

Valence Attacks Harm the Electoral Performance of the Left but not the Right

Short Title: Valence Attacks

Jae-Hee Jung

Margit Tavits

`jae-hee.jung@bsg.ox.ac.uk`

`tavits@wustl.edu`

Blavatnik School of Government

Department of Political Science

University of Oxford

Washington University in St. Louis

Abstract

During election campaigns, parties attack each other's non-ideological traits such as competence and integrity. However, it is unclear to what extent valence attacks reduce voter support for the target party. Drawing from theories on left-right personality and associated cognitive flexibility, we argue that valence attacks harm the electoral performance of leftist but not rightist parties. The relative openness of leftist voters makes them more willing to accept negative information about their party and act upon it. In contrast, the relative closedness of rightist voters makes them less likely to reconsider their political preferences in the face of negative information. We find robust evidence for our argument at the aggregate and individual levels using original data on media coverage of party campaigns in 10 European countries. We also provide experimental evidence in support of our argument. The findings have important implications for research on non-ideological rhetoric in party competition.

Keywords: valence attack, vote loyalty, personality, left-right differences

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Attacks on political rivals are regular parts of election campaigns. These attacks are often statements about “valence,” i.e., a rival party’s non-ideological traits such as competence, integrity, and unity. For example, during the 2015 U.K. national election campaign, the Conservative Party leader David Cameron warned that his rival, the Labour leader Ed Miliband was a “very dangerous man” who was “using a ‘con trick’ to get into Downing Street.”¹ Miliband, in return, questioned Cameron’s integrity by saying that the Prime Minister “is demeaning himself and his office.”² During the 2017 German elections, the SPD leader Martin Schultz attacked Chancellor Angela Merkel’s competence by stating that her campaign rests on red carpet appearances and is empty of policy.³ In the 2017 Dutch elections, Prime Minister Rutte and Freedom Party leader Geert Wilders “questioned each others’ integrity and credibility” on national TV.⁴ During the 2017 French presidential elections, the top two candidates did the same, with Macron accusing Le Pen of “promoting hatred” and Le Pen labeling Macron as the “candidate of the oligarchy.”⁵

Considering the important role that non-ideological characteristics play in determining voter preferences (e.g., Abney et al. 2011; Butler and Powell 2014; Clark 2009; Stokes 1992), it makes sense that parties try to shape each other’s valence negatively. However, do such “valence attacks” actually work? Do they have the intended effect of harming the electoral

¹BT. 2015. “David Cameron: Ed Miliband is using a ‘con trick’ to get into Downing Street.” May 5. <https://tinyurl.com/ya53mq7q>

²Wintour, Patrick. 2015. “Cameron is demeaning himself and his office by talking up SNP, says Miliband.” *The Guardian*. April 21. <https://tinyurl.com/ydcol93h>

³Handelsblatt. 2017. “Schultz kritiziert Merkel.” June 13. <https://tinyurl.com/ycaqxyqo>

⁴Daily Mail. 2017. “Geert Wilders clashes with Dutch PM Rutte in TV debate.” March 13. <https://tinyurl.com/ya2adamx>

⁵Irish, John. 2017. “Macron, Le Pen trade accusations in French election race.” *Reuters*. April 25. <https://tinyurl.com/y7lr653u>

performance of the target party?

Prior work provides no clear answer because, despite the prevalence of valence attacks, their effectiveness has not received much scholarly attention. To be sure, a growing literature, mostly in the American context, has explored the causes and the consequences of negative campaigning more generally, regardless of whether it is valence related (Banda and Windett 2016; Fridkin and Kenney 2011; Krupnikov 2011; Walter, van der Brug and van Praag 2014).⁶ Yet, the results are mixed (Lau, Sigelman and Rovner 2007), comparative work on this topic is rare, and few studies have paid attention to valence attacks specifically. A separate research agenda has focused on party valence: how it relates to ideology and affects the vote (Abney et al. 2011; Clark and Leiter 2014; Stone and Simas 2010; Zakharova and Warwick 2014). However, these studies have paid little attention to the role that party rhetoric plays in shaping valence (but see Curini and Martelli 2010; 2013), and have also not explored whether valence attacks do electoral damage to their targets.

