News Framing and Public Opinion: A Mediation Analysis of Framing Effects on Political Attitudes
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Abstract
There is no satisfactory account of the psychological processes that mediate a news framing effect. Based on an experimental study (N = 1,537), this article presents a mediation analysis of a news framing effect on opinion, testing for two important mediation processes: belief importance and belief content change. Results show that framing is mediated by both belief importance and belief content, with belief content being the more prominent variable. The extent to which each process takes effect depends on a person’s level of political knowledge. Knowledgeable individuals are affected to a greater extent via both belief content and belief importance change.

Keywords
framing effects, mediators, belief importance, belief content

Framing theory can explain to what extent the media affect citizens’ understanding of politics. To date, studies have investigated news framing effects for all sorts of issues and events, ranging from social protest, to government spending, to European Union (EU) integration. Yet it is not only the presence of the effect that is of interest. Scholars also consider the underlying psychological processes of such effects in reference to political issues in the news. A growing number of studies have sought to understand how and under which conditions news can affect public opinion and have thus begun to build a richer theoretical base for framing research.

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A frame can affect an individual by stressing certain aspects of reality and pushing others into the background—it has a selective function. In this way, certain issue attributes, judgments, and decisions are suggested. A number of scholars propose belief importance to be the mediator of framing: Frames make suggestions to the individual by rendering considerations more important than others, thereby leading these considerations to be applied when forming an opinion.

Recent studies show, however, that a frame does not only render certain considerations more important but that it can also make new content available; it can also affect an individual’s belief content. Slothuus first showed how newspaper articles about a new social welfare bill not only led to increased importance of specific considerations, but also changed belief content. However, the explanatory power of the two processes remains unclear. Accordingly, we do not know which of the two mediators prevails and how mediation processes differ depending on the news frame or issue at stake.

Therefore, this study presents a mediation analysis including both belief importance and belief content in the context of EU enlargement, with opinion as a dependent variable. Using an experimental survey design, we determine the exact relationship of the two mediators. We also test the contingency of mediated framing effects on one of the most significant moderators of framing, political knowledge.

**Mediators of Framing Effects**

The study of mediators refers to the specification of the intermediary causal mechanisms by which an independent variable influences the dependent variable. Frames as the independent variable can be conceived as patterns of interpretation that are used to classify information sensibly and process it efficiently. These frames cause change in the weight we assign to certain beliefs, which, in turn, can affect how citizens understand politics. Studies have generally tested this link by presenting participants with either equivalency or emphasis frames, and by focusing on issue interpretations, attitudes, or opinions as dependent variables. Equivalency framing refers to the presentation of logically identical, yet differently phrased decision scenarios. In emphasis framing, researchers choose material that emphasizes several aspects of an issue. This renders frames closer to “real-life” journalistic news coverage, and emphasis frames are widely used in framing effects research. In addition, studies normally work with either of two types of emphasis frames: issue-specific or generic frames. 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 conditions, and generic frames are thus utilized in the present study.

Also, frames used in empirical studies are usually characterized by a specific valence. 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. De Vreese and Boomgaarden
argue that valenced frames have the capacity to affect opinion on and support for an issue, while neutral emphasis frames affect issue interpretations.17

Media effects literature suggests three possible mediators of framing effects: (1) accessibility, (2) belief importance, and (3) belief content.18 Accessibility effects are hypothesized to function by making considerations in the individual’s mind more salient and therefore more likely to be used when forming an opinion.19 Thus, essentially, accessibility does not refer to the alteration of content within the individual’s mind, but merely to the accentuation of certain existing beliefs.20 Scheufele discards the notion of accessibility in framing theory, stating that “framing influences how audiences think about issues, not by making aspects of the issue more salient, but by invoking interpretative schemas that influence the interpretation of incoming information.”21 Along these lines, the presumed lack of an accessibility effect of frames is sometimes held to be one of the main distinguishing factors between framing effects and agenda setting and priming.22 Accessibility, moreover, proves to be difficult to tap by empirical investigation,23 and studies aimed at establishing accessibility as a mediator of framing effects have delivered, at best, equivocal results.24 Consequently, accessibility is not pursued in the current study.25

Belief importance. Belief importance is the most characteristic mediator of framing effects on how citizens make sense of political issues.26 It refers to framing as “altering the weight of particular considerations” in the individual’s mind.27 Thus, frames do not render certain beliefs more salient but increase the weight that is assigned to those beliefs. As an intermediary, important considerations are more likely to be incorporated into subsequent judgments.28 Thus far, extant research has widely examined and supported models of belief importance effects.29 Based on such findings, we find belief importance effects a theoretically, as well as empirically, plausible mediator of framing effects. We consequently examine belief importance as the first mediator of framing effects:

H1a: News framing effects are mediated through belief importance effects.

