

# Issue Importance as a Moderator of Framing Effects

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A growing amount of research is devoted to the question of which individual and contextual variables enhance, limit, or obliterate news framing effects. However, the fundamental question whether framing effects vary depending on the issue at stake has not been addressed. Based on two experimental studies (total  $N = 1,821$ ), this article investigates the extent to which framing effects differ in magnitude as well as process, depending on how important an issue is. The studies show that a high-importance issue yields no effects and a low-importance issue large effects. This moderating function of issue importance operates both at the contextual and at the individual levels. The implications for future framing effects research are discussed.

**Keywords:** *framing effects; moderators; issue importance; attitude strength*

Framing theory helps to understand how citizens make sense of politics. Frames have been shown to affect public opinion on a variety of topics (e.g., Berinsky & Kinder, 2006; Iyengar, 1991; Nelson, Oxley, & Clawson, 1997; Schuck & de Vreese, 2006). Recently, scholars have started to examine which individual and contextual variables can enhance, limit, or even obliterate framing effects (e.g., Druckman, 2001). However, only very few studies have considered how framing effects may vary depending on the particular issue at stake.

In a series of framing studies, Iyengar (1991) compares different issues and their framing effects. However, he does not offer conclusive evidence on the conditions under which issue characteristics matter. Haider-Markel and Joslyn (2001) examine a high-salience frame on the assumption that attitudes toward this frame are strong as individuals attach high levels of importance to it. Indeed, their example, among others, makes it plausible that framing effects may depend on the “importance” of their issues. After all, the more important an issue is, the stronger the preexisting ideas about the issue might be. This indicates that citizens are affected differently by information when they care about an issue. Thus, this importance, while little studied in framing literature, is one of the key dimensions of public opinion and attitude formation in the

attitude strength literature and a vital ingredient of strong and resistant attitudes (e.g., Boninger, Krosnick, Berent, & Fabrigar, 1995; Krosnick, 1989). Research on persuasion (e.g., Jacks & Devine, 2000; Zuwerink & Devine, 1996) and agenda setting (e.g., Althaus & Tewksbury, 2002; Kioussis, 2005) has examined and acknowledged importance as a moderator of opinion change. Accordingly, it is the purpose of this study to examine issue importance as a moderator of framing effects.

## Framing Effects and Moderators

Frames can be defined as patterns of interpretation that are used to classify information sensibly and process it efficiently. Framing stresses certain aspects of reality and pushes others into the background—it has a selective function. In this way, certain attributes, judgments, and decisions are suggested (Entman, 1993; Scheufele, 2000). Framing is a process, consisting of frame building (how frames emerge) and frame setting (the interplay between media frames and audience predispositions; de Vreese, 2002; Scheufele, 2000). Previous studies have identified two kinds of news frames: issue-specific and generic (de Vreese, 2002; Semetko & 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 are thus utilized in the present study.

Research is accumulating on the psychological processes behind framing effects (e.g., Chong & Druckman, 2007b; Iyengar, 1991; Nelson et al., 1997; Price, Tewksbury, & Powers, 1997; Zaller, 1992). A first generation of studies conceived the framing process as an accessibility effect (Iyengar, 1991), while subsequent studies find the psychological process to be more complex (e.g., Nelson et al., 1997; Price et al., 1997; Slothuus, 2008). Chong and Druckman (2007b, p. 6) suggest three main steps. First, a consideration must 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 context and motivation, a consideration may be consciously weighed against other different considerations as a person decides about the applicability of their (accessible) interpretations (see also, e.g., Eagly & Chaiken, 1993; Nelson et al., 1997; Zaller, 1992).

What limits or enhances framing effects? The literature presents a number of *individual*-level moderator variables such as knowledge (e.g., Nelson et al., 1997) or values (e.g., Shen & Edwards, 2005) as well as *contextual* moderators, attempting to bring the study of framing effect closer to “real life,” such as source characteristics (e.g., Slothuus & de Vreese, 2008; Druckman, 2001), interpersonal communication (e.g., Druckman & Nelson, 2003), or competitive framing (e.g., Chong & Druckman, 2007a, 2007b; Sniderman & Theriault, 2004). On an individual level, a number of studies deal with the question of how political knowledge influences the

magnitude as well as the actual processing of a framing message. However, the evidence is divided, and one group of scholars finds less knowledgeable individuals to be more susceptible to framing effects (e.g., Kinder & Sanders, 1990; Schuck & de Vreese, 2006), whereas a second group finds the opposite (Krosnick & Brannon, 1993; Nelson et al., 1997). Druckman and Nelson (2003, p. 732) ascribe the opposing results to a general failure of measuring political knowledge. Accordingly, it may not be political knowledge per se that moderates framing effects, but the availability of relevant knowledge and the existence of prior opinions on that issue. The authors measure prior opinions by using the construct of “need to evaluate,” with high need to evaluate individuals being less susceptible to framing effects.

Research aims, furthermore, at investigating framing effects in situations more akin to “daily life.” This implies providing a frame within its natural context by offering different sources, other competing frames, and social contacts (e.g., Hartman & Weber, 2006; Price, Nir, & Cappella, 2005). Druckman (2001), for example, investigates the role of source characteristics on the framing process. Taking into account that hardly any political message comes without a specific messenger, he finds that framing effects are limited by the credibility of their source.

Beyond that, framing effects may also depend on the actual issue that is being framed. For example, Iyengar (1991) differentiates between episodic and thematic framing and finds that framing effects vary according to the particular issue at stake. However, he does not offer conclusive evidence on the conditions under which issue characteristics matter. Subsequently, only a limited number of studies have devoted attention to the influence of issue characteristics on framing effects. Haider-Markel and Joslyn (2001) focus on a high-salience frame, assuming that attitudes toward this frame are stronger as individuals attach high levels of importance to it. Still, the impact of this importance on the framing process has so far not been systematically examined. This is surprising, given the fact that issue importance could be a decisive variable in what makes some frames “stronger” than others (Chong & Druckman, 2007a) and that other related research on persuasion (e.g., Jacks & Devine, 2000) has introduced issue importance as a moderator of media effects. For these reasons, this study examines issue importance as a moderator of framing effects.

### **Issue Importance as a Moderator of Framing Effects**

When considering (political) issues, some are more important than others. This is true on a national or international, but also on an individual level. Some issues receive a great amount of attention from media, political parties, interest groups, and other actors—others are neglected (e.g., Baumgartner & Jones, 1991). At the same time, we personally care about some issues—and deem others less relevant. In framing effects research, we argue, individual issue importance can be a crucial variable in how strongly a frame can affect attitudes and opinion.

Importance is a key concept in attitude strength and change literature in social psychology (e.g., Boninger et al., 1995; Eagly & Chaiken, 1993; Krosnick, 1989; Visser, Krosnick, & Simmons, 2003). It depends on an individual's subjective belief about an attitude and attitude object (Krosnick & Petty, 1995b). Focusing on the attitude itself, importance is defined as "an individual's subjective sense of the concern, caring, and significance he or she attaches to an attitude" (Boninger et al., 1995, p. 160). Consequently, importance is also the concern, caring, and significance an individual attaches to the attitude object, the issue of a news frame. Importance is thus—besides other factors such as extremity or knowledge—an indispensable ingredient of strong and resistant attitudes toward a (political) issue (e.g., Krosnick, 1988; Pelham, 1991).