We focus on the consequences of valence attacks and argue that their impact depends on how supporters of the target party process new information. Specifically, we build on the theory of left-right personality and associated cognitive flexibility to argue that valence attacks harm the electoral performance of leftist but not rightist parties. Prior work (see, for example, Bakker, Hopmann and Persson 2015; McCrae 1996; Tetlock 1983; Vecchione et al. 2011) strongly associates leftist ideology and partisanship with psychological traits best summarized by “open-mindedness,” i.e., openness to new ideas, curiosity, willingness to re-evaluate one’s beliefs, lack of dogmatism. Right-wing voters, on the other hand, are associated with opposite traits: preference for familiarity, consistency, and certainty, need for cognitive closure, and resistance to change. We argue that the open-mindedness of leftist voters makes them more receptive to valence attacks. They are more likely to consider and accept new information even if it contradicts their prior beliefs, which in turn leads to higher

⁶See Lau and Rovner (2009) for a review.

willingness to reconsider their political allegiances. In comparison, we argue that the relative closedness of rightist voters means that they are more likely to dismiss new information and therefore also less likely to reconsider their political preferences even in response to negative valence statements by rival parties.⁷

We find support for our argument using novel data on media coverage of election campaigns of 65 parties in 21 elections across 10 European countries. The data allow us to create a unique measure of the amount of valence attacks each party received during an election. We conduct both party-level and voter-level analyses and show robust evidence that (1) an increase in valence attacks reduces support for leftist but not for rightist parties, and (2) compared to rightist voters, their leftist counterparts are more likely to stop supporting their party in response to valence attacks. Furthermore, the results are corroborated in a tightly controlled experiment that we conducted in the U.K.

Our paper makes several contributions. First, it advances the emerging research agenda on valence in the comparative party literature (Abney et al. 2011; Clark and Leiter 2014; Green and Jennings 2012; Stone and Simas 2010; Zakharova and Warwick 2014) by investigating the important but overlooked role of strategic valence framing by rivals. Second, our paper provides a potential explanation for the mixed evidence on the effect of negative

⁷We focus on openness as the mechanism for partisan differences in receptiveness to valence attacks for two reasons: (a) this mechanism focuses on how individuals process new and discordant information, which valence attacks are about, and (b) extensive prior work directly links openness to partisanship. Other studies have looked at additional factors that might affect whether negative campaigning is effective, such as the civility and relevance of the message, individuals' tolerance of negativity (Fridkin and Kenney 2011), or their perception of messages as negative (Pattie et al. 2011). However, these factors have not been theorized to correspond with ideology. In fact, with regard to individual's perceptions of negativity, Pattie et al. (2011, 334) specifically state that these are not shaped by partisanship.

campaigning on election results (Lau, Sigelman and Rovner 2007). We suggest that the puzzle could in part be explained by differences in the psychological traits of voters, which affects how they process (negative) campaign messages. Third, our results have interesting implications for the study of partisan motivated reasoning, which has become a burgeoning research topic (Bisgaard 2015; Rogowski 2016; Slothuus and de Vreese 2010). By highlighting the importance of left-right personality in openness to new information, our results suggest that leftists and rightists may engage in partisan motivated reasoning to a different degree. We elaborate on these points in the concluding section.

Theory: Valence Attacks and Electoral Performance

What are the electoral consequences of valence attacks? Should we expect parties to lose votes when their rivals spread negative information about their valence? Prior work on the consequences of negative campaigning presents a mixed record (Lau, Sigelman and Rovner 2007). If anything, it seems that negative campaigning has limited effect on voters' impressions of parties and candidates (Fridkin and Kenney 2011). Such null effect is consistent with the argument that people do not pay much attention to politics (Zaller 1992), and even when they do, they are not easily swayed (Kinder 2003). Recent work on partisan motivated reasoning further suggest that when voters receive negative information about the party with which they identify, they respond by disregarding or actively counterarguing that information (Bisgaard 2015; Bolsen, Druckman and Cook 2014; Redlawsk 2002; Rogowski 2016; Taber and Lodge 2006). Taken together, these arguments would lead us to expect that valence attacks will not have any harmful electoral consequences on the target party. While attacking the valence of rivals might help the focal party mobilize its own supporters or potentially win over undecided voters, these attacks should not demobilize or convert voters leaning toward the target party.

However, these arguments presume that all voters uniformly process and respond to

information that challenges their prior beliefs and preferences. This is unlikely to be the case. Rather, drawing on the literature about personality traits and politics (see Gerber et al. 2011 for a review), we reason that systematic differences in personality traits across individuals make them more or less receptive to new information. Importantly, these traits are strongly linked to people’s left-right partisan affinities, leading to different receptivity to new and counter-attitudinal information across leftist and rightist individuals. We will elaborate on each part of this argument in turn.

Personality and new information

We argue that the extent to which voters are going to be persuaded by valence attack depends on how open or closed they are to changing their preferences and beliefs. We refer to this psychological predisposition as cognitive openness and closedness, which are concepts well studied in psychology. Political scientists are most familiar with openness and closedness through the Big Five framework, where “openness to experience” represents one of the five core personality traits (Gerber et al. 2011). These core traits remain largely stable throughout our lifetime and serve as building blocks of the human psyche (McCrae and Costa 2008). Scholars have shown that the five traits are applicable not only in the U.S., but also in different cultures and countries around the world (Schmitt et al. 2007).

