POLITICAL RESEARCH EXCHANGE
PRX

Political Research Exchange
An ECPR Journal

ISSN: 2474-736X (Online) Journal homepage: www.tandfonline.com/journals/prxx20

Negative campaigning and electoral mobilization: empirical evidence from German state elections

Jürgen Maier, Sebastian Stier & Mona Dian

To cite this article: Jürgen Maier, Sebastian Stier & Mona Dian (2025) Negative campaigning and electoral mobilization: empirical evidence from German state elections, Political Research Exchange, 7:1, 2533148, DOI: 10.1080/2474736X.2025.2533148

To link to this article: https://doi.org/10.1080/2474736X.2025.2533148

© 2025 The Author(s). Published by Informa UK Limited, trading as Taylor & Francis Group

Published online: 28 Jul 2025.

Submit your article to this journal

Article views: 1691

View related articles

View Crossmark data

Citing articles: 1 View citing articles

Full Terms & Conditions of access and use can be found at
https://www.tandfonline.com/action/journalInformation?journalCode=prxx20

POLITICAL RESEARCH EXCHANGE
2025, VOL. 7, 2533148
https://doi.org/10.1080/2474736X.2025.2533148

RESEARCH ARTICLE

OPEN ACCESS Check for updates

Negative campaigning and electoral mobilization: empirical evidence from German state elections

Jürgen Maier [a], Sebastian Stier[b,c] and Mona Dian[b,c]

[a]RPTU Kaiserslautern-Landau, Department of Political Science, Landau, Germany; [b]GESIS - Leibnitz Institute for the Social Sciences, Cologne, Germany; [c]School of Social Sciences, University of Mannheim, Mannheim, Germany

ABSTRACT

Recent research has been inconclusive about the systemic effects of negative campaigning. The available studies, most of which focus on the United States, either conclude that attack behavior decreases turnout, increases turnout, or has no effect on turnout. This study analyzes the relation between negative campaigning and turnout at the constituency level in 13 German state elections in 2021 and 2024. Based on a triangulation of data from the state returning officers and candidate surveys we show that an overall negative tone of the campaign stimulates voter participation; the predicted difference in turnout between a constituency reporting a low and a constituency reporting a high level of negativity is 2.5 percentage points for the overall campaign and 3.3 percentage points for the candidates' attack behavior at the constituency level. We conclude that the specific effect of negative campaigning on turnout depends on the level of communication.

KEYWORDS

Negative campaigning; turnout; candidate survey; Germany

Introduction

Citizens are the sovereign in representative democracies, delegating their power for a certain period of time to representatives who are supposed to solve societies' most pressing issues on their behalf. This transfer of power takes place in elections. To set this mechanism in motion, it is essential that citizens participate in such elections. However, it is disputed how comprehensive electoral participation needs to be (for a summary see Steinbrecher, Huber, and Rattinger 2007, 12–14). The minimalist view is that the level of voter turnout is irrelevant for the core functioning of elections – to select those who can make decisions that are binding for all. Participatory democracy, on the other hand, claims that the more citizens participate in elections, the higher the legitimacy of those who are to make such binding decisions, and the greater the acceptance of the decisions they make. Therefore, especially from the perspective of the latter position, it

CONTACT Jürgen Maier j.maier@rptu.de RPTU Kaiserslautern-Landau, Department of Political Science, Landau, Germany

© 2025 The Author(s). Published by Informa UK Limited, trading as Taylor & Francis Group
This is an Open Access article distributed under the terms of the Creative Commons Attribution-NonCommercial License (http://creativecommons.org/licenses/by-nc/4.0/), which permits unrestricted non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited. The terms on which this article has been published allow the posting of the Accepted Manuscript in a repository by the author(s) or with their consent.

is of crucial importance whether the campaign strategies applied by parties and candidates encourage or discourage citizens to vote.

Starting with the work of Ansolabehere and colleagues (Ansolabehere et al. 1994; Ansolabehere and Iyengar 1995), there is a debate about whether negative campaigning – i.e. 'any criticism levelled by one candidate against another during a campaign' (Geer 2006, 23) – is one such campaign element that influences citizens' decisions whether or not to participate in elections. However, it is still unclear whether the mutual attacks by parties and candidates in election campaigns have an impact on voter turnout. While some studies concluded that high levels of negativity demobilize voters – and are thus dysfunctional for the political system from a participatory democracy perspective – other studies provided empirical evidence that negative campaign communication has a mobilizing effect on voters and thus – at least formally – increases the legitimacy of representatives. Still, other studies found no relationship between negative campaigning and turnout. While the reasons for these mixed findings are unclear, one assumption is that different research designs lead to heterogeneous results (Lau and Rovner 2009).

Research on the effects of negative campaign communication on turnout has several limitations. First, the available studies on the potentially (de)mobilizing effect of negative campaigning refer almost exclusively to the United States; research for non-U.S. countries is virtually nonexistent. Because politics, political culture, and the media – and thus election campaigns – in the United States differ greatly from the situation in other countries, the U.S. findings can only be generalized to a limited extent. Second, most studies on the effects of negative campaigning on turnout investigate televised campaign ads. This is understandable given the outsized role of American politics in this research strand, as campaign spots play a prominent role in U.S. election campaigns. However, this is not necessarily the case in other countries (e.g. Holtz-Bacha 2017). Moreover, limiting the measurements to a specific communication channel hinders the formulation of general statements about the relationship between negative campaigning and turnout. Given this consideration, the use of more holistic measures of campaign tone might be beneficial (for a similar argument, see Nai 2020). Third, existing research did not yet take into account that citizens receive campaign messages at different levels. For example, the way candidates campaign at the constituency level may be very different from the messages sent by the general campaign, which is usually dominated by party organizations at the state or federal level (at least in Western European parliamentary systems). With regard to negative campaigns, however, it is unclear which level of communication, i.e. the local or the general campaign, is most important for (de)mobilizing voters.

This article innovates by extending knowledge of the relationship between negative campaign communication and turnout to i. a non-U.S. country, i.e. Germany, and ii. different levels of communication (general campaign, campaign at the constituency level). We triangulate constituency-level turnout data for eight German state elections in 2021 and 2022 with the reported overall levels of campaign negativity at the state and the constituency captured in candidate surveys. Our results show that i. negative campaign communication is related to voter turnout and ii. the direction and magnitude of its impact depend on the level of communication. More specifically, we find that both the general tone of the campaign and candidates' attack behavior at the constituency level mobilizes voters. However, the impact of the constituency level on turnout tends to be stronger.

The impact of negative campaigning on turnout

Negative campaigning is one of the most distinctive features of contemporary electoral competition. Particularly in the U.S., election campaigns have increasingly been characterized as 'nasty, negative and uncivil' (Shea and Fiorina 2013, 7). Already two decades ago, Fridkin and Kenney (2004, 571) pointed out that 'U.S. campaigns at the dawn of the twenty-first century are largely characterized by negativity'. They claim that 'the likelihood of people's exposure to negative messages […] has never been higher' (Fridkin and Kenney 2004, 571). Indeed, several studies show that the *use* of attacks has become the dominant strategy of U.S. campaign communication (e.g. Fowler, Franz, and Ridout 2016, 53; Geer 2012; West 2018, 105). However, the picture is less clear for Europe (for an overview see Walter and Nai 2015); whereas attack behavior also has become more popular, e.g. in the Netherlands (Walter and van der Brug 2013), this trend has not been reported for other countries (e.g. Elmelund-Præstekær and Mølgaard-Svensson 2014; Venema and Steffan 2020; Walter 2014).

