Referendum campaign dynamics: news media, campaign effects and direct democracy
Schuck, A.R.T.

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CHAPTER 4

WHEN GOOD NEWS IS BAD NEWS: EXPLICATING THE MODERATED
MEDIATION DYNAMICS BEHIND THE REVERSED MOBILIZATION EFFECT

Manuscript under review

Abstract

Previous research has repeatedly shown that negative information and negative attitudes have a
stronger impact on subsequent evaluations and behaviour than their positive equivalents. However, we claim that individual perceptions of message content are key to understanding the
underlying psychological processes. In an experiment (N=743) we investigated the mobilizing
potential of positive news framing on opponents of a referendum proposal. Our mediation
analysis suggests that positive news framing, endorsing a referendum proposal, was perceived as
negative by opponents and mobilized them to turn out and vote because of increased risk
perception. This ‘reversed mobilization’ effect was moderated by existing levels of political
efficacy. Efficacious opponents were significantly more mobilized by the positive framing than
opponents with low efficacy. We conclude with a discussion under which conditions the
reversed mobilization dynamic is likely to unfold during an election campaign.
Introduction

What are the underlying processes that determine mobilization in an election campaign? Previous research has repeatedly shown that negative information and negative attitudes have more of an impact on subsequent evaluations and behaviour than their positive equivalents (Fiske, 1980; Lau, 1985; Kahneman & Tversky, 1979). However, most research on campaign and framing effects assumes that only negative information can induce negative attitudes and mobilize individuals. Instead, we consider the perception of campaign messages crucial for a better understanding of the psychology behind framing effects with regards to mobilization. Previous research has called for more attention to the underlying mechanisms behind the mobilization of voters in response to campaign messages (see e.g., Martin, 2004, 2008; Sigelman & Kugler, 2003) and also to the importance of applying more elaborate methods to assess such mediation dynamics (see e.g., Bizer & Petty, 2005; Preacher & Hayes, 2004, 2008a; Tao & Bucy, 2007).

In the present study, we show how positive news framing of a referendum proposal is perceived as negative by opponents of the proposal and we demonstrate how this negative perception matters for the activation of subsequent psychological processes and behavioural intentions. In particular, we show how positive news framing induces higher risk perceptions among individuals who are in opposition to the proposal. In turn, and in line with existing research on the mobilizing potential of risk perception (e.g., Kalichman & Coley, 1995; Rimal & Real, 2003) and the influence of negative attitudes on subsequent behaviour (e.g., Jordan, 1965), we show that opponents become mobilized against the referendum proposal in order to prevent it from being implemented. We refer to this dynamic as “reversed mobilization”.

In this study, we focus on the effect of positive news on mobilizing opponents of a referendum proposal. Previous research has shown that in most instances the inherent risk for voters in a referendum is greater for opponents of a referendum proposal since they are the ones who are confronted with a potential change in the case of a positive outcome (Brunetti, 1997; Christin et al., 2002; Kirchgässner & Schulz, 2004). This prospect of unwanted change bears the potential for a mobilization dynamic in the way we describe. For supporters of a referendum proposal, a negative outcome usually represents less of a risk since, in most instances, it would not mean unwanted change but rather just maintaining the status quo. Thus, the potential costs associated with a referendum outcome opposed by an individual are usually higher for opponents than for supporters.1 In the present study, we therefore focus on the mobilizing effect of positive framing on opponents of a referendum proposal because it is empirically less explored and theoretically more interesting than the effect of negative news framing on supporters.

We investigate the mobilizing effect of positive news framing on opponents of a referendum proposal within the context of the signing of the European Union (EU) Treaty of Lisbon in December 2007. This provides a suitable context for our objective. When the EU Constitutional draft, which preceded the Treaty of Lisbon, was rejected in two national
referendums in the Netherlands and France in 2005 it evoked a strong response in public debate. Several EU member countries contemplated holding a referendum on the Treaty of Lisbon and a referendum was held in Ireland which sparked discussions about the (il)legitimacy of not holding referendums in other countries as well.

Theoretical framework

Negativity matters for mobilization
The observation that ‘negative’ is stronger than ‘positive’ has been supported in relation to a broad range of psychological phenomena (see e.g., Baumeister et al., 2001). Previous research has repeatedly shown that negative information has more impact on subsequent attitudes and evaluations than positive appeals (e.g., Lau, 1985). People pay more attention to negative information and also weigh in negative information more heavily in subsequent judgments as compared to positive information (Fiske, 1980; Pratto & John, 1991). In an election context, Kahn and Kenney (1999) report how negative messages produced greater interest and involvement in an election campaign (see also Martin, 2008).

In addition to the greater appeal and impact of negative messages, negative attitudes have been shown to be more likely to affect subsequent behaviour as compared to positive attitudes (e.g., Jordan, 1965). Most prominently, prospect theory argues that people are more likely to get mobilized in order to avoid risks rather than to achieve potential gains (Kahneman & Tversky, 1979). In this respect, information that is framing future prospects as a potential ‘risk’ has been shown to be more mobilizing than information that is framed in terms of potential ‘gain’ (Rothman & Salovey, 1997; Schneider et al., 2001). In an election context, Kernell (1977), for example, showed how negative opinions of the President had a stronger effect on turnout in US midterm elections than positive opinions (see also Lau, 1982). Along these lines, Martin (2004) provides an example of how perceived candidate threat can mobilize voters ‘against’ another candidate in an election campaign (see also Marcus et al., 2000). In this perspective, feeling threatened by a certain candidate is supposed to result in anxiety, which results in political participation as a pro-active response due to increased arousal and attention. Being confronted with the threat of potential policy change on issues that are considered important by voters has also been shown to motivate forms of political activism, such as financial contributions to activist groups, in order to protect the existing policy (Miller & Krosnick, 2002). Furthermore, Hastings et al. (2007) show how past negative election outcomes (i.e. having been on the losing side) mobilize voters to participate in subsequent elections more than past positive outcomes (i.e. having been on the winning side). Thus, previous research has substantiated the claim that negative information has more of an impact than positive information and that negative attitudes are more likely to motivate behaviour than positive attitudes.
It’s the perception of negativity!

