

# *Issue Importance as a Moderator of Framing Effects*

Sophie Lecheler  
Claes H. de Vreese  
Amsterdam School of Communications Research  
University of Amsterdam

Rune Slothuus  
Department of Political Science  
University of Aarhus

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Sophie Lecheler (M.A.) is a PhD candidate and Claes H. de Vreese is Professor and Chair of Political Communication and Scientific Director of The Amsterdam School of Communications Research *ASCoR* at the Department of Communication, University of Amsterdam, Kloveniersburgwal 48, 1012 CX Amsterdam, The Netherlands. {email: [s.k.lecheler@uva.nl](mailto:s.k.lecheler@uva.nl); [c.h.devreese@uva.nl](mailto:c.h.devreese@uva.nl)}. Rune Slothuus (MSc) is a PhD candidate at the Department of Political Science, University of Aarhus, Universitetsparken, 8000 Århus C, Denmark {[slothuus@ps.au.dk](mailto:slothuus@ps.au.dk)}.

## **Abstract**

Framing effects research addresses how frames in the news media affect cognitions, attitudes, and preferences. A growing amount of research is devoted to the question which individual and contextual variables can enhance, limit or obliterate framing effects. However, the fundamental question whether framing effects may vary depending on the particular issue at stake has not been addressed. Based on an experimental study, this article investigates the extent to which framing effects differ in magnitude as well as process, depending on how important an issue is. The study shows that a high importance issue yields marginal effects and a low importance issue large effects. This moderating function of issue importance is not fully driven by individual-level importance assessments, and issue importance rather functions as a contextual moderator of framing effects. We additionally find that individual issue importance moderates the mediational process for a low importance issue. The implications for future framing effects research are discussed.

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

## Introduction

Framing theory helps to understand how citizens make sense of political news. Frames have been shown to affect public opinion on a variety of topics (e.g. Iyengar, 1991; Nelson *et al.*, 1997; Berinsky & Kinder 2006; 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 towards this frame are strong as individuals attach high levels of importance to it. Indeed their example, amongst 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 elite 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 attitude strength literature and a vital ingredient of strong and resistant attitudes (e.g. Krosnick, 1989; Boninger *et al.*, 1995). Research on persuasion (e.g. Zuwerink & Devine, 1996; Jacks & Devine, 2000) 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**

The framing of political issues by elites and the media and its influence on citizens' attitudes and opinions is a fast growing body of research in communications as well as political science. Frames can be defined as patterns of interpretation which 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) (Scheufele, 2000; de Vreese, 2002). Previous studies have identified two kinds of journalistic news frames: issue-specific and generic (de Vreese, 2002). 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. Iyengar, 1991; Zaller, 1992; Nelson *et al.*, 1997; Price *et al.*, 1997; Chong & Druckman, 2007). 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, forthcoming). Chong and Druckman (2006, p. 6) suggest three main steps. First, a consideration must be available to the individual, i.e. stored in memory for use. Secondly, this consideration must be accessible, its' knowledge must also be "ready for use". Thirdly, 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. Zaller, 1992; Eagly & Chaiken, 1993; Nelson *et al.*, 1997).

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 such as source characteristics (e.g. Druckman, 2001; Bullock, 2006), interpersonal communication (e.g. Druckman & Nelson, 2003) or competitive framing (e.g. Sniderman & Theriault, 2004; Chong & Druckman, 2006; 2007). 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 find less knowledgeable individuals to be more susceptible to framing effects (e.g. Kinder & Sanders, 1990; Schuck & de Vreese, 2006), whereas a second group find the opposite (Nelson *et al.*, 1997; Krosnick & Brannon, 1993). 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.

On a different level, research aims to investigate 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 *et al.*, 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 of the frame. For example, Iyengar (1991) differentiates between the episodic and thematic framing and finds that framing effects vary according to the particular issue at stake. However, 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 examining a high salience frame, assuming that attitudes towards this frame must be exceptionally strong as individuals attach high levels of importance to such an issue. Still, the impact of this importance on the framing process has so far not been systematically examined in the same study. This is surprising, given the fact that issue importance could be a decisive variable in what makes some frames 'stronger' than others (Chong & Druckman, 2006), and that other related research on persuasion (e.g. Jacks & Devine, 2000) has proceeded to introduce 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**

In our daily life, some (political) issues 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 and elites - others are neglected. At the same time, we care tremendously about some issues - and deem others irrelevant. In framing effects research, this individual issue importance promises to be the decisive variable in how strongly a frame can affect attitudes and opinion.

Issue importance and attitude importance are key concepts in attitude strength and change literature in social psychology (e.g. Krosnick, 1989; Boninger *et al.*, 1995; Petty & Krosnick, 1995b; Visser *et al.*, 2003; Miller & Peterson, 2004; Eagly & Chaiken, 1993). An attitude is strong to the extent that it is “persistent, is resistant to change, impacts information processing, and guides behaviour” (Miller & Peterson, 2004, p. 848). Krosnick and Petty (1995b) name a variety of strength-related attitude features. Among these are attitude extremity (the more extreme an attitude is, the stronger it is), accessibility (how easy does an attitude come to mind), knowledge (the amount of information an individual has or believes to have concerning an attitude) and importance (how significant is an attitude to the individual) (see also Krosnick & Schuman, 1988; Miller & Peterson, 2004). These features can be

“(a) aspects of the attitude itself, (b) aspects of the cognitive structure associated with the attitude and attitude object in memory, (c) subjective beliefs about the attitude and attitude object, and (d) cognitive processes by which an attitude is formed” (Krosnick & Petty, 1995b, p. 5)

Attitude importance depends on an individual’s subjective belief about an attitude and attitude object (*ibid.*). It 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) and has been found to be an indispensable ingredient of strong attitudes (e.g. Krosnick, 1988; Pelham, 1991). Taber and Lodge (2006) find that individuals with strong prior attitudes and beliefs engage in more elaborate information processing – including scepticism and resistance to incongruent ideas. The more important an issue is, the stronger the preexisting ideas about the issue and citizens are affected differently by elite information they feel strongly about. Thus, elite framing effects are likely to be moderated by the strength of citizens’ (prior) attitudes towards an issue.