Numerous studies have examined the *effects* of negative campaigns. In addition to focusing, in particular, on whether attacks 'work' in favour of the sender (for an overview see, e.g. Nai and Walter 2015), some studies have looked at the systemic effects of negative campaigns. Besides research on the impact of negativity on, e.g. political polarization (e.g. Ansolabehere and Iyengar 1995), affective polarization (e.g. Nai and Maier 2023), or political cynicism (e.g. Thorson et al. 2000), there is a lively debate on the impact of attack behavior on voter turnout. Unfortunately, the results of this strand of research are inconclusive. On the one hand, some scholars find that negative campaigning has a *demobilizing* effect on the electorate (e.g. Ansolabehere et al. 1994, 1999; Ansolabehere and Iyengar 1995; Crigler, Just, and Belt 2006; Fridkin and Kenney 2019). The reason given for this effect is that the average citizen does not like confrontations between politicians (Lipsitz et al. 2005); when campaigns get tough, citizens therefore turn away from politics. This can happen through several processes (see, e.g. Lau and Rovner 2009). First, attacks, as intended, can successfully decrease the likelihood of voting for the target of an attack, but in turn fail to increase the likelihood of voting for the sender (or, in the case of a so-called backlash effect, actually decrease it). As a result, the incentive for citizens to vote for any of the competitors decreases. Second, negative campaigning can reduce trust and political efficacy, or increase cynicism – factors that have been shown to correlate with turnout.

On the other hand, numerous studies have found that campaign negativity *mobilizes* the electorate (e.g. Freedman and Goldstein 1999; Geer and Lau 2006; Goldstein and Freedman 2002; Jackson and Carsey 2006; Romero and Romero 2021). The stimulation effect of attacks is explained as follows (see, e.g. Finkel and Geer 1998; Freedman and Goldstein 1999). First, negative messages carry more information than positive messages and thus educate voters; knowledge is positively correlated with electoral participation. Second, since negative information carries information about potential (personally relevant) hazards, it is more likely to be considered in judgment formation; hazard avoidance is an important driver for individuals and should increase the likelihood of electoral participation. Third, negativity produces physiological arousal, which is the basis for emotional and affective responses. Some emotions (e.g. fear) stimulate information-seeking and learning. Fourth, when politicians attack each other, they violate the social

norm of being polite to each other. Violating this norm could signal to voters that something is at stake in an election and that they have an important decision to make.

Moreover, much of the research finds *no effect* of attacks on turnout (e.g. Arceneaux and Nickerson 2010; Brader 2005; Brooks 2006; Garramone et al. 1990; Krasno and Green 2008) – a result also supported by two meta-analyses (Lau et al. 1999, 2007). According to these studies, negative campaigning and voter turnout are not directly linked, but a relationship may exist for certain voter segments or under certain conditions (e.g. Jackson and Sides 2006; Krupnikov 2011, 2014).

Almost all research on the (de)mobilizing impact of negative campaigning on electoral participation is focusing on the United States; thus, generalizations beyond the US case should be taken with caution. Studies about the situation outside of the U.S. are limited and reported mixed findings: de Vreese and Tobiasen (2007) find a mobilizing effect, Nai (2013) by and large shows that attacks demobilize the electorate, and Hernández-Huerta (2017) reports null effects. Since previous findings are inconclusive, it is not possible to derive a hypothesis on how negative campaigning and turnout are related. Therefore, we formulate the following research question:

RQ1: What is the relationship between negative campaigning and turnout?

Negative campaigning and turnout: level-specific influences

Voters experience negative campaigning at different levels. This is especially true in mixed-member electoral systems, where more general party campaigns that specifically promote the party as a whole and its top candidates are accompanied by more individual campaigns run by constituency candidates. Because of personalization, parties and campaign strategies tend to be decoupled (Brettschneider 2008). Therefore, the use of negativity is not necessarily the same at different levels. Depending on the level at which they come into contact with the campaign, voters may therefore have very different impressions of the degree of negativity.

Indeed, empirical evidence suggests that attacks are more common in party messages or among candidates who are primarily promoting their party (rather than themselves) (see Maier and Nai 2023; Nai and Sciarini 2018). Moreover, in addition to the differences between the degree of negativity of the parties and the attack behavior of the candidates, there are also major differences between candidates within the same party. These differences arise because, e.g. the social and political profile, but also the personality vary from candidate to candidate, which influences the decision to go negative. In addition, different campaign dynamics and campaign resources shape attack behavior (for an overview see, e.g. Maier and Nai 2023; Walter and Nai 2015). Moreover, however, the general election campaign of parties and their top candidates can also leave a very different impression at the local level. This is because campaign coverage in local media, which after all only appear in a given area, can vary widely.

Nevertheless, we should not overstate the freedom of candidates. Especially in parliamentary systems, parties set a general framework for the entire election campaign, including the issues to be addressed and the way they should be addressed. Parties are able to significantly influence the behavior of candidates by controlling their nomination and the resources deployed in the local election campaign.

Unfortunately, to the best of our knowledge, there is no comparative research on the effect of negative campaigning at different levels on voter mobilization, i.e. which level has the strongest influence. Predictions on the impact of attack behavior at different levels are particularly difficult because the direction and the strength of effects are not necessarily the same at every level. Therefore, we formulate the following research question:

> RQ2: Are there differences in the relationship between negative campaigning and turnout across different levels of communication?

Research design

The following analyses are based on the triangulation of i. constituency-level turnout data for 13 German state elections between 2021 and 2024, and ii. candidates' self-reported level of overall campaign negativity and their own overall attack behavior captured in candidate surveys (aggregated at the constituency level).[1] Our research design is thus very similar to that of U.S. studies that use aggregated data to examine the relationship between negative campaign communication and turnout in defined territorial units. However, our article is innovative in that it measures negativity simultaneously at different levels.

The German electoral system in brief

As we analyze data from German candidates, we have to take into account the features of the country's electoral system. Most of the German states' systems combine majority voting with proportional representation (for details on the electoral system in the German states see Steinbrecher, Huber, and Rattinger 2007, 319–326). The result of this combination is that on the one hand, as a rule, about half of the seats in parliament are allocated by constituencies, in which the candidate who receives the relative majority of votes is elected. For this purpose, voters have a special vote at their disposal (the so-called first vote). On the other hand, the remaining parliamentary seats are allocated via party lists. Voters determine the strength of the parties in parliament via the so-called second vote. The parties receive as many mandates as they are entitled to according to the number of valid second votes cast. The prerequisite is that they receive at least five percent of the valid second votes.

Thus, although the German electoral system generally follows the principle of proportional representation, the rules for constituencies are very similar to those in the U.S.: Candidates who win their constituency get a seat in parliament – regardless of how their party performs. Therefore, the primary interest of candidates running in constituencies is to win their electoral district; the secondary goal is that their party performs well. Hence, constituency candidates have the incentive to run their own campaign, which includes deciding whether or not to 'go negative' – and which may differ significantly from what their party does. In contrast, candidates running on party lists have quite different incentive structures, since their interest lies in their party getting as many votes as possible. The better the performance of their party, the higher the likelihood that they will get a seat in parliament. Therefore, they will most likely run a

similar campaign to their party. In order to link candidate attack behavior as closely as possible to turnout, but also to best separate the use of negative campaigning by candidates and parties, the following analyses are limited to constituency candidates.