Belief content. Recently, scholars have turned to another possible mediator for framing effects: belief content.30 A belief content effect model refers to the addition of new beliefs to an individual’s set and alludes to one of the most established mechanisms in media effects research—the persuasive effect.31 So far, belief content effects have been widely disregarded in framing. Nelson, Oxley, and Clawson note that “frames operate by activating information already at the recipients’ disposal, stored in long-term memory”32—leaving a “true” framing effect to be determined by rendering certain available considerations more important than others. While such theoretical limitations do contribute to the strengthening of framing as a media effects approach, they reduce the chances of providing an exhaustive picture of the psychological mechanisms caused by exposure to a media frame. This might specifically be the case when examining the effects of the framing of political issues. Studies that
investigate political news framing often cover issues that seem unimportant and remote to citizens, and the number of available and accessible beliefs might therefore be very limited. Political news framing should thus not only function via importance but also provide new beliefs to the individual.

Slothuus accounts for this conceptual slippage by arguing that framing “must be considered an independent variable, and that this independent variable can have different effects, depending on its receivers.” Thus, a frame can have different effects. This enables the distinction between what is traditionally called a framing effect on the one hand and the effect of a frame on the other. Along these lines, a news frame can have a variety of effects, which are worth examining. Accordingly, Slothuus proposes a “dual-process” model of framing effects by combining both belief importance and belief content. Results of his experimental study show that frames affect opinion via the two proposed mechanisms, with belief content being a significant mediator for individuals of more moderate levels of political knowledge. Along this line, belief content effects may also result in more elaborate information processing and “greater” framing effects. Shah et al. find that exposure to unfamiliar information in the form of frames leads individuals to adjust their beliefs on a specific topic and to consequently “generate more detailed cognitions.” Recently, Lecheler, de Vreese, and Slothuus found that a low-importance issue yielded strong framing effects and that these were predominantly mediated by belief content effects.

Following these results, we predict that framing effects are also mediated by altering the content of beliefs about an issue. Because the level of magnitude of the dual process is as yet unknown, we see H1a and H1b as complementary hypotheses:

**H1b:** News framing effects are mediated through belief content effects.

In sum, while evidence on accessibility as a mediator of framing effects remains equivocal, recent research has shown two potential mediation processes: belief importance and belief content. However, a model including both has been formally tested in only one previous study, and the explanatory power of the two mediators remains in need of further investigation. First, we do not know which of the two processes prevails, or whether the two act at the same time and can thus be conceived as complementary in enabling a framing effect. Second, research has yet to test the interplay between the two mediators in different contexts. Slothuus tested his dual-process model for a controversial national issue. The process might, however, be different when employing an issue that is not on top of the political agenda. This study further investigates the above questions. Because we have no clear expectations of the power relationship between belief importance and belief content, we formulate the following research question:

**RQ:** Which mediation process prevails in the dual-process model of news framing?
Moderated Mediation of Framing Effects

A model of mediated framing effects must also take into account the extent to which each mediator is likely to depend on moderator variables, such as knowledge, values, and personal beliefs. Research has identified a number of individual-level moderator variables of framing effects, such as political knowledge and values. Moreover, studies have investigated contextual moderators like, for instance, source characteristics, interpersonal communication, and competitive framing.

Among these, political knowledge has emerged as a dominant moderator of susceptibility to framing effects. Yet, to date, the evidence on political knowledge is divided. One group of scholars finds less knowledgeable individuals to be more susceptible to framing effects, ascribing such effects to the inability of low-knowledge individuals to counterargue a framed message. A second group suggests the opposite, arguing that only knowledgeable individuals possess an adequate mental stockpile to process a frame.

We expect political knowledge to play a decisive role in the mediation process of framing effects. Mediation via belief importance requires the availability of frame-related beliefs. Politically knowledgeable individuals are likely to be equipped with a larger set of relevant considerations and a higher level of comprehension for issue-related considerations. Thus, individuals with higher levels of political knowledge are likely to be more susceptible to framing effects via belief importance than individuals with lower levels of knowledge. Our second mediator, belief content, operates by making new considerations available. Individuals with lower levels of political knowledge are expected to possess a smaller stock of considerations available to them. Along these lines, they are more likely to be unfamiliar with a political issue and thus more susceptible to belief content.