There are a number of factors that can explain why issue importance is likely to affect change in our attitudes. First, Krosnick (1989) demonstrates that personally important attitudes are easier accessible than less important attitudes; they are brought to mind more quickly and easily than unimportant attitudes (see also Bizer & Krosnick, 2001). Jacks and Devine (2000, p. 21) examine individual differences in attitude importance as a moderator of persuasion effects and find that high importance individuals (those who deem an issue to be very significant) 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, issue importance causes 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). Here, studies find that individuals consistently choose to acquire information connected to the attitudes they deem important to them (e.g. Krosnick *et al.*, 1993). Third, while attitudes are generally not strongly linked to behaviour, attitude strength literature suggests that important attitudes are more likely to cause attitude-behaviour 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” (*ibid.*, p. 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 are some issues 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 particular social group which has a vested interest in the issue (Gamson & Modigliani, 1989). Additionally, individual predispositions such as values and beliefs influence issue importance. The more consistent these values and beliefs are with the attitude object, the more important this object becomes (Boninger *et al.*, 1995). At the same time, the nature of the attitude object can play a role. Some issues are more important than others, are contended or ‘hot’ on the political agenda. Others do not find much attention or discussion. Accordingly, scholars have spent thought on explaining the role of ‘different issues’ in political news coverage (e.g. Carmines & Stimson, 1980; Edwards *et al.*, 1995). However, it remains open to determine if different issues cause different framing effects (see Haider-Markel & Joslyn, 2001).

Measuring attitude importance can take place on different levels. For instance, people could be asked how important an issue is 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), but 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 attitude importance but rather of object salience and is inconsequential cognitively and behaviourally (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 and the attitude object. This importance is a crucial variable in the formation of attitudes. Thus, as a moderator, issue importance is likely to moderate the magnitude of framing effects. Moreover, issue importance is likely to affect the way frame information is perceived as individuals are able to process the frame information on a more elaborate level and connect it with pre-existing considerations and relevant knowledge. Moreover, gross differences in how contended and important an issue is on the media agenda, must lead to differing results between issues. Following these theoretical considerations, the leading research question of this study reads:

*RQ: To what extent do framing effects depend on the importance individuals attach to a particular issue?*

If an attitude is important, it is expected to be stronger and therefore less likely to be altered. Thus, one expects that importance is a moderator of framing effects, with the framing of low importance issue being more likely to affect individuals' attitudes than the framing of high importance issues.

*H1: Effects of frames are larger for issues that are personally less important.*

Lastly, this study addresses expectations concerning the psychological processes that underlie these low importance framing effects. The analysis is based on the assumption that the effect of a frame on one'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 (2004) shows that effects of framing can also occur in addition to affecting belief importance. Furthermore, Slothuus (forthcoming) 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 low importance framing is 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 seems more likely for a ‘framed message’ to add new considerations to the individual’s assessment of an issue, instead of simply altering existent considerations. This study examines the extent to which the two mechanisms apply:

*H2a: Low importance framing is mediated through belief importance change.*

*H2b: Low importance framing is mediated through belief content change.*

### **Pilot Study**

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

**Design.** Both pilot and main study consisted of two subsequent online experiments, one featuring a high, the other a low importance issue. The choice of the ‘high’ and ‘low importance’ issues for the experiments involved a two step process: First, the COUNTRY national election studies were consulted on their listings of

nationally important and non-important issues. The results indicated that, over the last ten years, welfare—in particular health care and care for the elderly—has been at the top of the COUNTRY voters’ agenda. On the other hand, trade—especially international trade or trade policies—is deemed important by only few participants. On that basis, initially, care for the elderly was chosen 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 personal importance measures as a second step. The results of these measures in both pilot study and main study confirmed the classification of welfare as a high importance and international trade as a low importance issue.<sup>1</sup>

In both experiments, individuals were randomly assigned to one of three conditions: a pro, a con and a control version of an economic consequences frame (see Semetko & Valkenburg, 2000; de Vreese, 2004). This frame was chosen for two reasons. First, the use of a generic frame across experiments guaranteed that results from the experimental manipulation did not stem from different frame constructions but merely from change in the issue. Second, economic consequences are often used in political news coverage and frames are therefore easy to construct and plausible (Neuman *et al.*, 1992).

***Procedure.*** Participants were randomly assigned to either the pro, the con or control frame condition. They then 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.<sup>2</sup> The two experiments were separated by measures of

political knowledge. The experimental procedure was as follows. First, all individuals completed an online pre-test questionnaire, asking for issue importance as well as other variables such as political interest and party preference. Then, participants read one news article containing one of the framing conditions. Thirdly, participants received a post-test questionnaire asking for overall opinion. Lastly, the pilot study included a manipulation check for the experimental setting which was placed immediately after the experimental intervention.

***Participants.*** For the pilot study, the COUNTRY market research institute COMPANY recruited a total of 202 individuals (aged between 18 and 74;  $M=43.38$ ,  $SD=13.95$ ; 51 percent females) from their internet panel.