Data collection

We investigate the link between negative campaigning and turnout using a comprehensive dataset compiled for eight German state elections (2021: Baden-Wuerttemberg, Berlin, Mecklenburg-Western Pomerania, Rhineland-Palatinate, Saxony-Anhalt; 2022: Lower Saxony, North Rhine-Westphalia, Schleswig-Holstein; 2023: Bavaria, Hesse; 2024: Brandenburg, Saxony, Thuringia; for more information see Table A1 in Appendix A). We collected exhaustive information from the state returning officers ('Landeswahlleiter') and ran candidate surveys. The target population for the 2021 surveys included also candidates of smaller parties, while the 2022 surveys covered only candidates running for the most important parties (i.e. CDU, SPD, FDP, Bündnis 90/Die Grünen, Die Linke, AfD; exceptions are Schleswig-Holstein, where we also invited candidates from the Südschleswigsche Wählerverband to participate in the survey, Bavaria and Brandenburg, where we also invited candidates from the Freie Wähler, and Brandenburg, Saxony and Thuringia, where we also invited candidates from Bündnis Sahra Wagenknecht (BSW)).

We took publicly available information from the states' returning officers to identify the full population of candidates in each election. To maximize participation, the candidate surveys were fielded using a mixed-mode design. Data collection began the day after the election and ended two months later. Candidates who provided an email address in their professional contact details online were invited to participate via an online link to our survey (Baden-Wuerttemberg: 81.4%, Bavaria: 79.2%, Berlin: 56.6%, Brandenburg: 72.8%, Hesse: 74.7%, Lower Saxony: 89.9%, Mecklenburg-Western Pomerania: 65.2%, North Rhine-Westphalia: 97.8%, Rhineland-Palatinate: 66.8%, Saxony: 68.6%, Saxony-Anhalt: 58.4%, Schleswig-Holstein: 81.7%, Thuringia: 57.6%). All candidates without a publicly available email address were invited by regular mail, including a paper-and-pencil questionnaire and a return envelope. Candidates were also provided with a personalized link in case they preferred to answer the survey online. Since many candidates in state elections can rely on campaign or office staff if they are already members of parliament, we explicitly asked candidates in the invitation letter to complete the questionnaire themselves. From the initial 8,101 candidates contacted (Baden-Wuerttemberg: 824; Bavaria: 1,118; Berlin: 1,116; Brandenburg: 408; Hesse: 506; Lower Saxony: 546, Mecklenburg-Western Pomerania: 434; North Rhine-Westphalia: 789; Rhineland-Palatinate: 788; Saxony: 484; Saxony-Anhalt: 423; Schleswig-Holstein: 311; Thuringia: 354), 41.9% participated in the study (minimum 30.8%, maximum 59.5%). Compared with the usual standards in elite surveys, the response rates were comparatively high (Vis and Stolwijk 2021; Walgrave and Joly 2018). The high response rates might also be a result of the mixed-mode design that has increased response rates in other surveys of political elites (Vis and Stolwijk 2021).

Because we are interested in the relationship between negative campaigning and turnout at the constituency level, we exclude candidates who ran exclusively on a party list but not in a constituency (N = 788). Furthermore, we excluded 16 candidates who rushed through the (online) survey by employing the procedure to filter out

speeders as described by Leiner (2019). This resulted in N = 2,587 valid cases (Baden-Wuerttemberg: 486; Bavaria: 273; Berlin: 302; Brandenburg: 112; Hesse: 149; Lower Saxony: 196, Mecklenburg-Western Pomerania: 116; North Rhine-Westphalia: 319; Rhineland-Palatinate: 204; Saxony: 140; Saxony-Anhalt: 123; Schleswig-Holstein: 98; Thuringia: 69).

About one third (32.7%) of participants in the final sample were female. The average age was 46.0 years (*SD* = 13.4 years). Data for gender and age is based on the information of the state returning officer. The ideology of the sample was slightly skewed to the left (*M*: 4.78/1–11, *SD*: 2.34); 11.1% of the candidates who participated in our surveys ran for the Christian Democrats (CDU), 12.9% for the Social Democrats (SPD), 16.8% for the Green Party (Bündnis 90/Die Grünen), 14.9% for the Left Party (Die Linke), 13.9% for the Liberal Party (FDP), 9.5% for the Alternative for Germany (AfD), and 21.0% for smaller parties usually not (yet) represented in the parliament. On average, participants took 19 min and 54 s (*SD* = 386 s) to complete the questionnaire (information only available for the online questionnaires).

Dependent variable

Our dependent variable is turnout, measured at the constituency level. Turnout is the number of votes casted divided by the number of citizens eligible to vote. Data is available on the homepages of the state returning officers (see also Appendix A).

Independent variables

Our independent variable captures the use of negative campaigning at different levels and in different channels. The *overall tone of the campaign* is based on candidates' responses to the following statement: 'The election campaign was characterized to a large extent by mutual attacks.' Answers were measured on a 5-point scale from 1 ('do not agree at all') to 5 ('fully agree'). We use the average level of reported overall negativity across all candidates in a constituency. *Negative campaigning at the constituency level* is on the one hand based on candidates' self-reports of their own attack behavior: 'How often did you attack the political opponent, that is, criticize other parties or candidates?'. Candidates answered on a 5-point scale from 1 ('never') to 5 ('very often'). On the other hand, candidates also report on the attack behavior of their competitors answering the following question: 'How often have you been attacked by your political opponents?'. Answers were measured on a 5-point scale from 1 ('never') to 5 ('very often'). For each candidate, we calculated the average across both measures; the correlation between the two measures is r = .27, $p < 0.001$. To finally measure the level of negativity in an electoral district, we calculated the mean across all candidates in a constituency. The correlation between the two measures is now slightly higher (r = .31, $p < .001$; see also Figure B1, Appendix).

Self-reports about the use of negative campaigning might suffer from validity issues. For instance, candidates might rationalize or downplay their past behavior ex post. The same may apply to their political opponents; however, the attack behavior here should tend to be overestimated. Yet there are good reasons to believe that in the context of our study, this issue is less severe. More than other professions, political candidates –

especially when they are running for office – have strong incentives to be sincere; honesty, sincerity, and integrity are perhaps the most important image traits that voters look for in competing candidates (Holian and Prysby 2014). Furthermore, it is not clear *per se* what qualities and behaviors politicians themselves find desirable; for instance, candidates may consider high self-esteem, tactical skill, and a certain ruthlessness to be prerequisites for being truly successful in the political arena (for this argument see Schumacher and Zettler 2019). Consequently, there are few reasons to assume that candidates systematically downplay their attack behavior. Methodologically, by averaging across both, self-reports of one's own and opponents' attack behavior, we aim to correct for some of the potentially existing reporting biases. If candidates indeed misreport attack behavior, this tendency will vary *across* candidates but should similarly apply to both used measures *within* individual candidates. Because this same bias should clearly point into two different directions for own attacks versus opponents' attacks, averaging the reported negativity at the candidate level and aggregating across candidates in a constituency should compensate for reporting biases. To be on the safe side, we additionally follow the suggestions of Walter and van der Eijk (2019) to exclude bias from reports of negativity. To do so we regress reported (overall or constituency-level) negativity on the candidates' party affiliation and their political role.[2] We then use the regression residuals as adjusted measure of negative campaigning that is completely independent of those factors. However, the original and the unbiased measure of negative campaigning are strongly correlated (overall tone of the campaign: $r = 0.97$, $p < .001$, at the candidate level and $r = 0.98$, $p < .001$, at the constituency level; negative campaigning at the constituency level: $r = 0.92$, $p < .001$, for both the candidate level and the aggregated data).

