Negative Campaigning and Vote Choice in Europe: How do Different Partisan Groups React to Valence Attacks?*

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December 1, 2021

Abstract

Parties spend parts of their campaigns criticizing other parties' performance and characteristics, such as honesty, integrity, unity. These attacks aim to affect the target parties' electoral performance negatively. But do they work? We argue that while attacks are informative, how voters react to negative campaigning depends on their partisanship. While the target's copartisans are more likely to get mobilized in favor of their party, the attacker's copartisans are expected to punish the target, due to their respective partisan motivations. We expect different motivations to result in null effects of campaign attacks for other parties' partisans and nonpartisans. Combining a new dataset on campaign rhetoric with survey data from eight European countries, we show support for most but not all of our expectations. These results have important implications for the electoral campaigns literature.

*Funding for the Comparative Campaign Dynamics dataset was provided by the German National Science Foundation (DE 1667/4-1). Replication materials and code can be found at Somer-Topcu and Weitzel (2021)

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Introduction

Leading up to the 2015 election in the United Kingdom, David Cameron, the Conservative Party leader, and the party's old guard were hard at work warning voters about a potential Labour government. The Telegraph reported the following on its front page on May 6, the day before the election:

> The British people must come together and unite against the nightmare prospect of a Labour-SNP government which will "tear our nation apart," Sir John Major [Conservative Party] says today . . . Meanwhile, David Cameron, the Prime Minister, described Mr. Miliband [the leader of the Labour Party] as a "very dangerous person" who is using a "con trick" to get into Downing Street (Dominiczak 2015).

With these statements, the Conservatives attacked Labour for a potential divisive performance if the latter party was elected ("will tear our nation apart") and criticized the character of the Labour leader ("very dangerous," "using a con trick"). In this paper, we examine how negative campaign rhetoric like this affects the electoral performance of the target party (the Labour Party in the example above). We follow Geer (2006) and define negative campaigning as any negative reference towards rivals by highlighting their failings, misdoings, and negative character traits. These discussions can be about the leader or the party without any specific reference to any policy ("the party is incompetent") or may be related to a specific policy ("the party is dishonest in its tax policy").

The evidence for the electoral consequences of campaign attacks in the literature so far is either mixed (especially in the case of the United States, see Lau and Rovner (2009) for a summary) or, in the comparative case, mostly missing (but see, Haddock and Zanna 1997; Jung and Tavits 2021; Pattie, Denver, Johns and Mitchell 2011; Roy and Alcantara 2016) . We argue that two theories direct us to two competing expectations for how negative campaigning works for or against the target party. On the one hand, according to the

information theory, by highlighting rivals' weaknesses and negative characteristics, negative campaigning educates voters about their opponents' flaws and should work against the target party. Yet, these attacks may also backfire and improve the target party's electoral performance by motivating voters to rally behind it (see Banda and Windett 2016, for a similar argument in the United States). In particular, voters who reject the negative messages and find these opportunistic or in bad taste, may sympathize with the target party and turn out in favor of it in greater numbers.

Do all voters respond to negative campaigning similarly? According to the partisan motivated reasoning theory (see, e.g., Taber and Lodge 2006), individuals seek information consistent with their partisan beliefs and ignore inconsistent information. Hence, we expect different partisan groups to react differently to these informative campaign messages. Copartisans of the target party (i.e., those who identify with the party under attack) should be more likely to negatively react to attacks targeting their party and be more motivated to turn out to vote in favor of their party. In contrast, copartisans of the attacking party should believe in their party's messages against the rival and punish the target party in greater numbers. Although we also expect negative campaigning to inform the partisans of third parties and nonpartisans/independent voters, we largely expect null effects of negative campaigning on these voters' behavior toward the target party, for three reasons. First, other partisans and nonpartisans pay less attention to messages that do not come from their own party, even if these messages are generally informative. Second, voters who lack strong partisan motivations in favor of the attacker or the target will not react to these messages as strongly. Third, following Ansolabehere, Iyengar, Simon and Valentino's 1994 argument that negative campaigning highlights the negative culture of the election campaigns and that voters do not like negativity (see also Banda and Windett 2016), we expect these voters to react against negativity either by further alienating themselves from politics (and not turning out) or by becoming more motivated to turn out and vote for the target party out of sympathy. Hence, we expect these different

effects to cancel each other out and result in null effects for other parties' copartisans and nonpartisans.

We combine a new dataset on party campaign discussions (the Comparative Campaign Dynamics dataset) with survey data to test the effects of negative campaigning on vote choice across eight European democracies. Our results show support for the expectations about the target party's copartisans (positive effects), the attacking party's copartisans (negative effects), and the nonpartisans expectations (null effects). However, our findings go against the "other parties' copartisans" expectation, suggesting that these voters are more likely to reward the target party. We attempt to explain these results in the results section.

Our findings have important implications, first, for the growing negative campaigning literature, which so far mainly focused on the American case (see, e.g., Lau and Rovner 2009; Lau, Sigelman and Rovner 2007). As we detail below, there have been mixed findings in terms of how attacks affect party performance in the United States. Our results suggest that being attacked may not move nonpartisans, i.e., those who do not identify with a party. These are the respondents that parties aim to mobilize and convince to vote for them. Hence, it appears that being attacked does not help (nor does it hurt) the party among nonpartisans. At the same time, the results suggest that the target's copartisans are even more likely to support their party in elections when said party is attacked. More importantly, we find that the likelihood of voting for the target party also increases among third parties' copartisans (other than the target and the attacker). These results suggest that negative campaigning, on average, may benefit the target party and not work as the attacking party would hope.

Second, by unpacking the negative campaigning effects across different partisan groups, we also contribute to the growing literature examining how different personality traits condition individuals' evaluation of negative campaigning. Nai and Maier (2021) and Nai and Otto (2021) already explore how personality traits mediate the effectiveness of

negative campaigning. Our results suggest that partisanship is another important factor we should consider.

Finally, our results contribute to the partisan-motivated reasoning literature. Consistent with this literature's arguments, the target's copartisans ignore attacks against their own party and even become more mobilized to vote for their party when under attack. Similarly, we see that attacker's copartisans listen to their own party's messages and become more motivated to vote against the target party. Yet, we also find that third parties' partisans also react to attacks by increasing their support for the target party. This latter finding suggests that partisans may not always be blind supporters of their own party. Rather, they might also be shaped by the rhetoric of other parties and change their voting behavior.

Campaign Attacks and Target Party Performance

Political parties have different goals (Strøm and Müller 1999). Some may have office aspirations or survival concerns; others may seek policy influence by becoming the prime ministerial party, a coalition partner, or simply a pivotal party in the parliament forcing the hand of the government. Whatever the ultimate goal of the party, in the end, all of these goals require votes. Over the past decades, an emerging spatial competition literature has examined how parties' various strategies affect their electoral performance. The main focus in this literature has been parties' ideological position-taking (see, e.g., Adams 2012 for an overview of this literature). Yet, taking specific issue-positions is only one strategy. Political parties can also distort each other's issue positions (Somer-Topcu and Tavits 2020) to convince voters that they are ideologically the best alternative. More importantly for our purposes in this paper, parties can attack their counterparts by discussing other parties' and their leaders' lack of competence, integrity, honesty, unity, etc. Less is known on how these campaign attacks affect voter behavior.

To be clear, in the last two or three decades, a burgeoning literature about the US case has showcased how negative campaign advertisements affect voter behavior (see Lau and Rovner (2009) for a summary of this literature, and Banda and Windett (2016) for a recent examination of the consequences of negative advertisements in the U.S.). Still, this literature has so far focused almost solely on campaigns in the U.S. In addition, the findings of observational and experimental studies on the consequences of negative campaigns are mixed. As Lau, Sigelman and Rovner (2007) report, out of 43 studies examining the effects of negative campaigning on actual or intended vote choice, 12 find that attacks decrease the target party's vote shares, with only four of them having statistically significant effects.

Compared to this U.S. literature, only a handful of studies examine the *consequences* of negative campaigning in multi-party systems, and most of these studies are single-country focused. Analyzing the 2007 Scottish elections, Pattie et al. (2011) show that attacks can backfire and reduce the attacker's vote share in Scotland. In Canada, Roy and Alcantara (2016) find that going positive is more beneficial than going negative, although negativity certainly drives attention (but does not help the attacker in electoral terms). In an experiment with college students in Canada, Haddock and Zanna (1997) show that the leader of the target party was seen more sympathetically after an attack. Most relevant for our study, and in the only comparative cross-national work, Jung and Tavits (2021) show that only voters with a left-leaning ideological position punish their own parties when their parties get attacked by other parties.[1] As Haselmayer (2019) says, "we lack research on the effects of negative campaigning in multi-party systems," and there is a lot that we do not know about how negative campaigning in Europe affects voter behavior.

[1]We replicated our findings with a left ideology variable interaction, similar to Jung and Tavits (2021). We do not find that leftists are more likely to punish the target party, although we note that we have a somewhat different sample than theirs due to data limitations.

In this paper, we focus on the performance of the target party and ask whether we should expect negative campaigning to hurt electoral performance.[2] Two competing expectations lead us in two different directions on this question. On the one hand, yes, we expect negative campaigns to work, i.e., harm the target party. Negative campaigning provides voters with information about the target party that they would not otherwise know and educates them about the shortcomings and flaws of the party. This argument builds on the informative effects of the election campaigns and the social psychology literatures, showing that negativity attracts attention and increases knowledge. We know that voters have limited political knowledge about and minimal interest in politics (Carpini and Keeter 1996; Converse 1964). However, to make informed decisions, citizens must acquire a significant amount of information (Zaller 1992). Election campaigns provide this information: they help voters learn about party positions and then vote according to this newly acquired information (e.g. Fernandez-Vazquez 2014; Iyengar and Simon 2000; Somer-Topcu, Tavits and Baumann 2020).

As part of modern election campaigns, negative campaigning provides voters with a significant amount of information about a party. We can not expect parties to discuss their own failures and shortcomings (Geer 2006); thus, attacks help voters learn about the less desirable traits and issue performances of political parties. Citizens then use this negative information to inform their choices. Negativity also breeds more attention, which is required to get informed. Brians and Wattenberg (1996) show that consumption of negative advertisement in the U.S. is associated with greater issue knowledge, which builds on the social-psychological effect of negativity bias: voters pay more attention to negative information (Brader 2006; Ito, Larsen, Smith and Cacioppo 1998) and negative news

[2]Another interesting research question is how attacking affects the attacker's performance. In a two-party system, like the U.S., answering how attacks affect the target's performance also answers how attacks affect the attacker's performance, given that there are only two actors. However, in the multi-party systems of Europe, this question is harder to answer. Due to space restrictions, we leave this question for future research.

receive more coverage from the media, generating more interest (Kalb 1998). Hence, negative campaigning is more likely to expose voters to parties' and their leaders' negative traits (regardless of whether these depictions of parties are accurate or not), more likely to capture the attention of potential voters (Banda and Windett 2016), and more likely to allow voters to incorporate this information in their voting decisions. In turn, we expect voters to use this negative information and vote against the target party.

Despite these informational effects, political parties do not spend their whole electoral campaign discussing other parties' negative performance or traits. This is because the strategy of negativity may also backfire with a so-called backlash or boomerang effect (Garramone 1984). Hence, political parties must strategically weigh the costs and benefits of a potential campaign attack against their rivals (Haselmayer 2019). There is empirical evidence that voters react negatively to attackers (see, e.g., Ansolabehere et al. (1994) and Banda and Windett (2016) in the U.S. literature, and Haddock and Zanna (1997), Pattie et al. (2011), and Walter and Van der Eijk (2019) in the Canadian, Scottish, and U.K. contexts, respectively). How does the target party fare in a backlash situation, which is our focus in this paper?

