

Love is blind. Partisanship and perception of negative campaign messages in a multiparty system

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ABSTRACT

We study how partisanship influences the perception of directed campaign statements of varying polarity and sentiment strength. Using a crowdsourced survey experiment with German participants, we find asymmetrical perceptual biases. Partisan respondents perceive negative campaigning from or about a party they favour, as less negative than non-partisans. The discounting effect applies particularly for voters with stronger preferences and for messages that are more strongly negative. Partisan preferences only weakly influence the perception of neutral or positive campaign statements. The discounting biases found for negative statements point at limits of negative campaigning effects in electoral contests. Different effects for weakly and strongly worded messages substantiate concerns that dichotomous approaches to negative campaigning could miss important variation in party communication and its effects.

KEYWORDS

Negative campaigning; party competition; partisanship; perceptual bias; survey experiment

Introduction

A prominent feature of election campaigns is negative campaigning (Lau and Pomper 2004; Geer 2006; Nai and Walter 2015; Fridkin and Kenney 2019; Nai *forthcoming*). Political observers frequently bemoan its potentially detrimental effects for democracy, while to campaign professionals it is an essential tool. Despite an important number of studies, evidence of negative campaigning's ability to sway the choices of voters, or to affect electoral turnout is inconclusive (Lau et al. 1999a; Lau, Sigelman, and Rovner 2007; Lau and Brown Rover 2009).

Ambiguous evidence could be, to some extent at least, a measurement issue. The measurement of campaign statements often relies on establishing polarity, the binary classification into positive or negative messages. However, polarity does not account for variation in a statement's intensity, a difference crucial for its perception and effects (Haselmayer 2019). Voters learn from substantive criticism of political actors and their issue positions (Lau and Pomper 2004; Geer 2006), but many voters neither approve of uncivil campaign messages nor of statements that focus on apolitical attributes of a targeted

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actor (Mutz and Reeves 2005; Brooks and Geer 2007; Mattes and Redlawsk 2014; Fridkin and Kenney 2019).

Variation in negative campaigning effects has also been attributed to characteristics of the source or sender of these messages (Nai 2013; Stevens et al. 2015; Jung and Tavits *forthcoming*). A literature on partisanship and motivated reasoning – the process through which humans evaluate new information in a way that fits with preexisting predispositions – shows voters with partisan predispositions have biases in the steps of acquiring and processing information leading to biased judgments about politics (Kunda 1990; Lodge and Taber 2000; Taber and Lodge 2006). Building on research on perceptions of negative campaigning (e.g. Ansolabehere, Iyengar, and Simon 1995; Mutz and Reeves 2005; Brooks and Geer 2007; Mattes and Redlawsk 2014), we explore how partisanship, biased information processing and judgment relates to the effects of negative campaigning, a topic that has seen less attention (but see Ansolabehere, Iyengar, and Simon 1995; Ridout and Fowler 2012; Mattes and Redlawsk 2014; Stevens et al. 2015).

Partisanship-induced perceptual bias in information processing and evaluation of campaign communication can relate to the sender of a directed campaign statement, its target or both. Due to motivated reasoning, partisans should perceive the intensity of a negative campaign message from or about a political actor they favour differently than non-partisans. This variation is an important precondition for variation with regard to effects on vote choice and electoral turnout. Therefore, we investigate the determinants of perceptual bias, rather than the behavioural effects flowing from it. To do so, this survey experiment varies the *polarity and sentiment strength, the sender and target actor* involved, and the *policy content of campaign statements*.

Previous research on negative campaigning effects has focused on the US and electoral competition between two candidates or parties (but see Walter and van der Eijk 2019; Jung and Tavits *forthcoming*). To examine whether and how partisan preferences affect perceptions of negative campaigning in a multi-party system, we used a survey experiment with issue-based campaign statements in the context of the 2017 German national parliamentary election. Using propensity to vote scores for the main parties competing we find that partisan respondents perceive negative statements about a party they like as less negative. Partisans tone down the intensity of criticism of their preferred party and they also tone down the strength of attacking statements by a party they favour. For both types of actor roles in negative statements effect sizes are substantial. The perceptual bias is much stronger for negative statements than for positive ones.

We contribute to existing research in several ways. First, we show that the perception of negative campaigning in a multi-party system is contingent on partisan preferences. Second, we contribute to the debate on negative campaigning's benefits and risks. This includes how voters learn from negative information (Lau and Pomper 2004; Geer 2006) and whether the intended electoral benefits of winning votes' through negative campaigning outweigh the risk of damaging the prospects of the attacking camp (Garramone 1984; Lau, Sigelman, and Rovner 2007; Walter and van der Eijk 2019). Third, we contribute to the 'measurement debate' in negative campaigning research (Sigelman and Kugler 2003; Lipsitz and Geer 2017; Haselmayer 2019). Different effects of partisanship for weakly and strongly worded messages substantiate concerns about dichotomous approaches to negative campaigning. Applying a binary distinction of negative and positive campaigning, research findings are likely missing important variation in political

communication and its effects. Accordingly, a graded measure of negativity seems to be better suited to study negative campaigning, and its effects (Haselmayer and Jenny 2018; Haselmayer 2019). Fourth, we add to the study of negative campaigning in multi-party systems, where coalition government is a common feature and the discussion of possible coalition options is an important topic in the media's coverage of election campaigns. Consequently, voters interpret a party's campaign statements about its rivals as signals about potential coalitions. Negative campaigning in multi-party systems has underexplored linkages to the phenomenon of coalition voting (Meffert and Gschwend 2011; Bargsted and Kedar 2009; Blais et al. 2006).

Partisan preferences and the perception of campaign messages

We use a survey experiment to study how partisan preferences impact on the perception of campaign messages. Applying the theory of motivated political reasoning (Taber and Lodge 2006), we assume that any evaluation of individual or collective political actors, such as parties are affectively charged. These emotional predispositions motivate a person to minimize cognitive dissonance when getting in contact with new information about that political actor (Kunda 1987, 1990). Hence, when updating the evaluation of the political actor a person faces two incentives: an ambition to accurately assess the new information and a preference for an evaluation that fits with the existing set of opinions (Taber and Lodge 2006). Partisans should opt for the latter option. They will easily accept supportive information and counterargue, dismiss or ignore information running against their predispositions (Lodge and Taber 2000).

To deal with conflicting incentives and complex choices, voters further use party cues, a short hand term for a reference to a party, when provided with new information on issues or candidates in an election campaign (e.g. Miller and Shanks 1996; Bartels 2000; Lau and Redlawsk 2001; Malhotra and Kuo 2008; Goren, Federico, and Kittilson 2009). Party cues explain how people seek information (Henderson and Theodoridis 2018), come to support a policy (Cohen 2003) or reject policy proposals of politicians they dislike (Nicholson 2012). Party labels serve as a decision-making shortcut to resolve complex choices (e.g. Kam 2005; Petersen et al. 2013; Bolsen, Druckman, and Cook 2014). Overall, party cues combined with partisan preferences, contribute to (and facilitate) decision-making in a political context.

Party cues do not only matter for processing information provided by political campaigns but also for perceptions of electoral fairness. Stevens et al. (2015) show motivated reasoning is at work under almost all circumstances in campaigns. Only for extreme conditions, such as campaign messages involving unfair claims, these partisan biases are not overruling general perceptions of acceptable behaviour. Therefore, there is good reason to believe that partisan biases – introduced through the process of motivated reasoning – matter for the evaluation of campaign messages.

In this manuscript, we use party cues to study how partisan bias affects perceptions of negative campaigning. By common definition, negative campaigning consists of negatively valued references towards competing political actors, whereas positive campaigning includes self-promotion, issue emphasis or neutral and positive references to other parties (Geer 2006). By highlighting failings or misdoings of opponents or by stressing disagreement on policy issues, negative messages can increase the quality of vote choice (Geer

2006; Mattes and Redlawsk 2014), raise political awareness and thereby bolster mobilization and turnout (Martin 2004).

Recent research suggests that a dichotomous concept and measurement does not reflect how ordinary citizens perceive negative campaigning. Whereas voters use information from moderate or substantive criticism, many disapprove of extreme language (Sigelman and Kugler 2003, Lipsitz and Geer 2017; Fridkin and Kenney 2019).

To account for the variation in negative campaign communication, we use a graded measure of negativity (Haselmayer and Jenny 2017, 2018; Haselmayer 2019). Distinguishing between effects of polarity (positive, neutral, negative) and sentiment strength (strongly or weakly positive/negative) of messages, we also contribute to the discussion on the measurement of negative campaigning and its effects (Sigelman and Kugler 2003; Stevens et al. 2015; Lipsitz and Geer 2017; Haselmayer 2019; Walter and van der Eijk 2019).