According to Schultz and Searleman (2002, 172), “Openness is a broad and general dimension that includes preference for novelty, cognitive complexity, and flexibility. In contrast, closedness is manifested in a preference for familiarity, simplicity, and closure.” Open-minded individuals are willing to try new activities, consider new ideas, and re-evaluate their beliefs, whereas people who are low on this scale (and high on closedness) tend to value traditions, prefer familiarity and consistency, and be resistant to change (Bakker, Hopmann and Persson 2015; Costa and McCrae 1992; McCrae 1996).

As a core construct of the human mind, it is likely that openness conditions the extent to which one accepts or dismisses information received through valence attacks. Indeed,

prior work shows that persons high on openness are more easily influenced by political information and easier to persuade (Bakker et al. 2016; Gerber et al. 2013; Hibbing, Ritchie and Anderson 2011). For example, Gerber et al. (2013) show that open-minded individuals are more receptive to get-out-the-vote messages, independent of the message content. Such individuals are more receptive to counter-attitudinal information and also more likely to use new information in general before making a decision (Nisbet et al. 2013). And because they are willing to reconsider earlier held ideas, open-minded individuals are also more likely to change their party identification (Bakker, Hopmann and Persson 2015). In contrast, Webster and Kruglanski (1994) show that closed-minded individuals, i.e., those in need of cognitive closure, resist persuasion (see also Driscoll, Hamilton and Sorrentino 1991). They are more likely to “freeze” their opinions instead (McCrae 1996) by discounting new information and insisting on remaining consistent with their prior attitudes (Kruglanski 2004; see also Mondak and Halperin 2008).

Applying these general arguments about how personality affects the processing of new information to the specific case of valence attacks suggests that open-minded voters might be more receptive to such attacks against their party. Because of their psychological predisposition, which makes them more tolerant of new ideas even when these ideas contradict their prior beliefs, open-minded voters are more likely to seriously consider the information provided as part of these attacks and update their political preferences and allegiances in light of the new information. On the other hand, closed-minded voters are less likely to be receptive to valence attacks against their party because taking the information provided in these attacks seriously and changing their political preferences in response is something they are psychologically predisposed not to do. Instead, closed-minded voters are more likely to disregard the attacks to secure their existing beliefs and maintain order and consistency in their partisan preferences.

Left-right differences in personality and vote loyalty

We are ultimately interested in how valence attacks affect party support. If open vs. closed-minded individuals are equally distributed across the supporters of different parties, we would expect valence attacks to affect all parties in a similar manner. However, if open or closed-minded individuals are concentrated among the supporters of some parties more than others, then valence attacks may affect parties very differently. Interestingly, previous research shows that personality is systematically correlated with political ideology—there is robust evidence that leftists and rightists hold different kinds of personalities. The clearest pattern that has emerged so far is that people who are more open and flexible tend to be leftist while those who are more resistant to change and have a stronger preference for order tend to be rightist (Bakker, Hopmann and Persson 2015; McCrae 1996; Tetlock 1983; Vecchione et al. 2011). As McCrae (1996, 325) explains, “open individuals have an affinity for liberal, progressive, left-wing political views, whereas closed individuals prefer conservative, traditional, right-wing views.” This relationship between personality and political ideology is so strong that some studies describe rightists (leftists) by applying the descriptions of closedness (openness) to them directly. For example, McCrae (1996, 328) directly equates openness with liberalism by stating “open individuals – that is, liberals.” Other studies show that rightists possess the traits of closed individuals by being more rigid in their beliefs (Schultz and Searleman 2002), more tough-minded and dogmatic, and less likely to change their political views (see Pliskin et al. 2014 for a review). Right-wingers are also more likely to freeze their beliefs and support the status quo (Jost, Federico and Napier 2009).

Openness/closedness is strongly associated with not only ideology but also partisanship: openness predicts support for left-wing while closedness for right-wing parties (see Bakker, Hopmann and Persson 2015 for a review). Furthermore, the relationship between openness and political preferences is strong and robust across cultural contexts (Sibley, Osborne and Duckitt 2012). Openness predicts leftist preferences and closedness rightist in a wide range of countries across the developed world, and has been repeatedly demonstrated in European

samples (see Vecchione et al. 2011)—the region of interest in this study.⁸ Our own analysis confirms this. Specifically, we tested this association cross-nationally using the sixth wave of the World Values Survey (2010-2014), which contained the 10 item Big Five Inventory (BFI-10) (Rammstedt and John 2007). With answers to the battery, we are able to construct measures of the five core personality traits, including openness, and use them to predict voter ideology and partisan preferences. Results show that openness has a strong and significant negative association with rightist ideology and rightist partisan preferences in the global sample of 25 countries where the Big Five battery was administered as well as in the subsample of European countries. The details of these analyses are presented in the Online Appendix section 1 (OA1).