As another step to probe the validity of the used measures, we compared the original self-reported attack behavior with external measures. First, we compared the self-reported level of candidates' attacks, aggregated by party, with the use of negative campaigning of those same parties as assessed by an expert survey (for this approach, see Maier and Nai 2023).[3] Second, we collected social media posts of candidates on social media and a sample of more than 13,000 of their social media posts coded by a team of five trained student assistants for the presence of acclaims or attacks for five 2021 elections (see for more details Appendix C). We then correlated presence of negative campaigning in social media posts with the selfreports of candidates. The correlations with both types of external measures were high ($r > 0.62$) (see Appendix Figures C1 and C2), indicating the validity of our independent variable.

Control variables

The decision of citizens to participate in elections as well as the likelihood to attack opponents depend on numerous factors. Hence, if we want to explain voter turnout through negative campaigning, we must be careful not to overestimate the effect of attacks. Meta-analyses show that variation in turnout at the aggregate level correlated with several socio-economic, political, and institutional variables (Cancela and Geys 2016; Geys 2006). Unfortunately, due to state differences in the provision of constituency-level contextual data, we are unable to control for specific socio-economic factors such as the unemployment rate. However, we control for *turnout in the previous election* which has been shown to be a strong predictor of current turnout in elections (Geys 2006;

Steinbrecher, Huber, and Rattinger 2007, 181–182). The lagged dependent variable captures (unobserved) cultural and socioeconomic conditions in a territorial unit (see, e.g. Persson, Sundell, and Öhrvall 2014, for this approach).

Regarding political factors, first, we control for the *fragmentation of the party system*, measured by the effective number of parties (ENP; see Laakso and Taagepera 1979). Higher ENP indicates more competition and increases the likelihood that citizens will find a party that matches their preferences. In contrast, more parties could also lower voter turnout as information costs increase (Geys 2006). However, meta-analyses show that the impact of ENP on turnout is inconclusive (Cancela and Geys 2016; Geys 2006). Second, we control for *closeness of the race*, measured as the difference in vote shares between the winner of a constituency and the candidate ranked second place. Meta-analyses show that close contests increase turnout (Cancela and Geys 2016; Geys 2006). This effect is explained by the increase in the expected benefits of voting, but also by higher efforts of political actors to mobilize voters (Geys 2006). Third, we control for the *share of AfD votes*. Although the evidence on the effect of right-wing populist parties on turnout is mixed (e.g. Althoff 2022; Leininger and Meijers 2021), the results for Germany tend to show that higher AfD vote shares are associated with higher turnout at the constituency level (e.g. Martin 2019).

Institutional factors are by and large fixed. However, we control for three factors. First, we control for *election year* since the 2021 samples include also smaller parties. Second, we control for *region* (binary variable: 0 = Western Germany, 1 = Eastern Germany). Turnout rates are usually lower in Eastern Germany (Steinbrecher, Huber, and Rattinger 2007, 63), although the difference has recently become quite small (Jesse 2022). Third, we control whether or not a state election was held together with the 2021 *federal election* (binary variable: 0 = no, 1 = yes), as holding first – and second-order elections at the same time systematically increases turnout for the latter election (Cancela and Geys 2016; Steinbrecher, Huber, and Rattinger 2007, 181–182).

Analysis strategy

The 13 states examined are divided into a total of 821 constituencies.[4] The analysis is limited to constituencies in which we identified i. assessments of the overall tone of the campaign from at least one candidate, and ii. self-reports from at least one candidate on his or her own attack behavior. This reduces the number of cases to N = 768 constituencies. For all regression models, we use the unbiased measures of reported negative campaigning, following the protocol proposed by Walter and van der Eijk (2019) (see Section 3.4).

Results

Table A2 in Appendix A provides descriptive information on turnout, campaigning, and political competition in the constituencies. Voter turnout varied strongly across constituencies. On average, turnout was M = 66.1 percent (SD = 8.3); the lowest turnout in a constituency was 38.1 percent, and the highest turnout was 86.3 percent. The overall tone of the campaign was below the mid-point of the scale (M = 2.85, SD = 0.93), as was the candidates' reported attack behavior at the constituency level (M = 2.86, SD = 0.62).[5] This finding is consistent with comparative studies showing that the level of negative campaigning in Germany is moderate (e.g. Walter 2014). However, the reported extent of

Table 1. Effect of negative campaigning on turnout

	Model 1		Model 2		Model 3	
	b	(S.E.)	b	(S.E.)	b	(S.E.)
Adjusted R^2	0.87		0.87		0.87	
Overall tone of the campaign	0.49***	(0.14)			0.42**	(0.14)
Negative campaigning, constituency level			0.67**	(0.20)	0.55**	(0.20)
% turnout, last election	0.99***	(0.02)	1.00***	(0.02)	0.99***	(0.02)
Effective number of parties	1.21*	(0.20)	1.28***	(0.20)	1.17***	(0.20)
Closeness	0.04*	(0.01)	0.04**	(0.01)	0.04*	(0.01)
% AfD	0.17***	(0.02)	0.18***	(0.02)	0.17***	(0.02)
East Germany	3.19***	(0.41)	3.16***	(0.41)	3.25***	(0.41)
Federal election	13.81***	(0.39)	13.99***	(0.39)	13.83***	(0.39)
Year	3.04***	(0.16)	3.10***	(0.16)	2.98***	(0.16)
Constant	−6166.33***	(931.32)	−6270.21*	(322.31)	−6045.75***	(329.04)
N	766		766		766	

Displayed are unstandardized coefficients of OLS regressions (in parenthesis: standard errors). Significance levels: * $p < 0.05$, ** $p < 0{,}01$, *** $p < 0.001$.

negative campaigning also suggests that German campaigns are definitely not conflict-free, mirroring the results from other candidate surveys (Maier and Nai 2023; Nai, Tresch, and Maier 2022). Attacks are thus an undeniable part of candidates' campaign strategies in Germany.

