Losing on all fronts: The effects of negative versus positive person-based campaigns on implicit and explicit evaluations of political candidates

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The current research investigated the effects of negative as compared to positive person-based political campaigns on explicit and implicit evaluations of the involved candidates. Participants were presented with two political candidates and statements that one of them ostensibly said during the last political campaign. For half of the participants, the campaign included positive remarks about the source of the statement (positive campaign); for the remaining half, the campaign included negative remarks about the opponent (negative campaign). Afterwards, participants completed measures of explicit and implicit evaluations of both candidates. Results indicate that explicit evaluations of the source, but not the opponent, were less favourable after negative as compared to positive campaigns. In contrast, implicit evaluations were less favourable for both candidates after negative campaigns. The results are discussed in terms of associative and propositional processes, highlighting the importance of associative processes in political decision making.

‘Sen. Barack Obama, under persistent attack from his Republican rival, is intensifying his own negative ad campaign targeting Sen. John McCain in key battleground states.’
Los Angeles Times (20 August 2008).

Over the past years, politicians in many countries have spent more and more efforts devaluing their opponents instead of presenting their own political agenda, ideas, or personal features. As such, the current political arena is characterized by an increasing level of negativity in which candidates criticize and attack their challengers in order to win the election (e.g., Kaid & Johnston, 1991; Lau, Sigelman, & Rovner, 2007). Sometimes, these attacks are not conveyed as explicit verbal remarks, but are transmitted in more subtle ways. For instance, in a TV spot that criticized Al Gore’s drug prescription plan during the 2000 US election, the word RATS appeared repeatedly for a short duration on the screen. The main assumption underlying such campaigns is that they create or

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reinforce negative associations with the opposing candidate (Weinberger & Westen, 2008). However, despite the theoretical plausibility of these assumptions (see De Houwer, Thomas, & Baeyens, 2001; Walther, Nagengast, & Trasselli, 2005), the possible consequences of negative campaigns for the source of the attack are still unclear.

During the last decades, many researchers investigated the consequences of negative campaigning for the evaluation of the involved politicians. However, this literature remained largely inconclusive due to the heterogeneity of the obtained effects. Two meta-analyses by Lau and colleagues (Lau, Sigelman, Heldman, & Babbit, 1999; Lau et al., 2007) ended with the conclusion that only two effects of negative campaigning enjoy unambiguous empirical support. First, memory for negative ads is typically better compared to positive ads (e.g., Brader, 2005; Brians & Wattenberg, 1996; Chang, 2001; Dermody & Scullion, 2000; Geer & Geer, 2003; Shapiro & Rieger, 1992). Second, negative ads seem to stimulate knowledge acquisition, such that voters show higher levels of knowledge about the current election and the involved candidates (e.g., Brader, 2005; Niven, 2006; Pinkleton & Garramone, 1992). However, with the exception of these two effects, the empirical evidence is ambiguous as to whether negative ads are more or less effective than positive ads (Lau et al., 1999, 2007).

Despite Lau et al.'s (1999, 2007) skeptical conclusion, the use of negative campaigns in political races is continuously increasing (Kaid & Johnston, 1991; Lau et al., 2007), suggesting that political advisers take it for granted that negative campaigns indeed work in the attacker's favour. However, Lau et al.'s (1999, 2007) meta-analyses suggest that this belief is not supported by the available data. In fact, for every study suggesting a positive effect (e.g., Kaid, 1997; Roddy & Garramone, 1988; Wadsworth et al., 1987), there seems to be another one showing exactly the opposite outcome (e.g., Budesheim, Houston, & DePaola, 1996; Haddock & Zanna, 1997; Hill, 1989; Hitchon & Chang, 1995; Matthews & Dietz-Uhler, 1998; Roese & Sande, 1993). Another problem in this context is implied by the vague definition of the term effective. Indeed, one could argue that negative advertising should be regarded as effective only when it causes a positive difference between the evaluation of the source of the campaign and the evaluation of the attacked candidate. In other words, negative campaigns should have positive (or at least neutral) but not negative consequences for its source, and negative (or at least neutral) but not positive consequences for its target. Thus, even if negative ads lead to a negative perception of the attacked candidate, it seems important to rule out equally negative consequences for its source. For instance, some studies showed that negative messages can elicit more negative feelings towards the source of the attack (e.g., Budesheim et al., 1996; Haddock & Zanna, 1997; Hill, 1989; Hitchon & Chang, 1995; Matthews & Dietz-Uhler, 1998; Roese & Sande, 1993). As such, the intended negative effect on the evaluation of the target is sometimes counterbalanced by an unintended negative effect on the evaluation of the source (Budesheim et al., 1996; Matthews & Dietz-Uhler, 1998). Such negative outcomes for the source seem to be particularly likely for person-based attacks that involve personal characteristics of the opponent (Budesheim et al., 1996; Carraro & Castelli, 2010).