Slothuus finds that framing effects on individuals with high levels of political knowledge could be explained by “importance change alone, while the moderately politically aware were framed through importance change as well as content change.” This indicates that political knowledge moderates the way individuals can process framed information. While these findings are plausible, they remain to be tested for additional frame scenarios and across issues. Consequently, we predict that political knowledge moderates the mediation processes of importance and content in this study. Because of their more elaborate mental stockpile, we expect belief importance to be the more dominant path for individuals with higher levels of political knowledge. On the other hand, belief content is likely to matter more to individuals with lower levels of political knowledge, as those individuals will often need to form opinions via the acquisition of new beliefs:

**H2a:** Belief importance as a mediator is more important among individuals with higher levels of political knowledge.

**H2b:** Belief content as a mediator is more important among individuals with lower levels of political knowledge.
Method

We conducted a survey experiment among a representative sample of Dutch citizens. As the research venue, we chose the issue of the 2007 enlargement of the EU and tested framing effects on opinion toward the economic development of the EU’s two newest members, Bulgaria and Romania.

Design

In a single-factor, posttest only, between-subjects experimental design, we randomly assigned participants to one of three conditions. The first two conditions each contained an alternative version of a single generic frame, the “economic consequences” frame. Specifically, one frame pointed out the opportunities Bulgaria and Romania presented to the EU market and was thus positive in evaluative direction. The second frame emphasized the risks the two new EU countries posed for the EU market and was thus negative in valence. Although pertaining to a specific valence, each frame highlighted a number of different considerations, thereby suggesting different interpretations of the issue. Presenting alternative versions of one generic frame construction guarantees a high amount of control in experimental framing research, particularly when the focus lies on the psychological processes that underlie it. At the same time, external validity was not compromised because the reference to economic consequences is one of the most relevant aspects in the formation of public opinion toward the EU. It can therefore be found frequently in real political news coverage on EU integration, for example, when EU enlargement is discussed.

Sample

A Dutch research company recruited a total of 1,537 individuals (45% female, aged between 16 and 92, $M = 51.12, SD = 15.68$) from their representative web panel consisting of approximately 2,000 households across the Netherlands. The response rate was 54% (AAPOR RR1).

Procedure

First, all participants completed a pretest questionnaire, including sociodemographic variables and political knowledge. Next, participants in the two treatment groups were exposed to one news article containing either the opportunity or the risk frame. Then, participants received a posttest questionnaire, recording data on belief importance, content, and opinion. Participants in the control group moved directly to the posttest questionnaire, without treatment. The design included a manipulation check (see below). 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. The treatment and control groups also did not differ with regard to political knowledge, $F(2, 1,537) = 0.14, p = .98$.58

**Stimulus Material**

The stimulus material consisted of one news article per treatment condition, containing the opportunity or risk frame. We manipulated an article about EU investment in the Bulgarian and Romanian market after the countries’ EU accession in 2007. The focus of our study on subtle psychological processes of framing required high amounts of experimental control, which meant using constructed news material. While the economic consequences frame can be found frequently in current political news,59 the use of real news coverage would have minimized the commensurability across conditions. By adjusting the article in journalistic style and layout, an effort was made to mimic the structure and language of day-to-day Dutch news coverage. Following previous experimental studies, most information within the news article was kept identical between the two frame versions,60 and only one paragraph in the news story was manipulated to point out the opportunities or risks when thinking about the economic consequences of the issue (see the underlined text in the appendix).

**Manipulation Check**

After being exposed to the stimulus material, participants were asked to indicate on a 7-point scale (1 = *strongly disagree* to 7 = *strongly agree*) to what extent the article dealt with advantages or disadvantages of EU enlargement. The manipulation check showed successful manipulation. Participants in the opportunity condition ($M = 5.94$, $SD = 1.63$) perceived their article to be more positive than participants in the risk condition ($M = 2.35$, $SD = 1.93$), $t(1, 252) = 2.75, p < .001$. Differences between groups in the posttest can therefore be attributed to the experimental manipulation.

**Measures**

Following previous studies,61 opinion was measured on a 7-point scale with higher scores indicating increased support for the perceived economic benefits of Bulgaria and Romania’s EU membership (“To what extent do you support the idea that Bulgaria and Romania are an asset to the economical growth of the European Union?”; $M = 3.73$, $SD = 1.33$). To assess belief importance, participants were asked to rate four different considerations directly related to the economic consequences frame according to how important they found them when forming opinions about an economic collaboration with Bulgaria and Romania (1 = *not at all important* to 7 = *very important*, see Table 1).62 The measurement of belief content was closely related to that of Slothuus, who defines belief content as the individual *components* of an opinion.63 Our measurements of belief content asked individuals to agree or disagree with a number of statements about Bulgarian and Romanian markets and the eco-
nomic situation within the EU. These statements represented several aspects of an opinion, which could lead to either more or less support for an issue. The items were measured on a 7-point scale (1 = strongly disagree to 7 = strongly agree; see Table 1).