Most studies assume that only negative information is seen as negative and operates as such on a psychological level. This assumption seems disputable at best and unreasonable for the following reason. As Sigelman and Kugler (2003) point out, information in a campaign is perceived differently by voters. They argue that campaign tone should not be seen as an objective attribute of a campaign and that perceptions of the same campaign can vary widely between citizens and evoke very different images in the minds of voters. The authors state: “Although researchers have treated negativity purely as an attribute of campaigns, we contend that to have the effects that are so often attributed to it, negative campaigning must be perceived by the citizens whose behaviour we are trying to explain” (p. 143, italics added). Along the same lines, Martin (2008) points out that “citizens do not equally read campaigns as negative or positive, and therefore do not have consistent reactions to campaigns that scholars consider ‘negative’” (p. 190). Recently, Tao and Bucy (2007) have argued that media effect researchers should indeed pay more attention in their research designs to user perceptions of information and the psychological response to media messages rather than to the attributes of message content only. A more thorough investigation of the perception of campaign messages in interaction with pre-existing attitudes might yield further insight into how and under what conditions campaign messages can translate into political participation. This effort seems to be especially valuable considering the striking lack of empirical research clearly specifying and investigating the underlying mechanisms behind the mobilization of voters in response to campaign messages (see Arceneaux & Nickerson, 2007; Martin, 2004, 2008).

In the present study, we argue that positive news framing in a referendum campaign is perceived as negative by voters who are in opposition to the proposal and can induce higher risk perception regarding the issue at stake. Indeed, previous framing studies have argued that existing opinions have to be taken into account in order to arrive at a better understanding of framing effects (Bizer & Petty, 2005; Domke et al., 1998; Schuck & de Vreese, 2009). We argue that pre-existing attitudes establish a reference point from which campaign messages are perceived as either positive or negative. Thus, not all negative information is perceived as negative and not all positive information is perceived as positive from an individual point of view. Consequently, positive news can be perceived as negative by an individual who is opposed to a referendum proposal, resulting in a consistent perception bias that is contingent upon pre-existing attitudes. At the same time, the same differential psychological effects with regard to the stronger impact of negativity apply as discussed above. However, in order for negativity to exert its effect, we argue that it is the perception of negativity that matters and not the objective attributes of a message. The latter would only be the case if we assume the majority of citizens’ minds to mirror a tabula rasa, i.e. being free from pre-existing opinions, or to be completely persuaded by campaign messages. This is unlikely to be the case and more likely in election contexts with low salience and only for parts of the electorate. Thus, focusing on the objective attributes of a message alone yields an insufficiently valid indicator for the actual perception of
message content on the audience side. However, for the explanation of the psychology behind behavioural effects in response to campaign information the perception of message content matters more than the objective attributes of a message.

Motivated information processing and frame resistance
How then can positive news framing mobilize opponents of a referendum proposal? Importantly, voters can resist campaign messages and arrive at different conclusions than indicated by the objective message content, depending on their preexisting attitudes. Meffert et al. (2006) provide an example of how voters with an initial candidate preference arrive at more polarized evaluations in favour of their preferred candidate when exposed to negative information about their candidate. They report how voters selected and spent more time reading negative information about their preferred candidate, yet ended up with more positive evaluations of their candidate, thus converting incongruent negative information into support for a preexisting preference. The authors state: “Any ’raw’ information from the media is, if selected, likely to be used and transformed by voters according to their motivations and preexisting preferences” (p. 28). This is in line with the concept of “motivated skepticism”, as introduced by Ditto and Lopez (1992), who point out that information that is inconsistent with existing preferences is examined more intensively and more critically by people. Thus, being confronted with information in a campaign that is opposed to existing opinions can lead voters to engage in motivated information-processing in which previous levels of skepticism towards such information can become further strengthened, initial levels of opposition can intensify and attitudes can become more polarized.

In general, being confronted with a perceived threat - ceteris paribus - facilitates message processing and motivates people to resist the persuasive appeal of messages and engage in a process of counter-arguing (Eagly & Chaiken, 1993; Petty & Cacioppo, 1986).3 At the same time, such in-depth cognitive processing fosters more resistant attitudes (Pfau et al., 2001). Petty et al. (1995), for example, showed how increased thinking about an attitude can further strengthen this attitude, making it less likely to be persuaded by counter-attitudinal information. Furthermore, research on media framing effects has pointed out that framing has less of a persuasive impact on subsequent attitudes when an issue is perceived as important (Lecheler et al., 2008).

In an election context, Bizer and Petty (2005) showed that attitudes are more resistant to persuasion when individuals oppose a certain candidate as when they support another candidate, again pointing to the stronger impact of negative attitudes over positive attitudes. In the context of a referendum this means that individuals are less likely to be persuaded by positive framing of the referendum issue when they oppose a positive outcome as compared to when they support the opposite outcome. In our study context, opponents of the referendum proposal were indeed primarily opposed to a positive outcome (since a positive outcome represented unwanted change), rather than in support of a negative outcome (since a negative outcome only represented maintaining the status quo). However, previous research has only investigated if, for example,
negative framing of a candidate who is supported by an individual, results in frame and attitude resistance and not if also positive framing of a candidate an individual opposes results in frame resistance (see Bizer & Petty, 2005). In line with our previous reasoning, we assume that positive framing of a referendum outcome opposed by an individual will lead to enhanced message processing and results in stronger negative attitudes towards the issue at stake and higher risk perception which carries the potential to mobilize opponents against the proposal.

**Underlying dynamics behind the reversed mobilization effect**

In the present study, we focus on risk perception as the mechanism accounting for the mobilization of referendum opponents in response to positive news framing. Studies in health communication have repeatedly pointed out how message framing can induce a perception of risk among individuals (Dunlop et al., 2008; Morton & Duck, 2001; Raghubir & Menon, 2001), which in turn carries the mobilizing effect to induce preventive action (e.g., Kalichman & Coley, 1995; Schneider et al., 2001). In electoral contexts, Martin (2004) and Marcus et al. (2000, see also Marcus & MacKuen, 1993) have shown how campaigns can foster anxiety and threat perception among voters which have the potential to mobilize them to turn out and vote in order to prevent an unwanted scenario. Thus, in our example, we assume that positive news framing, promoting a successful referendum outcome, is perceived as a risk by opponents of the referendum proposal, which in turn induces higher turnout rates.