How do affective predispositions towards parties impact on information-processing of messages with party cues? We expect that voters will accept the tonality (or sentiment strength) of a message as long as it aligns with their predispositions (Lodge and Taber 2000). A partisan reading something positive about a party they like or something negative about a party they dislike does not have to cope with cognitive dissonance and will easily evaluate its tonality correctly. However, what happens if a campaign message is at odds with one's political predispositions? If a voter reads something negative about a preferred party (or something positive about a disliked one), we expect counterearguing, ignoring or downplaying that information to fit with the affective predisposition about that party (Lodge and Taber 2000; Taber and Lodge 2006). Accordingly, they will evaluate messages about favoured parties more positively and messages about parties they dislike more negatively compared to voters with weaker partisan ties. These perceptual biases should apply to campaign communication *from* and *about* a preferred party.

Hypothesis 1a (Sender-related perceptual bias): Strong partisans evaluate any message **from** their preferred parties more positively than weak partisans.

Hypothesis 1b (Target-related perceptual bias): Strong partisans evaluate any message **about** their preferred parties more positively than weak partisans.

There is strong evidence for a 'general' partisan bias in the perception of political information. However, less is known about the effects of partisan preferences for messages of varying polarity or sentiment strength.

Research on negative campaigning has stressed the risk of a backlash effect (Garrazone 1984). Backlash effects are more likely for strongly worded attacks or uncivil negativity as people dislike and reject such forms of campaigning (Mutz and Reeves 2005; Mattes and Redlawsk 2014). Accordingly, strong party identifiers perceive the other side's campaign messages as being more negative than their own side's (Ridout and Fowler 2012, 69). This suggests that partisans mitigate (too strongly worded) negative campaigning by their preferred party to reconcile it with their personal rejection of this campaign strategy.¹ Hence, voters should perceive attacks *from* a party they identify with less negatively.

We argue that a similar mechanism should be at work for negative messages *about* a favoured party. That voters downplay corruption allegations against representatives of

their favourite party suggests that they adjust negative information with partisan predispositions (Anduiza, Gallego, and Munoz 2013; Wagner, Tarlov, and Vivyan 2014). Processing negative information about favoured parties or candidates may even strengthen initial preferences and polarize voters (Redlawsk 2002; Meffert et al. 2006). Thus, people should evaluate attacks *about* a party they identify with less negatively.

There is less evidence with regard to the relationship of partisan ties and neutral or positive campaign information (Meffert et al. 2006). Accordingly, partisan preferences should interfere less strongly with evaluations of these messages.² In sum, we expect stronger and non-linear perceptual bias effects for negative campaign communication *from* and *about* a preferred party: partisanship and negative tonality interact.

Hypotheses 2a (Sender-related asymmetrical tonality perception):

Strong partisans evaluate negative message **from** their preferred parties more positively than weak partisans. The effect is weaker for neutral and positive messages.

Hypothesis 2b (Target-related asymmetrical tonality perception):

Strong partisans evaluate negative message **about** their preferred parties more positively than weak partisans. The effect is weaker for neutral and positive messages.

Method and data

To establish how partisan preferences and tonality of campaign messages influence voters' perceptions of campaign communication we conducted a factorial survey experiment. It allows to vary multiple conditions simultaneously and to design statistically efficient subsamples for the universe of combinations of treatment conditions (Rossi 1974). By presenting multidimensional stimuli to respondents, a factorial or conjoint experiment allows us to identify the effect of these stimuli on an outcome variable (Hainmueller, Hopkins, and Yamamoto 2014). Participants are presented with texts – for example a newspaper article or a campaign statement – with aspects such as words or phrases varying for subgroups of participants. Recent examples using the method are Helfer and Van Aelst (2016) who looked into perceived newsworthiness of party communication and Helfer (2016) who investigated media influence on MPs (also see Hopkins and King 2010).

Factorial survey experiments, as a specific method of conducting factorial experiments, have become popular due to the availability of online surveys. Conducting online surveys makes assignment of stimuli to respondents easy. More recently, crowdsourcing platforms have facilitated the recruitment of study participants and the implementation of complex online surveys. Several studies show that crowdsourced surveys and experiments produce data quality as good as data from conventional online surveys or student panels (Paolacci, Chandler, and Ipeirotis 2010; Berinsky, Huber, and Lenz 2012; Mattes and Redlawsk 2014; Clifford, Jewell, and Waggoner 2015).

Our data comes from a survey experiment with German participants recruited at the crowdsourcing platform CrowdFlower.³ Negative campaigning is common in German parliamentary election campaigns (Maier and Jansen 2017). Studying 46 electoral debates since 1997, Maier and Jansen (2017, 551) found a quarter of all statements contained criticism of a political opponent.

Comparative research on negative campaigning (Walter 2014) suggests commonalities of the German case with other Western European multi-party systems such as the Netherlands. In multi-party systems, parties have to look beyond Election Day towards the next government formation, and the existing coalition government's composition affects the parties' strategies during the election campaign (e.g. Walter 2014; Haselmayer and Jenny 2018). The parties have to deal with voters who evaluate coalition options as an input to their voting decision (Meffert and Gschwend 2011; Bargsted and Kedar 2009; Blais et al. 2006). As parties with similar policy profiles compete for votes (Benoit and Laver 2006; Adams 2001), voters may also hold attachments (of varying strength) to several parties (Weisberg 1980; Garry 2007). We will take these varying attachments into account by using voting propensity scores.

Following Mattes and Redlawsk (2014), we present respondents with realistic party messages and ask them to judge their tonality on a five-point-scale ranging from strongly positive to strongly negative. Each respondent has to rate ten messages, which include a sponsoring party and a targeted party from the set of all relevant German parties: Social Democrats (SPD), Christian Democratic Union (CDU), Christian Social Union (CSU), Free Democratic Party (FDP), Alternative for Germany (AfD), the Left (Die Linke) and the Greens (Bündnis 90/Die Grünen).⁴ We also vary the predetermined tonality (neutral, weakly or strongly positive/negative) for each sentence, as shown in Figure 1. The three variables sender, target and tonality are randomly varied by the survey experiment. To avoid redundancy we also vary grammatical structures and statement word order with two batteries of word clusters, and each vignette contains a randomized general political topic (economy, welfare, corruption, immigration, crime, and European Integration) to provide respondents with realistic messages across a broader range of political issues.

We present two sample vignettes below⁵: The underlined parts varied in the experiment. In italics are the words that were randomized to avoid redundancy. We pre-tested these statements with colleagues, student assistants and a sample of crowd workers.

- (1) The SPD completely failed *with* its restrictive immigration policy, the CDU *declared on its web site*.

The SPD welcomes CDU *proposals on* the reduction of corruption.

The combination of all different values of these variables creates a universe of 5390 different vignettes. We randomly sampled 3000 vignettes and created decks with ten vignettes. Each respondent was presented with one randomly selected deck with vignette

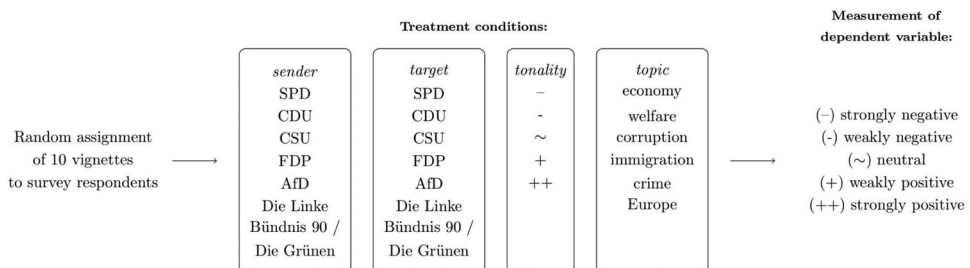


Figure 1. Experimental setup.

order randomized⁶, too. Each vignette was evaluated by several respondents to avoid confounding vignette characteristics with respondent attributes. Auspurg and Hinz (2015, 49) propose as a rule of thumb to present each vignette to at least five different participants.⁷

The survey experiment was implemented in Qualtrics. The participants were recruited at the crowdsourcing platform CrowdFlower and the data collected in February 2017. Participation was restricted to German users with a minimum age of 18 years and who were eligible to vote in German national elections.

Before evaluating the campaign statements, participants had to answer four political knowledge questions: year of the next general election, party composition of the German federal government, individual ministers' names and treaty partners of CETA, which was a prominent issue in public debate during the course of the study. After 30 s a timer proceeded to the next question to prevent an internet search. Then respondents were shown a list of German political parties and asked how likely they were to ever vote for each party on an eleven-point scale with an additional 'don't know' option. The experimental block consisted of a deck of ten campaign message vignettes. Respondents had to rate the tonality of each vignette on a five-point-scale ranging from 'strongly negative' to 'strongly positive'. A 'don't know' answer was possible. The survey ended with some questions on socio-demographics (gender, age, education, region of birth).