| Table 1. Mean Differences for Belief Importance and Belief Content Considerations |
|-----------------------------------------------|-----------------|-----------------|-----------------|
| Belief importance                            | Opportunity     | Risk            | Control         |
|                                              | \( (n = 623) \) | \( (n = 610) \) | \( (n = 279) \) |
|                                              | \( M \) | \( SD \) | \( M \) | \( SD \) | \( M \) | \( SD \) |
| Agreement contributes towards cooperation of| 4.82\(^a\) | 1.33 | 4.38\(^b\) | 1.37 | 4.27\(^b\) | 1.45 |
| companies and new EU members (importance 1)  |                 |                 |                 |                 |                 |
| Agreement is only a small step compared to| 4.68\(^{ab}\) | 1.27 | 4.80\(^a\) | 1.37 | 4.50\(^b\) | 1.47 |
| much bigger necessary changes (importance 2)|                 |                 |                 |                 |                 |
| Bulgaria and Romania can be new investment| 4.91\(^a\) | 1.34 | 4.40\(^b\) | 1.37 | 4.28\(^b\) | 1.41 |
| markets (importance 3)                      |                 |                 |                 |                 |                 |
| Bulgarian and Romanian markets are still    | 4.78\(^a\) | 1.30 | 5.34\(^b\) | 1.37 | 4.92\(^a\) | 1.42 |
| characterized by difficulties (importance 4)|                 |                 |                 |                 |                 |
| Belief content                              |                 |                 |                 |                 |                 |
| Agreement facilitates cooperation between   | 4.94\(^a\) | 1.43 | 4.09\(^b\) | 1.48 | 4.32\(^b\) | 1.46 |
| Western companies and Bulgaria and Romania  |                 |                 |                 |                 |                 |
| (content 1)                                  |                 |                 |                 |                 |                 |
| Experts do not trust the agreement (content| 3.78\(^a\) | 1.36 | 4.87\(^b\) | 1.44 | 4.24\(^c\) | 1.23 |
| 2)                                           |                 |                 |                 |                 |                 |
| The Bulgarian and Romanian markets offer    | 4.98\(^a\) | 1.32 | 3.82\(^b\) | 1.40 | 4.20\(^c\) | 1.42 |
| many chances for European investors (content 3)|                 |                 |                 |                 |                 |
| The Bulgarian and Romanian markets are not  | 4.07\(^a\) | 1.52 | 5.13\(^b\) | 1.54 | 4.66\(^c\) | 1.49 |
| ready for European investors (content 4)     |                 |                 |                 |                 |                 |

Note: Different superscripts indicate a significant difference at \( p < .05 \); all tests are two-tailed. Higher values in belief importance items indicate more attached importance to this argument; higher values in belief content items indicate greater approval of beliefs.
Higher scores on each of the four items indicate a more positive expected effect from an economic collaboration with Bulgaria and Romania. We measured political knowledge by using five factual multiple choice questions, which combined items asking for EU-related and national political issues. The variable \( (M = 0.61, SD = 0.21) \) is an additive index from 0 to 1. Cronbach’s alpha was .73.

## Results

### Mediation Analysis

We predicted that belief importance functions as a mediator for the effect of a frame on opinion. This means that participants exposed to the opportunity frame should find considerations highlighted in this frame more important than participants in the risk condition and vice versa. Table 1 shows that participants’ importance ratings were affected in this expected direction.

Table 1 also shows significant differences in belief content, that is, the degree to which participants saw the economic consequences of Bulgaria and Romania within the EU market in terms of opportunities or risks, \( F(2, 1,507) = 157.49, p < .001 \). The belief content items show that, overall, participants in the opportunity condition were more approving of positive opportunity content items about the economic consequences than participants in the risk condition, who agreed more often with the negative items, and vice versa. Participants in the control condition were between the two treatment groups.

To test to what extent the framing effect was mediated by importance and belief content together, we conducted a path analysis (see Figure 1). The control condition was excluded from the path analysis. This analysis confirms the assumed mediation, showing the frame’s influence on belief importance and belief content, which in turn affected opinion. Preacher and Hayes propose formally testing multiple-mediation models like ours via the use of bootstrapping (BC). Bootstrapping is a “nonparametric resampling procedure . . . that does not impose the assumption of normality of the sampling distribution.” It functions by frequently resampling from one and the same data set, thereby repeatedly estimating the mediated effect and allowing for the estimation of confidence intervals for this effect.