In a two-party system like the U.S., this backlash effect suggests that as the attacker is punished, the target will likely benefit. What about in the multi-party systems of Europe? Anecdotal evidence suggests that target parties may benefit from negative campaigns against them. One such example comes from the recent 2017 German federal election campaign. The German Social Democratic Party had an initial surge in the polls in early 2017, when they elected Martin Schulz as their new leader. However, this surge did not last long. As the party began losing support in the polls, it had to decide whether to attack the Christian Democrats and their leader, Angela Merkel. Feldenkirchen (2018) accompanied Schulz's campaign during this time and summarized the events of those days. He reports that Schulz's advisors warned him explicitly that if he attacked Merkel, many people who who were torn between the Social Democrats and the Christian Democrats

would vote for the latter (p. 98). This is because voters dislike negativity (Banda and Windett 2016) and would likely evaluate such an attack as opportunistic, delivered by an opponent aiming to defeat the other party (Roy and Alcantara 2016). Pinkleton (1997) showed with an experiment that the attacker was evaluated as mean-spirited. Similarly, Haddock and Zanna (1997) provide experimental evidence from the Canadian 1993 election campaign that there was more anger and disgust toward the attacking party leader, while the target party's leader was evaluated more sympathetically. The latter finding that voters may sympathize with the target party and its leader and vote for it to punish the attacker whom they find mean-spirited and opportunistic is the reason why we argue that negative campaigns may result in a boost for the target party. [3]

The conditioning effects of partisanship

We argue that these competing expectations (informational value of negative campaigns vs. potential backlash against attacks) are likely due to how different partisan groups react to negative campaigning. After all, "campaign messages work their influence in concert with voters' prevailing dispositions and sentiments" (Iyengar and Simon 2000, p. 158). Therefore, the informational theory should work especially for the copartisans of the attacking party, who otherwise would not know much about the target. Meanwhile, negative campaigns might still be informative to copartisans of the target party, but we expect these individuals to reject the message and get further motivated to turn out and vote for their party. Let us elaborate on these different group dynamics.

We know from the political psychology literature that party supporters are more likely to discount political messages that are inconsistent with their beliefs and project their ide-

[3]These contrasting expectations also mean that parties should carefully assess the potential consequences of attacking their rivals. When political parties should engage in negative campaigning is an interesting research question, but beyond the scope of this paper. For recent work examining when and why parties use negative campaigning, see Nai (2018), Nai and Maier (2021) and Weitzel (2021).

als onto their own party (Heider 2013; Taber and Lodge 2006). According to the partisan-motivated reasoning theory, voters pay more attention to messages that are consistent with their partisan identity (Bolsen, Druckman and Cook 2014). In addition, messages from parties the voter does not identify with are more likely to be dismissed and discounted (Aaroe 2012; Lavine, Johnston and Steenbergen 2012; Nicholson 2012). Therefore, copartisans of the target are likely to discount or flat out reject campaign attacks against their own party.[4] Of course, this does not mean that the informational effects of negative campaigns are not at play. These negative messages still likely reach the target's copartisans. However, given that expectations of the partisan motivated reasoning, the messages are likely dismissed. Besides ignoring the negative campaign against their own party, it is also expected that these copartisans will mobilize to vote for their party under attack. Martin (2004) argues that emotions that result from campaign attacks, such as anxiety, motivate participation. When opponents paint a party in a negative light, the target's copartisans may worry about their own party's electoral performance. All this would strengthen their ties to their party and increase their likelihood to vote. The attackers' copartisans, on the other hand, should be more likely to believe in these messages against the target. Therefore, we expect them to get motivated to turn out and vote for their own party in greater numbers (and, hence, less likely to vote for the target).

Finally, we expect essentially null effects for other parties' copartisans and nonpartisans/ independents for three reasons. First, we expect these respondents to be less attentive to messages aired by a party they do not identify with. Hence, the informational value of campaign attacks (and their negative consequences for the target party) is lower for these groups of respondents. Second, even if these individuals hear such messages, they are less likely to be convinced to either support or vote against the target party due

[4]This argument draws from the social identity theory (SIT), which suggests that group identities are detrimental to how people form opinions (Green, Palmquist and Schickler 2008; Nicholson 2012). The theory is also similar to the cognitive dissonance theory, which argues that individuals seek consistency among their beliefs and behaviors (Festinger 1957).

to a lack of strong partisan motivations in favor of the target or the attacker. Third, as Ansolabehere et al. (1994) present, voters dislike negativity. This dislike may either alienate these respondents from turning out (as Ansolabehere et al. (1994) find) or encourage them to turn out and vote for the target party out of sympathy. The alienation argument is especially valid for nonpartisans who are already mostly alienated from politics to begin with (Dassonneville and Hooghe 2018). Hence, we expect these negative, null, and positive effects to cancel each other out and result largely in null effects for other partisans and nonpartisans.

In sum, we argue that different partisan groups will respond to negative campaign messages differently. We expect (1) copartisans of the target party to become more motivated to turn out to vote for their (target) party, (2) copartisans of the attacking party to be more likely to punish the target party in response to negative information, given their partisan motivation in favor of the attacker, and (3) null effects for other parties' copartisans and nonpartisans. To clarify, we are not the first to argue that negative campaigning should have different effects on different groups of partisans. Using three surveys from the U.S. presidential elections, Stevens, Allen, Sullivan and Lawrence (2015) show strong partisan biases in how respondents evaluate negative and positive campaigning. Haselmayer, Hirsch and Jenny's 2020 survey experiment in Germany similarly presents evidence that partisan respondents perceive negative messages about their party as less negative than nonpartisans. Still, no work so far has explored how negative campaigning affects different partisan groups' *voting behavior*, and to our knowledge, none of the previous work on negative campaigning has differentiated between copartisans of the target party, attacking party, and other parties or nonpartisans.

Research Design

To test our expectations, we need data on parties' negative campaigning, as well as survey data for our dependent variable, *vote choice*, and the conditioning variable, *copartisanship*. The negative campaigning data come from a new dataset on political parties' campaign rhetoric, the Comparative Campaign Dynamics (CCD) project (Debus, Somer-Topcu and Tavits 2018). Debus et al. collected newspaper articles from ten European countries and 21 elections between 2005 and 2015 for the one-month period before each election for the dataset. We use eight of these countries and 15 of these elections in this paper due to the availability and accessibility of the survey and polling data.[5]

The newspaper articles come from the two highest-circulating newspapers in each country, chosen to represent one center-left-leaning and one center-right-leaning newspaper to eliminate any potential ideological biases by a given newspaper. Country experts gathered all election-related front-page articles and a random sample of 5-10% of the rest of the election-related articles. Three coders, who are native speakers of the respective language, coded each article using an extensive online questionnaire. Table 1 shows these countries, elections, and newspaper coverage in each country in our data.

[5]Both elections in Hungary (2006, 2010) and the Netherlands (2010, 2012), the 2010 Swedish and 2011 Spanish elections are not part of the analysis because there is no survey data available, specific questions were not included in the available surveys, or polling data could not be collected. Nevertheless, with our diverse case selection we ensure that we have variation across several potentially relevant contextual factors, such as different electoral systems, party systems, and levels of democracies. For instance, our country cases include the more candidate-focused U.K. with its low effective number of parties, more party-dominant mainland European countries with higher effective number of parties, and the relatively younger democracies of the Czech Republic and Poland. By including country fixed effects, we incorporate peculiar voting behaviors of these countries' citizens as well as their party system features into account. Thus, our cross-national analysis of eight European countries allows us to make generalizable inferences about other parliamentary democracies, particularly in Europe.

Table 1: Campaign Dynamics Data Coverage and Newspapers Used

Country	Years	Left-Leaning Daily	Right-Leaning Daily
Czech Rep.	2010, 2013	Právo	Mladá fronta Dnes
Denmark	2007, 2011	Politiken	Jyllands-Posten
Germany	2009, 2013	Süddeutsche Zeitung	Frankfurter Allgemeine
Poland	2007, 2011	Gazeta Wyborcza	Rzeczpospolita
Portugal	2009, 2011	Público	Jornal de Notícias
Spain	2008	El País	El Mundo
Sweden	2014	Dagens Nyheter	Aftonbladet
UK	2005, 2010, 2015	The Guardian	The Daily Telegraph

The CCD project provides data on 1) how parties discuss their own and other parties' issue positions, and 2) how parties discuss their own and other parties' valence characteristics, both in relation to and independent of their issue positions. The CCD dataset uses the term *valence* to refer to any party or party leader characteristics that are broadly desirable (Stokes 1992; Clark 2009). In coding these valence characteristics, coders also identify whether these characteristics are framed as positive or negative. We use these negative references to code negative campaigning.[6]

More specifically, negative campaigning is coded as follows. Each coder first identifies the subject party, i.e., the party that makes a statement via the newspaper article. After answering several questions about whether and how they discuss their own issue positions and valence characteristics, the coder is asked whether the subject party discusses another party's issue positions and valence characteristics. If the coder identifies an issue position discussion about another party, they are then asked to indicate any valence characteristics associated with that issue. Finally, they are also asked whether the subject discusses the valence characteristics of this other party independent of an issue. The coder is expected to evaluate the issue-related and non-issue-related valence discussions in the following categories: 1) party's honesty/integrity, 2) party's competence/performance,

[6]More details about the CCD dataset, such as how the newspaper selection was made, how many articles were coded for each election, why one-month period was chosen as the campaign period, country selection, etc., can be found in Debus, Somer-Topcu and Tavits (2018).

3) party's unity, 4) party leader's honesty/integrity/character, 5) party leader's competence/performance, and 6) party leader's charisma.[7] Finally, the coder evaluates whether the specific valence characteristic is presented as positive or negative.

As an example, The Daily Telegraph reported the following in the 2015 election campaign:

> In a highly personal attack, Michael Fallon, the Defence Secretary, wrote in The Times that Mr. Miliband has a "lust for power" and would betray Britain's defenses just as he "stabbed his own brother in the back to become Labour leader" (Holehouse, Gosden and Riley-Smith 2015).

The CCD codes this statement twice: first, "Mr. Miliband has a 'lust for power'" and "just as he 'stabbed his own brother in the back to become Labour leader'" are coded as the Conservative Party (the subject party) discussing the Labour Party's (the target party) leader's (Mr. Miliband) honesty/integrity/character in a negative direction without any issue connection. Second, "would betray Britain's defences" is coded as an attack on the Labour leader's honesty/integrity/character related to the defense policy. We sum together these issue-related and non-issue related valence attacks to finalize our negative campaigning variable. Appendix 1 shows three snapshots of the online survey used to code the issue-related and non-issue-related valence discussions.[8]

To test our expectations regarding the copartisans of the target party and the nonpartisans, we need information about the total number of attacks by all parties on the target

[7]Party/leader performance/competence categories do not code discussions related to expected performance in the upcoming election. Party unity refers to any direct discussion about the party's unity or divisions. Leader's charisma refers to any discussion mentioning the leader's charisma.