Importantly, we believe that these left-right differences in personality will have aggregate

⁸Of the Big Five core personality traits (openness, conscientiousness, extraversion, agreeableness, and emotional stability), openness predicts political preferences most strongly and consistently across contexts (see Gerber et al. 2011; Osborne et al. 2017; Sibley, Osborne and Duckitt 2012; Vecchione et al. 2011; Verhulst, Eaves and Hatemi 2012). Conscientiousness has also been linked to ideology and partisanship (with more conscientious individuals being more right-wing), but the effects are weaker (Verhulst, Eaves and Hatemi 2012) and less robust across contexts (Vecchione et al. 2011). Furthermore, it is important to note that openness is related not only to liberal values but also to how people process new information. As we explained above, the latter is important for our argument because it determines whether and how individuals respond to valence attacks. Conscientiousness has not been linked to how individuals process information. Therefore, even if it is linked to ideology, this personality trait does not help us understand how people process the new information that valence attacks provide. Because of this, it also does not help us understand the consequences of such attacks. The remaining three traits do not have very clear ideological patterns (Vecchione et al. 2011).

level consequences on party competition because it means that supporters of left-wing parties and those of right-wing parties have systematically different styles of responding to new (and negative) information, updating opinions, and making political choices. In particular, we expect that supporters of left-wing parties are more likely to be receptive to counter-attitudinal information disseminated as part of valence attacks against their party and more likely to adjust their political preferences in response. That is, they are more likely to abandon or ‘punish’ their party after receiving information that undermines the party’s valence. Deciding to not vote for a party they support in a given election is not an action that is fundamentally in conflict with their psychological predispositions. On the other hand, supporters of right-wing parties, who are less open-minded and more likely to dismiss the counter-attitudinal information provided by valence attacks, are also more likely to stick to their political preferences. Not ‘freezing’ their opinions and not sticking to their partisan loyalties regardless of any information is a challenge to their deeply rooted predisposition to maintain the status quo.

In sum, insights from research on left-right personality and associated cognitive flexibility lead to interesting expectations about the effect of valence attacks on the behavior of leftist and rightist voters and the electoral performance of the corresponding parties. Leftist voters are more likely than rightist voters to process what rival parties say, update beliefs about their party’s valence, and shift electoral support accordingly. Rightist voters, on the other hand, are more likely to dismiss messages from rival parties, resist persuasion, and remain consistent with their prior attitudes and partisan affinities. Therefore, *we hypothesize that an increase in valence attacks lowers voter support for the target party when that party is left-wing but not when it is right-wing.*⁹

⁹Note that our argument is more general in nature and potentially applicable beyond valence attacks to any type of information (e.g., policy-related) about one’s party. We are here specifically interested in the consequences of valence attacks and leave other applications of

Research Design and Analysis

In order to test our hypothesis, we conduct both observational and experimental analyses. The former uses party-level and voter-level data from Europe to explore the differential effect of valence attacks on party support and electoral results across leftist and rightist voters and parties. The latter includes an original experiment fielded in the U.K. We begin by describing the observational analysis before presenting results from the experimental study.

Study 1: Cross-National Observational Analysis

We use the Comparative Campaign Dynamics Dataset (CCDD) (Debus, Somer-Topcu and Tavits 2016) to test our hypothesis cross-nationally. The CCDD includes, among other things, data on media coverage of parties' statements about themselves and about their rivals. The dataset is based on election-related coverage during one-month campaign period in two major daily newspapers (one left-leaning and one right-leaning) in 10 European countries for a total of 21 elections.¹⁰ The project codes all front page articles as well as a five percent random sample of remaining election-related articles for each newspaper. See Baumann and Gross (2016) for more details on the data collection procedures and descriptive information.

The dataset is useful for our purposes for several reasons. First, it is the only dataset that provides information about what parties say about other parties during their campaigns. To our knowledge, there is no other cross-national data that record party messages in such detail. Second, the dataset identifies whether each statement is about valence or not. Valence-related statements are coded as either policy-specific valence or general valence. In either case,

this argument for future work.