Estimates were based on five thousand bootstrapping samples. We found that the total indirect effect through the four belief importance and the four belief content mediators \((b = .97, SE = .07)\) with a 95% BCa bootstrap CI of .63 to .86 does not include zero; thus, the effect significantly differs from zero. The specific indirect effect was \( b = .04 (SE = .01; 95\% \text{ BCa CI of .01 to .07; through importance 1}), b = .01 (SE = .01; 95\% \text{ BCa CI of -.03 to .00; through importance 2}), b = .05 (SE = .01; 95\% \text{ BCa CI of .02 to .10; through importance 3}), b = .04 (SE = .01; 95\% \text{ BCa CI of .02 to .08; through importance 4}), b = .14 (SE = .03; 95\% \text{ BCa CI of .09 to .21; through content 1}), b = .10 (SE = .02; 95\% \text{ BCa CI of .05 to .16; through content 2}), b = .26 (SE = .04; 95\% \text{ BCa CI of .19 to .36; through content 3}), b = .09 (SE = .02; 95\% \text{ BCa CI of .04 to .15; through content 4}).
Thus, we found that three of four belief importance variables and all four belief content variables are mediators of framing effects. Controlling for all mediators, the direct effect decreases but remains significant ($b = .23, SE = .05, p < .001$). Supporting $H1a$ and $H1b$, the model shows that the framing process was mediated by belief importance, but also by belief content.$^{70}$

**Explanatory Power**

We tested pairwise contrasts between specific indirect effects estimated with Preacher and Hayes’s bootstrapping method to answer our research question.$^{71}$ The contrasts showed that the specific indirect effect through belief content was larger than each of the significant indirect effects through belief importance for content 1 and content 3. Indirect effects through content 2 and content 4 were larger in some cases (e.g., content 1 vs. importance 1 [BCa 95% CI of 0.01 to 0.13] and vs. importance 2 [BCa 95% CI of 0.06 to 0.17]). But intervals contained zero for some of the pairs, which means that belief content cannot be distinguished in magnitude from belief importance. In sum, eleven of the sixteen pairwise contrasts showed larger indirect effects through the belief content mediator items.$^{72}$

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**Figure 1.** Mediation analysis—Multiple mediation. Coefficients are unstandardized coefficients. Frame is coded so that 0 = risk and 1 = opportunity. Importance items are coded so that higher values indicate increased importance of the consideration. Belief content items are coded so that higher values indicate a more positive effect, as shown in Table 1. Opinion is coded so that a higher value indicates increased support for the agreement; unmediated main effect in parentheses.$^{*}p < .05. ~^{**}p < .01. ~^{***}p < .001.$ All two-tailed significance tests.
**Moderated Mediation**

Based on the framing literature, we predicted that the relationship between the frame and the mediator variables is affected by political knowledge. This means that, following Preacher et al., we assume that the “a” path of our mediation model is moderated (“model 2”). When testing interaction terms, we find significant interactions only for content 2 (\( b = .22, p < .01 \)), content 4 (\( b = .15, p < .05 \)), and importance 4 (\( b = -.22, p < .01 \)). Following the bootstrapping method as proposed by Preacher, Rucker, and Hayes, we also formally test these indirect effects at one standard deviation above the mean of the moderator variable (\( M = 3.63; “high knowledge” \)), directly at the mean (\( M = 2.48; “medium political knowledge” \)), and one standard deviation below the mean (\( M = 1.33; “low political knowledge” \)) on the basis of five thousand bootstrapping samples. All indirect effects were tested in independent models. In accordance with the interaction effects, the indirect effect estimates show that political knowledge moderated the mediating effect of content 2 so that individuals with high knowledge (\( b = .41, p < .001; 95\% \text{ BCa CI of } .31 \text{ to } .52 \)) showed stronger effects via this path (medium: \( b = .33, p < .001; 95\% \text{ BCa CI of } .26 \text{ to } .43 \); low: \( b = .25, p < .001; 95\% \text{ BCa CI of } .18 \text{ to } .35 \)). The same pattern was observable for content 4. Also, we found importance 4 to be moderated by political knowledge (high: \( b = .11, p < .05; 95\% \text{ BCa CI of } .06 \text{ to } .18 \); medium: \( b = .08, p < .01; 95\% \text{ BCa CI of } .01 \text{ to } .13 \); low: \( b = .04, p < .05; 95\% \text{ BCa CI of } .01 \text{ to } .09 \)). Yet our results do not support the dynamic suggested in H2a and H2b.