300 respondents began the survey. Six were excluded due to not completing the survey, the others produced a total of 2937 vignette ratings.⁸ We searched for conspicuous response patterns to identify potential spammers or cheaters (Berinsky, Huber, and Lenz 2012; Eickhoff and de Vries 2013).⁹

Survey design and operationalization of variables

The dependent variable is the *perceived tonality* of a vignette on a 5 point Likert scale from strongly negative (1) to strongly positive (5). Predictor variables are the *propensity to vote* scores for the *sender* and *target party* mentioned in the vignette and the vignette's *predetermined tonality*. For each vignette, we have a respondent's partisanship with regard to sender and target party on a scale from 0 (very unlikely) to 10 (very likely). Using propensity to vote as a measure of partisanship is obviously a weaker measure of partisanship than party affiliation. Yet, at worst this choice could underestimate its effects and produce more conservative results (see Gaines et al. 2007; Slothuus and De Vreese 2010).

The *predetermined tonality* of a vignette was coded unanimously by the authors and validated in pre-tests by eight pre- and postdoctoral researchers and by a sample of crowdsourced study participants (with at least five coders rating each vignette). It takes the same values as the dependent variable, ranging from strongly negative (1) to strongly positive (5). Based on our pre-tests, we assume that this value captures an unbiased estimate of each message's tonality.

A set of control variables includes respondents' *knowledge* of current political events is an additive index of number of correct answers to four multiple-choice questions of varying difficulty (year of next election, parties in government, ministers, CETA contract partners). Demographic controls include *gender* (male/female), *age*, *region* (Eastern/Western Germany) and *level of education* (measured on a 6-point scale, ranging from 1 for respondents without formal school graduation to 6 for respondents with completed tertiary education).¹⁰

Results

From a sample of 2937 answers on collected vignettes, we exclude cases with ‘don’t know’ answers ($n = 64$) and cases missing a PTV score for either sender or target party ($n = 201$). The remaining data consists of 2672 vignette ratings from 284 respondents.¹¹ The proportion of negative, neutral and positive statements in the randomized vignettes was 36% negative, 21% neutral and 43% positive. The mean tonality of ratings obtained is 3.12 (on a scale from 1 ‘strongly negative’ to 5 ‘strongly positive’, with a standard deviation of 1.31). [Figure 2](#) plots the perceived tonality distribution. Despite our attempt to present them with strongly negative statements, respondents rarely rated a vignette as ‘strongly negative’. We used issue-based negative statements, without personal attacks or pejorative language that tend to evoke stronger reactions from voters (e.g. Fridkin and Kenney 2019).

The correlation between predetermined tonality and mean perceived tonality – from five respondent ratings per statement – is positive (Pearson’s $r = 0.63$, $p < .0001$). The individual-level correlation between predetermined tonality and perceived tonality judgement is lower, but also positive (Spearman’s rank correlation coefficient $\rho = 0.39$, $p < .001$). The correlation is higher (Spearman $\rho = 0.53$) for weak partisans than for strong partisans (Spearman $\rho = 0.38$).¹²

The sample of respondents includes strong and weak partisans for each of the seven parties. It is a good approximation of the real distribution of party preferences.¹³ Respondents frequently used the lowest category ‘very unlikely’, with a slight preference for parties from the moderate left. The mean propensity to vote values for the seven parties range from a high of 4.9 for the SPD to a low of 3.00 for the AfD.¹⁴

To provide some descriptive evidence on our hypotheses, we compare the distributions of rated and predetermined tonality scores across propensity-to-vote-scores for senders and targets of campaign messages. For an easier graphical representation, we aggregate low (0–3), medium (3–6) and high (7–10) PTV scores for both sender and targets of campaign messages. [Figure 3](#) (see above) plots the perceived tonality against the predetermined vignette tonality: It shows that partisan preferences have a differential impact on perceptions of negative, neutral and positive information. In line with our hypotheses about a general

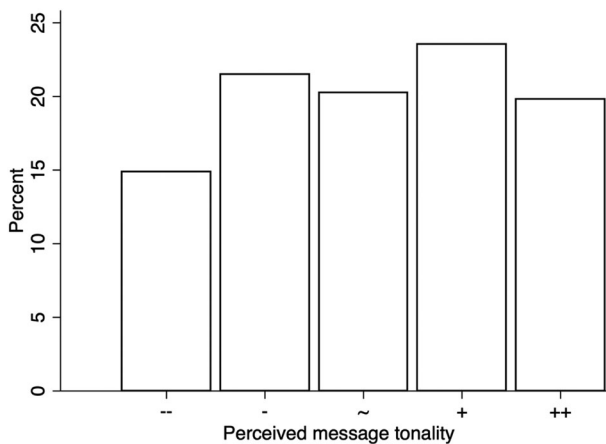


Figure 2. Perceived tonality of campaign messages.

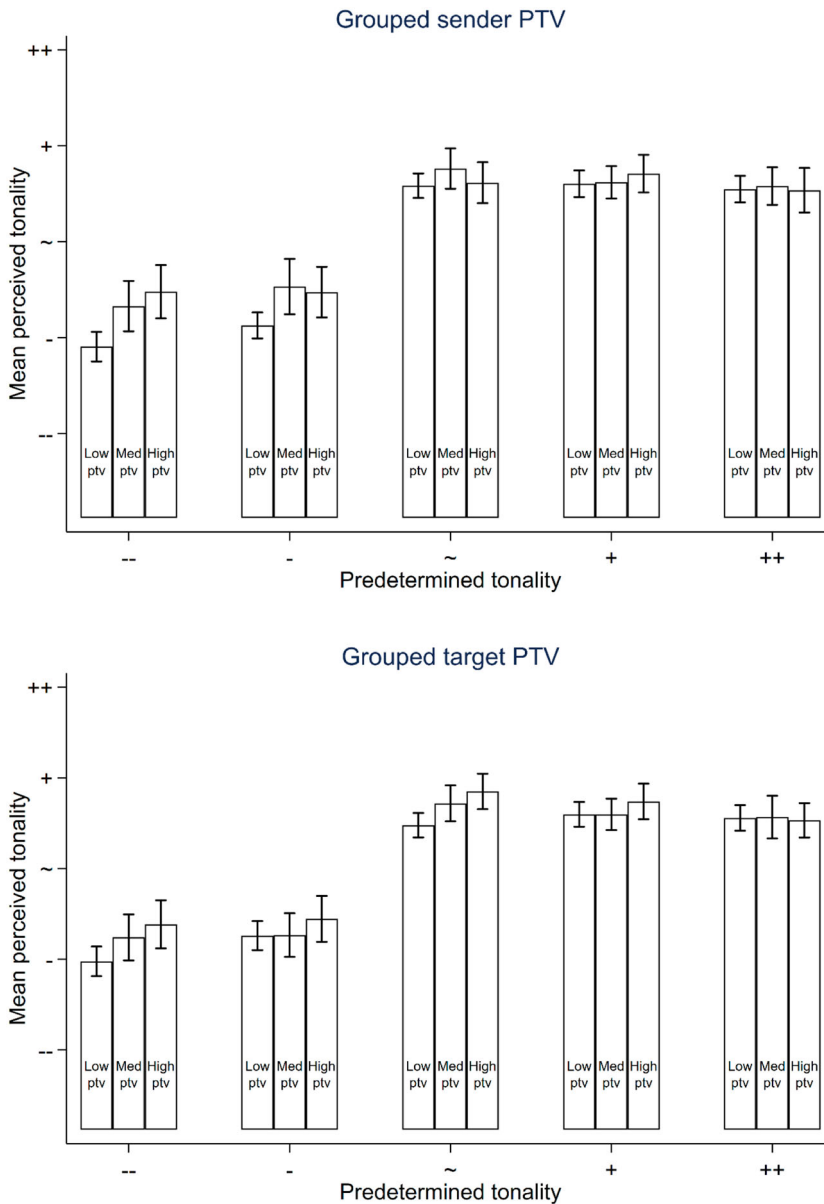


Figure 3. Grouped propensity to vote (sender and target PTV) and biased perception of campaign tonality, for different predetermined tonality levels.

effect of partisanship (H1a and H2a), we see that respondents with stronger preferences evaluate the tonality of messages from and about parties they like more positively than respondents with weaker party ties. However, the effect of partisanship is particularly evident for negative statements (lending support to H1b and H2b) and to a lesser extent for neutral messages. To the contrary, partisan preferences hardly interfere with evaluations of positive message.¹⁵

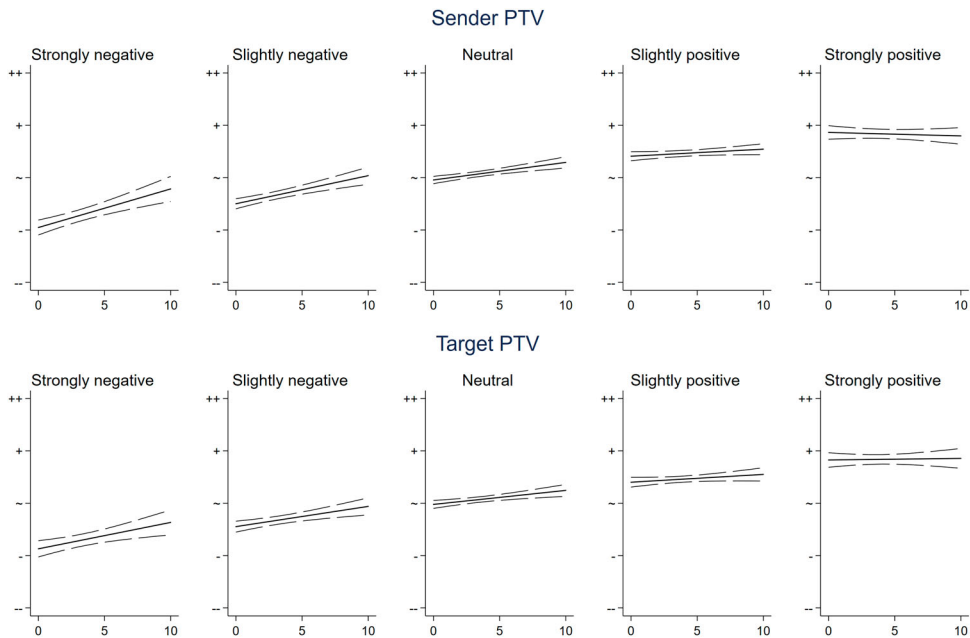


Figure 4. Marginal effect of partisan bias on the perception of campaign tonality conditional on vignette tonality.