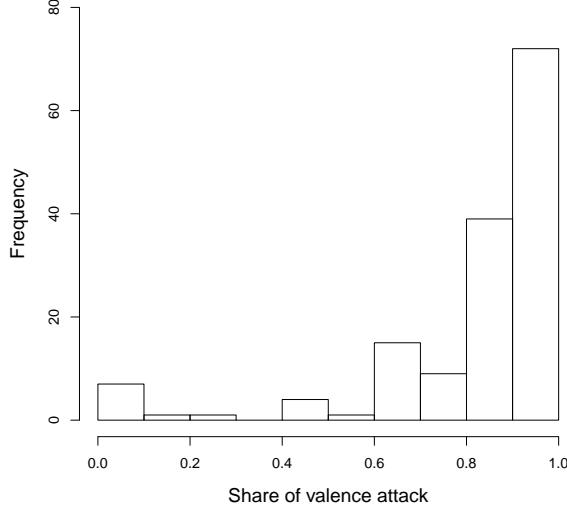
¹⁰Czech Republic 2010, 2013; Denmark 2007, 2011; Germany 2009, 2013; Hungary 2006, 2010; Netherlands 2010, 2012; Poland 2007, 2011; Portugal 2009, 2011; Spain 2008, 2011; Sweden 2010, 2014; United Kingdom 2005, 2010, 2015

the statements may be about the party’s competence/performance, honesty/integrity, and unity or the leader’s competence/performance, honesty/integrity/character, and charisma. With that information, we are able to count the total volume of valence statements made by different parties during election campaigns. Third, the dataset records whether the statement a party makes about a competing party is positive, negative, neutral, or contradictory. We are interested in negative statements, which constitute the attacks in our terminology. In sum, the CCDD data allow us to get a representative picture of the extent to which each party’s valence was attacked by rivals in each election. In OA2, we present examples of valence attacks in the CCDD data.

In order to measure our independent variable (*Valence attack*), we divide the number of *negative* valence statements made about a party by the total number of *all* valence-related statements about that party. Weighting the number of negative statements by the number of total statements helps to account for the overall level of visibility and importance of the party. In constructing the measure, we do not incorporate the valence statements that the party made about itself; we are only interested in rhetoric from competing parties. This variable directly reflects the extent to which a party’s valence is being negatively framed by other parties and thereby accurately captures the concept of valence attack. Figure 1 shows the distribution of this variable. The values range from zero to one, with the first quantile of 0.8, the third quantile of 0.99, and the mean of 0.83. The variable is skewed because most valence statements by rivals tend to be negative rather than positive.

With this measure, we test our hypotheses at two levels: the party-level and the individual level. First, at the party level, we are interested in whether valence attacks are more likely to harm the overall electoral performance of leftist than rightist parties. In this analysis, we use change in vote share ($\Delta Vote\ share$) as the dependent variable. Positive values indicate that the party performed better compared to the previous election, and negative values indicate that its support declined. We expect that, as valence attacks heighten, leftist parties are more likely to suffer electoral loss while the performance of rightist parties remains unaffected.

Figure 1: Distribution of *Valence attack*



Although the party-level analysis is an appropriate way to test our hypothesis, we are assuming that most voters who voted for a leftist (rightist) party in the previous election are actually left-leaning (right-leaning) voters with leftist (rightist) personalities. That is, at the party level, we are assuming that if we see a decline in the electoral performance of a leftist party, the lost votes are the votes of left-leaning voters. Although we believe that this is a reasonable assumption, disaggregating the data and looking at the individual level allows us to directly identify the ideology of each vote switcher and thereby perform a more direct test of voter-level behavior in response to valence attacks against their party. We use post-election survey data for the individual level analysis. Using these data, we identify respondents' vote choices in the current and previous election as well as their political ideology in order to predict whether voters of different ideological profiles are likely to remain loyal to the party that they supported in the previous election as valence attacks against that party increase.

The regressions that we run at the party and individual levels are:

$$\Delta \text{Vote share}_i = \beta_0 + \beta_1 \text{Valence attack}_i + \beta_2 \text{Leftist}_i + \beta_3 \text{Valence attack}_i \times \text{Leftist}_i + \beta_4 \text{Media attention}_i + \epsilon_i \quad (1)$$

$$\begin{aligned} \text{Vote loyalty}_j = & \beta_0 + \beta_1 \text{Valence attack}_i + \beta_2 \text{Leftist}_j + \beta_3 \text{Valence attack}_i \times \text{Leftist}_j + \\ & \beta_4 \text{Media attention}_i + \gamma \mathbf{X}_j + \epsilon_j \quad (2) \end{aligned}$$

where the interaction coefficient will show us the difference in effects of valence attack for leftists and rightists. We expect the coefficient to be reliably negative ($\beta_3 < 0$). For leftists, we expect valence attack to have a statistically significant negative marginal effect on the dependent variable ($\beta_1 + \beta_3 < 0$). For rightists, we do not expect valence attack to have a statistically significant negative marginal effect. That is, β_1 , the coefficient estimate for *Valence attack*, should not be reliably negative because we do not expect rightist voters to be persuaded by valence attack. In both models, we include a control for the total amount of media coverage a party received during the election campaign. This allows accounting for the prominence of a party (such as party size and incumbency), which may affect both the volume of attacks it receives as well as fluctuations in voter support. *Media attention* is calculated using the CCDD by summing up all statements (both policy-related and valence-related) about the party during a given election.¹¹ In the individual level model, \mathbf{X}_j refers to controls for gender, age, income, and education that we include to account for sociodemographic factors that may affect vote loyalty.