In evaluating the available evidence, it is important to note that all of the reviewed findings were obtained through traditional self-report measures. In the present research, we investigated the effects of negative versus positive person-based campaigns on explicit versus implicit evaluations. This research question was inspired by evidence showing that message contents often influence judgments about its source, and that such influences can occur via two routes: one being mediated by associative processes (e.g., Carlson & Skowronski, 2005) and the other being mediated by propositional
processes (e.g., Gawronski & Walther, 2008). According to recent dual-process models of social information processing (e.g., Gawronski & Bodenhausen, 2006; Strack & Deutsch, 2004), associative processes represent the primary determinant of implicit evaluations, whereas propositional processes provide the basis for explicit evaluations.

**Associative versus propositional processes**

Over the last decade, researchers in many areas of psychology became increasingly interested in the use of a new class of indirect measurement procedures, which have been described as *implicit measures* (for reviews, see Fazio & Olson, 2003; Petty, Fazio, & Briñol, 2008; Wittenbrink & Schwarz, 2007). This interest has its roots in at least two common concerns about traditional self-report measures (for a discussion, see Gawronski, LeBel, & Peters, 2007). First, self-report measures may be affected by self-presentation, which could undermine the usefulness of these measures in socially sensitive domains (e.g., Fazio, Jackson, Dunton, & Williams, 1995; Nosek, 2005). Second, some mental processes may be unconscious and thus not accessible to self-reports (e.g., Greenwald & Banaji, 1995). More recently, researchers argued that the difference between explicit and implicit measures has its roots in distinct mental processes that underlie responses on these measures (e.g., Gawronski & Bodenhausen, 2006; Strack & Deutsch, 2004). For example, according to the associative–propositional evaluation (APE) model (Gawronski & Bodenhausen, 2006, 2007), implicit evaluations may be described as the affective reactions resulting from spontaneously activated associations. In contrast, explicit evaluations reflect the outcome of propositional processes that are based on syllogistic inferences regarding the validity of momentarily activated associations. The main difference between associative and propositional processes is their dependency on truth-values. Whereas the activation of associations is independent of subjective truth or falsity, propositional processes are generally concerned with the truth or falsity of the information implied by activated associations. As such, implicit evaluations may sometimes be in contradiction with explicit evaluations when the evaluation implied by activated associations is regarded as invalid, for instance if it is inconsistent with other momentarily considered information (e.g., Gawronski, Peters, Brochu, & Strack, 2008). Whereas the outcome of propositional processes (*explicit evaluations*) is usually assessed with traditional self-report measures, the activation of automatic associations (*implicit evaluations*) is usually assessed with implicit measures, such as evaluative priming (Fazio *et al.*, 1995), semantic priming (Wittenbrink, Judd, & Park, 1997), the implicit association test (Greenwald, McGhee, & Schwartz, 1998), the go/no-go association task (Nosek & Banaji, 2001), or the affect misattribution procedure (AMP; Payne, Cheng, Govorun, & Stewart, 2005).

The distinction between implicit and explicit evaluations seems important in the context of political campaigning, as both kinds of evaluations have shown unique effects on voting decisions. For instance, a recent study by Galdi, Arcuri, and Gawronski (2008) demonstrated that future voting decisions of decided voters could be predicted by explicit, but not implicit evaluations. In contrast, future voting decisions of undecided voters were predicted by implicit, but not explicit evaluations (see also Arcuri, Castelli, Galdi, Zogmaister, & Amadori, 2008). Thus, to the degree that the same campaign could have different effects on explicit versus implicit evaluations (e.g., Gawronski & LeBel, 2008; Gawronski & Strack, 2004; for a review, see Gawronski &
Bodenhausen, 2006), it seems important to investigate whether the impact of negative versus positive campaigns may differ for the two kinds of evaluations.

**Effects of message content on its source**

Another reason why the distinction between associative and propositional processes seems important in the context of political campaigning is that both types of processes have been shown to influence recipients' representations of the source of a given message. First, in line with the notion of associative processes, research on *spontaneous trait transference* (STT) has shown that communicators often become associated with the traits they ascribe in others (e.g., Carlston & Skowronski, 2005; Mae, Carlston, & Skowronski, 1999; Skowronski, Carlston, Mae, & Crawford, 1998). According to Skowronski et al. (1998), STT effects occur because of the co-activation of the trait concept implied by the content of the message and the mental representation of the source, which in turn creates an association between the trait concept and the source. Such processes of associative linking (Carlston & Skowronski, 2005) are in line with Gawronski and Bodenhausen's (2006) conceptualization of associative processes, in that the mere co-occurrence between two objects or events can create mental associations independent of whether the relation between the two concepts is regarded as valid or invalid. Supporting the lower-level associative nature of STT effects, several studies showed that STT effects are independent of recipients' explicit memory for the original ascription (Skowronski et al., 1998), prior knowledge about the source that is inconsistent with the associated trait (Mae et al., 1999), the degree of cognitive elaboration (Carlston & Skowronski, 2005; Mae et al., 1999), and even explicit warnings (Carlston & Skowronski, 2005).