A maximum increase (from 0 to 10 of the PTV index) translates to a 0.6 shift in the mean perceived tonality of negative messages by a preferred party (the difference is roughly 0.3 for target PTV scores). For neutral messages, strong partisans evaluate messages by favoured parties up to 0.3 points more positively (0.2 for targets). There is hardly any difference in the evaluation of positive vignettes across groups. The effect is almost zero for maximum changes in both sender and target PTV scores.

We are interested in direct effects of partisan preferences and its interaction with the polarity of campaign communication. Thus, we continue by presenting two OLS multiple regression models with standard errors clustered at the level of individual respondents. To provide a robustness check of our findings, Appendix 3 shows alternative regression models with random intercepts and respondent-fixed-effects. We further provide additional tests to account for possible differences in perceptions across issues (Appendices 4, 5, 6), or parties (Appendix 7). These analyses largely confirm the results presented below. In addition to our independent variables, we include issue-fixed effects to control for topic-related variation in the perceived tonality. Model 2 introduces the predetermined tonality score to test for the interaction of tonality and partisanship in Model 2. Additionally, demographic variables as gender (0/1), age (continuous), level of education (1–6) and an indicator of political knowledge (0–4) enter all models. A dichotomous regional indicator discriminates between respondents from Western and Eastern Germany (0/1). We also control for vignette order (0–10) and our grammatical batteries (1/2) to avoid effects due to sequencing or the wording of vignettes.

Results presented in Table 1 and Figure 4 show support for our two sets of hypotheses. This applies to both sender and target PTV scores. Models 1 and 2 show that respondents evaluate the tonality of any campaign message slightly more positively if it includes parties

Table 1. Explaining perceptions of campaign tonality.

	Model 1	Model 2	Model 3	Model 4
Sender PTV	0.03*** (0.01)	–	0.09*** (0.02)	–
Target PTV	–	0.02** (0.01)	–	0.05** (0.02)
Sender PTV # Vignette tonality	–	–	–0.02*** (0.01)	–
Target PTV # Vignette tonality	–	–	–	–0.01# (0.01)
Vignette tonality	–	–	0.45*** (0.03)	0.42*** (0.03)
Self-reference	–0.04 (0.07)	–0.06 (0.07)	0.02 (0.06)	0.01 (0.06)
Vignette order	–0.01 (0.01)	–0.01 (0.01)	–0.01 (0.01)	–0.00 (0.01)
Female	–0.07 (0.07)	–0.06 (0.07)	–0.04 (0.07)	–0.03 (0.07)
Age	–0.00* (0.00)	–0.00* (0.00)	–0.01** (0.00)	–0.01** (0.00)
Education	0.02 (0.02)	0.02 (0.02)	0.01 (0.02)	0.01 (0.02)
Political knowledge	–0.08** (0.02)	–0.08** (0.02)	–0.09*** (0.02)	–0.09*** (0.02)
Eastern Germany	–0.1 (0.07)	–0.09 (0.07)	–0.07 (0.06)	–0.07 (0.06)
Constant	3.21*** (0.17)	2.98*** (0.16)	1.93*** (0.16)	1.84*** (0.16)
<i>Battery fixed effects</i>	Yes	Yes	Yes	Yes
<i>Issue fixed effects</i>	Yes	Yes	Yes	Yes
<i>Sender fixed effects</i>	No	Yes	No	Yes
<i>Target fixed effects</i>	Yes	No	Yes	No
BIC	9117.5	9115.1	8618.7	8635.0
N	2672	2672	2672	2672

Note: Standard errors in parentheses, # $p < .1$, * $p < .05$, ** $p < .01$, *** $p < .001$.

they favour. The marginal effects indicate that they perceive statements both from and about their preferred parties more favourably: the maximum increase is 0.33 for the sender and 0.22 for the target. The overall effect is not very strong, but given the number of parties and rather low average PTV scores for most of them, this is a considerable effect. Moreover, we use short, issue-based campaign messages with moderate variation of campaign tonality in our vignettes.

Turning to our second set of hypotheses, Models 3, 4 and [Figure 4](#) confirm the descriptive evidence presented above. There is a substantive effect of partisan preferences on perceptions of negative messages. For a maximum change in preferences for the sender or the target party, the effect is of 0.75 and 0.50 respectively for strongly negative messages. For slightly negative messages, the maximum effect is of 0.56 for senders and 0.28 for targets of negative campaigning. There are smaller effects for neutral messages (0.35 and 0.26, respectively) and no differences for positive ones with regard to preferences of either sender or target party.

Turning to the control variables, we find younger respondents and those with higher political knowledge perceive messages more negatively. The variables gender, education, East/West Germany, had no influence on the perception of tonality. We are cautious to overstate these results, as some sociodemographic variables, such as gender, are not representative in our data. Furthermore, there are no effects for the sequence of vignettes or self-referential messages.

Conclusions

We investigated the effect of partisan preferences and message tonality on the perception of campaign communication in a survey experiment with 300 participants from Germany, who were recruited via a crowdsourcing platform. Participants were asked about their voting propensities and to evaluate a random sample of realistic party campaign messages on their opponents. These vignettes varied across several dimensions: direction and strength of tonality, sponsor and target party and policy area.

We find the strength of partisanship, measured through voting propensities, affects the evaluation of negative campaign messages. Strong partisan respondents toned down negative messages from and about a favoured party. There is only weak perceptual bias from partisanship for neutral messages and none for positive ones. The relationship between partisanship and perception of positive and negative messages is asymmetrical. Different effects of partisanship for weakly and strongly worded messages substantiate concerns about dichotomous approaches to negative campaigning (e.g. Sigelman and Kugler 2003; Lipsitz and Geer 2017). Dichotomous distinctions of negative and positive campaigning, therefore, miss important variation in political communication and its effects. Accordingly, a graded measure of negativity seems to be better suited to study negative campaigning, and its effects (Haselmayer and Jenny 2018; Haselmayer 2019).

From these results, we conclude that partisanship-induced perceptual bias likely limits the success of negative campaigning in elections. Motivated reasoning by persons with strong beliefs about or emotional attachments to a political actor leads to biased processing of negative information. Voters with strong partisan ties discount the strength of critical statements about their favoured party. When rival parties attack each other in an election campaign, this could lead to polarization and mobilization (see Riker 1996; Damore 2002; Meffert et al. 2006; Ridout and Fowler 2012). This suggests that negative campaigning should be more effective in persuading or demobilizing voters who have weak or no partisan ties.

A similar effect of partisanship should be expected for backlash effects from negative campaigning. Strong partisans are more tolerant towards strongly worded negative statements by their favourite party and should be the last ones to turn against it. Nonpartisans and weak partisans may perceive the same statement as crossing the line of acceptable political discourse and should be more likely to withdraw support.

With generally decreasing levels of partisanship (Dalton and Wattenberg 2000; Berglund et al. 2005) negative campaigning offers larger gains combined with a growing risk of backlash effects. This applies in particular to negative campaigning in multi-party systems, where voters with weak partisanship or sympathies for more than one party may turn to their second-best option if the favourite party crosses the line of the acceptable (Walter and van der Eijk 2019). Moreover, a party's successful vote-maximizing through negative campaigning can still backfire at the government formation stage, when attacked parties refuse a coalition partnership (Haselmayer and Jenny 2018).

Partisan preferences interfere less in the processing of positive statements, which means that voters seem less biased towards parties' coalition signals (Blais et al. 2006; Bargsted and Kedar 2009; Meffert and Gschwend 2011). Yet, low differences in evaluations of positive and neutral messages could also indicate that voters lend less credibility to parties endorsing their rivals and point to future research avenues.