***Stimulus Material.*** The stimulus material comprised one news article arguing the economic consequences frame in three alternative versions per experiment (see Appendix A): a pro, a con and a control group article for the high importance experiment and a pro, a con and a control 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 minimise the commensurability across high and low importance experiments. Constructed stimulus articles can ensure a high amount of equivalency and experimental control between the high and low importance framing situation and thus a high level of control over the manipulation. Effort was made to give the articles the structure and language of day-to-day COUNTRY news coverage. Basic core information on the issue was kept identical between the three versions. Importantly for the study, one paragraph in the news story pointed out the positive, negative or non-valence economic consequences of the issue. Specifically, the high importance articles provided economic consequences on contracting-out public

services for the elderly in COUNTRY to private firms. The low importance frames specified positive and negative economic consequences for COUNTRY concerning a trade agreement between China and the WTO (see Appendix A).

**Measures.** The questionnaire included issue importance (pre-test section), followed by measures of overall opinion (post-test). *Issue importance* measures consisted of questions for both personal as well as national importance of a number of political issue, measured on a seven-point scale (1=not at all important to 7=very important). The *overall opinion* was measured on a seven-point scale with higher scores indicating increased support (details of measures can be found in Appendix B).

**Manipulation Check.** The pilot study contained a manipulation check for each experiment. The check showed successful manipulation: The pro and con conditions were recognized by the participants in the respective groups. This allowed the further experimental proceeding in the main study and the ascribing of differences between groups in the post-test to the experimental manipulation.<sup>3</sup>

### Results Pilot Study

As expected, there was no framing effect found for the high importance issue of welfare/elderly care in the first experiment. The high importance pro and con economic consequences frames did not alter individuals' attitudes towards contracting-out elderly care ( $F_{[2,161]}=.95, p > .05$ ). However, the low-importance frame had an effect on the dependent variables overall opinion ( $F_{[2,146]}=4.92, p < .05$ ). Individuals in the pro frame condition displayed more support for the trade agreement ( $M=5.27$ ) than participants in the negative framing condition ( $M=4.74$ ). Moreover, individuals who received the pro frame expected a more positive impact from it ( $M=5.01$ ) than those who had been exposed to the negative frame ( $M=3.99$ ).

## Discussion Pilot Study

The mean comparisons give initial support for the first hypothesis: whereas high importance issues seem to have, despite successful framing manipulation, marginal framing effects, low importance issues do show 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 again adopted. On basis of national importance, care for the elderly was chosen as the high importance issue and international trade as its' low importance equivalent. However, the main study involved significantly more participants. A total of 2,643 online invitations were sent out to members of COMPANY'S nationally representative panel. Overall, 1,619 individuals (aged between 18 and 74;  $M=43.38$ ,  $SD=13.95$ ; 49 percent females) were recruited; the response rate was 61 percent (AAPOR RR1).

The main study included additional measures to shed light on the psychological processes that underlie high and low importance framing. 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. 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). Second, participants were asked to explain "*to a friend*" the content of the news article they had just read (see

Shah et al., 2004). These 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--guaranteed that the main study captures those considerations, participants felt to be important after exposure.

The analysis of the two open-ended belief importance measures required the development of a coding scheme for these questions. The coding scheme was broken down into considerations mentioned in the stimulus article or frame ('primed considerations') and other issue-related considerations ('spontaneous considerations') (Shah et al., 2004; p. 108).

To assess *belief content*, individuals were asked to agree or disagree with a number of statements about elderly care/welfare for the first experiment and international trade for the second experiment. The items were measured on a seven-point scale (1=strongly disagree to 7=strongly agree) and summarized in an index. Furthermore, the main study included measures of *political knowledge* ( $M=.63$ ,  $SD=.32$ ), supported by 'need for cognition' ( $M=.72$ ,  $SD=.32$ ), and 'need to evaluate' ( $M=.67$ ,  $SD=.13$ ) (see Nelson *et al.*, 1999; Bizer *et al.*, 2004; Druckman & Nelson, 2003). These measures served as additional moderators in a regression model for high and low importance framing. The means and standard deviations for all measures can be found in Appendix B.

## **Results Main Study**

***Comparison between Groups.*** The results corroborate the observations of the pilot study. The high importance experiment does not show any significant differences between groups for overall opinion. Moreover, belief content measures did not result in significant differences between groups. The analysis of the open-



ended belief importance measures shows that while there are differences between groups for the primed considerations, there were no major differences to be found between groups for spontaneous considerations. Thus, while participants perceived and understood considerations provided in the frame (and were able to reproduce them), answers were not affected when resorting to other--uncued--information concerning the issue. This is especially important, when turning towards the results for the low importance experiment, as reported below<sup>4</sup>.

The low importance experiment yields a number of expected effects. The means for overall opinion as well as belief content show that participants in the pro low importance condition supported the trade agreement more ( $M=5.23$ ) than those in the con condition ( $M=4.77$ ). Moreover, they expected a more positive impact from the agreement ( $M=4.93$ ) than their fellow participants in the negative condition ( $M=4.26$ ). In addition, the low importance mean comparisons in show that the mean of the control group for overall opinion ( $M=5.49$ ) unexpectedly was significantly above the pro and con condition. The belief importance measures show 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 were able to reproduce this (framed) information. Moreover, participants differed in their spontaneous assessment of the low importance issue after exposure.

*[Table 1 about here]*

In sum, participants in the pro condition showed significantly more support for the trade agreement ( $F_{[2,1137]}=35.73, p < .001$ ). The framing of the low importance issue, furthermore, caused significant differences in belief content, i.e., in how positive or negative participants believed the impact of the trade agreement would be

( $F_{[2,1180]}=53.76$ ,  $p < .001$ ). Moreover, groups in the low importance experiment differed in their belief importance assessment.