There are a number of factors that can explain *why* such importance should moderate susceptibility to framing effects. First, Krosnick (1989) demonstrates that personally important attitudes are more accessible than less important attitudes; they are brought to mind more quickly and easily (see also Bizer & Krosnick, 2001). Jacks and Devine (2000, p. 21) examine individual differences in importance as a moderator of persuasion effects and find that high importance individuals are more resistant to opinion change. The authors explain their findings by arguing that "attitudes of high-importance individuals are highly accessible, [so] these individuals should be able to bring quickly and easily to mind thoughts and feelings that help them defend their attitude." Thus, when confronted with a frame covering an issue of high importance, individuals can more easily resort to stored information relating to this issue.

Second, importance can cause individuals to accumulate greater and more accurate knowledge about an issue and to "use that information as well as one's attitude in making relevant decisions, and to design one's actions in accord with that attitude" (Boninger et al., 1995, p. 161). Individuals consistently choose to acquire information connected to the attitudes they deem important (e.g., Krosnick, Boninger, Chaung, Berent, & Carnot, 1993). Third, important attitudes are more likely to cause attitude-behavior consistency (Boninger et al., 1995). Thus, "perceiving an attitude to be personally important leads people to use it in processing information, making decisions, and taking action" (pp. 159-160). In sum, important attitudes are stronger, more elaborate, and more consequential, and individuals are less likely to be susceptible to framing effects, when they find an issue important.

Why is it that some issues are more important to us than others? In order for an issue to be significant, an individual needs to attach a great deal of self-interest to it, which in turn motivates to differentiate and strengthen opinion (Crano, 1995). Moreover, importance is affected by the degree of identification an individual feels with a social group that has a vested interest in the issue (Gamson & Modigliani, 1989). Furthermore, individual predispositions such as values and beliefs influence issue importance. The more consistent these are with the attitude object, the more important this object becomes (Boninger et al., 1995).

However, levels of interest and concern are not independent from the information and opinion environment an individual is in. Some issues are contested, are "hot"

on the political agenda; others receive only little attention. Haider-Markel and Joslyn (2001) state that the “salient” status of an issue (in their case, regulations of guns) stems from high personal importance among citizens as well as the heightened interest of elites and ongoing discussion on the issue. Indeed, heightened public attention on a particular issue may cause citizens to (a) possess more issue-relevant considerations and (b) tend to be more motivated and interested to elaborate on issue-relevant information they encounter.

When a political issue is more important to elites, individuals are more likely to be exposed to issue-relevant messages, including issue frames. While this does not automatically lead individuals to deem such issues as more important, it does provide them with more considerations relating to the issue (Zaller, 1992; Zaller & Feldman, 1992). Accordingly, on more “important” issues and in a more information-rich environment, people will tend to be aware of many of the considerations that might be emphasized in a frame, which we expect to decrease the impact of any single frame on opinion formation (see the concept of “inertial resistance” by Zaller 1992, p. 237).

In the context of framing research, Chong and Druckman (2007a) have found that exposure to multiple and competing frames motivates citizens to consider frames more carefully. Moreover, continuing focus of public discourse on a specific (political) issue may cause citizens to “recognize connections” between an issue and their personal self-interest, identification with a country, or their basic values (see “issue public hypothesis”; e.g., Krosnick, 1990, p. 74; Fournier, Blais, Nadeau, Gidengil, & Nevitte, 2003). Along this line, heightened attention of elites to an issue can affect individual issue importance.

Issue importance can manifest itself on different levels. For instance, individuals can find an issue important to them personally, to their social group, or to their nation as a whole. National importance as an indicator of attitude strength has been applied in research (e.g., RePass, 1971), most prominently in public opinion polling (in the form of the so-called *most important problem* question). However, attitude strength literature suggests that national importance is not an indicator of importance but of object salience and is inconsequential cognitively and behaviorally (e.g., Boninger et al., 1995). Miller and Peterson (2004, p. 853) advocate that “measures of personal importance seem to be more appropriate for gauging a dimension of attitude strength, whereas measures of national importance are not.”

To sum up, issue importance is understood as the importance individuals attach to an attitude object. This importance is a crucial variable in the formation and change of attitudes, it causes individuals to engage in more active processing of information, to accumulate more relevant knowledge about an issue, and—finally—to act on their conviction. Thus, we hold issue importance likely to moderate the magnitude of framing effects. Moreover, issue importance is likely to affect the way frame information is perceived so that individuals—if an issue is important to them—process the frame information more elaborately and connect it with preexisting considerations and relevant knowledge. The extent to which framing effects differ between particular issues is, however, still in lieu of empirical investigation.

Following from the above, if an attitude is important, it is stronger and therefore less likely to be altered. Thus, we expect that importance is a moderator of framing effects, with the framing of low-importance issues being more likely to affect individuals' attitudes than the framing of high-importance issues.

*Hypothesis 1:* Effects of frames are larger for issues that are personally less important.

Beyond the magnitude of the framing effect, we expect issue importance to play a role in the way individuals express their beliefs about a framed issue. High-importance issues are associated with detailed, assertive, and complex beliefs, while low-importance issues generate indefinite, weak, and simple associations after exposure. Thus, we expect that if an attitude is considered important, individuals process information more actively and are able to express their beliefs on a more elaborate level.

*Hypothesis 2:* The degree of belief elaboration is contingent upon issue importance with a higher degree of elaboration for high-importance issues.

Moreover, framing research has moved beyond solely measuring effectual change but is interested in the psychological processes that are likely to underlie a framing effect. Thus, this study also addresses such questions. According to our expectations above, we focus on the low-importance issue scenario, as it is here that we expect large framing effects. The analysis is based on the assumption that the effect of a frame on an individual's attitudes or opinions is mediated by other variables. One group of scholars suggests that framing effects are predominantly mediated by belief importance (e.g., Nelson et al., 1997). That means that framing affects individuals by altering the perceived importance of some aspects of an issue. However, for instance, de Vreese (2004a) shows that effects of framing can also occur in addition to affecting belief importance. Slothuus (2008) finds framing to also be mediated by belief content changes that means by offering new considerations to the individual. Given the theoretical underpinnings of this study, it is possible that framing effects on a low-importance issue are mediated to a greater extent by belief content changes: If something is of low importance, individuals have less motivation to differentiate their attitude or accumulate attitude-relevant knowledge concerning this issue. Thus, it is more likely for a framed message to add new considerations to the individual's assessment of an issue, instead of simply altering existent considerations. However, the magnitude of the dual process is as yet unknown. Thus, this study examines the extent to which the two mechanisms apply by offering complementary hypotheses:

*Hypothesis 3a:* On an issue of low importance, a framing effect on opinion is mediated through belief importance change.

*Hypothesis 3b:* On an issue of low importance, a framing effect on opinion is mediated through belief content change.

## Pilot Study

To investigate issue importance as a moderator of framing effects, we conducted a pilot and a main experimental study. Both studies followed a similar design and employed the same high- and low-importance issues. The pilot study aimed at testing for the first hypothesis, namely, that a low-importance frame has influence on participants, whereas high-importance issues result in no clear framing effects. The main study was designed to elaborate on these findings and shed light on the psychological processes that underlie framing effects on a low-importance issue. The experimental design and results of the pilot study are described below; the main study is presented subsequently.