The study was done with German respondents using statements about German parties, but we expect similar findings if the survey experiment is replicated in other countries with multi-party systems. As party systems or contextual factors may affect the prevalence of partisan preferences in voter decision-making (Lachat 2011, 2008), we particularly encourage research accounting for different patterns of party competition or the competitiveness of elections.

The survey experiment used issue-based campaign statements. Another topic for future studies is what parties gain from negative campaigning in attempts to challenge a rival party's issue ownership (Elmelund-Praestekaer 2011; Haselmayer, Meyer, and Wagner 2019). Future research may also devote more attention to the effect of partisanship on the evaluation of uncivil attacks (Mattes and Redlawsk 2014; Fridkin and Kenney 2019). As partisanship showed the strongest effect for strongly negative statements, it would be interesting to study whether a similar bias applies to uncivil campaign messages.

Notes

1. Experiments show that respondents disliked messages that were explicitly branded as 'negative campaigning' (Mattes and Redlawsk 2014).
2. We do not expect a strong 'ceiling effect' for positive campaign messages on a preferred party as the same logic applies to negative information on disliked parties. We could also expect respondents to evaluate positive information about a party they do not like less positively.
3. This was the name of the crowdsourcing platform when the study was done. It was subsequently renamed Figure Eight, and now belongs to the data annotation platform Appen (<https://appen.com/>).
4. These parties were represented in the German national parliament (Bundestag) at the time or had at least five percent vote share in a survey of vote intentions (ARD-Wahlbarometer Sonntagsfrage, $n = 1006$, February 2017).
5. Appendix A provides additional examples.
6. Simulations show that random samples are statistically as good as efficient samples if the number of sampled vignettes is larger than 60 (Auspurg and Hinz 2015, 34).
7. There are exceptions ($n = 18$ vignettes), where we have less sentences per vignette after excluding 'don't know' responses from the analysis.
8. For three respondents only nine judgements were collected.
9. To identify unusual answering patterns we used the following indicators: how often a respondent gave the same judgement for the ten vignettes, the standard deviation and the skewness of the distribution of judgements per respondent. Re-running the analyses excluding these conspicuous respondents does not affect the main results of our analyses (see Appendix B).
10. We present descriptive information on knowledge questions and respondent characteristics in Appendix A. On average, our respondents are a bit younger (-6.7 years) and more educated (+1.4 units on our 7-point scale) than the average population. Men are strongly over-represented (+24%). The distribution of people from Western and Eastern Germany is representative (-0.4%).
11. The results presented below are robust when including observations with one missing PTV score, see Appendix B.
12. For this illustration, we operationalize respondents with a PTV score above six for any party as 'stronger partisans'.
13. We can only roughly compare our respondents' PTV scores with surveys on vote intentions of that period. The representative election survey for the German public broadcaster (ARD-Deutschland TREND, February 2017, $n=1,006$) showed a narrowing lead of the CDU/CSU (about 34%) during February following to the SPD (28%) had presented Martin Schulz as

chancellor candidate. The AfD ranged in third place (12%), Greens and Left (Linke) with 8% and the FDP (6%) were rather stable. All other parties were clearly below the 5% threshold.

14. See [Table A2](#) in Appendix A for further information on the mean PTV scores of all parties. Figure A1 further plots the distribution of sender and target PTV scores across the collected vignettes.
15. As we did not ask respondents to evaluate the plausibility of positive, neutral or negative messages, we cannot rule out that this may affect our results. Experimental evidence showing that people perceive negative information as being more valid than positive one lends support to this interpretation (Hilbig 2009).

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References

- Adams, J. 2001. *Party Competition and Responsible Party Government: A Theory of Spatial Competition Based upon Insights From Behavioral Research*. Ann Arbor: University of Michigan Press.
- Anduiza, E., A. Gallego, and J. Munoz. 2013. "Turning a Blind Eye." *Comparative Political Studies* 46 (12): 1664–1692. doi:10.1177/0010414013489081
- Ansolabehere, S., S. Iyengar, and A. Simon. 1995. *Going Negative: How Attack Ads Shrink and Polarize the Electorate*. New York: Free Press.
- Auspurg, K., and T. Hinz. 2015. *Factorial Survey Experiments*. Los Angeles: Sage.
- Bargsted, M. A., and O. Kedar. 2009. "Coalition-Targeted Duvergerian Voting: How Expectations Affect Voter Choice Under Proportional Representation." *American Journal of Political Science* 53 (2): 307–323. doi:10.1111/j.1540-5907.2009.00372.x
- Bartels, L. M. 2000. "Partisanship and Voting Behavior, 1952–1996." *American Journal of Political Science* 44 (1): 35–50. doi:10.2307/2669291
- Benoit, K., and M. Laver. 2006. *Party Policy in Modern Democracies*. London: Routledge.
- Berglund, F., S. Holmberg, H. Schmitt, and J. Thomassen. 2005. "Party Identification and Party Choice." In *The European Voter*, edited by J. Thomassen, 106–124. Oxford: Oxford University Press.
- Berinsky, A. J., G. A. Huber, and G. S. Lenz. 2012. "Evaluating Online Labor Markets for Experimental Research: Amazon.Com's Mechanical Turk." *Political Analysis* 20 (3): 351–368. doi:10.1093/pan/mpr057
- Blais, A., J. H. Aldrich, I. H. Indridason, and R. Levine. 2006. "Do Voters Vote For Government Coalitions?." *Party Politics* 12 (6): 691–705. doi:10.1177/1354068806068594
- Bolsen, T., J. N. Druckman, and F. L. Cook. 2014. "The Influence of Partisan Motivated Reasoning on Public Opinion." *Political Behavior* 36 (2): 235–262. doi:10.1007/s11109-013-9238-0
- Brooks, D. J., and J. G. Geer. 2007. "Beyond Negativity: The Effects of Incivility on the Electorate." *American Journal of Political Science* 51 (1): 1–16. doi:10.1111/j.1540-5907.2007.00233.x

- Clifford, S., R. M. Jewell, and P. D. Waggoner. 2015. "Are Samples Drawn From Mechanical Turk Valid for Research on Political Ideology?" *Research and Politics* 2 (4): 1–9. doi:10.1177/2053168015622072
- Cohen, G. L. 2003. "Party Over Policy: The Dominating Impact of Group Influence on Political Beliefs." *Journal of Personality and Social Psychology* 85 (5): 808–822. doi:10.1037/0022-3514.85.5.808
- Dalton, R. J., and M. P. Wattenberg. 2000. *Parties Without Partisans*. Oxford: Oxford University Press.
- Damore, D. F. 2002. "Candidate Strategy and the Decision to Go Negative." *Political Research Quarterly* 55 (3): 669–685. doi:10.1177/106591290205500309
- Eickhoff, C., and A. P. de Vries. 2013. "Increasing Cheat Robustness of Crowdsourcing Tasks." *Information Retrieval* 16: 121–137. doi:10.1007/s10791-011-9181-9
- Elmelund-Praestekaer, C. 2011. "Issue Ownership as a Determinant of Negative Campaigning." *International Political Science Review* 32 (2): 209–221. doi:10.1177/0192512110382028
- Fridkin, K. L., and P. J. Kenney. 2019. *Taking Aim at Attack Advertising. Understanding the Impact of Negative Campaigning in U.S. Senate Races*. New York: Oxford University Press.
- Gaines, B. J., J. H. Kuklinski, P. J. Quirk, B. Peyton, and J. Verkuilen. 2007. "Same Facts, Different Interpretations: Partisan Motivation and Opinion on Iraq." *The Journal of Politics* 69 (4): 957–974. doi:10.1111/j.1468-2508.2007.00601.x
- Garramone, G. M. 1984. "Voter Response to Negative Political Ads." *Journalism and Mass Communication Quarterly* 61 (2): 250–259. doi:10.1177/107769908406100202
- Garry, J. 2007. "Making 'Party Identification' More Versatile: Operationalising the Concept for the Multiparty Setting." *Electoral Studies* 26 (2): 346–358. doi:10.1016/j.electstud.2006.07.003
- Geer, J. G. 2006. *In Defence of Negativity. Attack Ads in Presidential Campaigns*. Chicago: University of Chicago Press.
- Goren, P., C. M. Federico, and M. C. Kittilson. 2009. "Source Cues, Partisan Identities, and Political Value Expression." *American Journal of Political Science* 53 (4): 805–820. doi:10.1111/j.1540-5907.2009.00402.x
- Hainmueller, J., D. Hopkins, and T. Yamamoto. 2014. "Causal Inference in Conjoint Analysis: Understanding Multidimensional Choices via Stated Preference Experiments." *Political Analysis* 22 (1): 1–30. doi:10.1093/pan/mpt024
- Haselmayer, M. 2019. "Negative Campaigning and Its Consequences: A Review and a Look Ahead." *French Politics* 17 (3): 355–372. doi:10.1057/s41253-019-00084-8
- Haselmayer, M., and M. Jenny. 2017. "Sentiment Analysis of Political Communication: Combining a Dictionary Approach with Crowdcoding." *Quality and Quantity* 51 (6): 2623–2646. doi:10.1007/s11135-016-0412-4
- Haselmayer, M., and M. Jenny. 2018. "Friendly Fire? Negative Campaigning among Coalition Partners." *Research and Politics* 5 (3): 1–9. doi:10.1177/2053168018796911
- Haselmayer, M., T. M. Meyer, and M. Wagner. 2019. "Fighting for Attention: Media Coverage of Negative Campaign Messages." *Party Politics* 25 (3): 412–423. doi:10.1177/1354068817724174
- Helfer, L. 2016. "Media Effects on Politicians." *The International Journal of Press/Politics* 21 (2): 233–252. doi:10.1177/1940161215627461
- Helfer, L., and P. Van Aelst. 2016. "What Makes Party Messages Fit for Reporting? An Experimental Study of Journalistic News Selection." *Political Communication* 33 (1): 59–77. doi:10.1080/10584609.2014.969464
- Henderson, J. A., and A. G. Theodoridis. 2018. "Seeing Spots: Partisanship, Negativity and the Conditional Receipt of Campaign Advertisements." *Political Behavior* 40 (4): 965–987. doi:10.1007/s11109-017-9432-6
- Hilbig, B. E. 2009. "Sad, Thus True: Negativity Bias in Judgments of Truth." *Journal of Experimental Social Psychology* 45 (4): 983–986. doi:10.1016/j.jesp.2009.04.012
- Hopkins, D. J., and G. King. 2010. "Improving Anchoring Vignettes: Designing Surveys to Correct Interpersonal Incomparability." *Public Opinion Quarterly* 74 (2): 201–222. doi:10.1093/poq/nfq011
- Jung, J.-H., and M. Tavits. Forthcoming. "Valence Attacks Harm the Electoral Performance of the Left but not the Right." *The Journal of Politics*. doi:10.1086/709299