We expect the reversed mobilization dynamic we describe to be contingent upon existing levels of motivation. Only when individuals engage in a process of motivated information processing we can expect them to resist messages inconsistent with extant opinions and to arrive at more polarized attitudes in favour of existing preferences (see e.g., Meffert et al., 2006). Furthermore, negative attitudes are more likely to mobilize individuals in an election when levels of motivation are high (see e.g., Hastings et al., 2007). Thus, negativity does not *per se* mobilize but rather this mobilization should be expected to occur primarily among motivated voters.

Bandura (1982, 1997) argues that self-efficacy is crucial in inducing a certain coping behaviour in response to a situation that is perceived as deficient and in motivating individuals to become active. Importantly, for individuals who are confronted with a potential threat, their self-assessed efficacy must outweigh the perceived threat in order for them to become mobilized (Witte, 1992, 1994). As Rimal and Real (2003) pointed out, risk perception only then results in mobilizing individuals rather than turning them off, when personal efficacy beliefs are strong. Those who feel efficacious are likely to conceive of potential risks as challenges that need to be overcome and show a ‘responsive’ attitude with regard to their subsequent behaviour. When individuals feel ineffectual it is less likely for them to become mobilized in response to a perceived risk (see also Maibach & Murphy, 1995; Witte & Allen, 2000).4

Based on previous research, we expect that political efficacy moderates the mobilizing effect of positive news framing on opponents of a referendum proposal. Whereas opponents with
low efficacy are unlikely to become more mobilized by positive news framing, we expect opponents with high efficacy to become mobilized in order to overcome a perceived risk.

Research hypotheses
In the present study, we expect risk perception to mediate the effect of positive news framing on turnout intention among opponents of a referendum proposal. Tao and Bucy (2007) recently proposed a mediation model to study the impact of media stimuli via a mediator (defined in terms of psychological states such as perceptions, evaluations or emotions elicited by media stimuli) on a dependent variable in order to get a more realistic and complete account of media influence and in order to reach higher explanatory power in predicting media effects. Also Preacher and Hayes (2008b), as well as Bizer and Petty (2005), point to the benefits of assessing mediation dynamics in order to study underlying processes and mechanisms behind media and/or framing effects.

Furthermore, we expect the reversed mobilization of opponents of a referendum proposal by positive news framing to be conditioned by existing levels of political efficacy. Opponents with high efficacy should be more likely to become mobilized to turn out and vote via the route we suggest than opponents with low efficacy. We specifically expect that:

(H1): *Positive news framing mobilizes opponents of a referendum proposal to turn out and vote against the proposal. This dynamic is moderated by political efficacy so that only opponents with high efficacy become more mobilized.*

[moderated mobilization hypothesis / MMH]

(H2): *The effect of positive news framing on turnout intention among opponents with high efficacy is mediated by increased risk perception.*

[moderated mediation hypothesis / MH]

Method
We conducted an experiment to test the effect of positive news framing on the mobilization of referendum opponents and in order to explain the underlying mechanism of such a dynamic. First, we investigated how news framing affects the intention to turn out in a referendum, moderated by political efficacy. In a second step, we tested risk perception as a potential mediator for the assumed mobilizing effect of positive news on turnout intention among opponents with high efficacy.
Experiment.

Design. We used a single-factor, post-test only, between-subjects experimental design with random assignment to one of three conditions. The first condition represented a positively framed news story about the EU Treaty of Lisbon and the second condition represented a negatively framed news story. Additionally, the design included a neutral control group condition which was established by a short news story without any valence towards the treaty.

Procedure. The experiment was conducted in January 2008 by The Dutch Institute for Public Opinion Research and Market Research TNS NIPO (Amsterdam/The Netherlands). Participants first completed a pre-test questionnaire asking for demographic details and a number of political predispositions such as attitudes towards the EU and political efficacy. Next, participants were exposed to a news article establishing the different experimental conditions. Finally, participants completed a post-test questionnaire which included measures of our dependent variable (turnout intention) and our mediator (risk perception).

Sample. A sample was drawn from the TNS NIPObase, a database representative of the Dutch population consisting of 200,000 respondents. Respondents filled in the questionnaire on their own computer (CAS1). In total 743 individuals participated in the experiment, 294 in the positive condition, 286 in the negative condition, and 163 in the control group (52.6% percent females, age = 18-88 [M = 46.9, SD = 16.49]). The participation rate was 72.7%.

Stimulus material. The experimental stimulus material consisted of a news article with either positive or negative framing of the Treaty of Lisbon. The news articles were produced for the study rather than selected. This gave full control over the experimental manipulation and ensured that no respondent had been exposed to the article in advance. In both versions, the storyline was identical, dealing with a general discussion of the assumed consequences of the EU Treaty of Lisbon, framed in either positive or negative terms. In the control group, respondents were exposed to a neutral core article without any valence (see Appendix B). Combining an identical core section with factual information and sections establishing alternative frames has been common practice in previous experimental framing analyses (e.g., Iyengar, 1991; Price et al., 1997; Valkenburg et al., 1999; de Vreese, 2004).

Manipulation checks. A manipulation check question asked respondents if the article they had just read was either more negative or more positive in tone towards the EU Treaty of Lisbon (1-very negative, 7-very positive) and revealed successful manipulation. Respondents in the positive condition (M=4.78; SD=1.58) perceived the valence of the article as significantly more positive towards the EU Treaty of Lisbon than respondents in the negative condition (M=2.94; SD=1.22) (t(578)=15.61; p<.001). Furthermore, respondents in the control group perceived the article as neutral (M=4.06; SD=1.16) and different from respondents in the negative condition (t(455)=5.05; p<.001) as well as from respondents in the positive condition (t(447)=9.54; p<.001).

Our hypotheses assume that skeptical individuals get mobilized against a referendum proposal because they perceive positive framing as negative from their own personal point of
you, which we assume to induce greater risk perception. Thus, we conducted a second
manipulation check asking respondents if they personally perceived the contents of the news
article as either positive or negative on a seven-point scale (1-very negative, 7-very positive). In
line with our expectations, respondents who feel skeptical towards the EU (for measurement see
below) did, in fact, perceive the positive stimulus article as more negative ($M$=2.87; $SD$=1.08)
than the negative stimulus article ($M$=4.20; $SD$=1.33) ($t(207)$=7.98; $p$<.001) from their own
personal point of view. Skeptics in the control group score in between ($M$=3.22; $SD$=1.10), as
expected, and perceived the neutral stimulus article as significantly less negative than skeptics in
the positive condition ($t(170)$=2.10; $p$<.05) and also as significantly less positive compared to
skeptics in the negative condition ($t(169)$=5.03; $p$<.001).