## Design

Both the pilot and the main study consisted of two online experiments, one featuring a high- and the other a low-importance issue. The choice of the high- and low-importance issues for the experiments involved a two-step process: First, we consulted the Danish national election studies on their listings of nationally important and nonimportant issues. The results indicated that over the past 10 years, welfare—in particular, health care and care for the elderly—has been at the top of the Danish voters' agenda. On the other hand, trade—especially international trade or trade policies—is deemed important by only few participants. On that basis, initially, we chose care for the elderly as the high-importance issue and international trade as its low-importance equivalent. To confirm the validity of these selections, the pilot study as well as the main study contained importance measures as a second step. These measures consisted of questions for personal importance for a number of political issue, measured on a 7-point scale (1 = *not at all important* to 7 = *very important*). The results of these measures in both pilot study and main study confirmed the classification of welfare as a high-importance issue and international trade as a low-importance issue.<sup>1</sup>

In both experiments, individuals were randomly assigned to one of three conditions:<sup>2</sup> a pro, a con, and a control version of an economic consequences frame (see de Vreese, 2004b; Semetko & Valkenburg, 2000).<sup>3</sup> This frame was chosen for two reasons. First, the use of a generic frame across experiments ensures that results from the experimental manipulation did not stem from different frame constructions but merely from change in the issue. Second, the economic consequence frame is often used in news coverage and therefore has high external validity and is easy to construct for the research purpose (Neuman, Just, & Crigler, 1992).

The use of an online experiment presents certain challenges to experimental design. To ensure consistent high standard of our experiment, reading time of the stimulus article as well as overall completion time of the survey questionnaire was measured for each participant. Following, only those participants were selected for analysis, which had spent more than 30 seconds on reading the stimulus article and



had spent more than 7 minutes completing the questionnaire. In that way, participants were selected, which were likely to have “ignored” the stimulus articles or not answered the questions thoroughly.

## Procedure

The experimental procedure was as follows. First, all individuals completed an online pretest questionnaire, including importance ratings of several issues as well as variables such as political interest and party preference. Then, participants read one news article containing one of the framing conditions. Third, participants received a posttest questionnaire asking for opinion. The pilot study also included a manipulation check.<sup>4</sup>

## Participants

For the pilot study, a research company in Denmark recruited a total of 202 individuals (aged between 18 and 74;  $M = 43.38$ ,  $SD = 13.95$ ; 51% females) from their internet database.

## Stimulus Material

The stimulus material comprised one news article containing the economic consequences frame in two alternative versions per experiment (see Appendix A): a pro and a con article for the high-importance experiment and a pro and a con article for the low-importance experiment. The design of this study precluded using actually published news material. While the economic consequences frame can be found frequently in political news, the use of real news coverage would minimize the commensurability across conditions and experiments. Constructed stimulus articles ensure a high amount of control. Effort was made to give the articles the structure and language of day-to-day Danish news coverage. Basic core information on the issue was kept identical between the versions. One paragraph in the news story pointed out the positive or negative economic consequences of the issue. Specifically, the high-importance articles provided economic consequences on contracting-out public services for the elderly in Denmark to private firms. The low-importance frames specified positive and negative economic consequences for Denmark concerning a trade agreement between China and the WTO. Participants in the control group received a nonvalence news article, comprising only the identical basic core information also provided in the framed article (see Appendix A).

## Measures

In the pretest section, *issue importance* measures consisted of questions for both personal and national importance for a number of political issue, measured on a



7-point scale (1 = *not at all important* to 7 = *very important*). Our main dependent variable, *opinion* toward the international trade agreement and contracting-out elderly care, was measured on a 7-point scale with higher scores indicating increased support. The means and standard deviations for all measures can be found in Appendix B.

## Manipulation Check

The pilot study contained a manipulation check for each experiment. After being exposed to the stimulus material (in both the first and the second experiment), participants were asked to indicate on a 7-point Likert scale (1 = *strongly disagree* to 7 = *strongly agree*) to what extent the article (a) dealt with economic aspects of the issue, (b) pointed out its advantages, and (c) disadvantages (1 = *strongly disagree* to 7 = *strongly agree*). The manipulation check showed successful manipulation for both the high- and the low-importance experiment. This allowed the further experimental proceeding in the pilot study and the ascribing of differences between groups in the posttest to the experimental manipulation. Moreover, the stimulus material was deemed appropriate for proceeding in the main study and remained unchanged.<sup>5</sup>

## Pilot Study Results

As expected, the low-importance frame had an effect on the dependent variable opinion,  $F(2, 161) = 5.46, p < .01$ . Individuals in the pro frame condition displayed more support for the trade agreement ( $M = 5.39, SD = 1.77$ ) than participants in the negative framing condition ( $M = 4.50, SD = 1.67$ ). The low-importance mean comparisons also show that the mean of the control group for opinion ( $M = 5.36, SD = 1.36$ ) lay between the pro and the con condition. However, there was no framing effect found for the high-importance issue of welfare or elderly care in the first experiment. The high-importance pro and con economic consequences frames did not alter individuals' attitudes toward contracting-out elderly care,  $F(2, 161) = 0.95, p > .05$ .

## Pilot Study Discussion

The mean comparisons give initial support for the first hypothesis: Despite successful framing manipulation, on the high-importance issue, there was no framing effect, whereas on the low-importance issue, there are considerable framing effects. The following main study sheds more light on the psychological processes behind these framing effects.

## Main Study

### Design and Method

In the main study, the design, procedure, stimulus material, and measures described for the pilot study were replicated. In addition, the main study was designed to shed light on the psychological processes that underlie framing effects on a low-importance issue.

To assess *belief importance*, two open-ended questions were added to the questionnaire. First, participants were asked to list “*all thoughts and considerations*” that came to mind after reading the respective stimulus article. Second, participants were asked to explain “*to a friend*” the content of the news article they had just read (see Shah, Kwak, Schmierbach, & Zubric, 2004). In doing so, participants listed all those considerations that—in their view—mattered when thinking about care for the elderly and international trade (e.g., Petty & Cacioppo, 1981). The two open-ended questions—one being a commonly used cognitive response measure, the other stemming from Shah et al.’s (2004) work on cognitive mapping—increased the likelihood that the main study captured those considerations that participants felt to be important after exposure. Thus, in employing an open-ended assessment of belief importance, this study offers an alternative to previously used measures.