- Kam, C. D. 2005. "Who Toes the Party Line? Cues, Values, and Individual Differences." *Political Behavior* 27 (2): 163–182. doi:10.1007/s11109-005-1764-y
- Kunda, Z. 1987. "Motivated Inference –Self-Serving Generation and Evaluation of Causal Theories." *Journal of Personality and Social Psychology* 53 (4): 636–647. doi:10.1037/0022-3514.53.4.636
- Kunda, Z. 1990. "The Case for Motivated Reasoning." *Psychological Bulletin* 108 (3): 480–498. doi:10.1037/0033-2909.108.3.480
- Lachat, R. 2008. "The Impact of Party Polarization on Ideological Voting." *Electoral Studies* 27 (4): 687–698. doi:10.1016/j.electstud.2008.06.002
- Lachat, R. 2011. "Electoral Competitiveness and Issue Voting." *Political Behavior* 33 (4): 645–663. doi:10.1007/s11109-010-9151-8
- Lau, R. R., and G. M. Pomper. 2004. *Negative Campaigning: An Analysis of US Senate Elections*. Lanahan: Rowman and Littlefield.
- Lau, R. R., and D. P. Redlawsk. 2001. "Advantages and Disadvantages of Cognitive Heuristics in Political Decision Making." *American Journal of Political Science* 45 (4): 951–971. doi:10.2307/2669334
- Lau, R. R., and I. B. Rovner. 2009. "Negative Campaigning." *Annual Review of Political Science* 12: 285–306.
- Lau, R. R., L. Sigelman, C. Heldman, and P. Babbitt. 1999a. "The Effects of Negative Political Advertisements: A Meta-Analytic Assessment." *American Political Science Review* 93 (4): 851–875. doi:10.2307/2586117
- Lau, R. R., L. Sigelman, and I. B. Rovner. 2007. "The Effects of Negative Political Campaigns: A Meta-analytic Assessment." *American Political Science Review* 93 (4): 851–876. doi:10.1111/j.1468-2508.2007.00618.x
- Lipsitz, K., and J. G. Geer. 2017. "Rethinking the Concept of Negativity: An Empirical Approach." *Political Research Quarterly* 70 (3): 577–589.
- Lodge, M., and C. S. Taber. 2000. "Three Steps Toward a Theory of Motivated Reasoning." In *Elements of Reason. Cognition, Choice, and the Bounds of Rationality*, edited by M. D. Lupia, McCubbins, and S. L. Popkin, 183–213. New York: Cambridge University Press.
- Maier, J., and C. Jansen. 2017. "When Do Candidates Attack in Election Campaigns? Exploring the Determinants of Negative Candidate Messages in German Televised Debates." *Party Politics* 23 (5): 549–559. doi:10.1177/1354068815610966
- Malhotra, N., and A. G. Kuo. 2008. "Attributing Blame: The Public's Response to Hurricane Katrina." *The Journal of Politics* 70 (1): 120–135. doi:10.1017/S0022381607080097
- Martin, P. S. 2004. "Inside the Black Box of Negative Campaign Effects: Three Reasons Why Negative Campaigns Mobilize." *Political Psychology* 25 (4): 545–562.
- Mattes, K., and D. P. Redlawsk. 2014. *The Positive Case for Negative Campaigning*. Chicago: The University of Chicago Press.
- Meffert, M. F., S. Chung, A. J. Joiner, L. Waks, and J. Garst. 2006. "The Effects of Negativity and Motivated Information Processing During a Political Campaign." *Journal of Communication* 56 (1): 27–51. doi:10.1111/j.1460-2466.2006.00003.x
- Meffert, M. F., and T. Gschwend. 2011. "Polls, Coalition Signals and Strategic Voting: An Experimental Investigation of Perceptions and Effects." *European Journal of Political Research* 50 (5): 636–667. doi:10.1111/j.1475-6765.2010.01986.x
- Miller, W. E., and J. M. Shanks. 1996. *The New American Voter*. Cambridge: Harvard University Press.
- Mutz, D. C., and B. Reeves. 2005. "The new Videomalaise: Effects of Televised Incivility on Political Trust." *American Political Science Review* 99 (1): 1–15. doi:10.1017/S0003055405051452
- Nai, A. 2013. "What Really Matters Is Which Camp Goes Dirty: Differential Effects of Negative Campaigning on Turnout During Swiss Federal Ballots." *European Journal of Political Research* 52 (1): 44–70. doi:10.1111/j.1475-6765.2012.02060.x
- Nai, A. *Forthcoming*. "Going Negative, Worldwide: Towards a General Understanding of Determinants and Targets of Negative Campaigning." *Government and Opposition*, Online first. DOI: 10.1017/gov.2018.32.
- Nai, A., and A. S. Walter. 2015. *New Perspectives on Negative Campaigning. Why Attack Politics Matter*. Colchester: ECPR Press.

- Nicholson, S. P. 2012. "Polarizing Cues." *American Journal of Political Science* 56 (1): 52–66. doi:10.1111/j.1540-5907.2011.00541.x
- Paolacci, G., J. Chandler, and P. G. Ipeirotis. 2010. "Running Experiments on Amazon Mechanical Turk." *Judgment and Decision Making* 5 (5): 411–419.
- Petersen, M. B., M. Skov, S. Serritzlew, and T. Ramsøy. 2013. "Motivated Reasoning and Political Parties: Evidence for Increased Processing in the Face of Party Cues." *Political Behavior* 35 (4): 831–854. doi:10.1007/s11109-012-9213-1
- Redlawsk, D. P. 2002. "Hot Cognition or Cool Consideration? Testing the Effects of Motivated Reasoning on Political Decision Making." *The Journal of Politics* 64 (4): 1021–1044. doi:10.1111/1468-2508.00161
- Ridout, T. N., and E. F. Fowler. 2012. "Explaining Perceptions of Advertising Tone." *Political Research Quarterly* 65 (1): 62–75. doi:10.1177/1065912910388189
- Riker, W. H. 1996. *The Strategy of Rhetoric: Campaigning for the American Constitution*. New Haven: Yale University Press.
- Rossi, P. H. 1974. "The Seriousness of Crimes: Normative Structure and Individual Differences." *American Sociological Review* 39 (2): 224–237. doi:10.2307/2094234
- Sigelman, L., and M. Kugler. 2003. "Why Is Research on the Effects of Negative Campaigning So Inconclusive? Understanding Citizens' Perceptions of Negativity." *The Journal of Politics* 65 (1): 142–160. doi:10.1111/1468-2508.t01-1-00007
- Slothuus, R., and C. H. De Vreese. 2010. "Political Parties, Motivated Reasoning, and Issue Framing Effects." *The Journal of Politics* 72 (3): 630–645. doi:10.1017/S002238161000006X
- Stevens, D., B. Allen, J. Sullivan, and E. Lawrence. 2015. "Fair's Fair? Principles, Partisanship, and Perceptions of the Fairness of Campaign Rhetoric." *British Journal of Political Science* 45 (1): 195–213. doi:10.1017/S0007123413000045
- Taber, C. S., and M. Lodge. 2006. "Motivated Skepticism in the Evaluation of Political Beliefs." *American Journal of Political Science* 50 (3): 755–769. doi:10.1111/j.1540-5907.2006.00214.x
- Wagner, M., J. Tarlov, and N. Vivyan. 2014. "Partisan Bias in Opinion Formation on Episodes of Political Controversy: Evidence From Great Britain." *Political Studies* 62 (1): 136–158. doi:10.1111/j.1467-9248.2012.01002.x
- Walter, A. S. 2014. "Negative Campaigning in Western Europe: Similar or Different?" *Political Studies* 62 (51): 42–60. doi:10.1111/1467-9248.12084
- Walter, A. S., and C. van der Eijk. 2019. "Unintended Consequences of Negative Campaigning: Backlash and Second-Preference Boost Effects in a Multi-Party Context." *The British Journal of Politics and International Relations* 21 (3): 612–629. doi:10.1177/1369148119842038
- Weisberg, H. F. 1980. "A Multidimensional Conceptualization of Party Identification." *Political Behavior* 2 (1): 33–60. doi:10.1007/BF00989755