**Discussion**

This article reports on an experimental study investigating the relationship of two mediation processes of framing: belief importance and belief content. Our analysis lets us suggest that belief content generally prevailed as a mediator in our study. An analysis of the moderating influence of differing levels of political knowledge showed that individuals with higher levels of knowledge were more susceptible to framing via belief content.

The strength of belief content as a mediator of framing effects is thus one of the most interesting aspects of our findings. We showed that belief importance mattered a great deal—and is therefore consistent with a number of other studies of framing effects. However, belief content was surprisingly influential in our mediation analysis—a mediator that has only recently found attention among scholars. Belief content refers to the addition of new beliefs to an individual’s mental stockpile and alludes to one of the most established mechanisms in media effects research, the persuasive effects. Thus, utilizing belief content in a framing effects model requires an adjustment of what exactly constitutes “framing”: Scheufele suggests that frames ought to be considered as an independent variable in the research process. We did so and concur with Slothuus, who concludes that a framing effect must be “any effect of a frame in communication on a receiver’s opinion.” Thus, while a framing effect may
traditionally still be conceived as changing belief importance within an individual’s mind, we support a more inclusive conceptualization, which enables a frame to cause an array of different effects. This may lead to the future conclusion that both persuasion and framing work by similar intermediary processes.

With this in mind, we argued that mediation must depend on moderating variables. Against our expectations, our results illustrate that politically knowledgeable participants are framed to a greater extent via belief content. This is partially in line with existing research on moderators of framing, namely, with those studies that find that a solid stock of knowledge on an issue facilitates the processing of a frame and results thus in large effects. The results indicate that the conditionality of mediated framing effects may vary across issues, probably depending on how important an issue is to the individual or on the media agenda. Against our expectations, our results illustrate that politically knowledgeable participants are framed to a greater extent via belief content. This is partially in line with existing research on moderators of framing, namely, with those studies that find that a solid stock of knowledge on an issue facilitates the processing of a frame and results thus in large effects.80 The results indicate that the conditionality of mediated framing effects may vary across issues, probably depending on how important an issue is to the individual or on the media agenda.81 Slothuus utilizes welfare policy, an issue well discussed on the national public agenda. Our study, however, framed EU enlargement in light of the accession of Bulgaria and Romania in 2007—an important, yet rather invisible, EU issue.83 As our results show, even knowledgeable citizens did not possess a satisfactory amount of available considerations connected to the issue and were thus affected via belief content also. This suggests that the extent to which each psychological mechanism acts depends on the information and opinion environment an individual is in. When a political issue is more important to elites, individuals are more likely to be exposed to issue-relevant messages, including issue frames.

Our findings, naturally, do not represent an exhaustive model of the psychological mechanisms of framing effects—all extant studies do contain reference toward a remaining “direct effect” in their intermediary models. However, this “effect” is underdiscussed. Thus, we do not know what such remnants really represent. Are they merely residues, empirical artifacts of those mechanisms we did not account for? Or may there be an unmediated, direct effect of frames on opinion? A first step to answer these questions must be the future identification of other mediators. Chong and Druckman collected a number of underdiscussed mediators, such as emotions, narratives, and perceptions of public opinion. Among those, emotions emerge as a most interesting—and long neglected—category. A second step must be an extended side glance at other media effects theories, such as agenda setting or persuasion. For example, Miller juxtaposes cognitive and affective mediators of the agenda-setting effect. Contrary to previous research, she finds accessibility not to be a mediator of agenda setting.

We want to note that our design is limited by the fact that we exposed subjects to only one frame featuring one political issue. While this allows for testing a cause–effect model, it permitted us to show only one instance of how citizens use the media to understand politics. Future studies should include multiple exposures to different journalistic frames, feature political issues with differing saliency and contentiousness, and test the duration of effects. In doing so, framing researchers can gain an encompassing picture of the role news framing plays in mass communication. Moreover, our measurement of belief importance produced unexpected results for importance 2. Nelson and Oxley argue that belief importance items such as ours could potentially be
“overlapping” and therefore would force participants to “draw distinctions between concepts they saw as fairly redundant.”

This might be a general problem of predefined importance items, but we do not believe it takes away from the persuasiveness of our overall conclusions.

This study contributes to existing literature by shifting the focus further away from simply determining whether a journalistic frame “has an effect” or not. To understand how news frames function in translating politics to the public, we must be able to explain how these frames function in the mind of citizens. Our results show that there are—at least—two roads to being “framed.” This indicates that journalistic frames do not merely subtly suggest certain political opinions, but can also provide new, and potentially powerful, information.