**Dependent variable**

_Turnout intention._ Respondents were asked on a 7-point scale how likely it was that they would
go and vote if a public referendum were to be held on the EU Treaty of Lisbon (1-very unlikely,
7-very likely) ($M$=4.87, $SD$=2.24).

**Moderating variables**

_EU support._ In our analysis we distinguish between respondents who are in support of the EU
(supporters) and those who are skeptical towards the EU (skeptics). The degree to which each
respondent supports or opposes the EU was assessed with a pre-intervention measure with four
questions on five-point Likert scales covering the following dimensions: (1) general EU support,
(2) support for the Euro, (3) support for EU enlargement, and (4) support for Dutch EU
membership. All four items together build a reliable scale (Cronbach’s alpha = .70) on which
higher scores represent higher levels of EU support ($M$= 2.98, $SD$= .72). For our analysis we
distinguish between EU skeptics (n=304) and EU supporters (n=439) by splitting the sample at
the mean.

_Political efficacy._ In our analysis we test the moderating role of political efficacy in
conditioning the mobilizing effect of positive news reporting on skeptical voters. Therefore, we
distinguish between respondents who feel politically efficacious and respondents who feel
inefficacious with regards to the EU. Political efficacy was measured as a pre-intervention
measure with one standard item on a five-point rating scale on which higher scores represent
higher levels of efficacy, stating: “People like me have no influence on political decisions taken
by the EU” (1-fully agree, 5-fully disagree) ($M$=2.29; $SD$=1.02). For further analysis, two groups
were built above and below the mean in order to classify respondents as feeling either efficacious
(n=260) or inefficacious (n=483).
Mediating variable

Risk perception

Our concept of risk perception combines two different dimensions, respondents’ perception of the severity of a risk as well as their perceived susceptibility to it (see e.g., Maddux & Maibach, 1983; Rimal & Real, 2003; Witte, 1992). We asked respondents two questions on five-point Likert scales on which higher scores represent higher levels of risk perception. First, we asked how much respondents were worried about the consequences of the Treaty of Lisbon (M=3.04; SD=.93) and secondly, we asked how likely respondents thought it was that the future of the country would be negatively affected (M=3.22; SD=1.01). Both items together build a reliable scale (r=.66; Cronbach’s alpha = .79) (M=3.13; SD=.88).

Results

In general, looking at all respondents across conditions, turnout intention was higher among EU supporters (M=5.01, SD=2.12) than among EU skeptics (M=4.68, SD=2.39) (t(741)=1.97, p<.05). Among EU supporters, turnout intention did not differ significantly between respondents in the positive condition (M=5.10, SD=2.11) and respondents in the negative condition (M=4.99, SD=2.18) or in the control group (M=4.86, SD=2.05) (F(2,436)=.37, p>.05). In line with our hypotheses, we focus on the group of EU skeptics in our analysis since we expect that skeptics are mobilized by positive news framing to turn out and vote against the proposal and that this mobilization is contingent upon existing levels of political efficacy.9 As Table 4.1 below shows, skeptics with low levels of political efficacy did not differ in their turnout intention across conditions (F(2,153)=1.01, p>.05). However, skeptics with high levels of efficacy differed significantly from each other across conditions (F(2,39)=3.48, p<.05).

In line with our expectations, efficacious skeptics in the positive framing condition expressed a significantly stronger intention to turn out and vote (M=5.71, SD=1.86) than efficacious skeptics in the control group (M=3.63, SD=2.72) (t(23)=-2.25, p<.05) or in the negative condition (M=3.94, SD=2.41) (t(32)=-2.39, p<.05). Overall, positive news framing had a significant effect on turnout intention among efficacious skeptics (b=1.87, SE=.70) (F(1,40)=7.02, p<.05).

In order to assess the significance of the difference in effects between skeptics with high and low efficacy across conditions we tested a formal interaction model yielding a significant interaction effect between political efficacy and the positive framing condition on turnout intention (b=2.32, p<.01), controlling for main effects (F(3,194)=3.51, p<.01).10 Thus, our first hypothesis (MMH) is supported.11
Table 4.1.: Turnout intention of EU skeptics with high and low efficacy beliefs in positive, negative and control condition

<table>
<thead>
<tr>
<th></th>
<th>Control condition (n=41)</th>
<th>Positive framing condition (n=77)</th>
<th>Negative framing condition (n=80)</th>
</tr>
</thead>
<tbody>
<tr>
<td>EU skeptics</td>
<td>3.63$_a$</td>
<td>5.71$_b$</td>
<td>3.94$_c$</td>
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<tr>
<td>- high efficacy</td>
<td>(2.72)</td>
<td>(1.86)</td>
<td>(2.41)</td>
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<td>(n=42)</td>
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<td>n=17</td>
<td>n=17</td>
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<tr>
<td>EU skeptics</td>
<td>5.18</td>
<td>5.00</td>
<td>5.60</td>
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<tr>
<td>- low efficacy</td>
<td>(2.44)</td>
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<tr>
<td>(n=156)</td>
<td>n=33</td>
<td>n=60</td>
<td>n=63</td>
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</tbody>
</table>

Note: Cell entries are mean scores for turnout intention on a 7-point scale (1 = very unlikely to vote, 7 = very likely to vote), standard deviations in parentheses. Different subscripts $a,b$ and $b,c$ indicate significant between-condition difference with $p < .05$ (all two-tailed).

Our findings suggest that skeptical voters are mobilized by positive news and become more likely to turn out and vote in a referendum on a policy proposal they oppose. Furthermore, political efficacy moderates the effect of positive framing on turnout intention among skeptics. Framing the EU Treaty of Lisbon in positive terms had a mobilizing effect only on skeptics with high efficacy and not on skeptics with low efficacy.