Appendices

Appendix 1. Examples vignette with varying tonality

Vignette	Tonality
The SPD completely failed <i>with its restrictive immigration policy</i> , the CDU declared on its web site.	-
The SPD achieves little <i>with its restrictive immigration policy</i> , the CDU declared on its web site.	-
The SPD raised questions <i>with its restrictive immigration policy</i> , the CDU declared on its web site.	~
The SPD achieved something <i>with its restrictive immigration policy</i> , the CDU declared on its web site.	+
The SPD did excellent work <i>with its restrictive immigration policy</i> , the CDU declared on its web site.	++

Note: Battery 1, own translation.

Vignette	Tonality
The SPD condemns CDU proposals for the reduction of corruption	-
The SPD criticizes CDU proposals for the reduction of corruption.	-
The SPD discusses CDU proposals for the reduction of corruption.	~
The SPD welcomes CDU proposals for the reduction of corruption.	+
The SPD lauds CDU proposals for the reduction of corruption	++

Note: Battery 2, own translation.

Table A1. Respondent characteristics ($n = 2672$) and population statistics.

Variable	Sample	Population
% Male	73.4	49.3
% Eastern German	19.2	19.6
Mean Age (Std. Dev)	37.5 (13.2)	44.2
Mean Education (0–6) (Std. Dev.)	3.4 (1.5)	2.0
Mean Knowledge (0–4) (Std. Dev.)	1.5 (1.1)	-

Note: Standard deviation in parentheses. Source: German Federal Statistical Office (Statistisches Bundesamt)

Table A2. Party propensity to vote scores ($n = 2672$).

	Mean	Std. Dev.
SPD	4.88	3.23
CDU	3.87	3.20
CSU	3.32	3.40
Greens	3.84	3.26
AfD	3.01	3.69
FDP	3.23	3.04
Linke	3.87	3.32

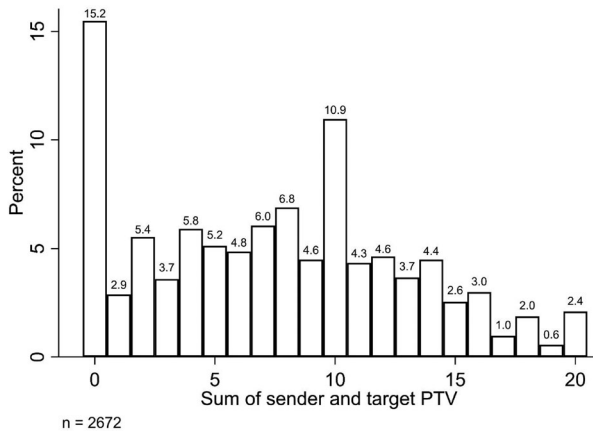


Figure A1. Distribution of propensity to vote scores (sum of sender and target PTV).

Appendix 2. Explaining perceived campaign tonality: Excluding observations from potential cheaters (respondents with high or low variation in their responses – see above)

	Model 1	Model 2	Model 3	Model 4
Sender PTV	0.03*** (0.01)	–	0.09*** (0.02)	–
Target PTV	–	0.02* (0.01)	–	0.07** (0.02)
Sender PTV # Vignette tonality	–	–	–0.02*** (0.01)	–
Target PTV # Vignette tonality	–	–	–	–0.02* (0.01)
Vignette tonality	–	–	0.47*** (0.03)	0.46*** (0.03)
Self-reference	–0.04 (0.07)	–0.06 (0.07)	0.08 (0.07)	–0.01 (0.07)
Vignette order	–0.01 (0.01)	–0.01 (0.01)	–0.01 (0.01)	–0.00 (0.01)
Female	–0.03 (0.07)	–0.03 (0.07)	–0.003 (0.07)	0.00 (0.07)
Age	–0.004* (0.00)	–0.01* (0.00)	–0.004* (0.00)	–0.004* (0.00)
Education	0.03 (0.02)	0.03 (0.02)	0.01 (0.02)	0.01 (0.02)
Political knowledge	–0.08** (0.03)	–0.08** (0.03)	–0.10*** (0.02)	–0.10*** (0.02)
Eastern Germany	–0.17* (0.07)	–0.16* (0.07)	–0.12# (0.06)	–0.12# (0.06)
Constant	3.20*** (0.18)	2.97*** (0.17)	1.87*** (0.19)	1.78*** (0.18)
<i>Battery fixed effects</i>	Yes	Yes	Yes	Yes
<i>Issue fixed effects</i>	Yes	Yes	Yes	Yes
<i>Sender fixed effects</i>	No	Yes	No	Yes
<i>Target fixed effects</i>	Yes	No	Yes	No
bic	8222.2	8219.5	7749.3	7760.8
N	2,370	2,370	2,370	2,370

Note: Different numbers of observations due to missing values in sender or target PTV scores. Standard errors in parentheses; # $p < .1$, * $p < .05$, ** $p < .01$, *** $p < .001$.

Appendix 3. Explaining perceived campaign tonality: Random and fixed effects

	Model 1 (RE)	Model 1 (FE)	Model 2 (RE)	Model 2 (FE)	Model 3 (RE)	Model 3 (FE)	Model 4 (RE)	Model 4 (FE)
Sender PTV	0.03*** (0.01)	0.01 (0.01)	–	–	0.09*** (0.02)	0.08*** (0.02)	–	–
Target PTV	–	–	0.02** (0.01)	0.01 (0.01)			0.06*** (0.02)	0.05** (0.02)
Sender PTV # Vignette tonality	–	–	–	–	–0.02*** (0.00)	–0.02*** (0.01)	–	–
Target PTV # Vignette tonality	–	–	–	–	–	–	–0.01* (0.00)	–0.01* (0.00)
Vignette tonality	–	–	–	–	0.46*** (0.02)	0.48*** (0.03)	0.43*** (0.02)	0.45*** (0.03)
Self-reference	–0.04 (0.07)	–0.01 (0.07)	–0.05 (0.07)	–0.03 (0.07)	0.02 (0.06)	0.04 (0.07)	0.013 (0.06)	0.02 (0.07)
Vignette order	–0.01 (0.01)	–0.01 (0.01)	–0.01 (0.01)	–0.01 (0.01)	–0.01 (0.01)	–0.01 (0.01)	–0.00 (0.01)	–0.00 (0.01)
Female	–0.01 (0.06)	–	–0.06 (0.06)	–	–0.03 (0.06)	–	–0.02 (0.06)	–
Age	–0.01* (0.00)	–	–0.05* (0.00)	–	–0.01** (0.00)	–	–0.01** (0.00)	–
Education	0.02 (0.02)	–	0.02 (0.02)	–	0.01 (0.02)	–	0.01 (0.02)	–
Political knowledge	–0.08** (0.03)	–	–0.08** (0.03)	–	–0.1*** (0.03)	–	–0.1*** (0.03)	–
Eastern Germany	–0.10 (0.07)	–	–0.09 (0.07)	–	–0.08 (0.06)	–	–0.06 (0.07)	–
Constant	3.29*** (0.17)	2.95*** (0.42)	3.04*** (0.18)	2.63*** (0.43)	1.98*** (0.18)	1.45*** (0.39)	1.87*** (0.18)	1.39*** (0.39)
Insd Constant	–1.82*** (0.33)	–	–1.68*** (0.26)	–	–1.57*** (0.19)	–	–1.49*** (0.17)	–
Insigma Constant	0.24*** (0.01)	–	0.24*** (0.01)	–	0.14*** (0.01)	–	0.14*** (0.01)	–
Battery fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Issue fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Sender fixed effects	No	No	Yes	Yes	No	No	Yes	Yes
Target fixed effects	Yes	Yes	No	No	Yes	Yes	No	No
BIC	9130.6	10959.1	9126.4	10946.9	8625.2	10409.1	8638.3	10414.4
N	2672	2672	2672	2672	2672	2672	2672	2672

Notes: Standard errors in parentheses, # $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Appendix 4. Explaining perceived campaign tonality: Excluding issues from the analysis (Sender PTV)