Does the extent of negative campaigning affect turnout? Table 1 estimates the effects of attacks on turnout at different levels and through different channels for

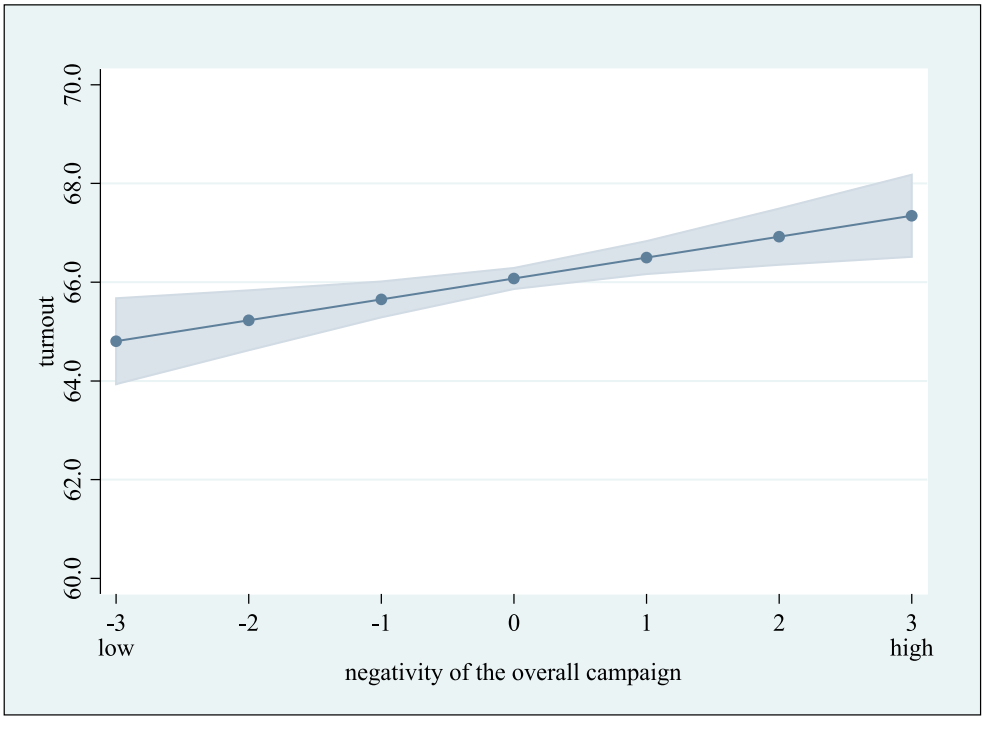

Figure 1. Predicted margins of the negativity of the overall campaign on turnout with 95% confidence intervals based on Table 1, Model 3

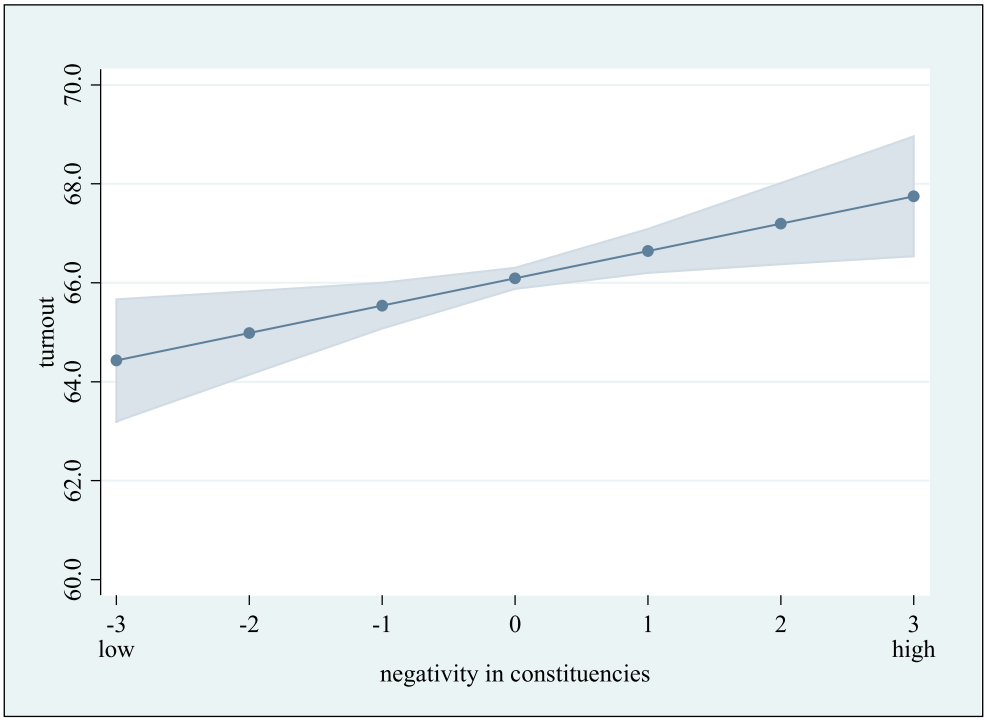

Figure 2. Predicted margins of the negativity at the constituency level on turnout with 95% confidence intervals based on Table 1, Model 3

constituencies, controlling for important variables such as turnout in the last election, political competition, the relevance of the right-wing populist AfD, region, and a simultaneous first-order election.[6] Our results suggest that *both* the overall tone of the campaign and attacks at the constituency level had a *mobilizing effect*: the higher the level of negativity, the higher the turnout. The predicted difference in turnout between a constituency that reported a very low level of negative campaigning and a constituency in which the level of negative campaigning was classified as very high is rather moderate: The difference is 2.5 percentage points for the general campaign (see Figure 1) and 3.3 percentage points for the attack behavior of the candidates running in a constituency (see Figure 2).

However, when we set the number of candidates who gave us information on the overall negativity of the campaign and on their campaign behavior to at least two per constituency, the marginal effect of the overall tone becomes stronger (predicted difference in turnout between a constituency that reported a very low level of negative campaigning and a constituency in which the level of negative campaigning was classified as very high is 4.1) whereas the correlation between attack behavior at the constituency level and turnout is insignificant (see Table B2 in Appendix B). The reported mobilization effects of campaign negativity can be confirmed if we exclude the data on candidates running for smaller parties, making the different samples directly comparable ($p < 0{,}001$ for overall tone and $p = 0.08$ for negativity at the constituency level; see Table B3 in Appendix B).

Conclusion

What are the consequences of negative campaigning on the political system? One aspect that has been extensively discussed in the literature is the impact of political actors' attack behavior on turnout – but so far with inconsistent results. Whereas some studies reported that aggressive campaigns boost turnout, other studies showed the opposite effect, i.e. that negativity demobilizes the electorate. Furthermore, a non-negligible proportion of studies concluded that negative campaigning has no consequences for electoral participation. Examining the relationship between negative campaign rhetoric and voter turnout is by no means only of academic interest. Since participation in elections in representative democracies is the means by which voters lend power to political representatives for a limited period of time, the results are of political and, from the perspective of campaigners, practical importance.

Yet, most of the extant research focused on the United States. Because politics, political culture, and the media – and therefore election campaigns – in the United States differ greatly from contemporary politics in other countries, US findings can only be generalized to a limited extent. This article contributes to our understanding of the effects of negative campaigning on turnout with original data collected for eight recent German state elections that represent a great diversity of different party constellations, government-opposition dynamics, and campaign issues. By triangulating data on turnout in 13 German state elections with self-reports on negativity at the state and the constituency levels from candidate surveys, we differentiate the effects of attacks on participation at different levels of communication.

Our findings show that the effect of negative campaigning on turnout depends on the level at which negativity occurs: while both overall campaign negativity and candidates' attack behavior at the constituency level mobilize the electorate, the impact of the latter is slightly higher than that of the former (however, the picture is reverse in robustness checks). However, the stimulation of turnout by reported attack behavior is not excessive; the predicted difference in turnout between a constituency that reported a very low level of negative campaigning for the general campaign and a constituency in which the level of negative campaigning of the general campaign was classified as very high is 2.5 percentage points. The marginal effect for the attack behavior of the candidates running in a constituency is 3.3 percentage points.