The analysis of the two open-ended belief importance measures required the development of a coding scheme for these questions. All coded considerations fit into either of two classifications: (a) considerations that are part of the stimulus article or (b) other considerations related to the issue. Thus, we distinguished in coding between primed elements, on the one hand, and spontaneous elements, on the other (Shah et al., 2004, p. 108). The classification into primed (cued) and spontaneous (uncued) elements allowed the analysis to uncover, whether participants reproduced information given in the frame—as well as—which other related information was available and accessible after exposure (e.g., Zaller & Feldman, 1992). This takes the analysis of framing effects beyond measuring opinion changes and enables the study to elucidate on the psychological processes that underlie framing effects of high- and low-importance issues. An intercoder reliability test was conducted based on 160 randomly chosen answers per question and experiment, and Cohen’s kappa was calculated. We set the acceptable level of Cohen’s kappa at around .60, which follows other studies (e.g., Lombard, Snyder-Duch, & Bracken, 2002) and takes into account the discussion of the initiators of the coding procedure (Shah et al., 2004). Intercoder reliability ranged from  $\kappa = .56$  to  $\kappa = .77$  for the high-importance experiment and  $\kappa = .52$  to  $\kappa = .71$  for the low-importance experiment. Although not impeccable, we consider our lowest kappa within the realm of acceptability given the higher scores on all other coded dimensions. Thus, taking into account the wide range of scores in the reliability testing, we consider our coding procedure to be able of tapping primed and spontaneous issue-related considerations in our study (see also Shah et al., 2004, p. 110).<sup>6</sup>

Furthermore, the *elaboration* of the open-ended belief importance measures was assessed (see Shah et al., 2004). In accordance with our assumptions on high- and low-importance issue attitudes, this elaboration was expected to be higher for the high-importance issue (e.g., Boninger et al., 1995; Zaller, 1992). According to Shah et al. (2004, p. 109), elaboration was defined as the “degree of detail in respondents’ descriptions” and measured on a 4-item scale (0 = *no relevant consideration or keyword given* to 4 = *relevant consideration given, plus at least one additional independent sentence*). Then the average degree of elaboration was calculated ( $M = 1.39$ ,  $SD = .70$ ). Inter coder reliability was  $\kappa = .61$  for the high-importance experiment and  $\kappa = .60$  for the low-importance experiment.

To assess *belief content*, individuals were asked to agree or disagree with a number of statements about elderly care and welfare for the first experiment and international trade for the second experiment. The items were measured on a 7-point scale (1 = *strongly disagree* to 7 = *strongly agree*) and summarized in an index (see Appendix B).

Finally, the main study involved significantly more participants. A total of 2,643 online invitations were sent out to members of a Danish research company’s nationally representative panel. Overall, 1,618 individuals (aged between 18 and 74;  $M = 43.38$ ,  $SD = 13.95$ ; 49% females) participated; the response rate was 61% (American Association for Public Opinion Research RR1).

## Results Main Study

### Hypothesis 1

The results corroborate the observations of the pilot study. The means for opinion in the low-importance experiment provide further support for the first hypothesis. Participants in the pro low-importance condition supported the trade agreement more ( $M = 5.27$ ,  $SD = 1.59$ ) than those in the con condition ( $M = 4.30$ ,  $SD = 1.65$ ),  $F(2, 1268) = 54.50$ ,  $p < .001$ . In addition, the low-importance mean comparisons show that the mean of the control group for opinion ( $M = 5.25$ ,  $SD = 1.66$ ) unexpectedly was significantly above the pro and con conditions.<sup>7</sup> Possible explanations for this finding are discussed below. The high-importance experiment did not show any significant differences between groups for opinion.

To provide a more nuanced test of the first hypothesis, we also look at individual variation in issue importance.<sup>8</sup> Within both the high- and the low-importance conditions, individuals differ in their assessment of the importance of the issue. Within the (“low importance”) trade experiment, both those who rated trade as of high importance and those who rated it as of low importance displayed mean opinion differences between the pro and the con frames,  $F(2, 747) = 30.76$ ,  $p < .001$ .

## Hypothesis 2

The measurement of belief importance in open-ended form allowed us to assess the degree of elaboration of these answers to test the second hypothesis. In our analysis of issue importance as a moderator of framing effects, this elaboration is an important byproduct of open-ended measurement. We predicted that if an issue is found important, considerations given about this issue are more elaborate than when the issue is of no importance. Thus, high-importance issues are associated with detailed, assertive and complex beliefs, while low-importance issues generate indefinite, weak, and simple associations after exposure. Confirming Hypothesis 2, the results of the analysis show a difference in average elaboration between high- ( $M = 1.64$ ,  $SD = 0.80$ ) and low-importance ( $M = 1.33$ ,  $SD = 0.73$ ) experiment,  $t(1416) = 17.19$ ,  $p < .001$ . The difference in average elaboration shows that when exposed to the high-importance issue frames, participants were more likely to generate elaborate beliefs and support these beliefs with additional reasoning and complex sentence structure. In contrast, participants expressed their beliefs about the low-importance issue by using short and disjointed considerations and keywords. The analysis of differences in elaboration for individual variation in issue importance within both experiments shows that individuals who found the high-importance issue personally more important showed a higher average elaboration in their answers than those who indicated the issue to be unimportant to them,  $t(1409) = 2.39$ ,  $p < .05$ . The same was found in the low-importance experiment,  $t(1381) = 3.74$ ,  $p < .001$ , where individuals with high personal importance rated pronouncedly higher ( $M = 1.26$ ,  $SD = 0.73$ ) than those who did not care much about the issue ( $M = 1.41$ ,  $SD = 0.71$ ).

## Hypotheses 3a and 3b

To address the underlying psychological processes of framing effects on a low-importance issue, we tested to what extent the effect of the frame was mediated by belief content and belief importance. Initially, the framing of the low-importance issue shows significant differences in belief content—that is, in how positive or negative participants believed the impact of the trade agreement would be,  $F(2, 1180) = 53.76$ ,  $p < .001$ . Participants in the positive condition were more positive about the impact of the agreement ( $M = 4.93$ ,  $SD = 1.08$ ) than participants in the negative condition ( $M = 4.26$ ,  $SD = 1.17$ ).

The belief importance measures in the low-importance experiment illustrate differences between groups for both primed and spontaneous considerations (Table 1). This produces strong empirical support that the news articles did highlight different aspects of the issues and that participants reproduced this (framed) information. Moreover, participants differed in their spontaneous belief importance assessment after exposure. Table 1 shows that “*Denmark must participate in international trade*

**Table 1**  
**Low-Importance Issue “Trade”—Overall Belief Importance (Main Study)**

	Percentages			
	Pro ( <i>n</i> = 693)	Con ( <i>n</i> = 692)	Control ( <i>n</i> = 233)	Overall ( <i>n</i> = 1618)
Primed considerations				
EU commits to abolish import duty	.10 <sub>x</sub> (.31)	.07 <sub>xy</sub> (.26)	.14 <sub>y</sub> (.35)	.09 (.29)
China will copy Danish products	.00 <sub>x</sub> (.03)	.19 <sub>y</sub> (.39)	.00 <sub>x</sub> (.00)	.08 (.28)
China will become a more important player on the international market	.10 <sub>x</sub> (.30)	.02 <sub>y</sub> (.16)	.06 <sub>xy</sub> (.25)	.06 (.24)
Spontaneous considerations				
International trade poses ethical questions	.07 (.26)	.05 (.23)	.06 (.24)	.06 (.25)
Denmark must participate in international trade adequately	.07 <sub>x</sub> (.27)	.03 <sub>y</sub> (.19)	.03 <sub>y</sub> (.17)	.05 (.22)
International trade is beneficiary for Danish economy	.07 (.25)	.04 (.18)	.05 (.21)	.05 (.22)

Note: Different subscripts indicate a significant difference ( $p < .05$ ); higher values indicate higher number of naming this importance consideration in the particular group.