Second, research on *transfer of attitudes recursively* (TAR) effects has shown that communicators often acquire the valence they ascribe to others, such that people who communicate positive attitudes about others acquire a positive valence, whereas people who communicate negative attitudes about others acquire a negative valence (Gawronski & Walther, 2008). In contrast to the associative nature of STT effects, TAR effects have been shown to be driven by propositional processes, in that people make deliberate inferences about sources that communicate positive or negative attitudes about other people. Important for the present study, research by Gawronski and Walther (2008) showed that TAR effects are independent of prior attitudes towards the source.

To the degree that both STT and TAR effects may occur simultaneously as a result of negative campaigns, it seems likely that the sources of negative ads will acquire a negative valence for both implicit and explicit evaluations, as mediated by their underlying associative and propositional processes. In addition, implicit evaluations of the attacked opponent may become less favourable as a result of a newly created link between that person and the negative content of the message. However, such negative effects on evaluations of the opponent may be attenuated at the explicit level if the recipients of the message realize the ulterior motivation of the source, and therefore discount the validity of the statements about the opponent. Moreover, as TAR effects have been shown to be independent of recipients' prior attitude towards the source (Gawronski & Walther, 2008), party affiliation seems unlikely to qualify the effects of negative campaigns on explicit evaluations of the source. Finally, given that associative linking effects are independent of perceived validity for both source and target associations, party affiliation should also be unlikely to qualify any of the proposed effects on implicit evaluations.
In sum, we predicted that negative (as compared to positive) person-based campaigns should lead to less favourable explicit evaluations of the source, whereas explicit evaluations of the opponent should be unaffected by the type of campaign. In contrast, implicit evaluations should be influenced by the type of campaign for both the source and the target, such that both actors will elicit less favourable evaluations when the campaign was negative than when it was positive. To test these assumptions, we compared the effects of negative versus positive person-based campaigns on explicit and implicit evaluations of the involved candidates. For this purpose, participants were presented with two political candidates and statements that one of them ostensibly said during his last political campaign. For half of the participants, the campaign included positive remarks about the source of the statement (positive campaign); for the remaining half, the campaign included negative remarks about the opponent (negative campaign). Afterwards, all participants completed measures of explicit and implicit evaluations of the two candidates. To demonstrate the generality of the predicted effects, we used two negative person-based messages, one attacking the opponent’s morality and one attacking the opponent’s competence. The two contents were matched with two kinds of positive campaigns, in which the source described himself as either moral or competent.

Method

Participants and design
One hundred and thirty summer students at the University of Western Ontario (90 female) took part in a study on political opinions. Subjects received CDN-$10 as a compensation for their participation. Age of the participants ranged from 18 to 54 years ($M = 25.32$, $SD = 7.46$). The data from three participants who expressed concerns about making personal judgments about the two candidates were excluded from the analyses. This left us with a final sample of 127 participants (88 female). Overall, the experiment consisted of a 2 (candidate: source candidate vs. opposing candidate) × 2 (campaign: positive vs. negative) × 2 (topic: competence vs. morality) × 2 (political affiliation of candidates: source–liberal, opponent–conservative vs. source–conservative, opponent–liberal) × 3 (political affiliation of participant: same as source vs. same as opponent vs. independent) × 2 (order of measures: implicit first vs. explicit first) factorial design, with the first factor varying within-participants and the remaining ones varying between-participants. As there were no significant main or interaction effects of topic, political affiliation of the candidates, political affiliation of the participant, and order of measures, these variables were dropped from the final analyses. Thus, our final analyses were based on a simplified 2 (candidate: source candidate vs. opposing candidate) × 2 (campaign: positive vs. negative) factorial design, with the first factor varying within-participants and the second one varying between-participants.

Materials
The stimulus materials consisted of two pictures of middle-aged men that were presented as two provincial candidates of the conservative versus liberal party in Ontario, Canada. The political affiliation of the two candidates was counterbalanced across participants. The same was true for their particular role in the presentation.
(source vs. opponent). In addition, the stimulus materials included 12 sentences in which the alleged source described himself and 12 sentences in which he criticized the opposing candidate. Half of these sentences addressed the candidates’ competence; the remaining half concerned the candidates’ morality (see Appendix).

**Measures**
The explicit measure consisted of two likeability ratings, asking participants how much they liked each of the two candidates on five-point rating scales ranging from 1 (i.e., ‘I absolutely do not like him’) to 5 (i.e., ‘I like him very much’). As an implicit measure, we employed the AMP (Payne et al., 2005). On each trial of the task, participants were first presented with a fixation cross for 1,000 ms, which was replaced by a prime stimulus for 75 ms. As prime stimuli, we used the pictures of the two political candidates, a picture of an unfamiliar male individual, and a grey square, which served as a control prime (see Payne et al., 2005). The presentation of the prime stimulus was followed by a blank screen for 125 ms, and then by a Chinese ideograph appearing for 100 ms. The Chinese ideograph was subsequently replaced by a black and white pattern mask, which remained on the screen until participants had responded. Participants were asked to press a key on the right side of the computer keyboard (Numpad 5) if they considered the Chinese ideograph as visually more pleasant than the average Chinese ideograph, and a key on the left side (A) if they considered the Chinese ideograph as visually less pleasant than average. Following the instructions employed by Payne et al. (2005), participants were told that the pictures can sometimes bias people’s responses, and that they should try their absolute best not to let the pictures influence their judgments of the Chinese ideographs. The AMP consisted of a total of 80 trials, including 20 trials for each of the 4 primes.