**Appendix**

**Stimulus Material**

**Opportunity Condition**

European Commission: New members
Bulgaria and Romania are EU’s potential new markets

Even though Bulgaria and Romania only just had their membership to the European Union (EU) approved, they are already attracting large investment from all over Europe. With a new agreement with the EU regional development fund ahead, things are looking bright in the East.

On 1 January 2007, Bulgaria and Romania joined the EU, taking 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 or the Netherlands. The agreement, which involves financial incentives for European companies investing in the new member states and guarantees of fair competition, is bound to establish Bulgaria and Romania on the international investment map.

“We are gaining from the agreement, because it gives us the opportunity to move to where the critical growth today is,” says Ian Hudson, President of a British multinational products and services company. Last month, Hudson announced the opening of first offices in the two countries: “Eastern and Central Europe are important markets; they are growing at an enormous speed,” says Hudson.

Romania has averaged an annual economic growth rate of 5.8 percent over the past five years, making it one of Europe’s fastest growing economies. Bulgaria is not too dissimilar, with growth seen at 5 percent this year, and an economy that is shifting towards the more modern sectors of technology and tourism.
“Bulgaria and Romania are chances for European investors to establish themselves in a growing market” says Olli Rehn, the EU’s Enlargement Commissioner. “The EU, and all its’ member states, can and will benefit from these two fresh economic forces on board,” Rehn said in Brussels.

**Risk Condition**

European Commission: New members Bulgaria and Romania still EU’s economic ugly sisters

Even though Bulgaria and Romania only just had their membership to the European Union (EU) approved, they are already spurring discussion about their growingly obscure investment markets. Even with a new agreement with the EU regional development fund ahead, the situation is unlikely to improve.

On 1 January 2007, Bulgaria and Romania joined the EU, taking 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 or the Netherlands. But the agreement, involves financial incentives for European companies investing in the new member states and guarantees of fair competition, is unlikely to establish Bulgaria and Romania on the international investment map.

“We are not sure about the agreement,” says Ian Hudson, President of President of a British multinational products and services company. Last month, Hudson announced the closing of all offices in the two countries: “Eastern and Central Europe are important markets; but there are still too many difficulties,” says Hudson.

Even though Romania has averaged an annual economic growth rate of 5.8 percent over the past five years, it is one of the poorest members of the EU, with a GDP per head about a third of the EU average. Bulgaria, with growth seen at 5 percent this year is raising concerns among critics about mass migration and the states’ ability to implement reforms while keeping state finances in order.

Many observers are questioning, whether the two newcomers will be able to keep up with Europe’s economic growth plan. “Bulgaria and Romania still have a long way to establish themselves in a growing market” says Olli Rehn, the EU’s Enlargement Commissioner.

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Notes

8. Slothuus, “More than Weighting.”
9. Chong and Druckman, “Framing Theory.”


25. Chong and Druckman, (“Framing Theory,” 111), have suggested that frames can also work via “making certain available beliefs accessible.” The authors, however, do not provide empirical evidence of such functioning. Baden and de Vreese (“Semantic Association,” 21) propose framing to be a two-step process, in which initially a form of “smart accessibility” applies: Frames shift an individual’s informational base by making specific beliefs more salient. However, this salience shift is not random but follows the “schematic relevance” of each belief.