*adequately*” emerges more often in the pro than in the con and control conditions,  $F(2, 1615) = 7.09, p < .01$ .<sup>9</sup>

Along this line, the high-importance experiment did not show any significant differences between groups for belief content. The analysis of the open-ended belief importance measures showed that while there are differences between groups for primed considerations, there were no substantial differences between groups for uncued considerations. Thus, while participants perceived and reproduced those considerations provided in the news article, their answers were not affected when resorting to other related information.

Within the (“low importance”) trade experiment, both those who rated trade as of high importance and those who rated it as of low importance displayed mean belief content differences between the pro and con frames,  $F(5, 1172) = 23.66, p < .001$ . Moreover, the analysis of belief importance shows only modest within-issue variation between those who found trade important and those participants who did not. Table 2 shows variation in uncued considerations: *Denmark must participate in international trade adequately* differs between high and low personal importance,  $F(5, 1576) = 3.64, p < .01$ . There were no significant differences for high- or low-importance groups within the (“high importance”) welfare experiment. That means that participants who indicated welfare to be unimportant were not affected by the frame. On the other hand, participants, who found trade to be of high importance, *were* affected.

To better understand the framing process in the low-importance experiment, a path model was tested. This procedure has been executed in a similar fashion by a number

**Table 2**  
**Belief Importance for Low-Importance**  
**Issue “Trade” by Perceived Personal Importance**

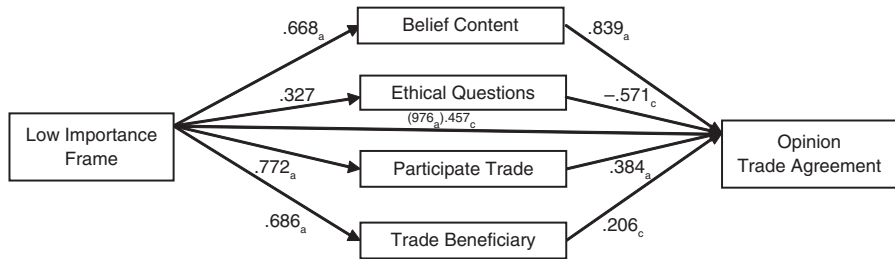
	Percentages							
	High Importance				Low Importance			
	Pro ( <i>n</i> = 382)	Con ( <i>n</i> = 376)	Control ( <i>n</i> = 136)	Overall ( <i>n</i> = 894)	Pro ( <i>n</i> = 295)	Con ( <i>n</i> = 300)	Control ( <i>n</i> = 93)	Overall ( <i>n</i> = 688)
<b>Primed</b>								
Import duty abolished	.11 <sub>x</sub> (.31)	.07 <sub>y</sub> (.28)	.12 <sub>z</sub> (.33)	.09 (.29)	.10 <sub>x</sub> (.30)	.07 <sub>ay</sub> (.25)	.18 <sub>bz</sub> (.38)	.10 (.30)
China will copy products	.00 <sub>ax</sub> (.05)	.24 <sub>by</sub> (.42)	.00 <sub>ay</sub> (.00)	.10 (.30)	.00 <sub>ay</sub> (.00)	.15 <sub>by</sub> (.36)	.00 <sub>ax</sub> (.00)	.06 (.25)
China is important player	.11 <sub>ax</sub> (.31)	.02 <sub>by</sub> (.16)	.09 <sub>ax</sub> (.29)	.07 (.26)	.09 <sub>ay</sub> (.29)	.02 <sub>by</sub> (.16)	.03 <sub>by</sub> (.17)	.05 (.23)
<b>Spontaneous</b>								
Ethical questions	.08 (.27)	.05 (.23)	.08 (.27)	.07 (.25)	.07 (.25)	.05 (.22)	.04 (.20)	.06 (.23)
Participation in international trade	.08 <sub>x</sub> (.28)	.05 <sub>y</sub> (.22)	.04 <sub>y</sub> (.20)	.06 (.24)	.06 <sub>ay</sub> (.25)	.02 <sub>by</sub> (.15)	.01 <sub>bz</sub> (.10)	.04 (.19)
International trade is beneficiary	.07 (.26)	.04 (.19)	.05 (.23)	.05 (.23)	.06 (.25)	.03 (.17)	.03 (.17)	.05 (.21)

Note: Different *abc* subscripts indicate a significant difference ( $p < .05$ ) between conditions within one group; *xyz* subscripts indicate significant differences ( $p < .05$ ) between conditions across groups. Groups are divided by their individual assessment of personal importance toward the trade issue. Higher values indicate higher number of naming this importance consideration in the particular group.

of studies of framing effects (e.g., Druckman & Nelson, 2003; Nelson et al., 1997). The analysis illustrates to what extent the direct effect of the low-importance frame on opinion is mediated by belief content or belief importance (see Baron & Kenny, 1986; MacKinnon, Fairchild, & Fritz, 2007).<sup>10</sup> Hypothesis 3a, which specified that framing effects on a low-importance issue are mediated by belief importance changes, can be supported (Figure 1). The indirect effect of the low-importance frame on opinion via “*Participate Trade*” change is significantly different from zero (*Sobel Test Statistic* = 2.39,  $p < .01$ ).<sup>11</sup> However, also confirming Hypothesis 3b, the model shows that the low-importance framing process was also mediated to a great extent by belief content changes. The indirect effect of the low-importance frame on opinion via belief content change is significantly different from zero (*Sobel Test Statistic* = 8.25,  $p < .001$ ).

As indicated above, participants in the low-issue-importance experiment were divided up into a group of high and low personal importance. In an additional

**Figure 1**  
**Low-Importance Issue—Mediational Analysis (Main Study)**



Note: Coefficients are unstandardized coefficients; all one-tailed significance tests; Frame is coded so that 0 = *con* and 1 = *pro* trade agreement. The importance items are coded as 1 = *present* and 0 = *nonpresent*. In coding, Ethical Questions = International trade poses ethical questions; Participate Trade = It is crucial for Denmark to participate in international trade adequately; Trade Beneficiary = International trade is beneficiary for the Danish economy overall. The belief content scale is coded so that higher values indicate a more positive effect. Opinion is coded so that a higher value indicates increased support for the trade agreement; unmediated main effects are in parentheses. Sobel Test statistics for belief content = 8.25 ( $p < .001$ ); for belief importance = Spontaneous 1: -1.18 ( $p > .05$ ); Spontaneous 2: 2.39 ( $p < .01$ ); Spontaneous 3: 1.44 ( $p > .05$ ).

a.  $p < .001$ . b.  $p < .01$ . c.  $p < .05$ .