Our analysis is relatively parsimonious in terms of control variables. We do this for two reasons. First, to avoid omitted variable bias, one only needs to control for variables that are correlated with both the predictor and outcome variable while being causally prior to the predictor (see King and Zeng 2006, 147-48; Wooldridge 2005) – a practice followed in the comparative party literature (Adams, Ezrow and Somer-Topcu 2014; Ezrow 2005;

¹¹The CCDD gathered data on media coverage of party statements about themselves and their rivals, and journalists' statements about each party. *Media attention* includes statements by all of these actors and represents how prominently a party was featured in the media during a campaign.

Fernandez-Vazquez 2014). Second, the number of parties in our analysis is relatively small, which generates the risk of low power and overfitting if too many controls are included. That said, prior work has identified additional variables that can potentially affect the electoral fate of parties. These include governing status, economic performance, ideological moderation, and country and election-level variables, such as size of the party system (see, for example, Tavits 2007). We account for them in the analyses presented in OA3 and OA4.

Party-Level Results

We present party level results in Table 1. In the first model, we measure the ideology of the party on a binary scale, where social democratic, green, and communist parties are coded as leftist, and nationalist, conservative, Christian Democratic, and agrarian parties as rightist. We identified party family based on the Comparative Manifesto Project (CMP) (Volkens et al. 2016). The classification of liberal parties is less straightforward because they tend to be economically rightist but socially leftist. We therefore used the manifesto-based left-right ideology scores to classify these parties as leftist if their overall ideology score (i.e., the CMP ‘rile’ measure) is below zero and rightist otherwise. In the second model, we replace the binary measure of party ideology with the continuous manifesto-based ‘rile’ score for all parties (the direction has been flipped so that greater values indicate more leftist parties).¹²

In Table 1, the interaction coefficients are reliably negative in both models indicating that the effect of valence attack differs significantly for leftist and rightist parties, as expected. The coefficients for *Valence attack* are not statistically significant in either model. In the first model where we use a binary measure of ideology, this means that valence attacks do not significantly decrease the vote share for rightist parties (i.e., when the variable *Leftist* is ‘0’). In order to get at the electoral effect of valence attack for leftist parties, we calculated

¹²In both models, we exclude special issue and ethno-regional parties, which we believe cannot be clearly placed on the left-right ideological scale in terms of their support base.

Table 1: Effect of Valence Attack on Change in Vote Share

	Model 1	Model 2
Valence attack	4.23 (3.43)	-0.71 (3.24)
Leftist	9.69** (4.86)	0.36** (0.16)
Valence attack \times Leftist	-13.13** (5.56)	-0.49** (0.20)
Media attention	-0.00 (0.00)	-0.00 (0.00)
Intercept	-2.44 (2.82)	1.12 (2.67)
R ²	0.08	0.10
N	108	93
RMSE	5.82	6.02

Note: The dependent variable is Δ *Vote share*. Table entries are unstandardized linear regression coefficients with standard errors in parentheses. Model 1 uses a binary and Model 2 a continuous measure of party ideology. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

the conditional coefficient of *Valence attack* when the variable *Leftist* is ‘1’: $\beta = -8.90$, $SE = 4.57$, $p = 0.05$. This suggests that leftist parties suffer a significant vote loss as a result of being valence attacked.¹³ Substantively, for a left-wing party with a media attention value at the mean, when valence attack increases from one standard deviation below the mean (0.63) to the maximum value (1.00), change in vote share decreases from 0.80 to -2.45. This drop of 3.25 is substantial considering that, in our dataset, the dependent variable changes on average by -0.93 from election to election. Moreover, the effect size is larger than that in comparable studies. For example, Somer-Topcu (2015) reports that a two standard deviation decline in the measure of “appealing broadly” is associated with a 2.31 percentage point loss in party vote share. The effect of valence attack on vote loss is also higher than the effect of