[8]Three research assistants coded each article. For each coded statement, they also indicated how confident they were about that coding. When finalizing the data, only the responses on which either two or more assistants agreed (while being at least "mostly confident"), or on which at least one assistant provided a unique code and was "fully confident" in their coding were used.

party. The *received attacks* variable is calculated by summing all negative party and leader valence discussions that are made about the target party (ω_{other}) and dividing this number by the total number of positive (α) and negative (ω) valence statements made about the target party in that election by either itself or any other party. Note that each term in the equation includes both issue-related and non-issue-related valence statements summed together.[9]

$$Received\ Attacks = \frac{\omega_{other}}{\alpha_{self} + \alpha_{other} + \omega_{self} + \omega_{other}} \tag{1}$$

To go over an example, in the month ahead of the 2007 Danish parliamentary elections, the Liberal Alliance party (L.A.) received a total of 25 attacks from other parties ($\omega_{other} = 25$).[10] The party only made two negative self-valence statements ($\omega_{self} = 2$) but 15 positive self-valence statements ($\alpha_{self} = 15$). There were two positive valence statements made by other parties about the L.A. ($\alpha_{other} = 2$). Therefore, the independent variable, *Received Attacks*, is coded as 0.568 for the L.A. in 2007. In our dataset attacks, received by target parties (ω_{other}) constitute an average of 53% (SD 25%) of all valence campaign discussions ($\alpha_{self} + \alpha_{other} + \omega_{self} + \omega_{other}$) during election campaigns. To normalize the attacks received by a given party relative to all campaign discussions about this party, we calculate it as a share. Unlike raw counts this weighing approach allows us to adjust

[9]If there are fewer than five valence statements (about a party), then we exclude those parties from our analysis. In Appendix 2 we list these excluded parties and discuss the implications. We also replicated our results using an alternative, more restrictive exclusion criterion and dropped all cases with fewer than 10 statements about a party. The results, which are also reported in Table A2-2 Appendix 2, continue to support our conclusions.

[10]This means that there were 25 unique attacks in the 120 newspaper articles coded in the 2007 campaign period in Denmark. Unique means that if an article reports a negative discussion of the competence of a party, the article is coded as having one unique attack. If the same article also mentions an attack on the leader's honesty, the article has two unique attacks.

for varying campaign message totals of different parties.[11] Adding self-statements to the denominator also more accurately reflects the complex real-world electoral information environment in which parties and voters make their decisions.

To test how the attacking party's copartisans as well as third-party copartisans react to negative campaigning, we calculate two additional attack share variables based on the previous formula (Equation 1). These variables are constructed in a similar fashion to the *Received Attacks* variable, but differ in whose statements are included in the calculation. First, *Party's Attacks* focuses only on the attacking party, calculating the share of this party's attacks on the target party. Though we use the same formula, the focus is not on the overall share of attacks a party receives from all other parties but on the share of attacks it receives from each other party competing in an election. To calculate this variable, we restructure our data into a dyadic data format, where each party is paired with all other parties in the election. The *Party's Attacks* variable measures the share of valence attacks in each dyadic pair. The data are still stacked, but now each respondent enters the data as many times as there are dyadic pairs of parties in an election. We expect this variable to have a strong negative effect on the copartisans of the attacking party.

Second, *Others' Attacks*, is also dyadic and measures the attacks by all other parties (other than the parties in the dyad) on the target party. This variable allows us to test how respondents react to other parties' attacks on the target party. To calculate this share, we subtract all attack statements from the party a given respondent is copartisan of from the total attack statements that a target party received during an election. Hence, the variable is calculated as the share of the valence attacks by all other parties in proportion to the valence statements by all other parties about themselves and the target party. We expect null effects for this variable. Our dependent variable, y_{ijk}, is *Vote Choice*. We rely on the post-election surveys from each country and use the question "which party did you vote

[11] The share and volume of attacks are moderately correlated. As Table A5-1 in Appendix 5 shows, controlling for volume of attacks in the models does not affect results and substantive conclusions.

for in the most recent election?" to identify voting behavior. Most post-election surveys come from waves 2-4 of the Comparative Study of Electoral Systems (CSES) dataset. Survey data from the countries and elections that are not available via CSES were added separately. These were the British National Election Study 2010, the Danish National Election Study 2011, and the Portuguese National Election Study 2011. As stated before, our data are stacked. The dependent variable, *Vote Choice*, then is coded 1 for the party the respondent voted for in the most recent election and 0 for all other party-respondent pairs.

To test our partisanship conditioning hypotheses, we rely on the same survey data. CSES and the additional national election surveys use the closeness to a party question to measure partisanship. For each survey, we measure partisans as those who indicate that they are close (or closer) to a party. *Copartisan* is a dummy variable coded 1 if the respondent's party identification matches the attacked party in the party-election observation.[12]

We also control for several variables. First, we include two measures of party performance: how the party is polling in the opinion polls at the beginning of the campaign period (i.e., one month before the election) (*Party Performance*) and how much the party's polling performance at the beginning of the campaign period was different compared to the party's last election result (Δ*Party Performance*) to control for how much the party has gained or lost in the polls compared to the previous election. The election result data come from the Comparative Manifesto Project (MARPOR) dataset (Volkens, Krause, Lehmann, Matthieß, Merz, Regel and Weßels 2019), and our polling data are from Jennings and Wlezien (2016) and Pereira (2019). It is crucial that we control for these factors, given that the extent of attacks a party receives is possibly a result of their performance. Larger par-

[12]One may question the assumption we make that partisanship comes prior to the vote. Using cross-national survey data, unfortunately, does not allow us to test this assumption, which would require panel data. Nevertheless, we build on the work by Schickler and Green (1997) and argue that party identification in Western democracies is generally stable, which suggests that our assumption may not be too strong.

ties and especially those gaining in the polls might be more likely to receive attacks.[13] We also include the variable $Government_{(t-1)}$, coded 1 for parties in the government before the election, as we expect that governing parties might be punished ahead of elections. We use ParlGov data (Döring and Manow 2019) to code this variable.[14]

At the respondent level, we control for political knowledge, gender, and age, which should affect vote choice, and which have been commonly controlled for in the vote choice models to account for socioeconomic cleavages (see, e.g. Duch and Stevenson 2005).[15] The knowledge variable (*Political Knowledge*) is based on the knowledge batteries in the CSES and NES data.[16] The number of knowledge items varies between different

[13]Party vote shares might not be comparable across our cases given different electoral systems and it could be that seat shares are a more appropriate way to measure performance. However, because polling results are only available in votes and not in seats, we would not be able to include Δ*Party Performance* into our models. Nevertheless, we replicated the analysis in Appendix 3 by replacing the Party Performance variable with the party seat share in the last election and dropping the Δ*Party Performance* variable. The results remain largely the same.

[14]Incumbency may condition the effects of negative campaigning on the target party's performance. We test this possibility in Table A4-5 in Appendix 4 and show that there are no conditional effects.

[15]In Appendix 4, we estimate models excluding these variables to check the robustness of our results, and also check their conditional effects on the impact of negative campaigning. The effects of negative campaigning might be stronger among younger respondents (due to their likely higher exposure to these news and their inexperience with programmatic politics) and males (given that males and females react to negative news differently – (see, e.g. Grabe and Kamhawi 2006). Regarding knowledge, the conditional effects may work in different directions. Politically knowledgeable people might also be more likely to pay attention to and be aware of negative news. However, they could also be less likely to rely on these news in their vote choice. We tested these possibilities by interacting our negative campaigning variables with these individual-level factors. Only a few of these interactions are statistically significant. We discuss them in Appendix 4.

[16]We use political knowledge because we are interested in controlling for political attention in our models. Education would be an alternative variable, but because knowledge is more closely related to political attention than education and because the surveys have different education measures across our cases, we decided to use political knowledge.

election studies and ranges from 3 to 8 items. To obtain a comparable measure across our cases, we construct our political knowledge variable such that it is the number of correct responses to three political knowledge questions. For NES with more than three knowledge items, an algorithm randomly selected three items for each individual.[17] The *Age* and *Male* variables are from the CSES and NES, and the latter is coded such that 1 refers to male and 0 refers to female. Table 2 shows the descriptive statistics for our variables.[18]

Table 2: Descriptive Statistics

	Min	Max	Mean	SD
Party-level variables				
Received Attacks	0	0.81	0.52	0.18
Party's Attacks	0	0.73	0.16	0.19
Others' Attacks	0	0.87	0.47	0.20
Party Performance	1.60	46.31	19.50	11.86
ΔParty Performance	-15.28	7.36	-0.74	5.16
Government$_{t-1}$	0	1	0.43	0.49
Individual-level variables				
Vote choice (DV)	0	1	0.20	0.40
Political knowledge	0	3	1.54	0.95
Age	18	106	51.21	17.34
Male	0	1	0.48	0.50

Note: Data set includes 16,467 individuals, 38 parties, eight countries, and 15 country-elections.

Our main independent variable is at the party-level, while our dependent variable is at the individual level. In addition, our dependent variable is a dummy variable, coded 1 if the person is voting for the focal party and 0 otherwise. For these reasons, we estimate multi-level logit models with random effects at the party-election level to test our hypotheses. The model specification is identical to a conditional logit and allows us to take the different levels into account. We add country fixed effects to our models to con-

[17]The randomization is done for each survey respondent individually to mitigate potential issues with varying difficulty or complexity of knowledge items in the surveys. An alternative measure would be selecting three questions based on the share of correct answers to these questions.

[18]We do not control for previous vote choice because the variable is missing in some of our election surveys and also because evidence suggests that the recall questions are problematic and do not necessarily reflect the true voting behavior (Atkeson 1999; Stocké 2007).

trol for any unobserved country-specific effects. In the model where we test the effect of attacks by the attacking party and by all other parties, the dataset is structured in a dyadic manner. Hence, we use party-election-dyad intercepts along with country fixed effects. Our modeling approach also allows us to address the issue of clustering in our data by specifically modeling it (with party-election and party-dyad-election intercepts). Below are the models estimated in Table 3.

To test our hypotheses for all respondents, copartisans of the target party, and nonpartisans, we rely on the respondent-party-level stacked dataset and use the following statistical model:

$$\begin{aligned} \text{y}_{ijk} =& \beta_0 + \beta_1 \text{Received Attacks}_{ij} + \beta_2 \Delta\text{Party Performance}_{ij} + \beta_3 \text{Party Performance}_{ij} \\ &+ \beta_4 \text{Copartisan}_{ijk} + \beta_5 \text{Government}_{t-1ij} + \beta_6 \text{Pol. Knowledge}_{jk} + \beta_7 \text{Age}_{jk} \\ &+ \beta_8 \text{Gender}_{jk} + u_{ij} + e_{ijk}, \end{aligned} \tag{2}$$

where each party i in election j is matched with every respondent k in the corresponding election study, $e_{ijk} \sim N(0, \sigma_e^2)$ is the level 1 variation, and $u_{ij} \sim N(0, \sigma_u^2)$ is the level 2 variation. To test the target's copartisans and nonpartisans hypotheses we run this model separately (Columns 2 and 4) for these groups and do not include the copartisan variable.

To test our hypotheses for the attacking party's copartisans and all other parties' copartisans (Column 3), we rely on the respondent-party dyad stacked dataset and estimate the following model:

$$\begin{aligned} \text{y}_{idjk} =& \beta_0 + \beta_1 \text{Party's Attacks}_{idj} + \beta_2 \text{Other Parties' Attacks}_{idjk} + \beta_3 \Delta\text{Party Performance}_{ij} \\ &+ \beta_4 \text{Party Performance}_{ij} + \beta_5 \text{Government}_{t-1ij} + \beta_6 \text{Pol. Knowledge}_{jk} \\ &+ \beta_7 \text{Age}_{jk} + \beta_8 \text{Gender}_{jk} + u_{idj} + e_{idjk}, \end{aligned} \tag{3}$$

where each party i in dyad d in election j is matched with every respondent k in the corresponding election study, $e_{idjk} \sim N(0, \sigma_e^2)$ is the level 1 variation, and $u_{idj} \sim N(0, \sigma_u^2)$ is the level 2 variation.