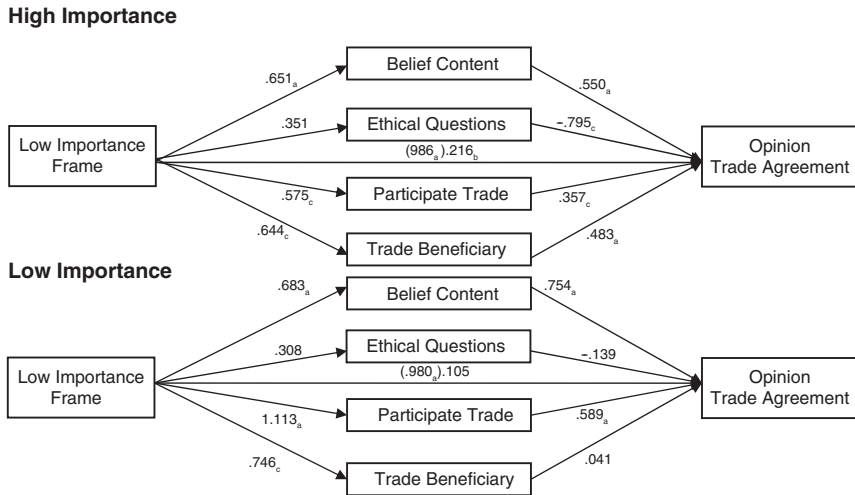
mediation analysis, these two groups were compared (Figure 2). This comparison indicates that for both the personal high- and low-importance groups, framing effects on opinion were primarily mediated by belief content changes. However, belief importance considerations appear to be better predictors of opinion among the high- than among low-importance groups. Yet, Sobel test statistics indicate that only belief content changes mediate framing effects. This provides additional support for Hypothesis 3b.

## Main Study Discussion

The results of the main study corroborate the findings of the pilot study and shed more light on the framing of high- and low-importance issues. In the study, participants were affected by the low-importance frames in their opinion as well as their perception of the (positive or negative) impact of the trade agreement and their notion of what was important concerning the issue. The results for the high-importance experiment are remarkably different. Here, the high-importance issue did not yield effects of the frames. That means that the economic consequences frames did not play a noteworthy role in opinion formation, in belief content change, or in what individuals found important.



**Figure 2**  
**Low-Importance Issue—Mediational Analysis—Two Groups (Main Study)**



Note: Coefficients are unstandardized coefficients; all one-tailed significance tests. Frame is coded so that 0 = *con* and 1 = *pro* trade agreement. The importance items are coded as 1 = *present* and 0 = *nonpresent*. In coding, Ethical Questions = International trade poses ethical questions; Participate Trade = It is crucial for Denmark to participate in international trade adequately; Trade Beneficiary = International trade is a benefit for the Danish economy overall. The belief content scale is coded so that higher values indicate a more positive effect. Opinion is coded so that a higher value indicates increased support for the trade agreement; unmediated main effect in parentheses. High-importance Sobel Test statistics for belief content = 6.13 ( $p < .001$ ); for belief importance = Spontaneous 1:  $-1.02$  ( $p > .05$ ); Spontaneous 2: 1.51 ( $p > .05$ ); Spontaneous 3: 1.35 ( $p > .05$ ). Low-importance Sobel Test statistics for belief content = 5.40 ( $p < .001$ ); for belief importance = Spontaneous 1:  $-.61$  ( $p > .05$ ); Spontaneous 2: 1.77 ( $p > .05$ ); Spontaneous 3: 0.16 ( $p > .05$ ).  
a.  $p < .001$ . b.  $p < .01$ . c.  $p < .05$

Notably, the low-importance mean comparisons show that unlike in the pilot study, the mean opinion of the control group toward the trade agreement is more positive than the mean opinions of both *con* and *pro* groups. Explanations for this phenomenon remain speculative. However, it might be that individuals could have given, by default, less positive judgments about an issue, when exposed to a valenced frame message. In this sense, individuals have a relatively positive starting position toward an issue but are motivated to think about it more once they receive additional (biased) information, which then leads to less positive assessments.

The mean comparisons show a systematic difference in the magnitude of framing effects between high- and low-importance issues. Based on theoretical assumptions about the nature of issue importance as an individual-level moderator, this influence

should also be measurable *within* each of the two experiments. However, additional comparisons for the low-importance trade experiment showed that effects did not depend to a great extent on individual importance assessments. This suggests that in this case, issue importance operated primarily as a contextual moderator of framing effects. However, interestingly, issue importance did affect the way that beliefs about a framed issue are expressed. Our analysis showed great differences between the high- and the low-importance experiment in the level of elaboration of belief importance considerations. This was also the case *within* each experiment.

To understand how the low-importance frames affected individuals in their opinion, a mediational analysis was conducted. This analysis included both belief content and spontaneous belief importance variables as potential mediators of these framing effects and showed that belief content changes were the primary mediator. Opinion formation or change in the low-importance experiment was mediated by altering individuals' perceived positive or negative impact of the trade agreement as well as by highlighting certain considerations of the issue over others. These findings support other studies of mediation in framing effects (e.g., Nelson et al., 1997) but also conform to extant research of strong vis-à-vis weak attitudes: If an issue is unimportant, an individual is less likely to be motivated to acquire attitude-relevant knowledge about this issue (e.g., Boninger et al., 1995; see also Chong & Druckman, 2007a). Thus, frames can be expected to affect participants' opinion by adding new considerations, rather than merely endowing some considerations with greater relevance (see Slothuus, 2008). This finding of belief content changes as primarily mediating framing effects was further corroborated in the additional analysis of personally high- and low-importance groups *within* the low-importance experiment (Figure 2).

## Conclusion and General Discussion

Recently, scholars have examined which contextual as well as individual factors can enhance, limit, or obliterate framing effects (e.g., Druckman, 2001; Sniderman & Theriault, 2004). However, only few studies have considered how framing effects may vary depending on the particular issue at stake (Haider-Markel & Joslyn, 2001; Iyengar, 1991). This article reports on two experimental studies aimed at illustrating the extent to which framing effects differ in magnitude as well as process, depending on how important an issue is.

Both studies show no effects of the high-importance welfare issue and large effects of the low-importance trade issue on opinion, belief content, and belief importance. However, frames in the low-importance experiment caused differences between the pro, con, and control group across the board—almost independently of how important an individual found the issue personally. Moreover, issue importance affected the elaboration of belief importance considerations on both an individual

and a contextual level. In accordance with our expectations, the framing process for effects on a low-importance issue was mediated by belief content changes. Furthermore, the strength of this mediator variable varied according to the individual importance attached to the issue.

Why were *all* individuals in the low-importance experiment affected by the frames? A first hint is provided by the mediational model for framing effects on a low-importance issue. As discussed, this analysis showed that effect on opinion was to a great extent mediated by belief content changes—for individuals of both high and low importance. That means that participants formed their opinions on basis of new information about the issue, instead of highlighting existent considerations over others. Those who found trade important did not resist, or alter importance considerations, but were susceptible to changes in the content of their beliefs—simply because they did also not possess “sufficient” information on the issue to defend or differentiated their attitude.

This suggests that the moderating function of issue importance is connected to the “information” environment an individual finds herself or himself in. Following this, the low-importance issue, an international trade agreement, might have literally been “too” unimportant in public discourse. That means that even individuals with stronger attitudes did not process the proposal in a coherent way due to lack of contextual information on this issue (e.g., Zaller, 1992). On the other hand, continuous and immense public attention given to the high-importance issue of welfare in Denmark is likely to have armed individuals with a good set of (competing) considerations to resist the news frames. Thus, while attitudes toward welfare might be controversial, they are consolidated (see Zaller, 1992).

Our findings corroborate speculations by Kioussis (2005, p. 7), who claims that the public attention an issue receives is connected with the strength of attitudes associated with this issue. This attention tends to “stimulate more thinking and learning about objects and attributes in people’s minds,” and increased thinking about the issue might thus “lead to strengthened attitudes.” However, this suggestion is not entirely supported by studies of attitude strength. Visser et al. (2003) show that there is only a weak connection between media exposure (what people perceive) and attitude strength (as how important they perceive it). In that sense, lacking exposure to information about an issue like international trade must not necessarily lead to weak attitudes throughout. Further research is needed to clarify this question.