Our findings suggest that voters indeed receive signals of parties and candidates from different levels of communication. For the general election, the contact is with campaign posters, the parties' campaign ads on television and radio, campaign advertisement on the Internet and social media platforms, and the top candidates debate each other in televised debates. Communication via these channels is intended for the entire country; regional differences at this level of communication are most likely only due to differences in campaign coverage by the local print media, which are still very strong in Germany (e.g. there were 309 local and regional newspapers in 2023; see BDZV 2024; the daily circulation of the local press was 10 million copies in 2021; see DIW ECON 2022, 10). Exposure to attack behavior leaves recipients with the impression that there is something at stake and that it makes an actual difference who the next government will be. Therefore, voters should be motivated to cast their ballots.

Candidates running in electoral districts are also advertised on election posters, but mainly discuss issues with voters in marketplaces, distribute flyers in mailboxes, post personal statements on social media, or ring doorbells. In addition, the local press covers the campaign of the competitors for the constituency. Since interpersonal communication is considered more effective than mass communication with respect to turnout (see, e.g. a meta-analysis on GOTV messages; Bhatti et al. 2019; Green, McGrath, and Aronow 2013), the observed difference in mobilization through the general election campaign and the election campaign in the constituency (see Table 1) seems plausible, as the likelihood of having conversations is much higher at the latter level. However, it is unclear why we cannot replicate this pattern when it comes to the robustness checks.

Our study comes with some limitations. First, our findings are based on a single country – Germany. There is, of course, nothing wrong with country-specific case studies; many studies on the relationship between attack behavior and turnout focus on a single country (usually the United States). The question arises, however, as to what extent our results can be generalized beyond the German case. Second, our results are based on aggregated data that relate the two macro phenomena of negative campaigning and turnout at the constituency level. Although aggregated data do not allow for drawing conclusions about how specific voters react when parties and candidates go negative ('ecological fallacy'; see, e.g. King 1997), it is a standard analysis to obtain information about the macro-level constraints of the behavior of groups organized in geographical areas. Thus, aggregated data enrich research with the geographic context in which people are embedded. Moreover, it is particularly useful when, as in our case, the phenomenon under study is difficult to measure in a valid way at the individual level (overreporting of turnout; see, e.g. Karp and Brockington 2005; Traugott and Katosh 1979), let alone with an ethically feasible experimental design. Third, using self-reports of candidates to measure negative campaigning raises the problem that candidate responses can be tainted by social desirability or processes of rationalization. However, the correlation of the level of negativity reported for the general election campaign by the participants of our surveys with expert data are high, suggesting that this problem is less severe. To minimize these effects, we, in addition, used measures that are completely independent of the influence of partisan bias and the political role of the candidate. Finally, we know from the literature that incumbents and challengers differ not only in their use of negative campaigning (e.g. Benoit 2022) but also in their media coverage (e.g. Hopmann, de Vreese, and Albæk 2011). Therefore, the attacks of the different candidates could have different effects on voters depending on their political role. However, we are unable to address this properly issue because we do not have precise information about the effectiveness of attacks, particularly in terms of turnout.

Despite these limitations, our findings fit in with the majority of (U.S.) research in the field that assumes candidates' attack behavior has consequences for the political system. However, our results also indicate that the specific direction and strength of the measured effects depend not only on the research design (Lau and Rovner 2009) but also on the level of aggregation. Future research should further investigate this finding.

Notes

1. Institutional Review Board (IRB) approval was obtained prior to data collection, which included data linkage (GESIS Ethics Committee, reference number 2020–6).
2. To assess a candidate's political role, we use two indicators: First, whether a candidate is an incumbent or a challenger (i.e., a member of the parliament or not). Second, whether or not a candidate is running for a party that is represented in the state government. Both factors have been shown to influence a candidates' use of attacks (e.g., Benoit 2022, 132; Maier and Nai 2023).
3. The surveys were conducted with Alessandro Nai (University of Amsterdam). We used the concept he developed for expert surveys on negative campaigning. See https://www.alessandro-nai.com/negative-campaigning-comparative-data; Nai (2020). A comparison of candidate and expert data was possible for 10 state elections; for Brandenburg, Hesse, Saarland and Schleswig-Holstein the number of experts who accepted our invitation to participate in the survey was too small.
4. 46 of these constituencies were newly formed or cut differently, i.e., they did not exist (in this form) in the previous state election. For most of these constituencies, the state returning officers provide conversions of the previous election's turnout, so that we can also include these constituencies in the analysis.
5. The numbers for the unbiased (but less easy to interpret) measures that we use in the regression analyses are $M = 0.07$ ($SD = 0.91$) for the overall tone of the campaign and $M = 0.03$ ($SD = 0.56$) candidates' reported attack behavior at the constituency level.
6. Multicollinearity was not a problem in the regression models, as indicated by low VIF values (see Table B1 in Appendix B).

Acknowledgments

The authors would like to thank all the candidates who took the time to participate in our surveys despite busy schedules.

Disclosure statement

No potential conflict of interest was reported by the author(s).

Funding

This work was supported by Deutsche Forschungsgemeinschaft: [grant number 441574527]; DFG Deutsche Forschungsgemeinschaft: [grant number 441574527].

Data availability statement

Since our data contain sensitive, non-anonymized information from candidates, the data can be only made available to other researchers on request.

ORCID

Jürgen Maier http://orcid.org/0000-0001-8301-5125

References

Althoff, M. 2022. "Cam Right-Wing Populist Parties Solve the "Democratic Dilemma"?" In *The Pagrave Handbook of Populism*, edited by M. Oswald, 649–663. Cham: Springer.

Ansolabehere, S., Iyengar, S., 1995. *Going Negative. How Political Advertisements Shrink and Polarize the Electorate*. Free Press, New York.

Ansolabehere, S., S. Iyengar, and A. Simon. 1999. "Replicating Experiments Using Aggregate and Survey Data. The Case of Negative Advertising and Turnout." *American Political Science Review* 93 (4): 901–909. https://doi.org/10.2307/2586120

Ansolabehere, S., S. Iyengar, A. Simon, and N. Valentino. 1994. "Does Attack Advertising Demobilize the Electorate?" *American Political Science Review* 88 (4): 829–838. https://doi.org/10.2307/2082710

Arceneaux, K., and D. W. Nickerson. 2010. "Comparing Negative and Positive Campaign Messages: Evidence from two Field Experiments." *American Politics Research* 38 (1): 54–83. https://doi.org/10.1177/1532673X09331613

BDZV, 2024. Marktdaten. Accessed 15 January 2024 from https://www.bdzv.de/alle-themen/marktdaten

Benoit, W. L. (2022). *Communication in Political Campaigns. Functional Analysis of Election Messages*. New York: Peter Lang.