Results

Table 3 presents the results. Column 1 shows the results for all respondents, while Columns 2-4 show the effects of attacks for the target's copartisans (2), the attacker's copartisans and other parties' copartisans (3), and nonpartisans (4), respectively. To recap, we expect the copartisans of the target party to rally behind their own party when other parties attack it, partisans of the attacking party to punish the target party, and other parties' copartisans and nonpartisans, on average, to have null effects. In Table 3 below we report the log odds coefficients from the multi-level logit models. A positive (negative) coefficient indicates an increased (decreased) likelihood of voting for a party.

Our key independent variable in all models (other than Column 3) is the share of campaign attacks received (*Received Attacks*). Interpreting a coefficient for this variable (the effect of a one-unit increase) is a change from no attacks received (when the share is 0) to a campaign where all campaign discussions were attacks on that party by other parties (when the share is 1). Since 1 is not a realized negative campaigning share in our data, we provide, for all relevant models, the predicted probabilities over the range of actually observed negative campaigning shares in Figure 1. In the first column of Table 3, we test the effect of negative campaigning overall on all voters ahead of the election. As we can see, the share of negative campaigning a party receives during an election does not affect vote choice. While the coefficient is positive, it is not statistically significant. Still, these results are not surprising, as (1) we expect with competing theories that voters should punish or award the target party under attack, which may cancel each other out, and (2) Model

1 pools all voters and, in the theory section, we already formulated distinct expectations for the copartisans of target and attacker as well as other partisans and nonpartisans.

Table 3: The Effect of Negative Campaigning on Vote Choice - Cross-National Analyses

	All	Copartisans		Nonpartisans
		Target	Attacker	
	Model 1	Model 2	Model 3	Model 4
Received Attacks	0.46	1.50*		0.51
	(0.43)	(0.55)		(0.50)
Party's Attacks			−1.27*	
			(0.38)	
Others' Attacks			1.94*	
			(0.43)	
ΔParty Performance	0.01	0.03	0.00	−0.01
	(0.02)	(0.02)	(0.02)	(0.02)
Party Performance	0.05*	0.02*	0.04*	0.06*
	(0.01)	(0.01)	(0.01)	(0.01)
Copartisan	4.54*			
	(0.04)			
Government$_{t-1}$	−0.04	−0.08	−0.03	−0.06
	(0.18)	(0.20)	(0.20)	(0.21)
Political Knowledge	−0.10*	−0.03	−0.01	−0.02
	(0.02)	(0.04)	(0.04)	(0.02)
Age	−0.00*	0.00*	−0.00	0.00*
	(0.00)	(0.00)	(0.00)	(0.00)
Male	−0.09*	−0.10	0.01	−0.04
	(0.03)	(0.06)	(0.06)	(0.04)
Intercept	−3.59*	0.59	−5.16*	−3.22*
	(0.27)	(0.33)	(0.32)	(0.32)
Log Likelihood	−18360.46	−3520.09	−4546.18	−8084.77
Observations	69,559	10,698	39,662	19,126
Groups	63	63	328	63
Var: Groups (Intercept)	0.21	0.18	0.77	0.24

Note: Dependent variable is vote choice for the target party. Standard errors in parentheses. Models include party-election random intercepts and country fixed effects. Reported are the standard log odds coefficients. $^*p < 0.05$.

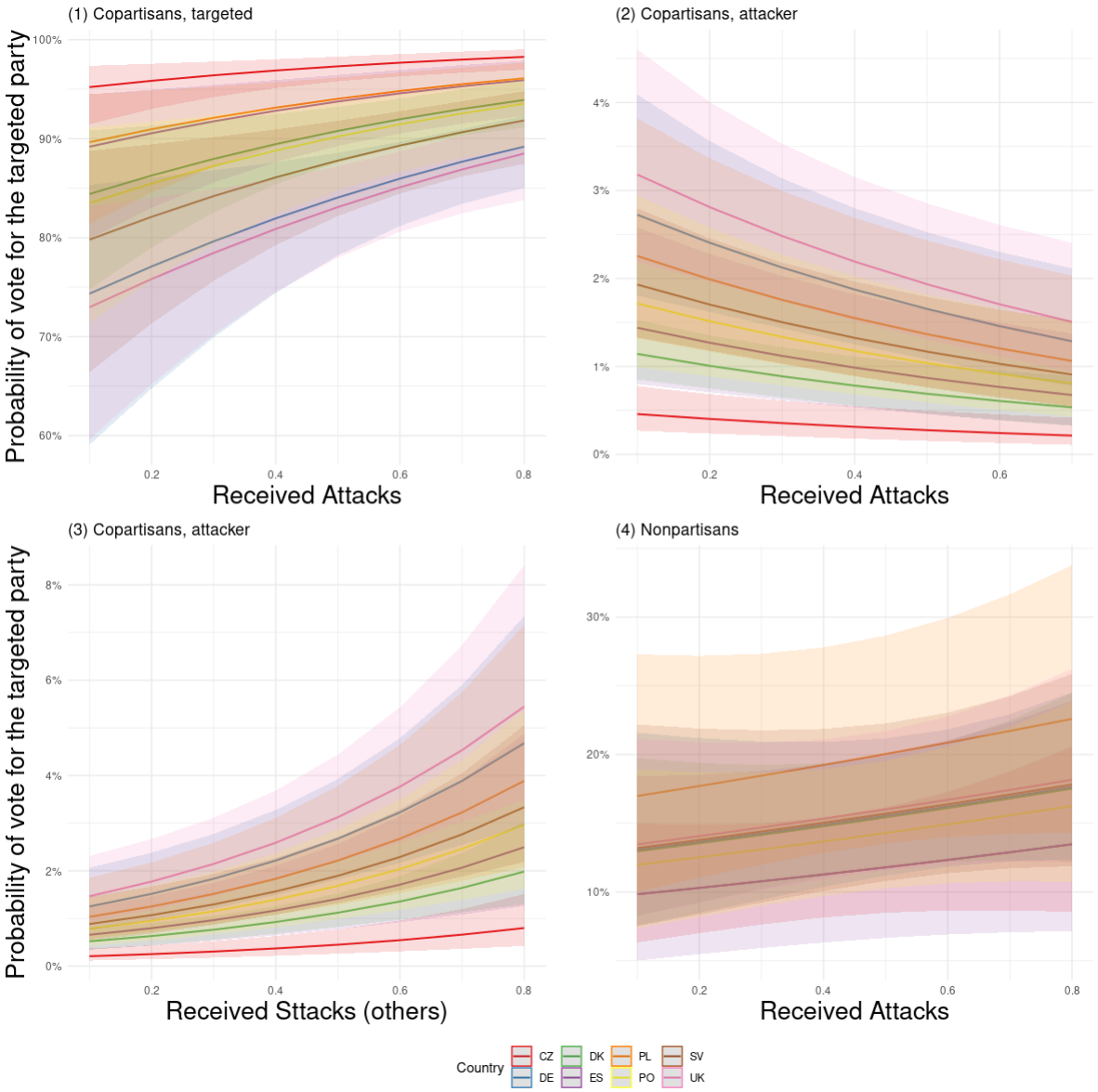
We test the different partisan dynamics by sub-setting the dataset on partisanship in Columns 2-4. As hypothesized, copartisans of the target party rally behind their own party. The statistically significant coefficient of 1.50 in Column 2 suggests that coparti-

sans of the target party respond strongly to the negative campaigning against their party and are more likely to vote for it. In Panel 1 of Figure 1 we calculate the predicted probabilities of copartisans of the target party voting for their party as the share of negative campaigning increases. Unsurprisingly, copartisans – across all countries in the dataset – have a high baseline likelihood of voting for their party in general, and this likelihood increases across all countries as the party is subject to higher shares of negative campaigning.[19] We hence find support for our first hypothesis: copartisans of the target party appear to respond to attacks on their party by turning out to vote for it.

Our expectation for the copartisans of the attacking party is that they should be motivated to turn out and vote for their party. Hence, we should see a negative coefficient for the effects of the *Party's Attacks* variable on vote choice for the target party. Recall that this variable is the share of attacks on the target party from the party a given respondent is a copartisan of. The negative and statistically significant coefficient of -1.27 supports our expectation. How much does this likelihood decrease? In Panel 2 of Figure 1, we show the predicted probabilities for attacking party's copartisans to vote for the target party as the share of negative campaigning increases. Across all countries in our analysis, copartisans of the attacking party start with a low baseline likelihood of voting for the target party. This likelihood further decreases in all countries as the share of attacks by the party the survey respondent identifies with increases. The magnitude of the effect of negative campaigning varies by country. The United Kingdom experiences the most significant drop by about two percentage points, while there are no discernible effects in countries like the Czech Republic or Denmark. Most other countries see a change of about one percentage point.

[19]We present predicted probabilities for every country since we included country fixed effects, and a visualization for each country is more illustrative than for one representative case or a re-estimation of all models without country fixed effects.

Figure 1: Predicted Values of Negative Campaigning for Different Partisan Groups



Note: Panel 1 is based on model 2, panels 2 and 3 are based on model 3, and panel 4 is based on model 4 of Table 3. Shown are predicted probabilities with 95% confidence intervals for vote choice for the observed values of Received Attacks for each country in the dataset. The values of continuous covariates are set to their mean, those of categorical covariates to their reference level.

Our final hypothesis formulates expectations about the behavior of the partisans of other parties and nonpartisans. In both cases, we expect null findings. The effect for partisans of other parties is tested with the *Others' Attacks* variable in Column 3. Here, we examine how much the share of negative campaigning from other parties affects the

respondent's vote choice while controlling for the share of attacks from the party a respondent identifies with (*Party's Attacks*). Counter to our hypothesis, the coefficient is positive, substantively large, and statistically significant. Panel 3 of Figure 1 provides more insight. As expected, the copartisans of third parties start out with a very low baseline likelihood of voting for another party. However, as the share of attacks from other parties on the target party increases, so does the likelihood of voting for this party. While there is variation in the size of the effect, from almost non-existent in the Czech Republic to a rise from 1.5% to over 5% in the United Kingdom, the general trend suggests that copartisans of third parties appear more likely to vote for the target party when this party is under attack.

What explains these findings? While it is not possible to exactly know why we see strong positive effects of other parties' attacks on other partisans' voting behavior toward the target party given the data limitations, we believe that our backlash theory may explain the finding. As discussed in the theory section, while negative campaigning aims to educate respondents about the target party's negative traits/performance (and hence encourage them to not vote for the target party), the backlash theory suggests that people may turn against the attacker. This may result in a boost for the target party if voters sympathize with the victim/target. Haddock and Zanna's 1997 experimental work from Canada shows that the target party leader is evaluated more sympathetically, and we know that voters in general dislike negativity (Banda and Windett 2016). While the attacking party's copartisans are likely going to believe in their party's negative rhetoric and punish the target, it is possible that other parties' partisans sympathize with the target party and decide to vote for it. Future work is needed to further unpack these interesting findings.

We also expected null findings for the nonpartisans. The results in Column 4 confirm these expectations, showing no statistically significant effect of negative campaigning on nonpartisans' voting behavior. We expected to see null effects for two reasons. First,

some nonpartisans might learn about the target party's deficiencies (correct or not) and may turn out to vote for a different party to punish the target, and some might sympathize with the target and turn out and vote in favor of the target party. We expected these effects largely to cancel each other out, resulting in null effects. Second, we expected these mostly politically alienated respondents to likely further alienate by negative campaigning (Ansolabehere et al. 1994), which overall means that they would not vote in favor of the target or the attacker, resulting in null effects. The null results support these predictions, even if we cannot answer which of these mechanisms is at play. Panel 4 of Figure 1 plots the predicted probabilities for nonpartisans of every country and while there is an upward slope for each line, the confidence intervals cover significant areas, and the null finding is confirmed.