In line with the theoretical underpinnings of this study, issue importance was expected to moderate framing effects both in its impact as well as processing. Important attitudes are stronger, more accessible, and more elaborate—and therefore less likely to be affected by news frames (e.g., Boninger et al., 1995; Krosnick, 1989). In turn, weak attitudes with low levels of importance are more likely to be altered, and this happens by adding new information to the individuals’ depot. The results of both studies partially correspond to these conjectures. Results show that the two issues differ to a great extent in their effects, but this was not fully attributable to individual assessment of issue importance. Rather, the extent to which the

issues differed may be ascribed to the contextual importance differences of certain issues.

There are a few caveats to the study. First, the choice of the high- and low-importance issues was determined by the Danish election studies. As indicated above, the low-importance issue, an international trade agreement, could have—as discussed above—been too “remote.” On the other hand, attitudes on the continuously “hot” topic of welfare and state intervention could have been “too” consolidated. Further research involving more issues can provide clarification on this matter. Second, the low-importance mean comparisons presented show that the mean opinion of the control group toward the trade agreement is more positive than the mean opinions of both con and pro groups. Here, individuals could have given, by default, less positive judgments about an issue, when exposed to a biased (pro or con) frame message.

So far, issue importance has virtually been neglected in framing research. This article provided first insights into how high- and low-importance framing effects might differ in magnitude and process and what the methodological suppositions for studies in this area of research are. Further research should follow two paths. First, examine the significance of individual issue importance and its importance for framing effects. Second, compare the influence of public issue importance or media importance on individual framing effects and process.

## Appendix A Stimulus Material

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### High-Importance Issue

#### *More Contracting Out Can Improve Quality of In-Home Help for Senior Citizens (PRO)*

*The municipalities are willing to let private companies take over more public services, including more sensitive fields such as care of the elderly.*

This announcement is made after the Danish council for contracting out shows in a new report that the number of public services provided by private companies has been fixed on about 10% since 1990. At the same time, there is a big difference in how much the municipalities contract out, even though the council points out that private services in average cost 15% less than the same public services. If the municipalities that contract out less than average raised their numbers to average, around 2 billion DKK would be saved. The report states, however, that many municipalities have negative experiences with contracting out services.

The Danish council encourages politicians to consider contracting out more for sensitive welfare services such as in-home care for the elderly. The municipalities support this idea.

*“Private in-home care providers can help municipalities to save money that can be spent on more and better services for the elderly. Contracting out can be an efficient way of securing quality in in-home care, even with the growing number of elderly. Private home help is often just as good as the public,” says the Danish National Association of Municipalities.*

(continued)

## Appendix A (continued)

### *More Contracting Out Can Reduce Quality of In-Home Help for Senior Citizens (CON)*

*The municipalities refuse to let private companies take over more public services, including the more sensitive fields such as elder care.*

This announcement is made after the Danish council for contracting out shows in a new report that the number of public services provided by private companies has been fixed on about 10% since 1990. At the same time, there is a big difference in how much the municipalities contract out, even though the council points out that private services in average cost 15% less than the same public services. If the municipalities that contract out less than average raised their numbers to average, around 2 billion DKK would be saved. The report states, however, that many municipalities have negative experiences with contracting out services.

The Danish council encourages politicians to consider contracting out more for sensitive welfare services such as in-home care for the elderly. The municipalities object to this idea.

*"In many cases, contracting out has been unsuccessful. We want to make sure that the elderly get the best possible service, and private providers have not always done a good enough job. The public in-home help is often the best," says the Danish National Association of Municipalities.*

### **Low-Importance Issue**

#### *Danish Export Steamrolling Into Chinese Market (PRO)*

China is well on the way to become an even more important player on the international market. These weeks, the World Trade Organization (WTO) is negotiating a new trade agreement with China. The agreement aims at making it easier for foreign, including Danish, companies to establish business in China and export to the enormous and rapidly growing Chinese market. Meanwhile, EU member countries have committed to abolish the import tax that keeps many Chinese goods out of Europe.

On December 11, China has been a member of the WTO for 5 years and following this test period, the conditions for China's membership will be renegotiated. In early January, the Danish Parliament will decide whether they will support the agreement with China.

*Danish representatives at the negotiations support the direction, the WTO negotiations are taking. "Danish companies have over the last five years doubled their export of goods to China, and the export now amounts to more than ten billion DKK per year. Therefore, it is crucial for Denmark to have access to the Chinese market. The new WTO agreement benefits Denmark and creates stable conditions for the Danish industry," says an official from the Ministry of Industry.*

#### *Chinese Product Pirates Threaten Danish Export (CON)*

China is well on the way to become an even more important player on the international market. These weeks, the World Trade Organization (WTO) is negotiating a new trade agreement with China. The agreement aims at making it easier for foreign, including Danish, companies to establish business in China and export to the enormous and rapidly growing Chinese market. Meanwhile, EU member countries have committed to abolish the import tax that keeps many Chinese goods out of Europe.

*(continued)*

## Appendix A (continued)

On December 11, China has been a member of the WTO for 5 years, and following this test period, the conditions for China's membership will be renegotiated. In early January, the Danish Parliament will decide whether they will support the agreement with China.

*Danish representatives at the negotiations are, however, very critical toward the direction that the WTO negotiations are taking. "The agreement does not consider how to protect Danish companies from illegal copying of their products. Anything that can be sold is being copied in China. This development is dangerous for the Danish industry and for the Danish economy on the long run, because we make a living of our ideas. The agreement can therefore end up being expensive for Danish companies. As long as we do not deal with this issue, we cannot support the agreement," says an official from the Ministry of Industry.*

## Appendix B

### Overview of Pre- and Posttest Measures

#### Pretest Measures: Pilot Study

*Personal importance: Elderly care* ( $M = 5.74$ ,  $SD = 1.25$ ). Asked on a scale from 1 to 7 with higher values indicating more importance, "For each of the following issues, please indicate how important the issue is *to you personally*."

*Personal importance: International trade* ( $M = 4.67$ ,  $SD = 1.53$ ). Asked on a scale from 1 to 7 with higher values indicating more importance, "For each of the following issues, please indicate how important the issue is *to you personally*."

#### Posttest Measures: Pilot Study

*Opinion*. Asked the following on a scale from 1 to 7 with higher values indicating more support. High importance: "To what extent do you agree or disagree that local governments [municipalities] more than today should contract out in-home help for senior citizens to private firms?" ( $M = 3.49$ ,  $SD = 1.25$ ). Low importance: "To what extent do you agree or disagree that Denmark should join the new trade agreement between WTO and China?" ( $M = 5.03$ ,  $SD = 1.73$ ).

#### Pretest Measures: Main Study

*Personal importance: Elderly care* ( $M = 5.66$ ,  $SD = 1.42$ ). Asked on a scale from 1 to 7 with higher values indicating more importance, "For each of the following issues, please indicate how important the issue is *to you personally*."

*Personal importance: International trade* ( $M = 4.68$ ,  $SD = 1.63$ ). Asked on a scale from 1 to 7 with higher values indicating more importance, "For each of the following issues, please indicate how important the issue is *to you personally*."