We now look at individual variation in issue importance. Within both the high and the low issue 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 con frames ( $F_{[2,689]}=25.17$ ,  $p < .001$ ).

*[Table 2 about here]*

Table 2 shows the results for opinion and belief content in the low importance experiment on trade. Accordingly, what was important did differ only slightly depending on whether participants found international trade personally important or not (see Table 3). However, there were no significant mean differences for high or low importance group 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.

*[Table 3 about here]*

**Mediational Analysis.** To better understand the framing process in the low importance experiment, a path model was tested, using OLS and logistic regression. This procedure has been executed in similar fashion by a number of studies of framing effects (e.g. Nelson *et al.*, 1997; Druckman & Nelson, 2003). 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 *et al.*, 2007)<sup>5</sup>. Confirming hypothesis 2b, the model shows that the ‘low importance’ framing process was mediated to a great extent by belief content changes (Figure 1). This means that hypothesis 2a, which specified that low importance framing is mediated by belief importance changes, cannot be confirmed. The indirect effect of the low importance frame on overall opinion via belief content change is significantly different from zero (*Sobel Test Statistic*=8.25,  $p < .001$ )<sup>6</sup>.

*[Figure 1 about here]*

As indicated above, participants in the low issue importance experiment can be divided up into two groups: those, who considered the issue important and those, who did not. In an additional mediation analysis, these two groups were compared (Figure 2). This comparison indicates that for the high importance group, belief importance mattered more in their opinion formation - although these considerations were not significantly affected by the frame. In the low importance group, however, opinion formation was based on belief content changes.

*[Figure 2 about here]*

***Moderator Analysis.*** To analyse moderating effects of issue importance, a regression model was specified, which focused on both the overall opinion about the high importance elderly care contracting out and the low importance international trade agreement. For the regression analysis, a dummy variable was created indicating whether the participant had received the pro=1 or the con=0 article<sup>7</sup>. The model also included dummy variables for issue importance, next to other moderators such as political knowledge, ‘need to evaluate’ and ‘need for cognition’ (e.g. Bizer *et al.*, 2004; Druckman & Nelson, 2003)<sup>8</sup>. It is important to note that issue importance *within* each model indicates the personal importance participants attached to welfare

or trade on a scale from zero to one with higher values indicating more importance. Furthermore, interactions between the frame and issue importance, need to evaluate, need for cognition and knowledge were added. Table 5 displays the results for the high and low importance experiments.<sup>9</sup>

*[Table 4 about here]*

The high importance experiment displays no influence of the frame on overall support for elderly care outsourcing. However, it shows that those who found outsourcing very important had a more negative opinion on the proposal. The high importance model, furthermore, shows one significant interaction effect for frame and issue importance. That means that those in the experiment who considered welfare very important were affected by the positive frame to support the contracting-out proposal. Moreover, participants higher in need for cognition and need to evaluate supported contracting-out more.

For the low importance experiment, those exposed to the positive frame showed significantly more support for the trade agreement. Moreover, those of higher political knowledge as well as need for cognition supported the trade agreement more. These main effects, however, were not augmented by any significant interaction effects. That means that those exposed to the low importance frame were affected by the frame but that this effect was not moderated in a significant way by how important they found international trade, nor with how politically aware they were. Possible explanations for this occurrence are discussed below.

### **Discussion Main Study**

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, 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, belief content change or in what individuals found important. The results for the second, low importance, experiment are remarkably different. Here, participants were affected by the economic consequences frames in their overall 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.

Notably, the low importance mean comparisons show that, unlike in the pilot study, the mean opinion of the control group towards 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 judgements about an issue, when exposed to a biased (pro or con) frame message. In this sense, individuals may have a relatively positive starting position towards an issue, but are motivated to think about it more once they receive additional (biased) information which then leads to less positive assessments.

The between group comparisons show a systematic difference in the magnitude of framing effects between high and low importance issues. However, 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 are almost independent of individual importance assessments. This suggests that in this case issue importance was of reduced relevance as an individual moderator of framing effects in this study, but rather operated as a contextual moderator of framing effects.

To understand how the low importance frames affected individuals in their overall opinion, a mediational analysis was conducted. This analysis included both belief content as well as belief importance variables as potential mediators of these framing effects and showed, as expected, that belief content was the primary mediator. Thus, opinion formation or change in the low importance experiment was mediated by altering individuals' perceived positive or negative impact of the trade agreement, and only little by highlighting certain considerations of the issue over others. In spite of the fact that these findings do not support other studies of mediation in framing effects (e.g. Nelson *et al.*, 1997), they conform to particularities of strong and 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 2006). Thus, frames can be expected to affect participants' overall opinion by adding new considerations, rather than simply stressing one (known) thing over the other. In that sense, it is possible to assume that the particularity of the trade issue in this study has moderated the mediational process.

An additional mediation analysis *within* the low importance experiment highlights the role of issue importance as a potential moderator of mediation. The results suggest that, for participants in the trade experiment who found trade to be personally important, the given importance considerations were more relevant in opinion formation or change. However, these were not affected by the frame in this particular case. Those individuals, who felt trade to be unimportant, reached opinion almost exclusively by belief content change. Thus, as mentioned above, issue importance is likely to moderate the mediational process. However, this does not tell us, why the importance considerations were so little affected by the frame. Possible explanations shall be given in the general discussion.