	Model 1 (w/o economy)	Model 1 (w/o welfare)	Model 1 (w/o corruption)	Model 1 (w/o immigration)	Model 1 (w/o crime)	Model 1 (w/o EU)
Sender PTV	0.03*** (0.01)	0.03** (0.01)	0.03*** (0.01)	0.04*** (0.01)	0.03*** (0.01)	0.03** (0.01)
Self-reference	-0.02 (0.07)	-0.04 (0.09)	0.01 (0.07)	-0.03 (0.07)	-0.03 (0.07)	-0.15* (0.07)
Vignette order	-0.01 (0.01)	-0.01 (0.01)	-0.01 (0.01)	-0.01 (0.01)	-0.01 (0.01)	-0.01 (0.01)
Age	-0.01** (0.00)	-0.005* (0.00)	-0.005* (0.00)	-0.005* (0.00)	-0.005** (0.00)	-0.002 (0.00)
Female	-0.080 (0.07)	-0.045 (0.08)	-0.100 (0.07)	-0.052 (0.07)	-0.016 (0.07)	-0.14 [#] (0.07)
Education	0.03 (0.02)	0.02 (0.02)	0.03 (0.02)	0.02 (0.02)	0.02 (0.02)	0.02 (0.02)
Political knowledge	-0.065* (0.03)	-0.088** (0.03)	-0.084** (0.03)	-0.071** (0.02)	-0.075** (0.02)	-0.088*** (0.03)
Eastern Germany	-0.11 (0.07)	-0.11 (0.07)	-0.12 [#] (0.07)	-0.087 (0.07)	-0.12 [#] (0.07)	-0.036 (0.07)
Constant	3.32*** (0.15)	3.25*** (0.16)	3.22*** (0.15)	3.25*** (0.16)	3.44*** (0.15)	3.32*** (0.16)
<i>Battery fixed effects</i>	Yes	Yes	Yes	Yes	Yes	Yes
<i>Issue fixed effects</i>	Yes	Yes	Yes	Yes	Yes	Yes
<i>Target fixed effects</i>	Yes	Yes	Yes	Yes	Yes	Yes
BIC	7756.9	6954.0	8338.4	7455.2	8029.0	7034.2
N	2274	2027	2448	2196	2368	2047

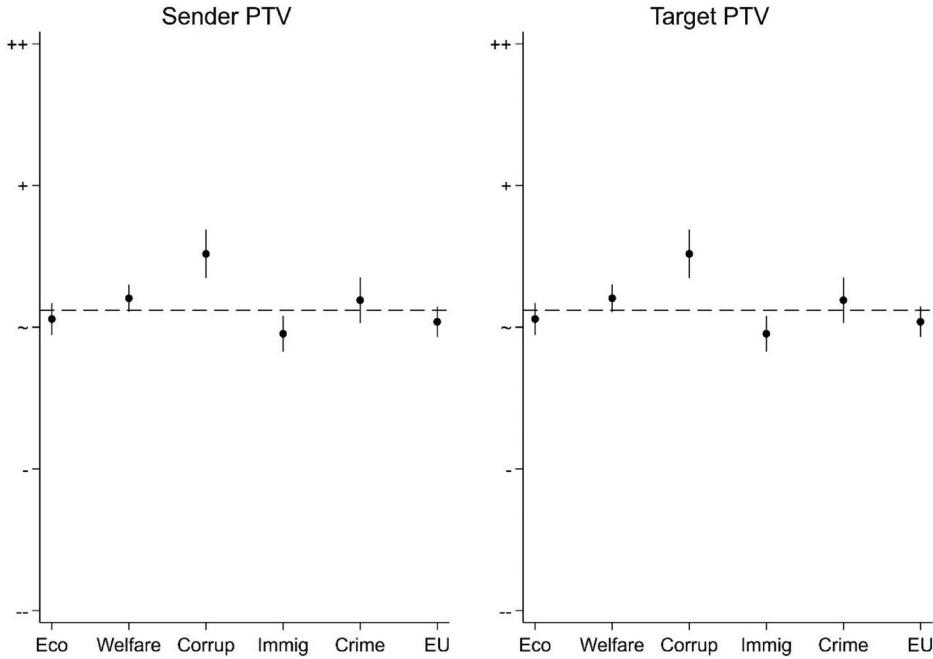
Note: Standard errors in parentheses, [#] $p < .1$, * $p < .05$, ** $p < .01$, *** $p < .001$. Different numbers of observations due to missing values in sender or target PTV scores.

Appendix 5. Explaining perceived campaign tonality: Excluding issues from the analysis (Target PTV)

	Model 2 (w/o economy)	Model 2 (w/o welfare)	Model 2 (w/o corruption)	Model 2 (w/o immigration)	Model 2 (w/o crime)	Model 2 (w/o EU)
Target PTV	0.03** (0.01)	0.02* (0.01)	0.02** (0.01)	0.01 (0.01)	0.02* (0.01)	0.03** (0.01)
Self-reference	-0.03 (0.07)	-0.03 (0.09)	0.02 (0.07)	-0.06 (0.07)	-0.06 (0.07)	-0.17* (0.07)
Vignette order	-0.01 (0.01)	-0.004 (0.01)	-0.01 (0.01)	-0.01 (0.01)	-0.01 (0.01)	-0.01 (0.01)
Age	-0.01** (0.00)	-0.01* (0.00)	-0.01* (0.00)	-0.01* (0.00)	-0.01** (0.00)	-0.002 (0.00)
Female	-0.08 (0.07)	-0.04 (0.08)	-0.09 (0.07)	-0.04 (0.07)	0.004 (0.07)	-0.13 [#] (0.07)
Education	0.02 (0.02)	0.02 (0.02)	0.03 (0.02)	0.02 (0.02)	0.02 (0.02)	0.02 (0.02)
Political knowledge	-0.07* (0.03)	-0.09** (0.03)	-0.09** (0.03)	-0.08** (0.03)	-0.08** (0.02)	-0.08** (0.03)
Eastern Germany	-0.11 (0.07)	-0.11 (0.07)	-0.12 [#] (0.07)	-0.09 (0.07)	-0.12 [#] (0.07)	-0.04 (0.07)
Constant	3.05*** (0.16)	3.08*** (0.17)	3.03*** (0.16)	3.05*** (0.16)	3.14*** (0.15)	3.04*** (0.16)
<i>Battery fixed effects</i>	Yes	Yes	Yes	Yes	Yes	Yes
<i>Issue fixed effects</i>	Yes	Yes	Yes	Yes	Yes	Yes
<i>Sender fixed effects</i>	Yes	Yes	Yes	Yes	Yes	Yes
BIC	7747.0	6941.8	8331.3	7460.2	8044.9	7035.3
N	2,274	2,027	2,448	2,196	2,368	2,047

Notes: Standard errors in parentheses, [#] $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$. Different numbers of observations due to missing values in sender or target PTV scores.

Appendix 6. Explaining perceived campaign tonality: Marginal effect of issues



Note: Results based on Models 1 (left panel) and Model 2 (right panel) of Table 1. Dashed lines indicate mean perceived tonality.

Appendix 7. Explaining perceived campaign tonality: Alternative for Germany (AfD)

	Model 1 (AfD)	Model 1 (w/o AfD)	Model 2 (AfD)	Model 2 (w/o AfD)
Sender PTV	0.04[#] (0.02)	0.03^{**} (0.01)	–	–
Target PTV	–	–	0.06^{**} (0.02)	0.02[#] (0.01)
Self-reference	–0.11 (0.35)	–0.10 (0.07)	0.42 (0.29)	–0.10 (0.07)
Vignette order	–0.004 (0.02)	–0.01 (0.01)	0.04 (0.03)	–0.01 (0.01)
Female	–0.25 [#] (0.14)	–0.02 (0.07)	0.09 (0.18)	–0.06 (0.07)
Age	–0.02 ^{**} (0.01)	–0.003 (0.00)	0.002 (0.01)	–0.01 ^{**} (0.00)
Education	0.07 [#] (0.04)	0.01 (0.02)	–0.01 (0.05)	0.02 (0.02)
Political knowledge	–0.07 (0.07)	–0.08 ^{**} (0.03)	–0.13 [#] (0.08)	–0.07 ^{**} (0.03)
Eastern Germany	0.06 (0.17)	–0.12 [#] (0.07)	0.06 (0.16)	–0.12 (0.07)
Constant	3.65 ^{***} (0.41)	3.16 ^{***} (0.17)	1.73 ^{***} (0.42)	3.10 ^{***} (0.17)
Battery fixed effects	Yes	Yes	Yes	Yes
Issue fixed effects	Yes	Yes	Yes	Yes
Sender fixed effects	No	No	Yes	Yes
Target fixed effects	Yes	Yes	No	No
BIC	1326.5	7876.8	1192.3	7999.6
N	373	2,299	332	2,340

Note: Different numbers of observations due to missing values in sender or target PTV scores. Standard errors in parentheses; [#] $p < .1$, * $p < .05$, ** $p < .01$, *** $p < .001$.