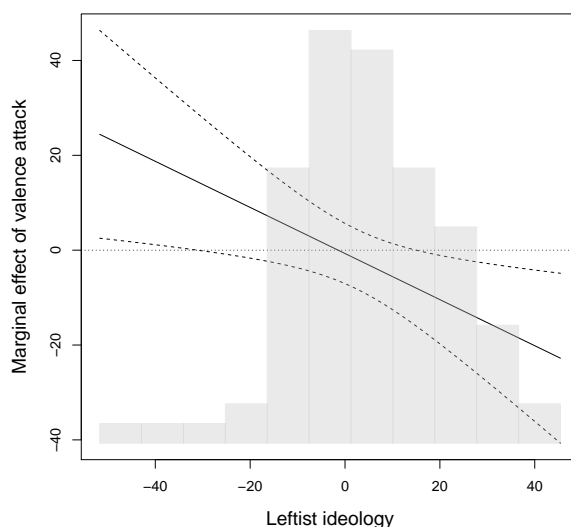
¹³Note that the coefficients on *Leftist* are positive and statistically significant in both models. That is, in the absence of valence attack, leftist parties do better electorally. This implies that the negative effect of valence attack on leftist parties’ vote share is substantial since it counteracts their tendency to be rewarded if their valence is not undermined.

extremism: Adams and Somer-Topcu (2009) find that when a party becomes ideologically extreme by a standard deviation, it loses less than a percentage point of its vote share.

In order to get a better sense of the electoral effect of valence attacks across the entire ideological spectrum, we used the second model with the continuous measure of ideology, and calculated the marginal effect of *Valence attack* at different values of left-right party ideology as presented in Figure 2. The gray histogram in the background represents the distribution of the continuous *Leftist* variable. We see that the marginal effect of *Valence attack* is reliably negative for leftist parties (scoring 10 or higher on the reversed ‘rile’ score). That is, these parties are likely to suffer a significant vote loss as a result of valence attacks against them. The effect of valence attacks on electoral performance disappears as party ideology becomes more right-wing. Interestingly, for extremely rightist parties (those scoring low on the variable *Leftist*), the marginal effect of valence attack is positive, suggesting that when it comes to the supporters of these more extreme right-wing parties, valence attacks are not simply ineffective but altogether counter-productive because attacks may activate those supporters and thereby increase the vote share for the extreme right parties.¹⁴ Substantively, for a party with a leftist ideology value in the third quartile (16.63) and a media attention value at the mean, when valence attack increases from one standard deviation below the mean (0.63) to the maximum value (1.00), change in vote share decreases from 0.63 to -2.59. These results are again substantial relative to variation in the dependent variable and the

¹⁴Note that this is consistent with the phenomenon known in the motivated reasoning literature as “backfire effect” (Nyhan and Reifler 2010; see also Chong and Druckman 2007): when engaging in motivated (as opposed to rational) reasoning, some individuals may start to produce counter-arguments in response to information that is incongruent with their pre-existing preferences and strengthen their original political preferences and positions as a result. This, again, points to the need in future studies to take a closer look at the role of left-right personality traits in the process of partisan motivated reasoning.

Figure 2: Marginal Effect of Valence Attack, Conditional on Ideology



Note: The dependent variable is $\Delta \text{Vote share}$. The solid line indicates the marginal effect of *Valence attack* across values of *Leftist*, based on Model 2 in Table 1. The dotted lines are 95% confidence intervals. The histogram shows the distribution of *Leftist*.

effects of narrow appeal and ideological extremism identified in existing research.

We find these results to be very robust. The findings hold when we use alternative measures of party ideology, such as the Chapel Hill Expert Survey (CHES) data (Bakker et al. 2015). Moreover, the results persist when we control for previous party vote share instead of *Media attention* to take into account party prominence. Also, the results remain unaltered even when we include special issue and ethno-regional parties and code their ideology from either the CMP or the CHES. Furthermore, the results do not change when we include country or year fixed effects, cluster the standard errors by party, and estimate models with controls for incumbent status, economic performance, their interaction, ideological moderation, niche party, and party system size. Details of these additional analyses are presented in OA3.

Individual-Level Results

At the individual level, we analyze 14 elections for which post-election survey data are available.¹⁵ Our dataset covers 51 parties from 8 countries. In order to measure the outcome variable, we first identify the party each respondent voted for in the previous lower house election. Then, we look at their vote choice in the most recent election to determine whether the voter continued to support his or her previous vote choice or switched to a different party. The variable is labelled *Vote loyalty* and coded ‘1’ if the voter continued to vote for the same party and ‘0’ otherwise.¹⁶

To measure voter ideology, which is the moderating variable, we use respondent’s ideological self-identification. The question that we use from the CSES asks “In politics people sometimes talk of left and right. Where would you place yourself on a scale from 0 to 10 where 0 means the left and 10 means the right?” Questions from non-CSES election studies

¹⁵The elections are: Czech Republic 2010, 2013; Denmark 2007; Germany 2009, 2013; the Netherlands 2010, 2012; Poland 2007, 2011; Spain 2011; Sweden 2014, the United Kingdom 2005, 2010, 2015. Data sources are the Comparative Study of Electoral Systems (Waves 2-4), the 2010 and 2015 British Election Studies, the 2011 Spanish Election Study, and the 2012 Dutch Election Study.