(continued)

## Appendix B (continued)

### Posttest Measures: Main Study

*Opinion.* Asked the following on a scale from 1 to 7 with higher values indicating more support. High importance: “To what extent do you agree or disagree that local governments [municipalities] more than today should contract out in-home help for senior citizens to private firms?” ( $M = 3.98$ ,  $SD = 1.25$ ). Low importance: “To what extent do you agree or disagree that Denmark should join the new trade agreement between WTO and China?” ( $M = 4.87$ ,  $SD = 1.12$ ).

*Belief content (index).* Four-item index scale reaching from 1 to 7 with higher values indicating more positive impact expected from contracting out or trade agreement: high importance ( $M = 4.27$ ,  $SD = 1.69$ , Cronbach’s  $\alpha = .80$ ) and low importance ( $M = 4.67$ ,  $SD = 1.18$ , Cronbach’s  $\alpha = .69$ ).

*Belief importance.* Two open-ended questions: “Thinking about contracting out public services/international trade, what comes to your mind? Please write as many thoughts and considerations as you can think about, even if you only write one or a few words.” “Imagine that you are going to explain to a friend what the article you just read was about. What would you say?”

### Notes

1. Personal importance of high-importance issue “welfare and elderly care” is as follows: pilot ( $M = 5.74$ ,  $SD = 1.25$ ) and main ( $M = 5.66$ ,  $SD = 1.42$ ). For the low-importance issue “international trade,” personal importance is as follows: pilot ( $M = 4.67$ ,  $SD = 1.53$ ),  $t(199) = 8.71$ ,  $p < .001$ ; and main ( $M = 4.68$ ,  $SD = 1.63$ ),  $t(1580) = 20.50$ ,  $p < .001$ .

2. Although previous studies of framing effects have not employed a control condition, we include the control group for the overall framing effect mean comparisons. Following the reasoning of Druckman and Nelson (2003, p. 736), we argue that an overall comparison with a control condition can give an idea of the magnitude of the framing effect and serves as an “alternative and underappreciated evaluative standard that reveals the impact of frames on unadulterated opinions.” However, in our analysis, we do not focus on this comparison.

3. The design of both pilot and main studies also included different sources of frames. These sources are not the focus of the present study and were therefore neglected. However, when taken into account, the results of both studies were not affected.

4. Participants completed the experimental procedure for the initial (high importance) issue, followed by the same procedure for the other issue. To make sure that this direct succession of experiments with different issue did not influence the results, one part of the participants did not partake in the first but only the second experiment. Analyses revealed no significant differences between this group and the other participants. The two experiments were separated by measures of political knowledge. In the second experiment, this group did not react significantly different from those individuals who took part in both experiments in terms of overall support for the trade agreement,  $t(147) = -.54$ ,  $p > .05$ ; belief content,  $t(151) = -2.42$ ,  $p > .05$ ; or any of the belief importance measures. The same was found for the second study.

5. For the high-importance experiment, an analysis of variance showed no significant mean differences between pro ( $M = 4.97$ ,  $SD = 1.70$ ), con ( $M = 4.69$ ,  $SD = 1.80$ ), and control ( $M = 4.15$ ,  $SD = 1.82$ )



group for the first, general, statement,  $F(2, 164) = 2.06, p < .130$ . However, there was a significant mean difference between participants in pro ( $M = 4.80, SD = 1.67$ ), con ( $M = 3.30, SD = 1.83$ ), and control ( $M = 4.31, SD = 1.543$ ) for the second (advantages) statement,  $F(2, 163) = 13.46, p < .001$ ; and for the third (disadvantages) statement, pro ( $M = 3.37, SD = 1.66$ ), con ( $M = 4.33, SD = 1.82$ ), and control ( $M = 4.04, SD = 1.80$ ),  $F(2, 163) = 5.42, p < .01$ . The manipulation check was also successful for the second (low importance) experiment: The economic consequences statement showed no significant mean differences for pro ( $M = 5.67, SD = 1.43$ ), con ( $M = 5.65, SD = 1.36$ ), and control ( $M = 5.56, SD = 1.31$ ) condition,  $F(2, 188) = .07, p > .05$ . The asked statement, asking whether the article was about advantages of the international trade agreement, showed significant differences for pro ( $M = 5.57, SD = 1.52$ ), con ( $M = 3.62, SD = 1.74$ ), and control ( $M = 4.96, SD = 1.42$ ) condition,  $F(2, 177) = 28.72, p < .001$ . Finally, the third statement pointing out differences also yielded significant mean differences of pro ( $M = 2.92, SD = 1.64$ ), con ( $M = 5.57, SD = 1.41$ ), and control ( $M = 2.88, SD = 1.70$ ) condition,  $F(2, 182) = 65.75, p < .001$ .

6. To test the consistency of coding, intercoder reliability was calculated for the first three considerations or keywords per question and experiment. For the high-importance experiment, first question (“*all thoughts and considerations*”), consideration-keyword1  $\kappa = .77$ , consideration-keyword2  $\kappa = .56$ , consideration-keyword3  $\kappa = .61$ ; for the second question (“*to a friend*”), consideration-keyword1  $\kappa = .61$ , consideration-keyword2  $\kappa = .66$ , consideration-keyword3  $\kappa = .77$ . For the low-importance experiment, first question, consideration-keyword1  $\kappa = .71$ , consideration-keyword2  $\kappa = .57$ , consideration-keyword3  $\kappa = .58$ ; for the second question, consideration-keyword1  $\kappa = .63$ , consideration-keyword2  $\kappa = .52$ , consideration-keyword3  $\kappa = .66$ .

7. A between-condition randomization check on age, gender, and occupation performed at the outset of our frame analysis revealed a successful randomization with no between-group differences. The treatment and control groups did also not differ for our preintervention measures of personal importance of the high-importance issue,  $F(2, 1408) = .41, p = .66$ , and the low-importance issue,  $F(2, 1380) = .07, p = .93$ ; nor for national importance of the high-importance issue,  $F(2, 1406) = .643, p = .526$ , and low-importance issue,  $F(2, 1392) = .03, p = .94$ . Likewise, there was no significant difference for other variables such as political knowledge, need for cognition, need to evaluate, or political interest.

8. Personal importance was measured on a scale from 1 to 7 with higher values indicating more importance. Following practice in dichotomisation, the cut-off for the within-issue comparison of high versus low importance was made at the mean of the overall sample, high importance ( $M = 5.66, SD = 1.42$ ) and low importance ( $M = 4.68, SD = 1.63$ ).

9. For the analysis, the two open-ended belief importance measures were combined to tap both cued and uncued responses. However, when analyzed separately, the measures led to the same substantial findings.

10. The comparison between the experimental groups shows that participants in both high- and low-importance experiment differ in their “primed” considerations. While this provides strong empirical support for the fact that participants understood and reproduced the framed information, it tells us less about the underlying psychological processes of the framing effect. Thus, when constructing the path model for our mediation analysis—only spontaneous (uncued) belief importance considerations were included.

11. For the Sobel test ( $a \times b / \text{SQRT}(b^2 \times sa^2 + a^2 \times sb^2)$ ,  $a$  = 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, e.g., MacKinnon, Warsi, & Dwyer, 1995; Sobel, 1982).

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