In a next step, we turn to our mediation analysis and investigate the underlying mechanism behind this effect. As hypothesized, we expect that the mobilization of skeptics with high efficacy beliefs in response to positive framing can be explained by increased risk perception. Therefore, we test risk perception as a mediator for the effect of positive framing on turnout intention among efficacious skeptics.

We initially follow the causal-steps approach as introduced by Baron and Kenny (1986), which is most often applied in previous research. According to this approach, mediation occurs under the condition that (1) there is a significant main effect of the independent variable on the dependent variable when the presumed mediating variable is not controlled for, (2) the independent variable has a significant effect on the mediator variable (path $a1$ in Figure 4.1. below), and (3) the mediator variable has a significant effect on the dependent variable (path $b1$ in Figure 4.1. below) while at the same time the effect of the independent variable on the dependent variable is controlled for and decreases compared to the direct main effect.
Previous research has pointed to the shortcomings of the causal-steps approach as lacking in power and suffering from high Type 1 error rates (e.g., MacKinnon et al., 2002, 2004). In line with recent calls for more formal tests of the significance of specific indirect effects in mediation analyses, we provide an additional test of our hypothesis based on the bootstrapping method introduced by Preacher and Hayes (2004, 2008a).12

Figure 4.1. below illustrates our theoretical model, which assumes that positive framing has an effect on turnout intention which is mediated by risk perception.

![Diagram of mediation model](image)

Note: $c'$ is the direct effect of the independent variable (positive news framing) on the dependent variable (turnout intention) or the effect of the independent variable on the dependent variable when the mediator is controlled for. The specific indirect effect of the independent variable on the dependent variable via the mediator risk perception is quantified as $a1 b1$. The total effect of the independent variable on the dependent variable is the sum of the direct effect and the specific indirect effect (see Preacher & Hayes, 2008a).

Table 4.2. shows that skeptics with high efficacy differed in their risk perception across conditions ($F(2,39)=2.47$, $p<.05$) whereas skeptics with low efficacy did not ($F(2,153)=.32$, $p>.05$). Looking at the group of skeptics with high efficacy in particular, we see that, as expected, respondents in the positive condition felt significantly more at risk ($M=3.82$, $SD=.64$) than respondents in the negative condition ($M=3.32$, $SD=.77$) ($t(32)=2.07$, $p<.05$) or in the control group ($M=3.38$, $SD=.64$) ($t(23)=1.64$, $p<.10$). Overall, positive news framing had a significant effect on risk perception among efficacious skeptics, as illustrated by path $a1$ in Figure 4.1. ($b=.48$, $SE=.22$) ($F(1,40)=5.03; p<.05$).
Table 4.2: Risk perception of EU skeptics with high and low efficacy beliefs in positive, negative and control condition

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<td>n=60</td>
<td>n=63</td>
</tr>
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</table>

Note: Cell entries are mean scores for risk perception on a 5-point scale (1 = very low risk perception, 5 = very high risk perception), standard deviations in parentheses. Different subscripts <sub>a</sub>,<sub>b</sub> indicate significant between-condition difference with <i>p</i> < .10 (one-tailed). Different subscripts <sub>b</sub>,<sub>c</sub> indicate significant between-condition difference with <i>p</i> < .05 (two-tailed).

Next, we turn to the question if higher risk perception affects turnout intention (path <i>b1</i> in Figure 4.1.). Indeed, we find that risk perception has a significant impact on turnout intention among efficacious skeptics, controlling for main effects (<i>b</i> = 1.54; <i>p</i> < .01) (<i>F</i>(2,39) = 9.96; <i>p</i> < .001).

The results we report yield support for our second hypothesis (MH) and give a first indication of a mediated dynamic, in which exposure to positive news contributes to higher risk perception among skeptics with high efficacy. This, in turn, makes it more likely for these individuals to turn out and vote in a possible referendum.

However, due to the acknowledged limitations of the causal-steps approach (see above), we provide an additional and more formal test of our mediation hypothesis. Preacher and Hayes (2004) recommend the use of bootstrapping techniques, a nonparametric re-sampling procedure, when formally assessing mediation as the most powerful and reasonable method to obtain confidence limits for specific indirect effects (see also Shrout & Bolger, 2002; Williams & MacKinnon, 2008).<sup>13</sup> Applying this method to our study context, we formally assess if the effect of positive framing on turnout intention among efficacious skeptics is mediated by risk perception. On the basis of 1,000 bootstrap samples, a 95% bias corrected and accelerated confidence interval (95% bca CI) was computed for the point estimate of the specific indirect effect. If this interval does not include zero, the effect significantly differs from zero in a standard two-tailed test. As Table 4.3. below illustrates, the total effect of positive framing on turnout intention is significant (<i>b</i> = 1.87, <i>SE</i> = .70, <i>p</i> < .05).<sup>14</sup> The bootstrap result for the specific
indirect effect of positive framing on turnout intention via risk perception is $b=.74$ ($SE=.40$) (95% bca CI: .1362; 1.6699). At the same time, the direct effect of positive framing on turnout intention is not significant anymore ($b=1.12$, $SE=.67$, $p>.05$).

As reported above, the bias corrected and accelerated bootstrap confidence interval for the specific indirect effect indicates that it is statistically different from zero. Thus, our second hypothesis (MH) is also supported by our bootstrapping analysis. We can conclude that risk perception mediates the effect of positive framing on turnout intention in the group of skeptics with high efficacy (for full model see Appendix H).

Table 4.3.: Mediation model with risk perception as mediator for the effect of positive news framing on turnout intention among skeptics with high efficacy beliefs

<table>
<thead>
<tr>
<th>Total effect of positive framing condition (IV) on turnout intention (DV)</th>
<th>Coeff</th>
<th>SE</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>condition</td>
<td>1.87</td>
<td>.70</td>
<td>2.65</td>
<td>&lt;.05</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Direct effect of positive framing condition (IV) on turnout intention (DV)</th>
<th>Coeff</th>
<th>SE</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>condition</td>
<td>1.12</td>
<td>.67</td>
<td>1.68</td>
<td>&gt;.10</td>
</tr>
</tbody>
</table>

BOOTSTRAP RESULTS FOR INDIRECT EFFECT

<table>
<thead>
<tr>
<th>Indirect effect of IV on DV through proposed mediator</th>
<th>Data</th>
<th>Boot</th>
<th>Bias</th>
<th>SE</th>
</tr>
</thead>
<tbody>
<tr>
<td>risk perception</td>
<td>.74</td>
<td>.74</td>
<td>.00</td>
<td>.39</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Bias corrected and accelerated 95% confidence interval for specific indirect effect</th>
<th>Lower</th>
<th>Upper</th>
</tr>
</thead>
<tbody>
<tr>
<td>risk perception</td>
<td>.1362</td>
<td>1.6699</td>
</tr>
</tbody>
</table>

Note: Level of confidence for confidence intervals = 95; Number of bootstrap re-samples: 1000; sample size: $n = 42$.