Lastly, the main study comprised a moderator analysis for both issues. The analysis included issue importance, along with other moderators of framing effects (political knowledge, need to evaluate, and need for cognition) into a model. We found no significant interaction effects between frame and moderators. This suggests that it is not issue importance as an individual variable that moderated framing effects, but that the effect was apparent for across-the-board in the low importance experiment. This, again, suggests that issue importance in this particular case functioned as a contextual or content-related moderator of framing effects.

### **General Discussion**

Over the last years, scholars have examined which contextual as well as individual variables can enhance, limit or obliterate framing effects (e.g. Druckman, 2001; Sniderman & Theriault, 2004). However, only very few studies have considered how framing effects may vary depending on the particular issue at stake (Iyengar, 1991; Haider-Markel & Joslyn, 2001). 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 marginal effects of the high importance welfare issue and large effects of the low importance trade issue on overall opinion and belief content. However, frames in the pre-defined ‘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. A moderator analysis showed main effects on overall opinion but did not augment these by significant interaction effects between the frame and issue importance. However, in accordance with expectations, the low importance framing process was predominantly mediated by

belief content changes. Moreover, the strength of this mediator variable varied with how important individuals considered 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 low importance framing. As discussed, this analysis showed that effect on overall opinion was predominantly mediated by belief content changes – for both individuals of high and low importance. That means that participants formed their opinion 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 conjecture can connect individual issue importance to the ‘overall’ importance of an issue. In this sense, the low importance issue, an international trade agreement with China, could literally have been ‘too’ unimportant. 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, 1991). This would corroborate speculations by Kiouisis (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.* (2004) show that there is only a weak connection between media exposure (what people perceive) and attitude strength (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 differentiated – and therefore less likely to be affected by news frames (e.g. Krosnick, 1989; Boninger *et al.*, 1995). 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 only partially correspond to these conjectures. Results show that the two issues differ to a great extent in their effects, but this could not be attributed 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. However, individual issue importance functioned as a moderator to the mediational process in the 'low importance' experiment.

There are a few caveats to the study. First, choice of the high and low importance issues is to be mentioned. The issues welfare and trade were pre-defined on grounds of the COUNTRY election studies. However, welfare—while it certainly is an important issue to individuals as well as on the public agenda—is relatively uncontroversial. That means that opinions and attitudes are unlikely to differ to a high extent. On the other side of the spectrum, the low importance issue, an international trade agreement with China, could have—as discussed above—been too 'remote'. However, only further research involving different issues can provide clarification on this matter. Second, the low importance mean comparisons presented show that, the mean opinion of the control group towards the trade agreement is more positive than the mean opinions of both con and pro groups. It might be that individuals could have

given, by default, less positive judgements about an issue, when exposed to a biased (pro or con) frame message. Moreover, given the design of the study it is likely that the control condition stimulus material could not be considered neutral, but presented participants somewhat biased (positive) information.

So far, issue importance has been neglected in framing research. This article provided first insights into how high and low importance framing 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.

**Table 1:****Overall Belief Importance (Trade) (Main Study)**

	Pro (N=693)	Con (N=692)	Control (N=233)	Overall (N=1618)
Percentages for:				
<i>Primed Considerations</i>				
EU commit to abolish import duty ( <i>Primed1</i> ) <sup>a</sup>	10.5** <sup>x</sup>	7.1**	14.6**	9.6**
China will copy Danish products ( <i>Primed2</i> ) <sup>b</sup>	0.1***	19.9***	.0***	8.6***
China will become a more important player on the international market ( <i>Primed3</i> ) <sup>c</sup>	10.2***	2.7***	6.9***	6.6***
<i>Spontaneous Considerations</i>				
International trade poses ethical questions ( <i>Spontaneous1</i> ) <sup>d</sup>	7.6	5.6	6.4	6.6
Denmark must participate in international trade adequately ( <i>Spontaneous2</i> ) <sup>e</sup>	7.8**	3.8**	3.0**	5.4**
International trade is beneficiary for Danish economy ( <i>Spontaneous3</i> ) <sup>f</sup>	6.9*	3.6*	4.7*	5.2*

Note. \*\*\*p< .001, \*\*p<.01; \*p<.05. Three most named primed and spontaneous considerations per group; multiple naming was possible;

<sup>a</sup>  $\chi^2 = (2, N = 1618) = 12.39, p < .01$ ; <sup>b</sup>  $\chi^2 = (2, N = 1618) = 198.40, p < .001$ ; <sup>c</sup>  $\chi^2 = (2, N = 1618) = 31.855, p < .001$ ; <sup>d</sup>  $\chi^2 = (2, N = 1618) = 2.83, p > .05$ ; <sup>e</sup>  $\chi^2 = (2, N = 1618) = 14.09, p < .01$ ; <sup>f</sup>  $\chi^2 = (2, N = 1618) = 7.84, p < .05$ .

<sup>x</sup> Example: In the pro condition, 10.5 % of participants named Primed1.

**Table 2:****Overall DV for Low-Importance Issue 'trade' by perceived personal importance**

High Importance	Low Importance
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	Pro (N=382)	Con (N=376)	Control (N=136)	Pro (N=295)	Con (N=300)	Control (N=93)
Mean (Standard Deviation) for:						
Overall Support for Argument /	5.42 <sub>ax</sub>	4.92 <sub>by</sub>	5.69 <sub>ax</sub>	4.95 <sub>ay</sub>	4.55 <sub>bz</sub>	5.12 <sub>ax</sub>
Opinion <sup>x</sup>	(1.09)	(1.08)	(.97)	(1.04)	(.91)	(1.24)
Overall Belief Content <sup>y</sup>	5.00 <sub>ax</sub>	4.34 <sub>by</sub>	5.14 <sub>ax</sub>	4.83 <sub>ax</sub>	4.14 <sub>by</sub>	4.82 <sub>ax</sub>
	(1.12)	(1.18)	(1.14)	(.99)	(1.15)	(1.17)

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 towards the trade issue.