**Procedure**
When participants arrived at the laboratory, they were welcomed by a female experimenter and seated in front of a computer screen. First, participants were asked to indicate to which political party they felt most strongly connected: (a) liberal, (b) conservative, (c) other parties, or (d) undecided. Fifty-three participants (41.7%) indicated a liberal political affiliation; 11 participants (8.7%) indicated a conservative affiliation; 22 (17.3%) indicated an affiliation with other parties; and 41 (32.3%) indicated that they were undecided. After this first question, written instructions on the computer screen informed participants that they will be presented with some information about two competing political candidates, and that their task was to form an impression about the two candidates on the basis of the provided information. Participants were then presented with pictures of the two candidates, one on the left and one on the right side of the computer screen. Below each picture, a label indicated the political affiliation of the respective candidate (i.e., liberal vs. conservative). The combination of pictures and political affiliation as well as the position of each picture on the computer screen (left vs. right) was counterbalanced across participants. After the presentation of the two candidates, participants were told that they were going to read some sentences that one of the two candidates said during his last political campaign either about himself or about the opposing candidate. Participants were then presented with six slides, each of which displayed the picture of the source, his political affiliation, and a speech bubble including a sentence ostensibly said by the displayed candidate (see Appendix). Participants were asked to read each sentence carefully and to press the space bar to continue with the
following sentence. After participants completed the impression formation task, they were asked to complete the two measures of implicit and explicit evaluations. The order of the two measures was counterbalanced across participants. At the end of the study, participants were asked to indicate their gender, age, and ethnicity, after which they were fully debriefed and thanked for their participation in the study.

**Results**

**Explicit evaluations**

To investigate the effects of positive versus negative political campaigns on explicit evaluations of the two candidates, the corresponding scores were submitted to a 2 (candidate: source candidate vs. opposing candidate) × 2 (campaign: positive vs. negative) mixed-model ANOVA, with the first factor varying within-participants and the other one between-participants. This analysis revealed a significant main effect of the type of campaign, $F(1,125) = 32.56, p < .001, \eta^2_p = .207$, indicating that the candidates were rated as less likable after a negative campaign as compared to a positive campaign. This main effect was qualified by a significant two-way interaction between type of campaign and candidate, $F(1,125) = 20.01, p < .001, \eta^2_p = .138$ (see Figure 1). In the positive campaign condition, the source was evaluated more favourably than the opposing candidate, $t(63) = 2.97, p = .004$. Conversely, in the negative campaign condition, the source was evaluated less favourably than the opposing candidate, $t(62) = -3.34, p < .001$. Further analyses revealed that negative campaigns led to less favourable evaluations of the source than positive campaigns, $F(1,126) = 43.23, p < .001, \eta^2_p = .260$. In contrast, explicit evaluations of the opposing candidate were unaffected by the type of campaign, $F(1,126) = 0.05, p = .82, \eta^2_p < .001$. Taken together, these results are consistent with our prediction that negative (as compared to positive) campaigns may lead to less favourable explicit evaluations of the source of that campaign, and that potentially negative effects may be attenuated for the opposing candidate.\(^1\)

**Implicit evaluations**

Following the procedures recommended by Payne *et al.* (2005), baseline-corrected priming indices of implicit evaluations were calculated by computing the proportion of *more pleasant* responses to the Chinese ideographs for each of the employed prime stimuli, and then subtracting the proportion of *more pleasant* responses on trials with a grey square prime from the proportion of *more pleasant* responses on trials with the source candidate (Spearman-Brown split-half reliability = .73) and the opposing candidate (Spearman-Brown split-half reliability = .74), respectively. Submitted to the same 2 (candidate: source candidate vs. opposing candidate) × 2 (campaign: positive vs. negative) × 3 (political affiliation of participant: same as source vs. same as opponent vs. independent) mixed-model ANOVA on explicit likeability revealed that the topic of the campaign did not show any significant main or interaction effect. The political affiliation of participants was involved in a marginal interaction with the candidate, $F(2,115) = 2.87, p = .06, \eta^2_p = .048$, indicating that participants evaluated the source more favourably than the opponent when the source was an in-group member, but they evaluated the source less favourably than the opponent when they were affiliated with the party of the opponent. Neither the topic of the campaign nor the political affiliation of the participants interacted with the valence of the campaign.