Bhatti, Y., J. O. Dahlgaard, J. H. Hansen, and K. M. Hansen. 2019. "Is Door-to-Door Canvassing Effective in Europe? Evidence from a Meta-study across six European Countries." *British Journal of Political Science* 49 (1): 279–290. https://doi.org/10.1017/S0007123416000521

Brader, T. 2005. "Striking a Responsive Chord: How Political ads Motivate and Persuade Voters by Appealing to Emotions." *American Journal of Political Science* 49 (2): 388–405. https://doi.org/10.1111/j.0092-5853.2005.00130.x

Brettschneider, F., 2008. Personalization of Campaigning, edited by W. Donsbach (Ed.) *The International Encyclopedia of Communication*. Malden, MA: Blackwell, pp. 3583–3585.

Brooks, D. J. 2006. "The Resilient Voter: Moving toward Closure in the Debate over Negative Campaigning and Turnout." *Journal of Politics* 68 (3): 684–696. https://doi.org/10.1111/j.1468-2508.2006.00454.x

Cancela, J., and B. Geys. 2016. "Explaining Voter Turnout: A Meta-analysis of National and Subnational Elections." *Electoral Studies* 42: 264–275. https://doi.org/10.1016/j.electstud.2016.03.005

Crigler, A., Just, M., Belt, T., 2006. The Three Faces of Negative Campaigning. The Democratic Implications of Attack ads, Cynical News and Fear-Arousing Messages. In Redlawsk, D. (Ed.), *Feeling Politics. Emotion in Political Information Processing*. Palgrave Macmillan, New York, pp. 135–163.

de Vreese, C., and M. Tobiasen. 2007. "Conflict and Identity. Explaining Turnout and Anti-integrationist Voting in the Danish 2004 Elections for the European Parliament." *Scandinavian Political Studies* 30(1): 87–114. https://doi.org/10.1111/j.1467-9477.2007.00174.x

DIW ECON, 2022. Die Situation der lokalen Presse in Deutschland und ihre Herausforderungen im Zeitalter der Digitalisierung. Gutachten im Auftrag der Beauftragten der Bundesregierung für Kultur und Medien (BKM). Berlin. Accessed 15 January 2024 from https://www.bundesregierung.de/resource/blob/974430/2182890/36596999f2fe36061b335f262c3799b6/2023-03-31-gutachten-zur-situation-der-lokalen-presse-data.pdf?download = 1

Elmelund-Præstekær, C., and H. Mølgaard-Svensson. 2014. "Negative and Personalized Campaign Rhetoric: Party Communication and Media Coverage of Danish Parliamentary Elections 1994–2011." *World Political Science* 10 (2): 365–384. https://doi.org/10.1515/wpsr-2014-0018

Finkel, S. E., and J. G. Geer. 1998. "A Spot Check: Casting Doubt on the Demobilizing Effect of Attack Advertising." *American Journal of Political Science* 42 (2): 573–595. https://doi.org/10.2307/2991771

Fowler, E. F., M. M. Franz, and T. N. Ridout. 2016. *Political Advertising in the United States*. Boulder: Westview Press.

Freedman, P., and K. Goldstein. 1999. "Measuring Media Exposure and the Effects of Negative Campaign ads." *American Journal of Political Science* 43 (4): 1189–1208. https://doi.org/10.2307/2991823

Fridkin, K. L., and P. J. Kenney. 2004. "Do Negative Messages Work? The Impact of Negativity on Citizens' Evaluations of Candidates." *American Politics Research* 32 (5): 570–605. https://doi.org/10.1177/1532673X03260834

Fridkin, K. L., and P. J. Kenney. 2019. *Taking aim at Attack Advertising. Understanding the Impact of Negative Campaigning in US Senate Races*. Oxford: Oxford University Press.
Garramone, G. M., Atkin, C. K., Pinkleton, B. E., Cole, R. T., 1990. Effects of Negative Political Advertising on the Political Process. *Journal of Broadcasting & Electronic Media* 34 (3): 299–311. https://doi.org/10.1080/08838159009386744
Geer, J. G. 2006. *In Defense of Negativity: Attack ads in Presidential Campaigns*. Chicago: University of Chicago Press.
Geer, J. G. 2012. "The News Media and the Rise of Negativity in Presidential Campaigns." *PS: Political Science & Politics* 45 (3): 422–427. https://doi.org/10.1017/S1049096512000492
Geer, J., and R. R. Lau. 2006. "Filling in the Blanks: A new Method for Estimating Campaign Effects." *British Journal of Political Science* 36 (2): 269–290. https://doi.org/10.1017/S0007123406000159
Geys, B. 2006. "Explaining Voter Turnout: A Review of Aggregate-Level Research." *Electoral Studies* 25 (4): 637–663. https://doi.org/10.1016/j.electstud.2005.09.002
Goldstein, K., and P. Freedman. 2002. "Campaign Advertising and Voter Turnout: New Evidence for a Stimulation Effect." *Journal of Politics* 64 (3): 721–740. https://doi.org/10.1111/0022-3816.00143
Green, D. P., M. C. McGrath, and P. M. Aronow. 2013. "Field Experiments and the Study of Voter Turnout." *Journal of Elections, Public Opinion and Parties* 23 (1): 27–48. https://doi.org/10.1080/17457289.2012.728223
Hernández-Huerta, V. A. 2017. "Negative Advertisements and Voter Turnout: The Evidence from Mexico." *Colombia Internacional* 92(92): 135–156. https://doi.org/10.7440/colombiaint92.2017.05
Holian, D. B., and C. Prysby. 2014. "Candidate Character Traits in the 2012 Presidential Election." *Presidential Studies Quarterly* 44 (3): 484–505. https://doi.org/10.1111/psq.12134
Holtz-Bacha, C. 2017. "Ample Opportunities – Mostly Regulated." In *Routledge Handbook of Political Advertising*, edited by C. Holtz-Bacha, and M. Just, 3–12. London: Routledge.
Hopmann, D. N., C. H. de Vreese, and E. Albæk. 2012. "Incumbency Bonus in Election News Coverage Explained: The Logics of Political Power and the Media Market." *Journal of Communication* 61 (2): 264–282. https://doi.org/10.1111/j.1460-2466.2011.01540.x
Jackson, R. A., and T. M. Carsey. 2006. "US Senate Campaigns, Negative Advertising, and Voter Mobilization in the 1998 Midterm Election." *Electoral Studies* 26 (1): 180–195. https://doi.org/10.1016/j.electstud.2006.06.010
Jackson, R. A., and J. C. Sides. 2006. "Revisiting the Influence of Campaign Tone on Turnout in Senate Elections." *Political Analysis* 14 (2): 206–218. https://doi.org/10.1093/pan/mpj003
Jesse, E. 2022. "Die Bundestagswahl 2021 im Spiegel der Repräsentativen Wahlstatistik." *Zeitschrift für Parlamentsfragen* 53 (1): 53–74. https://doi.org/10.5771/0340-1758-2022-1-53
Karp, J. A., and D. Brockington. 2005. "Social Desirability and Response Validity: A Comparative Analysis of Overreporting Voter Turnout in Five Countries." *Journal of Politics* 67(3): 825–840. https://doi.org/10.1111/j.1468-2508.2005.00341.x
King, G. 1997. *A Solution to the Ecological Inference Problem. Reconstructing Individual Behavior from Aggregate Data*. Princeton: Princeton University Press.
Krasno, J. S., and D. P. Green. 2008. "Do Televised Presidential ads Increase Voter Turnout? Evidence from a Natural Experiment." *Journal of Politics* 70 (1): 245–261. https://doi.org/10.1017/S0022381607080176
Krupnikov, Y. 2011. "When Does Negativity Demobilize? Tracing the Conditional Effect of Negative Campaigning on Voter Turnout." *American Journal of Political Science* 55 (4): 797–813. https://doi.org/10.1111/j.1540-5907.2011.00522.x
Krupnikov, Y. 2014. "How Negativity Can Increase and Decrease Voter Turnout: The Effect of Timing." *Political Communication* 31 (3): 446–466. https://doi.org/10.1080/10584609.2013.828141
Laakso, M., and R. Taagepera. 1979. "Effective" Number of Parties: A Measure with Application to West Europe. *Comparative Political Studies* 12 (1): 3–27. https://doi.org/10.1177/001041407901200101
Lau, R. R., and I. B. Rovner. 2009. "Negative Campaigning." *Annual Review of Political Science* 12(1): 285–306. https://doi.org/10.1146/annurev.polisci.10.071905.101448
Lau, R. R., L. Sigelman, C. Heldman, and P. Babbitt. 1999. "The Effects of Negative Political Advertisements: A Meta-analytic Assessment." *American Political Science Review* 93 (4): 851–875. https://doi.org/10.2307/2586117