Furthermore, in line with the suggestion by Tao and Bucy (2007), to pay more attention to mediating factors in media effect research, we see that the adjusted $R^2$ significantly increases from $R^2=.13$ in a model with only the positive framing condition as the single predictor for turnout intention among efficacious skeptics ($F(1,40)=7.02$, $p<.05$) up to $R^2=.30$ after the inclusion of our mediator into the model ($F(2,39)=9.96$, $p<.001$) ($R^2$ change: $F(1,39)=11.13$, $p<.01$).

So far, we have assessed the presence of a significant indirect effect of positive news framing on turnout intention through increased risk perception only within the specific sub-group of skeptics with high efficacy. However, there is a more sensitive approach to statistically test our hypotheses according to which the size of the indirect effect of positive news framing on turnout
intention through risk perception depends on efficacy. Preacher et al. (2007) have developed a method to assess whether an indirect effect varies as a function of a moderator. Applying this method enables us to estimate conditional indirect effects for specific values of the moderator based on a larger sample size, yielding greater statistical power when assessing indirect effects.\textsuperscript{18} In the following analysis, we test a \textit{moderated mediation} model in which both the path from the independent variable to the mediator (path $a_1$) and the path from the mediator to the dependent variable (path $b_1$) are moderated by efficacy (see Figure 4.2. below).\textsuperscript{19}

Figure 4.2.: Moderated mediation of the effect of positive news framing on turnout intention among EU skeptics

![Diagram of moderated mediation model]

Note: Both $a_1$ as well as $b_1$ depend on levels of the moderator (see Model 5 in Preacher et al., 2007).

In general, moderated mediation models attempt to explain both \textit{how} and \textit{under what conditions} a given effect occurs (Frone, 1999). Formally, we can speak of moderated mediation when the strength of an indirect effect depends on the level of a moderator (Preacher et al., 2007).

Testing this model, the conditional effect of positive news framing on risk perception is assessed by means of an interaction term between the experimental condition and efficacy controlling for main effects ($b=.15$, $p<.05$) (see mediator variable model in Appendix I). The conditional effect of risk perception on turnout intention is assessed with an interaction term between risk perception and efficacy controlling for main effects ($b=.34$, $p<.05$) (see dependent variable model in Appendix I).\textsuperscript{20} The signs of the interaction terms are consistent with the interpretation that both the effect of positive news framing on risk perception as well as the effect of risk perception on turnout intention is larger for skeptics with higher levels of efficacy. Given these findings, it is reasonable to estimate conditional indirect effects at specific values of the moderator. By default, the macro developed by Preacher et al. (2007) provides estimates and
levels of significance based on normal-theory testing for the conditional indirect effect at the moderator mean and at values of the moderator that are one standard deviation above and below the mean. In our example, the indirect effect of positive news framing on turnout intention through risk perception is significant in a standard two-tailed test for a moderator value that is one standard deviation above the mean (\(M=3.08; b=.40, p<.05\)) (‘high efficacy’) (see Appendix I). The conditionality of the indirect effect is indicated by the fact that the indirect effect is not significant at moderator values directly at the mean (\(M=1.99; b=.14, p>.05\)) (‘medium efficacy’) or at one standard deviation below the mean (\(M=.91; b=.00, p>.05\)) (‘low efficacy’). Thus, based on these findings, we can conclude that the mediation dynamic we describe does not occur among individuals with low or average levels of efficacy, but only among individuals with comparably higher levels of efficacy.

Bootstrapping is recommended as a method to validate these findings (see MacKinnon et al., 2004; Preacher & Hayes, 2004; Shrout & Bolger, 2002). On the basis of 1,000 bootstrap samples, we first estimate the indirect effects for moderator values at the mean and at one standard deviation below and above the mean, just as we did above based on normal-theory testing. The indirect effect estimates at these moderator values based on the bootstrapping method support our previous findings (see Appendix I). Again, the indirect effect at a moderator value that is one standard deviation above the mean (\(b=.42, p<.05\)) (‘high efficacy’) is significantly different from zero and larger than the indirect effect at moderator values directly at the mean (\(b=.15, p>.05\)) (‘medium efficacy’) or at one standard deviation below the mean (\(b=.01, p>.05\)) (‘low efficacy’), which are both not significant. However, although this gives an indication of the conditionality of the indirect effect, the default moderator values are rather arbitrary and bootstrap p-values have the limitation that they assume normality of the bootstrap distribution. This is why Preacher et al. (2007) recommend bootstrap confidence intervals as the most powerful method to assess the significance of conditional indirect effects. Applying this method, we can generate 95% bias corrected and accelerated confidence intervals (95% bca CI) for conditional indirect effects at specific values of the moderator. Given that the scale for our moderator reaches from 1 (very low efficacy) to 5 (very high efficacy), we generate confidence intervals for the indirect effect at each of the five values of our moderator.

On the basis of 1,000 bootstrap samples, the confidence interval for the indirect effect at the lowest value of our moderator shows that the effect is not significantly different from zero (\(b=.02, SE=.09\)) (95% bca CI: -.1520; .2351). Also for the second lowest value of the moderator the indirect effect is not different from zero (\(b=.15, SE=.10\)) (95% bca CI: -.0121; .3819). In contrast, the indirect effects at higher levels of the moderator, such as at moderator value 3 (\(b=.39, SE=.20\)) (95% bca CI: .0429; .8629), moderator value 4 (\(b=.73, SE=.43\)) (95% bca CI: .0286; 1.7031), and moderator value 5 (\(b=1.18, SE=.80\)) (95% bca CI: .0254; 3.2461), are all significantly different from zero. This supports our hypothesis of a conditional indirect effect of positive news framing on turnout intention through risk perception. Whereas skeptics with either very low or low levels of efficacy (equal to moderator values 1 and 2) are not mobilized by
positive news framing and because of increased risk perception, the dynamic is stronger for skeptics with comparably higher levels of efficacy (equal to moderator values 3, 4, and 5).