\(^1\) A 2 (candidate: source candidate vs. opposing candidate) × 2 (campaign: positive vs. negative) × 2 (topic: competence vs. morality) × 3 (political affiliation of participant: same as source vs. same as opponent vs. independent) mixed-model ANOVA on explicit likeability revealed that the topic of the campaign did not show any significant main or interaction effect. The political affiliation of participants was involved in a marginal interaction with the candidate, $F(2,115) = 2.87, p = .06, \eta^2_p = .048$, indicating that participants evaluated the source more favourably than the opponent when the source was an in-group member, but they evaluated the source less favourably than the opponent when they were affiliated with the party of the opponent. Neither the topic of the campaign nor the political affiliation of the participants interacted with the valence of the campaign.
negative) mixed-model ANOVA, these indices revealed a significant main effect of the candidate, $F(1, 125) = 7.25, p = .008, \eta^2_p = .055$, indicating that the source elicited less favourable evaluations than the opposing candidate (see Figure 2). More importantly, there was a significant main effect of type of campaign, $F(1, 125) = 3.83, p = .05, \eta^2_p = .030$, indicating that both candidates were evaluated less favourably in the negative campaign condition compared to the positive campaign condition (see Figure 2). Consistent with our predictions, the two-way interaction of candidate and type of campaign was far from statistical significance, $F(1, 125) < .001, p = .98, \eta^2_p < .001$, indicating equally negative effects of negative campaigns for both the source and the target. These results are in line with our hypothesis that the effects of negative campaigns on implicit evaluations may be equally negative for the source and the target, such that both will become associated with the negative content of the message.

Discriminant validity of implicit and explicit evaluations
To establish the discriminant validity of the two kinds of evaluations, we investigated the correlation between implicit and explicit preferences and the differential effects of our experimental manipulations. For this purpose, we calculated scores of implicit and explicit preferences by subtracting evaluations of the opposing candidate from evaluations of the source candidate for each of the two measures, with higher scores reflecting a stronger preference for the source over the target, respectively. A non-significant correlation of $r(127) = .14, p = .12$ provided preliminary support for a dissociation between implicit and explicit preferences (Greenwald & Nosek, 2009).

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2 A 2 (candidate: source candidate vs. opposing candidate) × 2 (campaign: positive vs. negative) × 2 (topic: competence vs. morality) × 3 (political affiliation of participant: same as source vs. same as opponent vs. independent) mixed-model ANOVA on implicit likeability did not reveal any significant main or interaction effects involving the topic of the campaign and the political affiliation of the source.

3 Implicit evaluations of the unfamiliar control face were not affected by the type of campaign, $F(1, 123) = 1.72, p = .19, \eta^2_p = .014$, indicating that the obtained negativity was specific to the two candidates. Moreover, implicit evaluations of the unknown individual did not deviate from the neutral grey square. A 2 (unknown individual vs. neutral grey square) × 2 (positive vs. negative campaign) did not reveal any significant main or interaction effect.
provide further evidence for their discriminant validity, the two preference scores were
z-transformed and submitted to a 2 (measure: implicit vs. explicit) × 2 (campaign: positive vs. negative) mixed-model ANOVA with the first factor varying within-participants and the second one between-participants. In line with our interpretation that negative campaigns have different effects on implicit and explicit preferences, the two-way interaction emerged to be significant, \( F(1, 125) = 10.77, p < .001, \eta_p^2 = .079. \)

Dividing the sample on the basis of the valence of the political campaign, the two preference scores showed a significant positive correlation in the positive campaign condition in which campaign type had corresponding effects on implicit and explicit evaluations, \( r(64) = .32, p = .009. \) However, the two preference scores were uncorrelated in the negative campaign condition where campaign type had diverging effects on implicit and explicit evaluations, \( r(63) = .02, p = .86. \) The difference between correlations was marginally significant, \( z = 1.71, p = .08. \)

**Discussion**

The current findings indicate a partial dissociation between explicit and implicit evaluations as a result of different campaigning strategies. At the explicit level, only evaluations of the source, but not the opponent, were affected by the type of campaign. In contrast, at the implicit level, evaluations of both the source and the opponent were influenced by the type of campaign. More specifically, we found that explicit evaluations of the sources were less favourable when the campaign was negative than when it was positive; explicit evaluations of the opponents remained unaffected by the type of campaign. These findings differ from the ones obtained at the implicit level, where evaluations of both the source and the opponent were less favourable when the campaign was negative than when it was positive.

Our results are in line with the prediction that associative processes may create mental links to the contents of a negative campaign for both the source and the opponent. For the source, such processes of associative linking resemble the notion of STT, in which communicators become associated with the traits they ascribe in others (e.g., Carlston & Skowronski, 2005; Mae et al., 1999; Skowronski et al., 1998).
Moreover, the differential effects of negative campaigns at the explicit level are in line with our prediction that propositional processes may lead recipients to infer a less favourable evaluation of the source, but discount the negative message about the opponent for the presumed motivation of the source to discredit the reputation of the target. The former effect resembles the notion of TAR effects, in which sources acquire the valence of the attitude they communicate about others (Gawronski & Walther, 2008).