One may argue that these effects are not large or meaningful. However, these effect sizes are important in the context of Europe's multi-party systems, where parties are fighting to increase their vote shares by even 2-3% to become the largest party, join the government coalition, or even just pass the electoral threshold and make it into parliament. Central to the relevance of our findings is the prevalence of co-, out-, and nonpartisans in the data. For example, how many of the respondents in the survey data identify with one party but then vote for another? Table 4 shows the distribution of the various cases in our data. Overall, as one might expect from reasonable intuition or our predicted probabilities, most respondents vote for the party they identify with. Yet, our results suggest that target parties gain votes from the copartisans of other parties. Table 4 also shows a significant number of people (7% of our sample) who identified with one but then voted for a different party (outpartisans who voted for a different party than their own). Therefore, the increasing likelihood of voting for the target by other partisans from about 1.5% to almost 5.5% for the United Kingdom or from less than 1.5% to nearly 5.5% for Germany (two very different political and electoral systems) might mean adding a significant number of voters to a party's tally that can tip the scales toward one majority or another, or

from clearing the electoral threshold or not. In addition, winning votes from other parties causes twice the damage to competitors. While winning over a nonpartisan only adds one additional vote to the tally of a party, winning over a voter from another party increases the vote tally of that party at the competitor's expense.

Table 4: Partisanship and Voting Behavior among the Sample of 16,467 respondents

Groups	**Percent of our sample**
Respondents who voted for the party they identify with	58%
Respondents who identify with and voted for different parties	7%
Respondents who did not identify with any party but voted	21%
Respondents who did not vote for a party in the data set	14%

Finally, one may argue that these results are not surprising, given that political parties are more likely to attack a rival party when the rival is performing well. Hence, the likelihood of voting for the party should increase even among the copartisans of other parties, not because of the attacks but because they are performing better. However, we argue that this is not the case for two reasons. First, we control for a given party's performance and the change of this party's performance in the models, and still find statistically significant effects of negative campaigning on vote choice. Second, if this argument were valid, then nonpartisans should also be more likely to vote for the target party, in addition to the copartisans of other parties. However, our results show that nonpartisans do not react to the attacks. At the same time, the copartisans of other parties, within the limits of their baseline likelihood, are more likely to vote for the target party.

One may also be interested in further exploring whether negative campaigning by different parties has varying effects. For instance, the ideological distance of the attacking party to the target party, the vote share of the attacking party, and the incumbency status of the attacking party may affect how voters react to different parties' attacks. Given space limitations, we cannot discuss these interesting potential variations here, but Appendix 6 shows some preliminary results for these conditioning effects. Overall, while

partisanship is an important conditioning variable for the effect of negative campaigning on target party vote share, the attacking party's characteristics do not appear to affect voters' behavior.

Conclusion

Negative campaigning is on the rise across Europe. While policy discussions still dominate elections campaigns, political parties also use election campaigns to criticize their rivals' performance and traits. Yet, we know relatively little about how negative campaigning works in Europe. Using a new dataset on negative campaigning in eight European countries over 15 elections, we showed that voters react to negative campaigning with their vote choice. While the target party's copartisans rally behind their party when it is attacked, attacking party's copartisans use this information to punish the target party in elections and nonpartisans, on average, do not react to attacks. Contrary to our expectations, our results also show that other parties' partisans turn out to vote in favor of the target party. We believe that their dislike towards negativity may motivate them to do so.

These results have important implications for our understanding of European voter behavior and for the negative campaigning literature, as described in the introduction section. Our results contribute to the predominantly U.S. and other single country-focused and mainly experimental work (see, e.g. Ansolabehere et al. 1994; Haddock and Zanna 1997; Pinkleton 1997) to show that negative campaigns matter. In addition, while interesting recent work has started to unpack variation across respondents' personality traits to explain how they react to negative campaigning (see, e.g Nai and Maier 2021; Nai and Otto 2021), our work is original with its focus on different partisan groups and their voting behavior in response to negative campaigning. Very few works have attempted to focus on partisanship differences for negative campaigning effects. Stevens et al.'s 2015 and Haselmayer, Hirsch and Jenny's 2020 experimental work in the U.S. and Germany,

respectively, focused on how different partisan groups evaluate negative campaigning. However, as noted, no work explores negative campaigning effects on different partisan groups' *voting behavior*, and certainly not with a focus on copartisans of the attackers, targets, other parties, and nonpartisans.

Our results suggest that negative campaigning in Europe has a bad reputation and may motivate some voters to react against the attacks and side with the target party. Hence, these results have important implications for political parties as they decide on their campaign strategies. In the theory section, we argued that political parties need votes to achieve their goals. Therefore, they aim to keep their supporters attached to the party and attract independents and other parties' supporters. Being targeted by attacks helps with the first goal. Target's copartisans appear to be more motivated to vote for their own party under attack. At the same time, nonpartisans, whose votes the party aims to attract by attacking a rival, do not, on average, respond to these attacks. Only the attacking party's supporters listen and react to the negative news with their votes. Other parties' partisans, on average, rally behind the target party. These results, then, suggest that political parties should carefully assess the possibility that their attacks may backfire, leading to increased mobilization for the target party.

Other open questions require a more detailed examination in the near future. First, our results point to the conclusion that negative attacks are disliked by voters, who may switch their votes in favor of the target party. However, we do not directly test whether voters dislike negative campaigning and if so, to what extent. Examining subjective evaluations of negative attacks may require an experimental design. Some very valuable country-specific experiments examine how voters react to negativity (see, e.g. Haddock and Zanna 1997; Roy and Alcantara 2016), but more comparative work is needed. Second, our focus in this paper was on the target party, and we do not know whether and when attacking parties are awarded/punished in multi-party systems. Hence, we have not answered why political parties use negative campaigning, especially given the find-

ings of our paper that they appear to, on average, help the target party.[20] Third, more work is needed to unpack the content of attacks attacks. It would be interesting to explore, for example, whether attacks on parties versus leaders have different consequences for the target party. As politics is becoming increasingly candidate-centric across Europe (Poguntke and Webb 2005), one might argue that leader attacks receive more attention and may be more consequential (but see, e.g. Curtice and Holmberg 2005). Similarly, one may argue that the type of attacks matters. Our definition of negative campaigning is broad and encompasses any attacks on party/leader performance and traits. However, research suggests that dirty campaigning using defamatory and disrespectful comments is disliked more than informative and civil negative campaigning (Reiter and Matthes 2021). Do different attacks affect the target party's performance differently? We provide some preliminary results in Appendices 7 and 8. These results suggest that party versus leader attacks do not result in different consequences for the target party, but the target party's copartisans are more motivated to mobilize and vote for their party when the attacks are on character and not on performance. As discussed in the Appendix, these results are preliminary and rest on some strong assumptions we had to make to organize the data.[21] Hence we leave these interesting questions for future research.

[20] Weitzel (2021) provides a detailed account of when and how political parties use negative campaigning, see, also Nai (2018)).

[21] Another interesting question concerns the source of the attack. One may argue that attacks by senior figures may receive more attention than those by lower-ranked members. Unfortunately, our dataset does not allow us to test this variation.

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Appendix

Negative Campaigning and Vote Choice in Europe: How do Different Partisan Groups React to Campaign Attacks?

Appendix 1 Online Survey used by the Comparative Campaign Dynamics Project

Figure 1: CCD Project Coder Survey 1

Does the subject of the article you identified discuss any issue positions or valence characteristics of another party, of the government or of the establishment?

* must provide value

- (•) Yes
- ( ) No

reset

Note that if the subject discusses another party's leader or member of the parliament etc. you should still code this as "Yes" and code the party of that leader/member in the next question. If the subject refers to the "government" determine who was in government that year and code the party accordingly.

If the subject talks about another party or the government, identify the first (or the only) other actor it talks about?

- (•) Labour Party
- ( ) Liberal Democratic Party
- ( ) Conservative Party
- ( ) UKIP
- ( ) Scottish National Party
- ( ) Establishment

reset

Does the subject refer to an issue position of this other actor?

* must provide value

- (•) Yes
- ( ) No

reset

What is the first (or the only) issue the subject refers to for the other actor?

- (•) Taxes
- ( ) Social Policy/Public Services
- ( ) Inflation
- ( ) Unemployment
- ( ) Other Economic Performance
- ( ) Centralization vs. Regional Autonomy
- ( ) Environment
- ( ) Immigration, Asylum
- ( ) Justice System
- ( ) Law and Order, Security, Terrorism
- ( ) National Way of Life, Patriotism
- ( ) Traditional Morality, Family Values, Religion
- ( ) Europe/European Union
- ( ) Internationalism (not EU)
- ( ) Foreign Intervention
- ( ) Agriculture/Rural Affairs
- ( ) Other Issue

reset

"Social policy/public services" is an umbrella category on welfare state related policies that includes (but is not limited to) sub-issues such as: Social services, Education, Social security, Health care, Public housing, Public transportation, Childcare, Family policies (e.g., maternity leave, Elderly care, Minimum wage

Issue direction

- (•) -1
- ( ) 0 (status quo; no clear position taken/vague; or just mentions the issue)
- ( ) 1
- ( ) 99 (takes a contradictory position)

reset

Refer to your notes to decide how to code this variable

How confident are you with your answer to the questions so far about the issue you identified above?

* must provide value

- (•) Fully confident
- ( ) Somewhat confident
- ( ) Not confident

reset

Figure 2: CCD Project Coder Survey 2

When the subject discusses the other actor's position on the issue you identified above, does the subject refer to any valence characteristics of this other actor?

- (●) Yes
- ( ) No

reset

Valence includes references to party/leader honesty, integrity, character, competence, performance; party unity; leader charisma. You should answer this question "yes" only if the subject is clearly and openly saying that they are the competent, unified, honest etc. party/leader to deal with that issue. If they do not clearly discuss their competence, integrity etc. when discussing this specific issue, say no.

What is the valence content?

- ( ) Party/Govt/Est honesty/integrity/character
- ( ) Party/Govt/Est (past, current, future) competence/performance
- ( ) Party/Govt/Est unity
- ( ) Party/Govt/Est other valence dimension
- (●) Leader honesty/integrity/character
- ( ) Leader (past, current, future) competence/performance
- ( ) Leader charisma
- ( ) Leader other valence dimension
- ( ) Other target actor (e.g., an MP of the party, the deputy leader, a minister etc.)

reset

Is the valence category referred to in a negative or positive light?

- (●) negative direction
- ( ) neutral
- ( ) positive direction

reset

When the subject discusses the position of the other actor on the issue you identified above, does the subject refer to a second valence characteristic of the party/government/establishment?

- ( ) Yes
- (●) No

reset

Valence includes references to party/leader honesty, integrity, character, competence, performance; party unity; leader charisma. You should answer this question "yes" only if the subject is clearly and openly saying that they are the competent, unified, honest etc. party/leader to deal with that issue. If they do not clearly discuss their competence, integrity etc. when discussing this specific issue, say no.

How confident are you with your answers to the issue-related valence questions?

* must provide value

- (●) Fully confident
- ( ) Somewhat confident
- ( ) Not confident

reset

Figure 3: CCD Project Coder Survey 2

Does the subject talk about the other actor's valence (the actor you identified above)
without any specific reference to an issue position?