34. Tewksbury and Scheufele, “News Framing Theory and Research.”

35. Slothuus, “More than Weighting.”


38. Miller, “Examining the Mediators.”


40. Slothuus, “More than Weighting.”


42. Druckman, “On the Limits of Framing Effects.”

43. Druckman and Nelson, “Framing and Deliberation.”


51. Slothuus, “More than Weighting.” 21; Slothuus utilizes six factual political knowledge questions to test for “political awareness.”
52. De Vreese, “Framing the Economy.”
53. This was also used by Schuck and de Vreese, “Between Risk and Opportunity.”
55. Semetko and Valkenburg, “Framing European Politics.”
57. Prior to treatment, a number of filler questions were included to minimize the risk of priming the participants toward the issue of EU politics.
58. We employed a posttest-only experimental design, which means that we did not work with a pre- and postexposure comparison but compare belief importance and content ratings across experimental conditions.
63. Slothuus, “More than Weighting.”
64. Sara B. Hobolt, “Taking Cues on Europe? Voter Competence and Party Endorsements in Referendums on European Integration,” *European Journal of Political Research* 46 (March 2007): 151–82; Jeffrey A. Karp, Susan A. Banducci, and Shaun Bowler, “To Know It Is to Love It? Satisfaction with Democracy in the European Union,” *Comparative Political Studies* 36 (April 2003): 271–92. Items were “Which parties are at present members of the Dutch government?” “André Rouvoet belongs to which party?” “Femke Halsema belongs to which party?” “Who is the current president of the European Commission?” and “Which state is not yet a member of the European Union?” Cronbach’s α = .73. Following Karp, Banducci, and Bowler, we consider a combination of EU-related and national political knowledge items a more steady measurement of level of political knowledge in our study, simply because opinion formation on EU matters is not independent of levels of national political knowledge (and vice versa). However, if we split the scale along these dimensions, our results do not change substantially.
65. While it is not a prerequisite to the mediation analysis, we first examined the total framing effects in our study. We found that participants in the opportunity economic consequences condition supported the idea that Bulgaria and Romania contribute to the economic growth of the EU more ($M = 4.27, SD = 1.26$) than those in the risk condition ($M = 3.29, SD = 1.22$).
Participants in the control condition were, on average, between these two values (\(M = 3.49, SD = 1.28\)), \(F(2, 1,509) = 99.24, p < .001\). Thus, the frame had a significant effect on our dependent variable of opinion.

66. We also examined correlations among independent, mediator, and dependent variables to ensure that our mediator and dependent variable represented differing concepts. Most importantly, we found that our new mediator of belief content is only moderately related to opinion (e.g., content 1: \(r = .59, p < .01\); content 4: \(r = .41, p < .01\)) and can therefore be a meaningful part of the mediation analysis. The full correlation matrix is available from the authors.

67. We included a number of control variables, such as sociodemographic variables, preexisting attitudes toward EU enlargement, and media use, in each regression model. These variables did not alter the observed significance patterns.


70. Sobel also provides a significance test for mediation effects, which is employed in the current study. For the Sobel test (\(a*b/\sqrt{b^2*sa^2 + a^2*sb^2}\)), \(a = \) raw (unstandardized) regression coefficient for the relation between independent variable and mediator; \(sa = \) standard error of \(a\); \(b = \) raw coefficient for the association between the mediator and the dependent variable (controlling for the independent variable), and \(sb = \) standard error of \(b\). See David P. MacKinnon, Ghulam Warsi, and James H. Dwyer, “A Simulation Study of Mediated Effect Measures,” *Multivariate Behavioral Research* 30 (1, 1995): 41–62; Michael E. Sobel, “Asymptotic Intervals for Indirect effects in Structural Equation Models,” in *Sociological Methodology*, ed. Samuel Leinhart (San Francisco: Jossey-Bass, 1982), 290–312. The indirect effect of the news frame on opinion via all belief importance considerations was significantly different from zero: importance 1: 5.47, \(p < .001\); importance 2: –2.25, \(p < .05\); importance 3: 6.36, \(p < .001\); importance 4: 3.92, \(p < .001\); content 1: 9.42, \(p < .001\); content 2: 9.27, \(p < .001\); content 3: 11.22, \(p < .001\); content 4: 8.83, \(p < .001\).

71. Preacher and Hayes, “Asymptotic and Resampling Strategies.”

72. Content 1 vs. importance 1 = BCa 95% CI of .038 to .18; content 1 vs. importance 2 = BCa 95% CI of .10 to .22; content 1 vs. importance 3 = BCa 95% CI of .01 to .16; content 1 vs. importance 4 = BCa 95% CI of .03 to .17; content 2 vs. importance 3 = BCa 95% CI of .02 to .12; content 2 vs. importance 4 = BCa 95% CI of .02 to .12; content 3 vs. importance 1 = BCa 95% CI of .15 to .32; content 3 vs. importance 2 = BCa 95% CI of .20 to .37; content 3 vs. importance 3 = BCa 95% CI of .12 to .32; content 3 vs. importance 4 = BCa 95% CI of .14 to .32; content 4 vs. importance 1 = BCa 95% CI of .01 to .13; content 4
vs. importance 2 = BCa 95% CI of .05 to .16; content 4 vs. importance 3 = BCa 95% CI of −.03 to .11; content 4 vs. importance 4 = BCa 95% CI of −.03 to .12.


74. Preacher, Rucker, and Hayes, “Addressing Moderated Mediation.”


77. Petty and Cacioppo, “Elaboration Likelihood Model.”

78. Scheufele, “Framing as a Theory of Media Effects.”


82. Slothuus, “More than Weighting.”

83. Maier and Rittberger, “Shifting Europe’s Boundaries.”


85. Tewksbury and Scheufele, “News Framing Theory and Research.”

86. Miller, “Examining the Mediators.”

87. Tewksbury and Scheufele, “News Framing Theory and Research.”