**Implications**

The present results indicate that the widespread use of negative campaigning in the political field can have detrimental effects for the various actors who are involved. Of course, one of these negative effects is intended. Politicians who convey negative messages aim at devaluing the perceptions of the opposing candidate, and the current findings suggest that they may actually be successful in this regard. However, negative campaigns also influence evaluations of the source, and this influence clearly works against the source’s intentions. As a consequence, the intended and obtained benefits for the source are counteracted by unintended side-effects that undermine the electorate’s perceptions of the source. These effects involve both explicit disapproval, as demonstrated by several previous studies (e.g., Budesheim et al., 1996; Carraro & Castelli, 2010; Roese & Sande, 1993), but also spontaneous negative responses, as revealed by our measure of implicit evaluations (Payne et al., 2005). In sum, the clear message that emerges from the present study is that both actors – the source and the target of negative campaigns – will experience negative outcomes.

A more general consequence of these negative outcomes may be reflected in an overall distancing from the political domain. Generalized negative perceptions may create a halo of negativism around the political field, strengthening the association between negativity and politics. Such halo effects might partially explain the impact of negative ads on voter turnout often described in the literature. Indeed, both survey research and experimental studies suggest that negativism can decrease voter turnout (e.g., Ansolabehere & Iyengar, 1995; Ansolabehere, Iyengar, Simon, & Valentino, 1994; Kahn & Kenney, 1999; Lau & Pomper, 2001; but see Goldstein & Freedman, 2002; Martin, 2004). If there are only two political candidates competing for the same position, and negative ads create negative associations to both candidates, the likely result is that voters will not vote for any of them, implying reduced voter turnout if there is no alternative candidate. This scenario seems particularly likely for undecided voters, whose voting decisions have been shown to depend more strongly on implicit compared to explicit evaluations (e.g., Arcuri et al., 2008; Galdi et al., 2008).

An interesting question in this context concerns the consequences of negative ads in cases of multiple candidates. Most of the empirical studies conducted so far focused on the perceptions of two opposing candidates. However, in several contexts, such as in the American primary elections or in European countries, the competitions often include several candidates that are running against each other. In such contexts, reciprocal attacks between two candidates could possibly become an advantage for a third party, if negative campaigning creates negative associations towards both the source and the target. Paradoxically, two parties that compete for votes from the same electoral basis might be especially motivated to differentiate each other by means of negative campaigns, providing an advantage for parties with a far more distant ideology.
Despite the aforementioned negative effects on the perception of politicians and politics in general, one may wonder whether negative campaigns are inevitably harmful. For instance, some authors have argued that negative campaigns could potentially be useful for increasing and stimulating public knowledge about the candidates and their agenda (see Goldstein & Freedman, 2002; Martin, 2004). In general, if the attacks are centered on the specific political programmes rather than on personal characteristics, they seem less likely to backfire against the source candidate (Carraro & Castelli, 2010). Another intriguing possibility is implied by the APE model (Gawronski & Bodenhausen, 2006, 2007): if attacks are carried out by staff members or organizations that support a given candidate, their personal image may suffer, but the perception of the candidate could remain unaffected. In other words, the ‘dirty job’ could be done by partisans, in which case the partisans and the attacked candidate may acquire negative valence without backfiring against the candidate supported by the partisans. However, to the degree that the partisans are strongly associated with the candidate, processes of spreading activation may still lead to an associative transfer of negative partisan associations to the candidate (see Gawronski, Strack, & Bodenhausen, 2009). In this case, negative campaigns by partisans may be as detrimental for the source as negative campaigns run by the candidate him- or herself. Future research comparing the effects of negative campaigns by partisans versus the actual candidates may provide deeper insights in this regard.

Another important implication of the present study concerns potential discrepancies between explicit and implicit evaluations of the same candidate, in this case as a result of the employed campaigning strategy. Such discrepancies highlight the importance of incorporating implicit measures in empirical investigations of social and political issues (e.g., Burdein, Lodge, & Taber, 2006; Lodge & Taber, 2005; Morris, Squires, Taber, & Lodge, 2003; Weinberger & Westen, 2008). In many contexts, these measures can provide deeper insights by means of their ability to discover hidden associative links that have been shown to influence human behaviour and decision making (for a review, see Friese, Hofmann, & Schmitt, 2008). For instance, with regard to decision making in the political domain, recent studies suggest that future voting decisions of undecided voters are better predicted by their automatic associations rather than explicit beliefs (Arcuri et al., 2008; Galdi et al., 2008). The main idea underlying this research is that automatic associations tend to bias the processing of new information (e.g., Gawronski, Geschke, & Banse, 2003; Hugenberg & Bodenhausen, 2003), which in turn influences the informational basis for future voting decisions. To the degree that negative campaigns create negative associations to both the source and the target of the campaign, the detrimental impact of such campaigns may be most pronounced for undecided voters. At the same time, the obtained effects on explicit evaluations may be most relevant for voting decisions of decided voters, whose decisions are more strongly related to explicit evaluations (Galdi et al., 2008). Taken together, these results suggest that including implicit measures in studies on political decision making may provide deeper insights that go beyond the information provided by traditional self-report measures.