<sup>A</sup> Importance considerations are abbreviated, for listing see Appendix B

<sup>x</sup> higher values indicate more support for contracting-out welfare

<sup>y</sup> higher values indicate more positive impact from contracting-out

<sup>z</sup> higher values indicate more attached importance to this argument

**Table 3:**

Belief Importance for Low-Importance Issue 'trade' by perceived personal importance

	High Importance				Low Importance			
	Pro (N=382)	Con (N=376)	Control (N=136)	Overall (N=894)	Pro (N=295)	Con (N=300)	Control (N=93)	Overall (N=688)
Percentages for:								
<i>Primed</i>								
Primed1 <sup>a1</sup>	11.0 <sup>x</sup>	7.4	12.5	9.7	10.5**	7.0**	18.3**	10.0**
Primed2 <sup>b2</sup>	.3***	24.2***	.0***	10.3***	.0***	15.7***	.0***	6.8***

Primed3 <sup>e3</sup>	11.3***	2.9***	9.6***	7.5***	9.5**	2.7**	3.2**	5.7***
<i>Spontaneous</i>								
Spontaneous1 <sup>d4</sup>	8.1	5.9	8.1	7.2	7.1	5.3	4.3	6.0
Spontaneous2 <sup>e5</sup>	8.6	5.1	4.4	6.5	6.8**	2.3**	1.1**	4.1**
Spontaneous3 <sup>f6</sup>	7.3	4.0	5.9	5.7	6.8	3.3	3.2	4.8

*Note.* Three most named primed and spontaneous considerations per group; Primed1= “EU commit to abolish import duty”, Primed2= “China will copy Danish products”; Primed3= “China will become a more important player on the international market”; Spontaneous1= “International trade poses ethical questions”; Spontaneous2= “Denmark must participate in international trade adequately”; Spontaneous3= “International trade is beneficiary for Danish economy”

For high importance: <sup>a</sup> $\chi^2 = (2, N = 894) = 4.11, p > .05$ ; <sup>b</sup> $\chi^2 = (2, N = 894) = 136.04, p < .001$ ; <sup>c</sup> $\chi^2 = (2, N = 894) = 19.95, p < .001$ ; <sup>d</sup> $\chi^2 = (2, N = 894) = 1.67, p > .05$ ; <sup>e</sup> $\chi^2 = (2, N = 894) = 5.15, p > .05$ ; <sup>f</sup> $\chi^2 = (2, N = 894) = 3.94, p > .05$ .

For low importance: <sup>1</sup> $\chi^2 = (2, N = 688) = 10.14, p < .01$ ; <sup>2</sup> $\chi^2 = (2, N = 688) = 65.24, p < .001$ ; <sup>3</sup> $\chi^2 = (2, N = 688) = 14.15, p < .01$ ; <sup>4</sup> $\chi^2 = (2, N = 688) = 1.37, p < .05$ ; <sup>5</sup> $\chi^2 = (2, N = 688) = 10.01, p < .01$ ; <sup>6</sup> $\chi^2 = (2, N = 688) = 4.45, p > .05$ .

<sup>x</sup>Example: In the pro high importance condition, 11 % of participates named Primed1.

**Table 4: High Importance and Low Importance / Main Study**

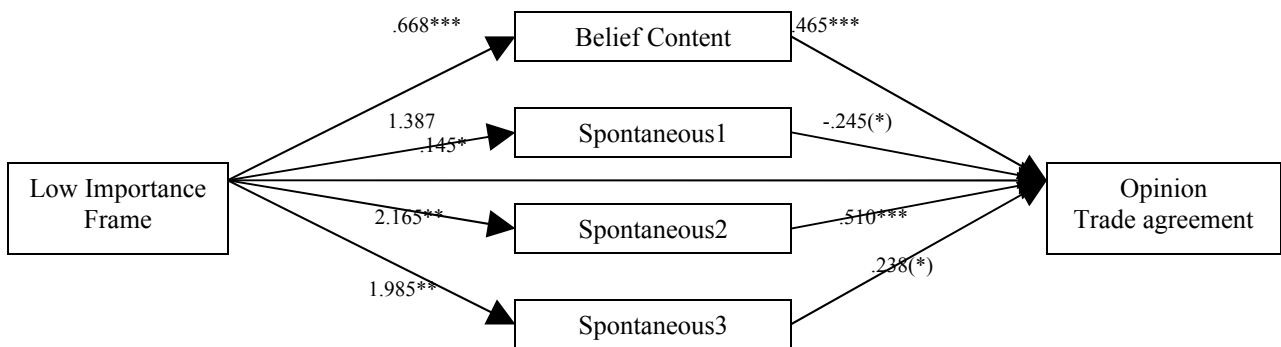
**Framing Effect Moderators (OLS)**

Independent Variable	Dependent Variable	
	Overall Opinion	Overall Opinion
	Contracting out	Trade Agreement
Frame (pro)	(High)	(Low
	-.07	.47**
	(.19)	(.16)
Issue Importance	-.71**	.78***
	(.24)	(.18)
Political Knowledge	-.04	.50***

Need for Cognition	(.14) .31*	(.12) .49***
Need to Evaluate	(.13) .98**	(.11) .43
Frame X Issue Importance	(.33) .30*	(.29) .08
Frame X Political Knowledge	(.14) -.10	(.11) -.01
Frame X Need for Cognition	(.14) .15	(.11) -.09
Frame X Need to Evaluate	(.16) .14	(.15) .07
Constant	(.13) 4.42***	(.11) 3.26***
R <sup>2</sup>	(.30) .03	(.23) .14
Number of Observations	1084	977