In essence, skeptics with higher levels of efficacy are more affected in their risk perception by positive news framing than skeptics with lower levels of efficacy and at the same time risk perception has more of an impact on the intention to turn out and vote when levels of efficacy are high. Thus, our analyses show corroborating evidence for a mediation dynamic according to which positive news framing mobilizes skeptics through increased risk perception and this dynamic is conditioned by existing levels of efficacy.

**General discussion**

This article investigated how positive news framing can mobilize individuals opposing a referendum proposal to turn out to vote. We show that positive news framing, endorsing a referendum proposal, is perceived as negative by opponents, and that this accounts for higher risk perception regarding the issue at stake. In turn, this mobilizes opponents to turn out and vote as a means to prevent the proposal from being implemented. This “reversed mobilization” effect is contingent upon existing levels of efficacy in such a way that opponents with high efficacy are more likely to become mobilized than opponents with low efficacy.

Previous research on electoral mobilization has pointed to the importance of considering the way campaign messages are perceived in order to better understand the psychological processes that account for the mobilization of parts of the electorate (e.g., Martin, 2008; Sigelman & Kugler, 2002). We argue that the differences in the perceptions of campaign messages systematically depend on existing opinions and outcome preferences. This implies that the reversed mobilization dynamic we describe in our study is more likely to occur in salient electoral contexts in which individuals hold rather strong opinions on the issue(s) at stake. In such a context, news framing has less of a persuasive impact and can instead lead individuals to resist campaign messages and process them in a way that further polarizes existing opinions (e.g., Bizer & Petty, 2005; Meffert et al., 2006).

This form of frame resistance and reversed mobilization is evidently based upon a process of motivated information processing which makes it necessary to ask under which conditions individuals engage in such motivated reasoning and which personal characteristics condition the reversed mobilization effect. Based on extant research, we identified internal efficacy as a moderator of the dynamic we describe. Only when efficacy beliefs are strong and individuals feel that there is something they can do in order to prevent or change an unwanted scenario, it is likely that they take initiative (e.g., Bandura, 1982, Rimal & Real, 2003; Witte, 1992). However, our investigation into potential moderators is not meant to be exclusive and there might be other possible moderators as well, such as sophistication (see e.g., Meffert et al., 2006) or other factors tapping individual motivation (see e.g., Hastings et al., 2007).
The present study not only investigates the factors that moderate the reversed mobilization dynamic, but it also formally assesses the underlying mechanism that accounts for this effect. Previous research has called for the application of more formal mediation tests in media effect and framing research (Bizer & Petty, 2005; Preacher & Hayes, 2008b; Tao & Bucy, 2007) and research on electoral mobilization has stressed the need for more thorough investigations of the underlying processes behind campaign effects (Martin, 2004, 2008; Sigelman & Kugler, 2003). The present study not only shows that opponents of a referendum proposal become mobilized in response to positive news framing but also demonstrates how they do. In line with existing research on message framing effects in health communication (e.g., Rothman & Salovey, 1997; Schneider et al., 2001; Raghubir & Menon, 2001), we show that framing has the potential to increase risk perception among parts of the electorate. Higher risk perception, in turn, affects subsequent behavioural intentions, namely the intention to turn out and vote in a possible referendum in order to prevent an unwanted scenario. Thus, risk perception mediates the effect of positive framing on turnout intention and it is the negative perception of positive framing among referendum opponents that explains the reversed nature of this effect.

In the present study we focus on the reversed mobilization of opponents of a proposal by positive news framing. Of course a reversed mobilization effect may also occur with regard to the mobilization of supporters by negative news framing and we believe the underlying dynamics to be the same. However, to what extent one or the other is likely to occur is dependent on the respective election context. In a referendum, for example, the potential costs associated with a referendum outcome opposed by an individual are usually greater for opponents than for supporters of the proposal (e.g., Brunetti, 1997; Christin et al., 2002; Kirchgässner & Schulz, 2004; Ingerberman, 1985), making it more likely for opponents to become mobilized. This can be different in certain referendums in which the costs associated with a negative outcome are considerable (i.e. exit the EU), such as in the second Maastricht referendum in Denmark or the second Nice referendum in Ireland or also if a second referendum on the Treaty of Lisbon were to be held in Ireland. However, the effect of positive framing on skeptics is empirically less explored and theoretically most interesting. In a recent study, we identified the reversed mobilization effect in a ‘real-world’ referendum campaign (Schuck & de Vreese, 2009) and in the current study we explicate the underlying dynamics behind this effect.

Future research should engage in substantiating our findings both experimentally as well as in real world settings and also attempt to identify other potential mediators. With regard to our mediation analysis, it is important to stress what mediation can and cannot mean. Mediation models are merely theoretical models that cannot claim to be complete or exhaustive. As with any theoretical model, they do not prove some definite truth but rather serve as an illustration of thought which remains open to change or extension in light of future insights (see Preacher & Hayes, 2004, 2008a).
In line with recent framing research (Druckman & McDermott, 2008; Gross & D’Ambrosio, 2004; Gross, 2008; Slothuus, 2008), we regard research into the mediating role of different types of emotions as a potentially promising path in order to shed further light on the underlying psychology behind framing effects. Importantly, future research also has to distinguish between the impact of different kinds of emotions such as, for example, fear and anger, on subsequent judgments and behaviour (see e.g., Brader, 2006; Huddy et al., 2007; Lerner & Keltner, 2001).