Limitations and future perspectives
In evaluating the range and the limits of the current findings, it seems appropriate to mention a few limitations of the present study. First, it is important to note that our research focused on broad evaluations of the candidates, such as their general likeability. Less is known about possible effects on other more specific dimensions, such as
competence or trustworthiness. For instance, a candidate who is actively attacking his or her opponent might be disliked, but also perceived as more competent and energetic. Preliminary data (Carraro & Castelli, 2010) support this view, indicating that the pervasive negative effects on general evaluations reported in the current study may be qualified when more specific judgmental dimensions are taken into account. Even though it seems reasonable to assume that generalized evaluations play a significant role in decision making (Galdi et al., 2008), potential differences between judgmental dimensions raise the question of which dimensions ultimately determine voting decisions. Thus, in addition to studying effects on different judgmental dimensions, future research would be well-advised to include measures that are more proximal to voting decisions than the general evaluation measures employed in the present studies (e.g., voting intentions). Moreover, the ecological validity of these measures might benefit from using a forced-choice format, which seems closer to actual choices among political candidates.

Along the same lines, one could argue that, even though the current data do not encourage the use of negative campaigns, they seem to work at least anecdotally. For instance, in the Republican primaries for 2000 US presidential elections, George Bush repeatedly attacked his opponent John McCain in a way that US voters have never seen before. Nevertheless, George Bush emerged as the clear winner of the Republican primaries, and ultimately became president of the USA. Thus, in the absence of additional evidence from real elections, one may question whether the results of our laboratory study are indeed informative about the effects of negative campaigns in real-life settings. Even though we cannot rule out that real-life settings involve a number of additional factors that may moderate the effects of negative campaigns, it is important to note that the actual effects of negative campaigns are rather difficult to evaluate in real-life settings. In fact, one should be cautious equating the psychological effects of negative campaigns on explicit and implicit evaluations with election outcomes. For instance, several studies suggest that enhanced negativity in political campaigns reduces voter turnout (e.g., Ansolabehere & Iyengar, 1995; Ansolabehere et al., 1994; Kahn & Kenney, 1999; Lau & Pomper, 2001). Given previous evidence that the decisions of undecided (but not decided) voters are influenced by implicit evaluations (e.g., Galdi et al., 2008), and given the present finding that negative campaigns produce negative implicit evaluations for both the source and the target of these campaigns, reduced voter turnout as a consequence of negative campaigns does not seem particularly surprising (at least when there are only two candidates). Importantly, to the degree that the source of a negative campaign has a clear advantage among decided voters, reduced voter turnout among undecided voters may not necessarily be detrimental for the source’s success in winning the election. This speculation is consistent with the above example, as George Bush was clearly leading the polls at the time he launched his attacks against John McCain. Thus, negative campaigns in real-life contexts may indeed have the same negative psychological effects that have been shown in the present study. However, to accurately predict their distal effects on election outcomes, it seems important to consider several factors that are equally important, such as for example the differential influence of explicit and implicit evaluations on decisions by decided and undecided voters.

Another problem concerning the generalizability of the current findings to real-world contexts is that political campaigns are usually mixed rather than exclusively positive or negative (see Carraro & Castelli, 2010). Along the same lines, one could argue that several moderating variables that are present in real-life situations have been
missing in our laboratory study. One important factor in this context might be how the opposing candidate responds to an attack. For instance, during the 2004 US presidential elections, approval of John Kerry seemed to decline as a result of George Bush’s repeated attacks, whereas Barack Obama seemed to be less affected by John McCain’s attacks during the most recent election. Even though it is difficult to identify the relevant causal factors in such complex situations, one important difference between the two cases is that Barack Obama quickly responded to the attacks, whereas John Kerry did not. These considerations highlight the fact that political races are dynamic situations in which the individual strategies of two or more candidates are strongly interconnected with each other. Thus, future research may provide deeper insights by investigating the effects of different types of negative messages (e.g., exclusively negative vs. mixed) and potential responses by the target of an attack.

Another interesting question concerns the potential role of temporal distance. Research on the sleeper effect has shown that discounting cues (e.g., low credibility of the source) tend to reduce the effectiveness of persuasive messages immediately after exposure to the message, but such discounting effects often disappear after a short delay (for a meta-analysis, see Kumkale & Albarracín, 2004). In the present context, the inferred ulterior motivation of the source of a negative campaign may represent such a discounting cue in the sense that people may use the source’s ulterior motivation to discount his or her message about the target. However, such discounting effects may disappear over time, as previously shown by research on the sleeper effect. As such, it seems possible that negative campaigns leave explicit evaluations of the target unaffected only when these evaluations are assessed immediately after exposure to the negative campaign. In fact, the obtained dissociation between explicit and implicit evaluations of the target may disappear over time, such that negative campaigns result in negative target evaluations for both implicit and explicit evaluations when they are assessed with a sufficient delay (for related evidence, see Ranganath & Nosek, 2008).