Note. Entries are unstandardized regression coefficients with standard errors in parentheses. \*p<.05; \*\*p<.01; \*\*\*p < .001

**Figure 1: Low Importance Framing - Mediation Analysis (MainStudy)**

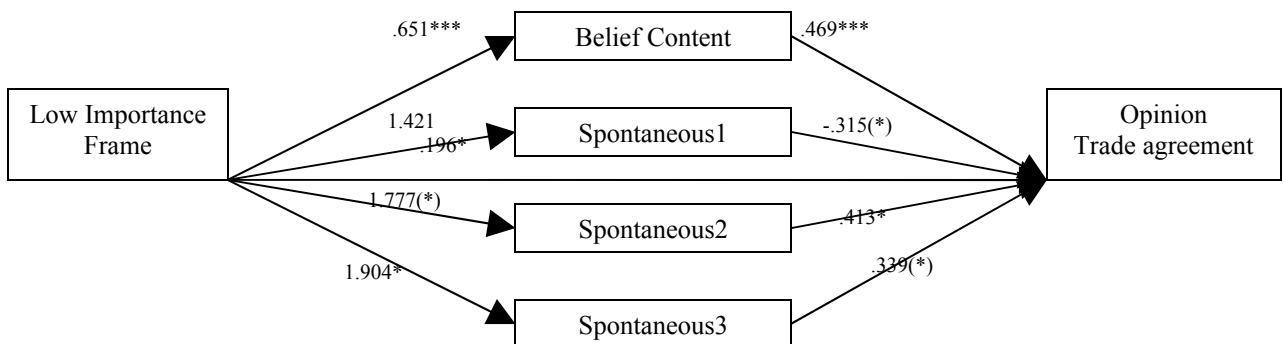


Note. Coefficients are unstandardized (beta) coefficients and exponential (beta) coefficients. \*\*\*p< .001; \*\*p < .01; \*p<.05.

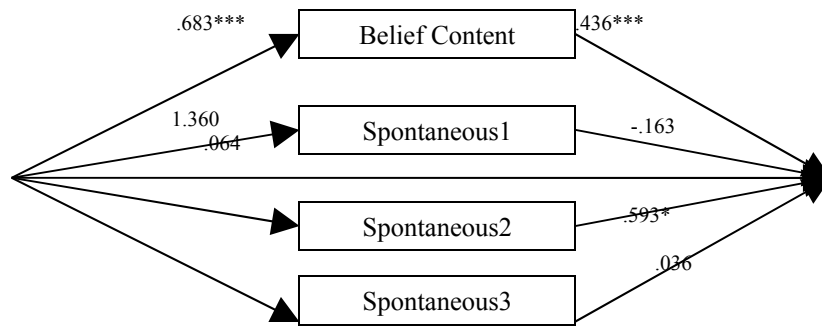
Frame is coded so that 0=Con and 1=Pro Trade agreement. The importance items are coded as 1=present and 0=non present. Importance items are Spontaneous1="International trade poses ethical questions", Spontaneous2="It is crucial for COUNTRY to participate in international trade adequately", Spontaneous3="International trade is beneficiary for COUNTRY economy overall". The belief content scale is coded so that higher values indicate a more positive effect. Overall opinion is coded so that a higher value indicates increased support for the trade agreement; Sobel Test statistics for Belief Content: 8.25 (p < 0.001).

Figure 2: Low Importance Framing - Mediation Analysis- two groups (Main Study)

**High Importance**



**Low Importance**



Low Importance Frame	3.044*	Opinion Trade agreement
	2.109(*)	

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*Note.* Coefficients are unstandardized (beta) coefficients and exponential (beta) coefficients. \*\*\*p < .001; \*\*p < .01; \*p < .05. Frame is coded so that 0=Con and 1=Pro Trade agreement. The importance items are coded as 1=present and 0=non present. Importance items are Spontaneous1="International trade poses ethical questions", Spontaneous2="It is crucial for COUNTRY to participate in international trade adequately", Spontaneous3="International trade is beneficiary for COUNTRY economy overall". The belief content scale is coded so that higher values indicate a more positive effect. Overall opinion is coded so that a higher value indicates increased support for the trade agreement; Sobel Test statistics for Belief Content: 8.25 (p < 0.001)

## Appendix A: Stimulus Material

### Article 1 – High Importance

#### 1 PRO

#### More contracting-out can improve quality of in-home help for senior citizens

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 *Udliceringsrådet* [*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.



*Udliciteringsrådet* 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 *KL [the Danish National Association of Municipalities]*.

## 2 CON

### More contracting-out can reduce quality of in-home help for senior citizens

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

This announcement is made after *Udliciteringsrådet [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.

*Udliciteringsrådet* encourages politicians to consider contracting out more for sensitive welfare services such as in-home care for the elderly. The municipalities object 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 *KL [the Danish National Association of Municipalities]*.

## Article 2 – Low Importance

### 1 PRO

### Danish export steamrolling into Chinese market

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 five 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 Danish industry” says an official from the Ministry of Industry.

## 2 CON

### Chinese product pirates threaten Danish export

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 five 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 towards 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 Danish industry and for 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 Post-Test Measures**

### **Pre-test measures Study 1**

*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*.”