Lau, R. R., L. Sigelman, and I. B. Rovner. 2007. "The Effects of Negative Political Campaigns: A Meta-analytic Reassessment." *Journal of Politics* 69 (4): 1176–1209. https://doi.org/10.1111/j.1468-2508.2007.00618.x

Leininger, A., & Meijers, M. J. (2021). Do Populist Parties Increase Voter Turnout? Evidence from over 40 Years of Electoral History in 31 European Democracies. Political Studies 69(3), 665-685. https://doi.org/10.1177/0032321720923257

Lipsitz, K., C. Trost, M. Grossmann, and J. Sides. 2005. "What Voters Want from Political Campaign Communication." *Political Communication* 22 (3): 337–354. https://doi.org/10.1080/10584600591006609

Maier, J., and A. Nai. 2023. "Mapping the Drivers of Negative Campaigning: Insights from a Candidate Survey." *International Political Science Review* 44 (2): 195–211. https://doi.org/10.1177/0192512121994512

Martin, C. W. 2019. "Electoral Participation and Right Wing Authoritarian Success–Evidence from the 2017 Federal Elections in Germany." *Politische Vierteljahresschrift* 60 (2): 245–271. https://doi.org/10.1007/s11615-018-00148-4

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. https://doi.org/10.1111/j.1475-6765.2012.02060.x

Nai, A. 2020. "Going Negative, Worldwide: Towards a General Understanding of Determinants and Targets of Negative Campaigning." *Government and Opposition* 55 (3): 430–455. https://doi.org/10.1017/gov.2018.32

Nai, A., and J. Maier. 2023. "Mediatized Campaign Attacks Fuel Affective Polarization If Perceived as Negative." *Experimental Evidence with American Voters. International Journal of Communication* 17: 5246–5267.

Nai, A., and P. Sciarini. 2018. "Why 'Going Negative'? Strategic and Situational Determinants of Personal Attacks in Swiss Direct Democratic Voters." *Journal of Political Marketing* 17 (4): 382–417. https://doi.org/10.1080/15377857.2015.1058310

Nai, A., A. Tresch, and J. Maier. 2022. "Hardwired to Attack. Candidates' Personality Traits and Negative Campaigning in Three European Countries." *Acta Politica* 57(4): 772–797. https://doi.org/10.1057/s41269-021-00222-7

Nai, A., and A. S. Walter. 2015. "How Negative Campaigning Impinges on the Political Game: A Literature Overview." In *New Perspectives on Negative Campaigning: Why Attack Politics Matter*, edited by A. Nai, and A. S. Walter, 235–248. Colchester: ECPR Press.

Persson, M., A. Sundell, and R. Öhrvall. 2014. "Does Election Day Weather Affect Voter Turnout? Evidence from Swedish Elections." *Electoral Studies* 33: 335–342. https://doi.org/10.1016/j.electstud.2013.07.021

Romero, F. S., and D. W. Romero. 2021. "National Presidential Election Turnout: 1952 to 2020." *American Politics Research* 49 (6): 637–645. https://doi.org/10.1177/1532673X211031816

Schumacher, G., and I. Zettler. 2019. "House of Cards or West Wing? Self-reported HEXACO Traits of Danish Politicians." *Personality and Individual Differences* 141: 173–181. https://doi.org/10.1016/j.paid.2018.12.028

Shea, D. M., and M. Fiorina. 2013. "Can We Talk? The Rise of Rude, Nasty, Stubborn Politics." In *Can We Talk? The Rise of Rude, Nasty, Stubborn Politics. Pearson*, edited by D. M. Shea, and M. Fiorina, 1–16. New York: Pearson.

Steinbrecher, M., Huber, S., Rattinger, H., 2007. Turnout in Germany. Citizen Participation in State, Federal, and European Elections Since 1979. Nomos, Baden-Baden.

Thorson, E., E. Ognianova, J. Coyle, and F. Denton. 2000. "Negative Political ads and Negative Citizen Orientations toward Politics." *Journal of Current Issues & Research in Advertising* 22 (1): 13–40. https://doi.org/10.1080/10641734.2000.10505099

Traugott, M. W., and J. P. Katosh. 1979. "Response Validity in Surveys of Voting Behavior." *Public Opinion Quarterly* 43(3): 359–377. https://doi.org/10.1086/268527

Venema, N., and D. Steffan. 2020. "Context Matters: Professionalization of Campaign Posters from Adenauer to Merkel." *Communications* 45 (1): 98–121. https://doi.org/10.1515/commun-2018-2020

Vis, B., and S. Stolwijk. 2021. "Conducting Quantitative Studies with the Participation of Political Elites: Best Practices for Designing the Study and Soliciting the Participation of Political Elites." *Quality & Quantity* 55(4): 1281–1317. https://doi.org/10.1007/s11135-020-01052-z

Walgrave, S., and J. K. Joly. 2018. "Surveying Individual Political Elites: A Comparative Three-Country Study." *Quality & Quantity* 52(5): 2221–2237. https://doi.org/10.1007/s11135-017-0658-5

Walter, A. S., 2014. Negative Campaigning in Western Europe: Similar or Different? Political Studies 62(1_suppl), 42–60. https://doi.org/10.1111/1467-9248.12084

Walter, A. S., and A. Nai. 2015. "Explaining the use of Attack Behaviour in the Electoral Battlefield: A Literature Overview." In *New Perspectives on Negative Campaigning: Why Attack Politics Matter*, edited by A. Nai, and A. S. Walter, 97–114. Colchester: ECPR Press.

Walter, A. S., and W. van der Brug. 2013. "When the Gloves Come off: Inter-party Variation in Negative Campaigning in Dutch Elections, 1981–2010." *Acta Politica* 48 (4): 367–388. https://doi.org/10.1057/ap.2013.5

Walter, A. S., and C. van der Eijk. 2019. "Measures of Campaign Negativity: Comparing Approaches and Eliminating Partisan Bias." *International Journal of Press/Politics* 24 (3): 363–382. https://doi.org/10.1177/1940161219843404

West, D. M. 2018. *Air Wars: Television Advertising and Social Media in Election Campaigns, 1952-2016*. 7th edition. Washington, DC: CQ Press.