Finally, research on the above questions would benefit from using of more heterogeneous community samples instead of college student samples, such as the one used in the current study. The latter type of samples is quite useful for laboratory studies that aim at providing first evidence for theoretically derived predictions, which was the primary goal of the current study. However, the ultimate goal of such studies is to bring theory-based knowledge acquired in the laboratory back into the field to gain a deeper understanding of decision-making processes in the real-world. As for implicit evaluations, there is preliminary evidence from field studies with community samples showing that such evaluations indeed play a significant role in real-world voting decisions (e.g., Arcuri et al., 2008; Galdi et al., 2008). The present study expands on these findings by providing important information about the determinants of implicit evaluations.

**Conclusion**

In sum, our findings suggest that political campaigners should be cautious with the use of negative campaigns. Specifically, our study indicates that negative campaigns can have dysfunctional effects for the source of negative campaigns, and these effects were evident for both explicit and implicit evaluations. Given the evidence that both types of evaluations play a significant role in voting decisions (e.g., Galdi et al., 2008), negative campaigns may have more risks than benefits.
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Appendix

Statements about challenger’s competence (negative campaign)

(1) Giving our country to him will be a big mistake: he is not able to propose the innovations our country needs in order to develop a flourishing economy.
(2) His agenda is completely inconsistent. In one moment, he says something and two minutes later he says exactly the opposite. And this is true not only for one topic, but for everything.
(3) So far, he has lost every political race and therefore has never held any important political position. I am sure that he has no idea what this new political role could mean, as he does not have any prior experience.
(4) If you look at his life you can see that he has moved from one job to another. He is proud of this because he says that he is an eclectic person with a lot of experience. But what he doesn’t tell us is that every time he switched his job, he was actually fired from the previous one.
(5) In his last appearance on a political TV show, a journalist asked him about his ideas on global warming and he was just astonished; he didn’t even answer the question. Probably he has never even thought about it.
(6) I am sure that he will not be able to revive our economy; he just doesn’t have the intellectual skills to understand the economical complexities of our country.

Statements about own competence (positive campaign)

(1) Immediately after I graduated, I was contacted by a major company and they offered me a job that was related to the topic of my thesis. Even though I was very young at that time, they were very satisfied with my work, and they promoted me to the level of a junior manager after my first three months on the job.
(2) I have been involved in politics for more than 15 years now. During these years of legislation, I have learned many important things and I have gained a lot of experience in this field.
(3) I like to improve my knowledge in every field. I am an eclectic person. I have a lot of interests, and I will be able to implement the necessary solutions for the problems we currently face in our country.
(4) During my last legislation, I was able to revive the economy in my hometown. I also introduced a tax bill that provided significant support for the average family.
(5) My political program for the next legislation is rich in new ideas and full of innovative suggestions for every field: economy, environment, and social welfare.
(6) Some years ago, the Mayor of another city called me to get some information on what to do in his town about public security. They have now introduced a model that I have proposed during my last legislation, and the success rate is just remarkable.

Statements about challenger’s morality (negative campaign)

(1) He seems to be interested only in how to gain power and how to make a lot of money in this new political role.
(2) He never worked a single day in his life; he has always managed to find support from someone else: he is a social parasite.
(3) He is an dishonest person who has completely lost his moral consciousness: he is not able to distinguish between what is moral and what is immoral.

(4) He has no interest in helping others; he only thinks about his own interests. For example, in his program he proposed a salary increase for himself that is disproportionately higher compared to any other job in this country.

(5) In order to win this political race, he is promising incentives to individual companies that he will probably pay with public money. In fact, his political campaign is supported by some pretty dubious corporations.

(6) Some years ago, a journalist caught him cheating on his wife. She thought that he was out of town for a political meeting. Instead, he went on a personal trip to Mexico with his secretary.

**Statements about own morality (positive campaign)**

(1) I am married for 25 years and I have a daughter and a son. I very much enjoy spending time with my family, which is very important for me.

(2) When I went to college, I always worked night-shifts in a local factory to help my parents to pay for my tuition. I did every kind of job because I did not want to be a financial burden to my family.

(3) Last year someone tried to bribe me with cash and other favours, but I have never accepted. I have always refused to play this game, and that will never change.

(4) I am a hardworking man and I stick to my word. I will always try everything that is possible to do what I promised.

(5) My wife and I regularly organize charity events to support our local community. The last one we organized supported people who have lost their homes during the recent flood. To my knowledge, that one was the biggest charity event ever in the history of our community.

(6) I think that I am a good father who taught his children the importance of moral values. My daughter recently found a wallet on the street with all sorts of documents and a lot of money. She immediately called the owner to return the wallet. He was so happy that he wanted to give her a big reward, but she didn't accept it. He insisted, so in the end, she proposed to donate the reward to a charity.