### **Post-Test Measures Pilot Study**

<b>High Importance</b>	<b>Low Importance</b>
<i>Overall Opinion</i> (index) ( $M=4.55$ ; $SD=1.25$ ; Cronbach's $\alpha=.55$ )	<i>Overall Opinion</i> (index) ( $M=5.05$ ; $SD=1.12$ ; Cronbach's $\alpha=.63$ )
Four item index scale reaching from 1 (low support) to 7 (high support)	Four item index scale reaching from 1 (low support) to 7 (high support)
	Alpha = .63

### **Pre-test 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*."

*Need to Evaluate (index)* ( $M=.65$ ,  $SD=.13$ )

Two item scale reaching from 0 to 1 with higher values indicating higher need to evaluate.

"Some people have opinions about almost everything; other people have opinions about just some things; and still other people have very few opinions. Which of the following statements comes closest to you?", possible answers 1="I have an opinion about almost everything", 2="I have an opinion about most things", 3="I have an opinion about only a few things", 4="I have an opinion about very few things", 5="Don't know"

"Compared to the average person, do you have fewer opinions about whether things are good or bad, about the same number of opinions, or more opinions?", possible answers 1="A lot fewer opinions", 2="Somewhat fewer opinions", 3="About as

many opinions”, 4=”Somewhat more opinions”, 5=”A lot more opinions”, 6=”Don’t know”

*Need for Cognition (index) (M=.65; SD=.35)*

Two item scale reaching from 0 to 1 with higher values indicating higher need for cognition.

“Some people like to have responsibility for handling situations that always require a lot of effortful thinking. Other people don’t like to always having responsibility for situations like that. Which of the following statements comes closest to you?”, two answers 1=“I like to have responsibility for handling situations that always require a lot of effortful thinking”, 2=“I don’t like to always having responsibility for situations that always require a lot of effortful thinking”, or 3=“Don’t know”.

“Some people prefer to solve simple problems instead of complex ones, whereas other people prefer to solve more complex problems. Which type of problem do you prefer to solve?”; possible answers 1=“I prefer to solve simple problems.”, 2=“I prefer to solve more complex problems.”, 3=“Don’t know”.

*Political Knowledge (index) (M=.55; SD=.34)*

Four factual knowledge item scale reaching from 0 to 1 with higher values indicating higher political knowledge.

### **Post-Test Measures Main Study**

<b>High Importance</b>	<b>Low Importance</b>
<i>Overall Opinion (index) (M=4.73; SD=1.29, Cronbach’s a=.63)</i>	<i>Overall Opinion (index) (M=5.08; SD=1.10; Cronbach’s a=.62)</i>
Four item index scale reaching from 1 (low support) to 7 (high support)	Four item index scale reaching from 1 (low support) to 7 (high support)

<p><i>Belief Content</i> (index) (<math>M=4.27</math>; <math>SD=1.69</math>, Cronbach's <math>\alpha=.80</math>)</p> <p>Four item index scale reaching from 1 to 7 with higher values indicating more positive impact expected from contracting out or trade agreement</p>	<p><i>Belief Content</i> (index) (<math>M=4.67</math>; <math>SD=1.18</math>; Cronbach's <math>\alpha=.69</math>)</p> <p>Four item index scale reaching from 1 to 7 with higher values indicating more positive impact expected from contracting out or trade agreement</p>
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## **Endnotes**

<sup>1</sup> (Pilot  $M=4.67$ ,  $SD=1.53$ ; Main  $M=4.68$ ,  $SD=1.63$ ) and the higher importance of elderly care (Pilot  $M=5.74$ ,  $SD=1.25$ ; Main  $M=5.66$ ,  $SD=1.42$ ) (Pilot  $t_{[199]}=8.71$ ;  $p < .001$ ; Main  $t_{[1580]}=20.50$ ;  $p < .001$ )

<sup>2</sup> Results show, that 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 to be true for the second study.

<sup>3</sup> After being exposed to the stimulus material (both in the first and second experiment), participants were asked to indicate on a seven-point Likert scale (1=strongly disagree to 7=strongly agree) to what extent the article (1) dealt with economic aspects of the issue, (2) pointed out its advantages and (3) disadvantages (1=strongly disagree to 7=strongly agree). For the first experiment, an ANOVA 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 the third (disadvantages) statement: pro ( $M=3.37$ ,  $SD=1.66$ ), con ( $M=4.33$ ,  $SD=1.82$ ) and control ( $M=4.04$ ,  $SD=1.80$ ) at ( $F_{[2, 163]}=5.42$ ,  $p < .01$ ). The manipulation check was also successful for the second, low importance, experiment: here, 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 ( $F_{[2, 182]}=65.75$ ,  $p < .001$ ).

<sup>4</sup> For the analysis of the two open-ended belief importance measures, these were treated as equal and their results combined. In using both questions, it was guaranteed that primed as well as spontaneous belief importance considerations were captured after exposure. However, an independent analysis showed that – when taken separately – the measures led to the same substantial findings.

<sup>5</sup> The comparison between the experimental groups show 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 were able to reproduce 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 belief importance considerations were included into the model.

<sup>6</sup> For the Sobel test ( $a*b/\text{SQRT}(b^2*sa^2 + a^2*sb^2)$ );  $a$  = 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 e.g., Sobel, 1982; MacKinnon et al., 1995).

<sup>7</sup> Because the control group means for overall opinion in study 2 lay over those for the pro and con group, and because explanations for this phenomenon must remain speculative, it was decided to exclude the control group from this step in analysis. Further explanations are provided in the discussion section for study 2.

<sup>8</sup> The variables in the regression model were chosen on basis of theory. However, when controlling for other variables such as age, social or professional group, we do not find alterations in those basic effects found in the originally specified model.