* must provide value

- (●) Yes
- ( ) No

reset

Note that if the subject is saying that the other party is (in)competent/(dis)unified etc. to deal with a particular issue, you should have already coded it above as an issue category. This question should be answered as "yes" only if the subject says that the other actor is (in)competent, (dis)unified, (dis)honest, (not) charismatic etc. WITHOUT a reference to any specific issue positions

First (or Only) Valence Content

- ( ) Party/Govt/Est honesty/integrity/character
- (●) Party/Govt/Est (past, current, future) competence/performance
- ( ) Party/Govt/Est unity
- ( ) Party/Govt/Est other valence dimension
- ( ) Leader honesty/integrity/character
- ( ) Leader (past, current, future) competence/performance
- ( ) Leader charisma
- ( ) Leader other valence dimension
- ( ) Other target actor (e.g., an MP of the party, the deputy leader, a minister etc.)

reset

Is the valence category referred to in a negative or positive light?

- (●) negative direction
- ( ) neutral
- ( ) positive direction

reset

How confident are you with your answer for identifying the questions related to this valence content?

* must provide value

- (●) Fully confident
- ( ) Somewhat confident
- ( ) Not confident

reset

Appendix 2 List of parties with less than five total statements and replicating Table 3 with at least 10 statements threshold

We excluded parties with less than five recorded statements from the analyses. This was because the coverage of these parties in the newspapers was so sparse that any calculated share variable might be biased by a few outliers and would not be an actual representation of the parties' real-world representation in the information environment. Below, in Table A2-1, we show the names and elections of the parties that were excluded. We also added their vote shares and seat totals in the current election e and previous election $e-1$. None of these parties was a dominant actor in the elections and omitting them from the analysis does not distort or misrepresent the information environment parties were competing in. However, leaving them in the dataset may, however, cause distortions because the shares of low-count parties are much more susceptible to outliers than the shares of high-count parties. We have no reason to expect that excluding the parties listed below will bias the results, but including them would introduce considerable noise.

The models in Table 3 in the main text have a valence statement threshold of at least five statements. That is, only those political parties that were attacked 5 or more times as coded by the CCD dataset were included in the models. The reason for this threshold is because we do not think that a very small number of valence attacks can be perceived and used by voters. Nevertheless, it could be perceived as an ad-hoc threshold. Hence, we report the results using a more restrictive threshold (i.e., using those cases where there were at least 10 valence attacks against a party in an election campaign) in Table A2-2 below. The results are very similar to the results we report in the text.

Table A2-1: Parties with less than five valence statements

Country	Year	Party	Valence Count	Vote e	Vote e-1	Seats e	Seats e-1
Denmark	2007	Enhedslisten	4	2.2	3.4	4	6
Denmark	2011	Enhedslisten	4	6.7	2.3	12	4
Denmark	2011	Liberal Alliance	3	5.0	2.8	9	5
Germany	2013	Die Linke	2	8.6	11.9	64	76
Germany	2013	AfD	3	4.7		0	
Germany	2013	PIRATEN	0	2.2		0	
Hungary	2010	Fidesz–KDNP	2	67.9	42.5	263	164
Poland	2007	PSL	3	9.0	7.0	31	25
Poland	2007	LPR	2	1.3	0	8	34
Spain	2008	CiU	2	3.1	3.2	11	10
Spain	2008	ERC	1	1.2	2.5	3	8
Spain	2011	ERC	0	1.1	1.2	3	3
Netherlands	2010	GroenLinks	3	6.7	4.6	10	7
Netherlands	2010	PvdD	0	1.3	1.8	2	2
Netherlands	2012	GroenLinks	4	2.3	6.7	4	10
Netherlands	2012	50PLUS	0	1.9		2	
UK	2005	UKIP	4	2.2	1.5	0	0
UK	2005	SNP	1	1.5	1.8	6	5
UK	2010	UKIP	0	3.1	2.2	0	0
UK	2010	SNP	0	1.7	1.5	6	6

Note: Empty cells indicate that the party did not participate in that election. The Fidesz–KDNP observation in 2010 is for the alliance of the two parties. Each individual party of the alliance is included in the data individually. *e* indicates current election, e-1 previous election.

Table A2-2: Replication of Table 3 With at Least 10 Statements

	All	Copartisans		Nonpartisans
		Target	Attacker	
	Model 1	Model 2	Model 3	Model 4
Received Attacks	0.55	2.27*		0.21
	(0.51)	(0.63)		(0.57)
Party's Attacks			−1.26*	
			(0.38)	
Others' attacks			2.13*	
			(0.47)	
ΔParty Performance	0.01	0.03	−0.00	−0.01
	(0.02)	(0.02)	(0.02)	(0.02)
Party Performance	0.05*	0.02*	0.04*	0.06*
	(0.01)	(0.01)	(0.01)	(0.01)
Copartisan	4.49*			
	(0.04)			
Government$_{t-1}$	−0.12	−0.18	−0.11	−0.06
	(0.20)	(0.22)	(0.22)	(0.23)
Political Knowledge	−0.10*	−0.04	−0.01	−0.01
	(0.02)	(0.04)	(0.04)	(0.02)
Age	−0.00*	0.00*	−0.00	0.00*
	(0.00)	(0.00)	(0.00)	(0.00)
Male	−0.08*	−0.09	0.03	−0.04
	(0.03)	(0.06)	(0.06)	(0.04)
Intercept	−3.67*	0.01	−5.27*	−3.02*
	(0.36)	(0.42)	(0.38)	(0.41)
Log Likelihood	−17818.78	−3426.13	−4381.67	−7878.59
Observations	65202	10449	36710	18186
Groups	58	58	299	58
Var: Groups (Intercept)	0.22	0.17	0.72	0.25

Note: Dependent variable is vote choice for the target party. Standard errors in parentheses. The models include party-election random intercepts and country fixed effects. Reported are the standard log odds coefficients. $^*p < 0.05$.

Appendix 3 Robustness With Seat Shares as Performance Measure

In Table 3 in the main text we use parties' previous vote shares and their polling performances at the campaign start to control for parties' performances. In this section we replicate the models with seat-based performance variables. Since the information on parties' seat shares is only available at election times and not through the polling data we have, we can only include the party's seat share at the previous election into the models. The results remain similar and the substantive conclusions do not change.

Table A3-1: Replication of Table 3 With Seat Shares

	All	Copartisans		Nonpartisans
		Target	Attacker	
	Model 1	Model 2	Model 3	Model 4
Received Attacks	0.74	1.80*		0.69
	(0.50)	(0.54)		(0.59)
Party's Attacks			−1.37*	
			(0.38)	
Others' attacks			1.73*	
			(0.42)	
Seat share, lag	3.62*	1.38*	3.08*	4.54*
	(0.63)	(0.65)	(0.61)	(0.73)
Copartisan	4.57*			
	(0.04)			
Government$_{t-1}$	−0.40*	−0.45*	−0.27	−0.39
	(0.18)	(0.18)	(0.18)	(0.20)
Political Knowledge	−0.10*	−0.03	−0.01	−0.02
	(0.02)	(0.04)	(0.04)	(0.02)
Age	−0.00*	0.00*	−0.00	0.00*
	(0.00)	(0.00)	(0.00)	(0.00)
Male	−0.09*	−0.10	0.01	−0.04
	(0.03)	(0.06)	(0.06)	(0.04)
Intercept	−3.40*	0.72*	−4.89*	−2.97*
	(0.32)	(0.35)	(0.33)	(0.39)
Log Likelihood	−18388.76	−3543.98	−4625.10	−8001.50
Observations	71126	10778	41262	18959
Groups	63	63	328	63
Var: Groups (Intercept)	0.31	0.23	0.90	0.39

Note: Dependent variable is vote choice for the target party. Standard errors in parentheses. The models include party-election random intercepts and country fixed effects. Reported are the standard log odds coefficients. $^*p < 0.05$.

Appendix 4 Robustness Check without Individual-Level Controls and Testing Conditional Effects of Control Variables

In this section we first replicate Table 3 from the main text by dropping the three individual-level variables (age, gender, and political knowledge). Next, we test the conditional effects of these control variables by including interaction variables between the attack variables and (1) political knowledge, (2) age, (3) gender, and (4) incumbency status. As we noted in footnote 15, one may expect that younger respondents and males may be more receptive towards negative messages, while political knowledge may work in different directions. While politically knowledgeable respondents may more likely get exposed to negative messages, they may also be aware of the strategic use of these attacks and rely more on the programmatic messages in deciding their votes.

Table A4-1 shows the results without these control variables, and Tables A4-2, A4-3, A4-4, and A4-5 show the interaction effects. As can be seen, our results stay robust in Table A4-1 when we dropped these control variables. Table A4-2 shows that the interaction variables with knowledge have negative coefficients across all models, although the effect is only significant for all respondents. The direction of the interaction coefficient suggests that politically knowledgeable respondents are less likely to use attacks in their voting behavior.

Table A4-3 shows the interaction variables with the male dummy variable. The results from columns 1, 2, and 4 show no conditioning effects of gender on negative campaigning. However, column 3 results suggest that males punish the target party less than women when their party attacks, and they award the target party more than women when other parties' are attacking the target. While interesting, it is not clear why we see these effects. Future work should further unpack these gender differences.

In Table A4-4, none of the age interactions return significant coefficients. Table A4-5 results also show that there are no statistically significant coefficients for the governing

party interactions. However, the signs of all interaction coefficients suggest that the effects of negative campaigning get larger when the attacker is a governing party, which is consistent with our expectation.

Table A4-1: Robustness of Table 3 Without Individual-Level Controls

	All	Copartisans		Nonpartisans
		Target	Attacker	
	Model 1	Model 2	Model 3	Model 4
Received Attacks	0.45	1.48*		0.52
	(0.43)	(0.55)		(0.50)
Party's Attacks			−1.29*	
			(0.37)	
Others' attacks			1.92*	
			(0.43)	
ΔParty Performance	0.01	0.03	0.00	−0.00
	(0.02)	(0.02)	(0.02)	(0.02)
Party Performance	0.05*	0.02*	0.04*	0.06*
	(0.01)	(0.01)	(0.01)	(0.01)
Copartisan	4.51*			
	(0.04)			
Government$_{t-1}$	−0.04	−0.10	−0.03	−0.04
	(0.18)	(0.20)	(0.20)	(0.21)
Intercept	−3.99*	0.65*	−5.28*	−3.12*
	(0.26)	(0.31)	(0.29)	(0.31)
Log Likelihood	−19424.22	−3678.56	−4708.94	−8582.70
Observations	72891	11351	41238	20058
Groups	63	63	328	63
Var: Groups (Intercept)	0.21	0.18	0.77	0.25

Note: Dependent variable is vote choice for the target party. Standard errors in parentheses. The models include party-election random intercepts and country fixed effects. Reported are the standard log odds coefficients. $^*p < 0.05$.