We acknowledge certain limitations of our study. First of all, we measured self-reported turnout intention and not actual turnout. However, this has been done in previous experimental research on campaign effects and voter mobilization (see e.g., Min 2004) and we have provided a real-world example for a reversed mobilization dynamic in a recent study (Schuck & de Vreese, 2009). For the present study, the context was still realistic although no actual referendum took place: The Treaty of Lisbon had just been signed and still needed to be approved by all EU member states and at least one country, Ireland, did hold a referendum on the issue whereas other countries had held referendums on the former EU Constitutional draft which preceded the Treaty of Lisbon. Another limitation of our study is that we do not have the opportunity to compare pre- and post intervention measures in our experiment and thus we are comparing between group differences rather than actual change within our groups. This implies that we have to be cautious about the interpretation of our findings and further research is needed to substantiate our claim regarding the mobilization of respondents. However, in our present design we deliberately employed a randomized posttest-only design because we were interested in between group differences and in order to avoid pretest sensitization (see e.g., Campbell & Stanley, 1966; Hoeken, 1993).

These limitations notwithstanding, we believe that our study makes an important methodological and theoretical contribution. The present study picks up on recent calls to apply a mediation approach to study media effects more realistically and with greater precision (Tao & Bucy, 2007), tests a moderated mediation dynamic, and applies a bootstrapping method to assess indirect effects as recommended by most recent methodological research (e.g., MacKinnon et al., 2004; Preacher & Hayes, 2004, 2008a, 2008b). Our study integrates theoretical perspectives from different research domains and provides a theoretical framework as well as empirical support for a reversed mobilization dynamic in which positive news framing can mobilize opponents of a referendum proposal. Our findings are of relevance for the increasing amount of political communication research interested in uncovering the underlying mechanisms and the psychology behind framing effects as well as for research into media campaign effects and electoral mobilization.
NOTES

1 In some referendums the costs of a No vote can be considerable as well and maintaining the status quo can have serious consequences (see e.g., Romer & Rosenthal, 1979; Hobolt, 2006). In the context of EU integration, for example, a negative referendum outcome could in some instances result in unwanted change for supporters of the proposal (i.e. ones’ country having to exit the EU). Thus, the specific referendum context has to be taken into account when assessing the potential risks associated with a referendum outcome and its implications for the mobilization of parts of the electorate.

2 EU referendums are typically classified as ‘second-order’ national elections with low salience attached to them in the perception of voters (e.g., Franklin et al., 1994). However, recent referendums on the EU Constitution yielded high turnout rates and sparked intense public debate in the media (e.g., Schuck & de Vreese, 2008; Kleinnijenhuis et al., 2005) and previous research has suggested that the importance attached to issue considerations can indeed be high in some referendums (e.g., Glencross & Trechsel, 2007; Hobolt, 2005).

3 Research on the impact of negative moods on information processing also showed how people who experience negative moods spend more time processing and evaluating messages (Baron et al., 1994; Forgas, 1994).

4 Similarly, Turner (2007) distinguishes between individuals with low and high levels of self efficacy in her anger activism model. The model assumes that engagement in higher commitment behaviours and systematic information processing in response to anger inducing messages is most likely for individuals holding high efficacy beliefs. Individuals with low levels of self-efficacy are unlikely to engage in behaviours because it seems unlikely to them that their behaviour will facilitate change.

5 Experimental research in health communication often assesses the effect of message framing on subsequent behavioural intentions in order to test for mobilization patterns (e.g., Rimal & Real, 2003). Also within political communication previous research has employed laboratory experiments to test the effect of campaign news on turnout intention in order to assess the mobilizing potential of differently framed messages (e.g., Min, 2004).

6 Our initial design contained a second factor in which we varied the style of reporting (tabloid vs. broadsheet). Since this factor did not have an impact on the variables of interest to this study we do not distinguish between the two factors in the analyses presented here.

7 In order to assure external validity the content of both versions of the stimulus article mirrors a realistic and factual discussion of the assumed consequences of the Treaty of Lisbon framed in either positive or negative terms.

8 A randomization check revealed successful randomization with no between-group differences with regard to age, gender and education. The treatment and control groups did also not differ for our pre-intervention measures of EU support ($F(2,740)=2.69$, $p > .05$) or political efficacy ($F(2,740)= .75$, $p > .05$). The random selection of subjects means that there are no ex ante differences between groups (within sampling variability). Thus, between group differences constitute evidence that subjects responded differently to the respective experimental intervention.

9 We excluded respondents from our analyses who were classified as EU skeptics by our pre-intervention EU attitude measure but who later on in the post-test did not express negative vote choice intention. If such a respondent, who would be classified as a skeptic but has no negative vote choice intention,
expresses the intention to turn out in a possible referendum s/he cannot be claimed to have been mobilized against the referendum proposal through the dynamic we suggest.

Political efficacy was coded as follows: 0-low levels of political efficacy, 1-high levels of political efficacy; experimental condition was coded: 0-control or negative condition, 1-positive condition. Respondents in the control condition and in the negative condition did not differ on any of the variables of interest in this study.

Note that a significant unconditional indirect effect does not constitute a prerequisite for examining conditional indirect effects (Preacher et al., 2007).

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

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

This coefficient indicates the effect of the experimental condition on turnout intention when the mediator variable is not controlled for.

This coefficient equals the product of $a_1 \ b_1$ as illustrated in Figure 4.1.

This coefficient indicates the effect of the experimental condition on turnout intention when the mediator variable is controlled for (path $c$ in Figure 4.1.).

The illustration of such findings has the benefit of being more intuitive, i.e. by reporting mean levels of risk perception and turnout intention of certain subgroups and contrasting them with each other (e.g., for skeptics with low and high efficacy).

Thus, we no longer dichotomize our moderator variable or assess mediation only within one subgroup of our sample. At the same time, we can still apply the same bootstrapping techniques and generate bootstrap confidence intervals for conditional indirect effects as in our previous analysis.

This model is described as one of five possible models to test moderated mediation in Preacher et al. (2007) and is identical to what they describe as Model 5 in their study.

The output in Appendix C reports two-tailed p-values. Given our theoretical predictions we report one-tailed p-values in the main text of our study. As discussed already for the previous analysis, we later in our analysis report 95% bias corrected and accelerated bootstrap confidence intervals for the conditional indirect effects at specific moderator values which is a more powerful and appropriate way of assessing the significance of indirect effects (see Preacher & Hayes, 2004; Preacher et al., 2007).

Given the limitations associated with standard normal-theory tests of indirect effects that we referred to earlier (i.e. assuming normality of the sampling distribution of the conditional indirect effect).
REFERENCES


