2006), which does not support deep processing. Within the context of framing research, this also indicates that while frame strength depends on whether a frame causes emotional reactions (see, e.g., Aarøe, 2011), it is also determined by which emotional response this frame triggers.

The findings in this study also contribute to answering the question of how emotional responses as mediators of news framing effects interact with cognitive mediation processes. In a theoretical paper, Kühne (2012) suggests that exposure to a news frame leads to accessibility and applicability effects, which results in a cognitive appraisal of the frame. This appraisal thereby causes emotional response, which then influences attitudes and behavior. This integrates emotional response with existing models of the psychology of framing effects (e.g., Nelson et al., 1997; Price et al., 1997; Slothuus, 2008), and suggests a serial mediation of news framing on opinions and attitudes via cognitive and affective processing. However, emotions might also be primary mediators of framing, causing more thorough cognitive processing (e.g., Holm, 2012). Our study observed the mediating function of emotions in isolation, that is, without empirically comparing them to established models of cognitive framing effects (e.g., the ‘belief importance change model’ as suggested by Nelson et al., 1997). Future research must combine both affective and cognitive approaches to the psychology of framing effects. When tested simultaneously, scholars will be able to show which process prevails in explaining the effects of news framing.

There are a number of limitations to our study. First, we employed a student sample. Although we have reason to believe that basic psychological processes of emotional response are universal and that our findings are therefore useful in contributing to framing theory (Druckman, 2001), we suggest that future studies attempt to work with representative samples. Second, we only exposed participants to one framed news message pertaining to one issue in our experiment. While single exposure is common in framing experiments (e.g., Druckman and Nelson, 2003), we understand that further study is needed in order to confirm our findings. Last, we did not take into account potentially moderating variables of this (mediated) effect, such as the propensity to feel and experience emotions (e.g., Maio and Esses, 2001), or prior beliefs and attitudes. Our study has outlined the basic mechanisms of specific emotions; future studies must provide deeper insights into these effects with the help of moderator analyses.
Bionotes

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Appendix

Sample stimulus material (enthusiasm and anger [in parentheses] condition; translated from Dutch)

Investments in Bulgaria and Romania excite Dutch investors and the European Commission alike. (Quickly declining economic performance of Bulgaria and Romania unacceptable for Dutch investors. Much money is lost already.)

After only three years of membership to the EU, members Bulgaria and Romania are already sparking great interest from international as well as Dutch investors. With a new agreement with the EU Regional Development Fund ahead, things are looking bright in the East (causing outrage and heated discussion about their growingly obscure investment markets. Even with a new agreement with the EU regional development fund ahead, the situation is causing investors much frustration).

On 1 January 2007, Bulgaria and Romania joined the EU, bringing the membership of the bloc from 25 to 27 member states. The two countries applied to join the EU in the early 1990s, along with eight other states of Central and Eastern Europe.

Last week, the EU’s Regional Fund, which concentrates on economic development, presented a new cooperation agreement between the two newcomers and other countries such as Germany, the UK, and the Netherlands. According to the agreement, there is high demand for Bulgaria and Romania, which seem to have become exciting new investment grounds for big and small Dutch companies. (However, the agreement caused anger amongst Dutch investors in the region, mainly because the development of the two countries has not been as promised by the EU. On the contrary, many investors even consider it dangerous to the European economy to have Bulgaria and Romania on the European investment map, with risky consequences for an already declining Dutch market.)

“We could not wait to see the new agreement, because it makes it even easier for us to invest where the critical growth today is!”, claims an excited Piet Janssen, President of the Dutch products and services company SOMC. Last month, Janssen announced the
opening of first offices in the two countries: “Eastern and Central Europe are thrilling new markets; they are growing at an enormous speed and are already an important playing field for investors”, says Janssen. “What is even more important is that we can invest all extra revenue into our branches in the Netherlands”, he adds. In fact, SOMC has recently opened a new branch in the direct neighborhood of The Hague, which has created an additional 500 jobs in the area. (“The agreement and the EU’s positive reaction to these countries are offensive”, says Piet Janssen, President of Dutch products and services company SOMC. Last month, Janssen announced the closing of all offices in the two countries: “Eastern and Central Europe are growing markets; but there are too many difficulties and threats. Because of the money we lost, we have to downsize our Dutch branches. This means that our investment in the new EU member states has actually cost jobs back home instead of creating them – this is unacceptable”, laments Janssen. SOMC will most likely downsize its The Hague branch, where dozens of jobs are at stake.)

Romania has averaged an annual economic growth rate of 5.8% over the past five years, making it one of Europe’s fastest growing economies. Bulgaria is not too far behind, with growth seen at 5% this year, and an economy that is shifting toward the more modern sectors of technology and tourism. (Although Romania has averaged an annual economic growth rate of 5.8% over the past five years, it is one of the poorest members of the EU, with a GDP per capita only about a third of the EU average. Bulgaria, with growth seen at 5% this year, is raising concerns among critics about mass migration and the state’s ability to implement reforms while keeping state finances in order. Beyond that, high levels of corruption in these countries have previously caused international outrage.)

“Bulgaria and Romania are new to the EU, and they have come very far. Both countries present thrilling opportunities for big and small European investors to establish themselves in a fast-growing market”, says Olli Rehn, the EU’s Commissioner for Economic and Monetary Affairs. “The EU, and all its member states, will benefit greatly from these two fresh economic forces on board”, Rehn exclaimed in Brussels. (Many observers are certain that the two newcomers will drag the European economy down with them. “Bulgaria and Romania still have a long way to go in establishing themselves in a growing market”, asserts an insecure Olli Rehn, the EU’s Commissioner for Economic and Monetary Affairs to this newspaper. Recent heated debates in the European Parliament show that even the EU finds the development of its two newest members unacceptable.)

References