Table A4-2: Replication of Table 3 With Political Knowledge Interaction

	All	Copartisans		Nonpartisans
		Target	Attacker	
	Model 1	Model 2	Model 3	Model 4
Received Attacks	0.91*	1.71*		0.67
	(0.46)	(0.67)		(0.55)
Party's Attacks			−1.23*	
			(0.47)	
Political Knowledge	0.05	0.04	0.07	0.05
	(0.06)	(0.14)	(0.12)	(0.09)
Received Attacks*Political Knowledge	−0.28*	−0.13		−0.12
	(0.10)	(0.23)		(0.15)
Party's Attacks*Political Knowledge			−0.02	
			(0.16)	
Others' attacks			2.18*	
			(0.56)	
Others' attacks*Political Knowledge			−0.15	
			(0.20)	
ΔParty Performance	0.01	0.03	0.00	−0.01
	(0.02)	(0.02)	(0.02)	(0.02)
Party Performance$_{t-1}$	0.05*	0.02*	0.04*	0.06*
	(0.01)	(0.01)	(0.01)	(0.01)
Copartisan	4.54*			
	(0.04)			
Government t-1	−0.06	−0.09	−0.04	−0.06
	(0.19)	(0.20)	(0.20)	(0.21)
Age	−0.00*	0.00*	−0.00	0.00*
	(0.00)	(0.00)	(0.00)	(0.00)
Male	−0.09*	−0.10	0.01	−0.04
	(0.03)	(0.06)	(0.06)	(0.04)
Intercept	−3.84*	0.46	−5.29*	−3.31*
	(0.28)	(0.40)	(0.38)	(0.35)
Log Likelihood	−18356.77	−3519.94	−4545.92	−8084.49
Observations	69559	10698	39662	19126
Groups	63	63	328	63
Var: Groups (Intercept)	0.21	0.18	0.77	0.25

Note: Dependent variable is vote choice for the target party. Standard errors in parentheses. The models include party-election random intercepts and country fixed effects. Reported are the standard log odds coefficients. $^*p < 0.05$.

Table A4-3: Replication of Table 3 With Gender Interaction

	All	Copartisans		Nonpartisans
		Target	Attacker	
	Model 1	Model 2	Model 3	Model 4
Received Attacks	0.42	1.62*		0.50
	(0.43)	(0.58)		(0.51)
Party's Attacks			−1.87*	
			(0.40)	
Male	−0.14	0.06	−0.80*	−0.05
	(0.11)	(0.25)	(0.22)	(0.16)
Received Attacks*Male	0.09	−0.29		0.02
	(0.18)	(0.41)		(0.27)
Party's Attacks*Male			1.17*	
			(0.29)	
Others' attacks			1.46*	
			(0.46)	
Others' attacks*Male			1.00*	
			(0.36)	
ΔParty Performance	0.01	0.03	0.00	−0.01
	(0.02)	(0.02)	(0.02)	(0.02)
Party Performance	0.05*	0.02*	0.04*	0.06*
	(0.01)	(0.01)	(0.01)	(0.01)
Copartisan	4.54*			
	(0.04)			
Government$_{t-1}$	−0.04	−0.08	−0.03	−0.06
	(0.18)	(0.20)	(0.20)	(0.21)
Political Knowledge	−0.10*	−0.03	−0.00	−0.02
	(0.02)	(0.04)	(0.04)	(0.02)
Age	−0.00*	0.00*	−0.00	0.00*
	(0.00)	(0.00)	(0.00)	(0.00)
Intercept	−3.57*	0.52	−4.79*	−3.22*
	(0.27)	(0.35)	(0.33)	(0.33)
Log Likelihood	−18360.35	−3519.86	−4534.81	−8084.77
Observations	69559	10698	39662	19126
Groups	63	63	328	63
Var: Groups (Intercept)	0.21	0.18	0.77	0.24

Note: Dependent variable is vote choice for the target party. Standard errors in parentheses. The models include party-election random intercepts and country fixed effects. Reported are the standard log odds coefficients. $^*p < 0.05$.

Table A4-4: Replication of Table 3 With Age Interaction

	All	Copartisans		Nonpartisans
		Target	Attacker	
	Model 1	Model 2	Model 3	Model 4
Received Attacks	0.61	0.95		1.03
	(0.51)	(0.84)		(0.64)
Party's Attacks			−0.79	
			(0.57)	
Age	−0.00	−0.00	−0.00	0.01*
	(0.00)	(0.01)	(0.01)	(0.00)
Received Attacks*Age	−0.00	0.01		−0.01
	(0.01)	(0.01)		(0.01)
Party's Attacks*Age			−0.01	
			(0.01)	
Others' attacks			1.87*	
			(0.69)	
Others' attacks*Age			0.00	
			(0.01)	
ΔParty Performance	0.01	0.03	0.00	−0.00
	(0.02)	(0.02)	(0.02)	(0.02)
Party Performance	0.05*	0.02*	0.04*	0.06*
	(0.01)	(0.01)	(0.01)	(0.01)
Copartisan	4.54*			
	(0.04)			
Government$_{t-1}$	−0.04	−0.08	−0.03	−0.05
	(0.18)	(0.20)	(0.20)	(0.21)
Political Knowledge	−0.10*	−0.03	−0.01	−0.02
	(0.02)	(0.04)	(0.04)	(0.02)
Male	−0.09*	−0.11	0.01	−0.04
	(0.03)	(0.06)	(0.06)	(0.04)
Intercept	−3.67*	0.90	−5.25*	−3.51*
	(0.31)	(0.50)	(0.44)	(0.39)
Log Likelihood	−18360.32	−3519.71	−4545.53	−8083.96
Observations	69559	10698	39662	19126
Groups	63	63	328	63
Var: Groups (Intercept)	0.21	0.18	0.77	0.24

Note: Dependent variable is vote choice for the target party. Standard errors in parentheses. The models include party-election random intercepts and country fixed effects. Reported are the standard log odds coefficients. $^*p < 0.05$.

Table A4-5: Replication of Table 3 With Incumbency Interaction

	All	Copartisans		Nonpartisans
		Target	Attacker	
	Model 1	Model 2	Model 3	Model 4
Received Attacks	0.38	1.38*		0.17
	(0.48)	(0.62)		(0.54)
Party's Attacks			−1.18*	
			(0.46)	
Government$_{t-1}$	−0.18	−0.29	0.12	−0.73
	(0.44)	(0.51)	(0.50)	(0.52)
Received Attacks*Government$_{t-1}$	0.27	0.40		1.32
	(0.80)	(0.93)		(0.94)
Party's Attacks*Government$_{t-1}$			−0.28	
			(0.77)	
Others' attacks			2.00*	
			(0.53)	
Others' attacks*Government$_{t-1}$			−0.24	
			(0.90)	
ΔParty Performance	0.01	0.04	−0.00	0.00
	(0.02)	(0.02)	(0.02)	(0.02)
Party Performance	0.05*	0.02*	0.04*	0.06*
	(0.01)	(0.01)	(0.01)	(0.01)
Copartisan	4.54*			
	(0.04)			
Political Knowledge	−0.10*	−0.03	−0.01	−0.02
	(0.02)	(0.04)	(0.04)	(0.02)
Age	−0.00*	0.00*	−0.00	0.00*
	(0.00)	(0.00)	(0.00)	(0.00)
Male	−0.09*	−0.10	0.01	−0.04
	(0.03)	(0.06)	(0.06)	(0.04)
Intercept	−3.52*	0.69	−5.25*	−2.91*
	(0.33)	(0.41)	(0.40)	(0.38)
Log Likelihood	−18360.41	−3520.00	−4546.09	−8083.78
Observations	69559	10698	39662	19126
Groups	63	63	328	63
Var: Groups (Intercept)	0.21	0.17	0.77	0.24

Note: Dependent variable is vote choice for the target party. Standard errors in parentheses. The models include party-election random intercepts and country fixed effects. Reported are the standard log odds coefficients. $^{*}p < 0.05$.

Appendix 5 Relationship Between the Share and Volume of Attacks

One may argue that in addition to our share variables, we need to control for the volume of attacks to eliminate the possibility that the received valence share variable is not driven by the high volume of attacks. To test this possibility we first checked the correlation between volume and share, which is less than 0.5. Given this moderately high correlation, we wonder whether the volume of attacks drives our results. To test this, we reestimated the models from Table 3 by including the volume of attacks variables in addition to the share variables in A5-1. The results for our share variables stay robust across all models.

Table A5-1: Robustness of Table 3 With Attack Volume Control

	All	Copartisans		Nonpartisans
		Target	Attacker	
	Model 1	Model 2	Model 3	Model 4
Received Attacks (Share)	0.31	1.15*		0.72
	(0.46)	(0.57)		(0.54)
Received Attacks (Volume)	0.00	0.01		−0.00
	(0.00)	(0.00)		(0.00)
Party's Attacks (Share)			−0.61	
			(0.48)	
Party's Attacks (Volume)			−0.01*	
			(0.01)	
Others' Attacks (Share)			1.49*	
			(0.49)	
Others' Attacks (Volume)			0.01*	
			(0.01)	
ΔParty Performance	0.01	0.03	0.00	−0.01
	(0.02)	(0.02)	(0.02)	(0.02)
Party Performance	0.05*	0.01	0.04*	0.07*
	(0.01)	(0.01)	(0.01)	(0.01)
Copartisan	4.54*			
	(0.04)			
Government$_{t-1}$	−0.08	−0.15	−0.04	−0.01
	(0.19)	(0.20)	(0.20)	(0.21)
Political Knowledge	−0.10*	−0.03	−0.01	−0.02
	(0.02)	(0.04)	(0.04)	(0.02)
Age	−0.00*	0.00*	−0.00	0.00*
	(0.00)	(0.00)	(0.00)	(0.00)
Male	−0.09*	−0.10	0.01	−0.04
	(0.03)	(0.06)	(0.06)	(0.04)
Intercept	−3.47*	0.87*	−5.06*	−3.39*
	(0.30)	(0.36)	(0.35)	(0.37)
Log Likelihood	−18360.12	−3518.27	−4543.75	−8084.34
Observations	69559	10698	39662	19126
Groups	63	63	328	63
Var: Groups (Intercept)	0.21	0.17	0.74	0.24

Note: Dependent variable is vote choice for the target party. Standard errors in parentheses. The models include party-election random intercepts and country fixed effects. Reported are the standard log odds coefficients. $^*p < 0.05$.

Appendix 6 Do Different Parties' Attacks Work Differently?

Is it reasonable to assume that attacks by all parties in the system matter equally for the respondents? What other variables other than partisanship might matter? While this question is beyond the scope of this paper, we wanted to provide some preliminary analyses in this section to test the conditioning effects of three party-specific variables: (1) ideological distance of the attacking party to the target party, (2) vote share of the attacking party, and (3) incumbency status of the attacking party.

To start with ideological distance, the argument might be that ideological rivals' attacks may be discounted more or seen more unfair. This would suggest that the target party would more likely be awarded for attacks by ideological rivals. Regarding the attacking party's vote share, one may argue that larger parties' attacks may receive more attention and be more informative. Finally, about the incumbency status, one may argue that governing parties' attacks may receive more coverage and attention and hence may be more influential.

In Tables A6-1, A6-2, and A6-3, we test these conditional effects. For these analyses, we first set the data in the dyadic form where each party is matched by another party in the system, and each respondent enters the data as many times as there are party dyads. We then calculated the share of the attacking party's negative campaigning on the target party in a similar fashion as the Party's Attacks variable in Column 3 of Table 3. For the ideological distance variable, we used the left-right positions of political parties from the Comparative Manifesto Project (MARPOR) dataset and calculated the absolute ideological distance between the two parties in each dyad. The vote share of the attacking party variable measures the party's vote share as of the last national election, and the data come from the MARPOR dataset. To test the incumbency effect, we coded the attacker 1 if the party was in the government before the election. We note that we can no longer include the others' attacks variable to Model 3 given that the variable measures the share of all

other parties' attacks on the target and hence does not allow us to calculate the ideological distance to a specific party.

The models in Tables A6-1, A6-2, and A6-3 replicate Table 3 models by including the absolute ideological distance, vote share of the attacking party, and incumbency variables and their interactions with the received attacks variable. As the results show, none of the interaction variables are statistically significant. These results suggest that while partisanship is an important conditioning variable, party level variables, such as the ideological distance between the attacker and the target, the vote share of the attacker, and the incumbency status of the attacker are not important for how voters evaluate negative campaigning on the target party.

Table A6-1: Interaction of Attacks with Absolute Ideological Distance

	All	Copartisans		Nonpartisans
		Target	Attacker	
	Model 1	Model 2	Model 3	Model 4
Received Attacks	0.21	0.79*		0.41
	(0.18)	(0.29)		(0.25)
Party's Attacks			−1.50*	
			(0.68)	
Abs. Ideolog. Dist.	−0.00	0.00	−0.02*	−0.00*
	(0.00)	(0.00)	(0.01)	(0.00)
Received Attacks*Abs. Ideolog. Dist.	−0.00	−0.01		−0.01
	(0.01)	(0.01)		(0.01)
Party's Attacks*Abs. Ideo. Dist.			0.01	
			(0.03)	
ΔParty Performance	0.00	0.05*	−0.00	0.02*
	(0.01)	(0.01)	(0.02)	(0.01)
Party Performance	0.08*	0.03*	0.05*	0.07*
	(0.00)	(0.00)	(0.01)	(0.00)
Political Knowledge	−0.02*	−0.03	−0.01	−0.02*
	(0.01)	(0.02)	(0.04)	(0.01)
Age	0.00*	0.00*	−0.00	0.00*
	(0.00)	(0.00)	(0.00)	(0.00)
Male	−0.02*	−0.08*	0.01	−0.04*
	(0.01)	(0.03)	(0.06)	(0.02)
Government$_{t-1}$	−0.03	−0.02	−0.15	0.06
	(0.05)	(0.09)	(0.21)	(0.08)
Intercept	−3.17*	1.08*	−3.80*	−3.04*
	(0.07)	(0.12)	(0.30)	(0.11)
Log Likelihood	−156252.47	−17038.76	−4446.36	−34945.73
Observations	371977	50986	39222	88547
Groups	314	314	302	314
Var: Groups (Intercept)	0.10	0.20	0.87	0.19

Note: Dependent variable is vote choice for the target party. Standard errors in parentheses. The models include party-election random intercepts and country fixed effects. Reported are the standard log odds coefficients. $^*p < 0.05$.

Table A6-2: Interaction of Attacks with Vote Share of Attacker

	All	Copartisans		Nonpartisans
		Target	Attacker	
	Model 1	Model 2	Model 3	Model 4
Received Attacks	0.04	0.83*		0.29
	(0.24)	(0.42)		(0.36)
Party's Attacks			−1.01	
			(1.04)	
Vote Share-Attacker	−0.00	−0.01	0.02*	−0.00
	(0.00)	(0.00)	(0.01)	(0.00)
Received Attacks*Vote Share-Attacker	0.00	−0.00		0.00
	(0.01)	(0.02)		(0.01)
Party's Attacks*Vote Share-Attacker			−0.04	
			(0.04)	
ΔParty Performance	0.00	0.05*	0.00	0.02
	(0.01)	(0.01)	(0.02)	(0.01)
Party Performance	0.08*	0.03*	0.06*	0.07*
	(0.00)	(0.00)	(0.01)	(0.00)
Political Knowledge	−0.02*	−0.04*	0.01	−0.02
	(0.01)	(0.02)	(0.04)	(0.01)
Age	0.00*	0.00*	−0.00	0.00*
	(0.00)	(0.00)	(0.00)	(0.00)
Male	−0.02*	−0.11*	0.03	−0.04
	(0.01)	(0.03)	(0.07)	(0.02)
Government$_{t-1}$	−0.01	0.01	−0.10	0.05
	(0.06)	(0.09)	(0.23)	(0.09)
Intercept	−3.21*	1.25*	−4.82*	−3.12*
	(0.07)	(0.13)	(0.35)	(0.12)
Log Likelihood	−136815.05	−14864.52	−4289.28	−31256.60
Observations	327674	43852	37566	79414
Groups	280	280	276	280
Var: Groups (Intercept)	0.11	0.20	0.93	0.21

Note: Dependent variable is vote choice for the target party. Standard errors in parentheses. The models include party-election random intercepts and country fixed effects. Reported are the standard log odds coefficients. $^*p < 0.05$.

Table A6-3: Testing The Effect of Governing Parties' Attacks

	All	Copartisans		Nonpartisans
		Target	Attacker	
	Model 1	Model 2	Model 3	Model 4
Received Attacks	−0.00	0.58*		0.07
	(0.15)	(0.25)		(0.22)
Party's Attacks			−1.37*	
			(0.60)	
Attacker Government$_{t-1}$	−0.00	−0.02	0.53*	−0.05
	(0.06)	(0.10)	(0.23)	(0.09)
Received Attacks*Attacker Govt$_{t-1}$	0.11	−0.02		0.32
	(0.22)	(0.36)		(0.31)
Party's Attacks*Attacker Govt$_{t-1}$			−0.67	
			(0.81)	
ΔParty Performance	0.00	0.04*	−0.01	0.02*
	(0.01)	(0.01)	(0.02)	(0.01)
Party Performance	0.08*	0.03*	0.06*	0.07*
	(0.00)	(0.00)	(0.01)	(0.00)
Political Knowledge	−0.02*	−0.03	−0.01	−0.02*
	(0.01)	(0.02)	(0.04)	(0.01)
Age	0.00*	0.00*	−0.00	0.00*
	(0.00)	(0.00)	(0.00)	(0.00)
Male	−0.03*	−0.09*	0.01	−0.04
	(0.01)	(0.03)	(0.06)	(0.02)
Government$_{t-1}$	−0.02	−0.05	−0.18	0.07
	(0.06)	(0.09)	(0.23)	(0.08)
Intercept	−3.21*	1.14*	−4.64*	−3.15*
	(0.07)	(0.12)	(0.29)	(0.10)
Log Likelihood	−165015.15	−17672.91	−4508.07	−36705.65
Observations	389488	54309	39539	92144
Groups	336	336	319	336
Var: Groups (Intercept)	0.11	0.21	0.94	0.20

Note: Dependent variable is vote choice for the target party. Standard errors in parentheses. The models include party-election random intercepts and country fixed effects. Reported are the standard log odds coefficients. $^*p < 0.05$.

Appendix 7 Checking the Different Effects of Leader and Party Attacks

To see whether negative statements about the party or the leader drive the results, we separated out these two different types of valence statements and calculated separate shares for attack statements about the leader and attack statements about the party. As can be seen in Table A7-1, which replicates Table 3 from the main text, the two types of attack statements seem to equally contribute to the voting behavior. In each model, the separate coefficients for the leader versus party attacks are very similar and not statistically different.

Table A7-1: Replication of Table 3 With Leader and Party Valence

	All	Copartisans		Nonpartisans
		Target	Attacker	
	Model 1	Model 2	Model 3	Model 4
Received Attacks (Leader)	0.27	1.90*		0.85
	(0.81)	(0.93)		(0.95)
Party's Attacks (Leader)			−1.57	
			(0.89)	
Received Attacks (Party)	0.52	1.34*		0.40
	(0.48)	(0.63)		(0.55)
Party's Attacks (Party)			−0.72	
			(0.56)	
Others' attacks (Leader)			1.59*	
			(0.80)	
Others' attacks (Party)			2.12*	
			(0.56)	
ΔParty Performance	0.01	0.03	0.01	−0.01
	(0.02)	(0.02)	(0.02)	(0.02)
Party Performance	0.05*	0.02*	0.04*	0.06*
	(0.01)	(0.01)	(0.01)	(0.01)
Copartisan	4.54*			
	(0.04)			
Government$_{t-1}$	−0.03	−0.12	0.04	−0.09
	(0.19)	(0.22)	(0.22)	(0.22)
Political Knowledge	−0.10*	−0.03	−0.01	−0.02
	(0.02)	(0.04)	(0.04)	(0.02)
Age	−0.00*	0.00*	−0.00	0.00*
	(0.00)	(0.00)	(0.00)	(0.00)
Male	−0.09*	−0.10	0.01	−0.04
	(0.03)	(0.06)	(0.06)	(0.04)
Intercept	−3.58*	0.58	−5.20*	−3.24*
	(0.27)	(0.33)	(0.32)	(0.32)
Log Likelihood	−18360.43	−3519.95	−4545.77	−8084.68
Observations	69559	10698	39662	19126
Groups	63	63	328	63
Var: Groups (Intercept)	0.21	0.18	0.77	0.24

Note: Dependent variable is vote choice for the target party. Standard errors in parentheses. The models include party-election random intercepts and country fixed effects. Reported are the standard log odds coefficients. $^{*}p < 0.05$.

Appendix 8 Checking the Different Effects of Civil versus Uncivil Attacks

In a similar fashion to Appendix 7, we also preliminarily examined whether civil attacks have different consequences on the target party compared to uncivil attacks. While ours is a crude approach, we separated negative statements about performance (performance in office, and not performance in the polls) from those about character/trait to test the difference. We assume that performance attacks are likely more civil while character attacks might be seen as more uncivil. Given this strong assumption, our results should be taken with a grain of salt. Future work should more carefully unpack the attacks. As can be seen in Table A8-1, which replicates Table 3 from the main text, the general direction of the effects remains the same in all models and in all models except the target's copartisans model (Column 2), the coefficients are not statistically different from each other. Column 2 results, however, are interesting and suggest that the target's copartisans are more likely to mobilize and support their party if the attacks are on character traits. Further analyses of these interesting results are needed but require a more systematic approach to the valence statements' coding as civil and uncivil.

Table A8-1: Replication of Table 3 With Performance and Traits Valence

	All	Copartisans		Nonpartisans
		Target	Attacker	
	Model 1	Model 2	Model 3	Model 4
Received Attacks (Performance)	0.60	0.57		0.67
	(0.55)	(0.66)		(0.62)
Party's Attacks (Performance)			−1.45	
			(0.83)	
Received Attacks (Traits)	0.28	2.75*		0.29
	(0.60)	(0.76)		(0.69)
Party's Attacks (Traits)			−1.14	
			(0.86)	
Others' attacks (Traits)			1.37*	
			(0.44)	
Others' attacks (Performance)			0.86	
			(0.63)	
ΔParty Performance	0.01	0.04*	0.02	−0.01
	(0.02)	(0.02)	(0.03)	(0.02)
Party Performance	0.05*	0.02	0.03*	0.06*
	(0.01)	(0.01)	(0.01)	(0.01)
Copartisan	4.54*			
	(0.04)			
Government$_{t-1}$	−0.04	−0.11	−0.09	−0.05
	(0.18)	(0.20)	(0.27)	(0.21)
Political Knowledge	−0.10*	−0.03	0.01	−0.02
	(0.02)	(0.04)	(0.05)	(0.02)
Age	−0.00*	0.00*	−0.00	0.00*
	(0.00)	(0.00)	(0.00)	(0.00)
Male	−0.09*	−0.10	0.02	−0.04
	(0.03)	(0.06)	(0.08)	(0.04)
Intercept	−3.61*	0.72*	−4.71*	−3.24*
	(0.27)	(0.33)	(0.38)	(0.32)
Log Likelihood	−18360.37	−3517.26	−3117.85	−8084.68
Observations	69559	10698	28576	19126
Groups	63	63	220	63
Var: Groups (Intercept)	0.21	0.16	0.65	0.24

Note: Dependent variable is vote choice for the target party. Standard errors in parentheses. The models include party-election random intercepts and country fixed effects. Reported are the standard log odds coefficients. $^{*}p < 0.05$.