¹⁶We do not include in the analysis respondents who did not vote in the current election. By looking at whether voters actually switch their vote to a different party (instead of just not turning out), we put a higher bar on what it means to punish a party in response to valence attack. Nonetheless, in Table OA4.3, we show that the results do not change when we include abstentions in our data. When a voter does not turn out, it could indicate decline in support for the party the voter previously voted for. Moreover, including abstentions takes into account that because countries have different numbers of parties overall and different numbers of rightist and leftist parties in a given election, voters do not have the same number of alternative options to vote for.

Table 2: Effect of Valence Attack on Vote Loyalty

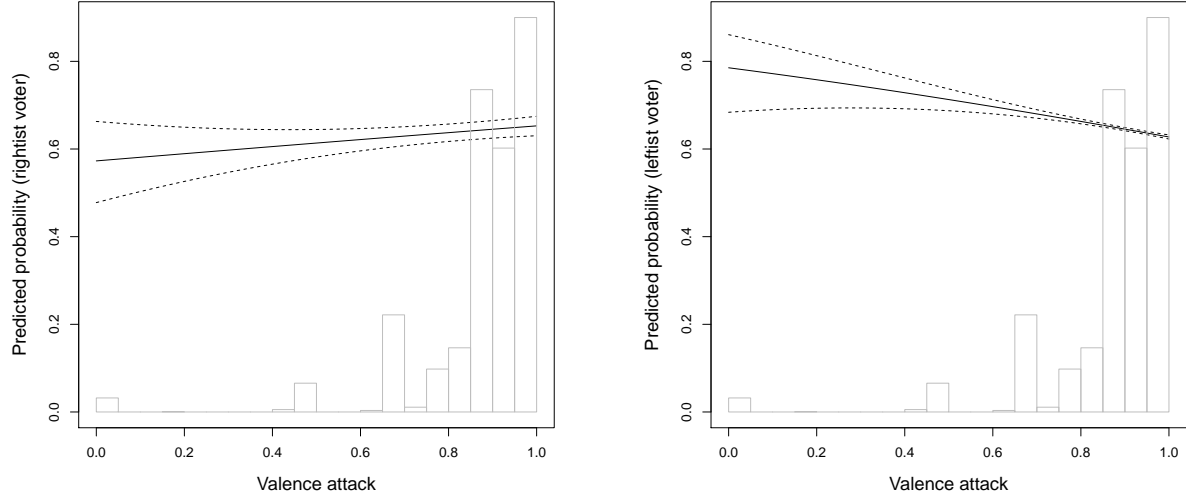
	Model 1
Valence attack	1.17 (0.73)
Leftist	2.51** (1.05)
Valence attack * Leftist	−2.78** (1.34)
Age	0.01 (0.01)
Age ²	0.00 (0.00)
Male	0.07 (0.05)
Income	0.02 (0.16)
Education	−0.10 (0.17)
Media attention	0.00 (0.00)
Intercept	−1.39** (0.64)
<i>N</i>	14007
Likelihood ratio	479.11

Note: The dependent variable is *Vote loyalty*, which is coded ‘1’ when the voter votes for the same party again and ‘0’ otherwise. Table entries are logistic regression coefficients with party-election clustered standard errors in parentheses. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

are similarly worded. The variable is labelled *Leftist*, and to be consistent with party level models, the direction of the responses has been flipped so that higher values indicate more leftist voters. We kept the variable continuous (indicating the degree to which a respondent is leftist) but re-scaled it to range from zero to one so that the values are comparable across election studies. Among the demographic controls, income and education have been re-scaled in the same manner for the same reason. The measures for *Valence attack* and *Media attention* remain the same as in the party-level models.

Table 2 shows the result of a logistic regression model with clustered standard errors by party-election. The latter are necessary since our main predictor is at the party-election level

Figure 3: Predicted Probability of Vote Loyalty



Note: The dependent variable is *Vote loyalty*, which takes the value of ‘1’ if the voter votes for the same party again and ‘0’ otherwise. The solid lines show predicted probabilities of voting loyally across values of *Valence attack*, based on Table 2. The dotted lines show 95% confidence intervals. All other variables are held at their mean or modal value. The plot on the left is for a right-wing voter (i.e., ideology value of 0.3), and the plot on the right is for a left-wing voter (i.e., ideology value of 0.7). The histograms show the distribution of *Valence attack*.

while the dependent variable is measured at the individual voter level, and clustering allows us to take into account correlated errors among voters of the same party.

The evidence is supportive of our hypothesis. The interaction coefficient is reliably negative, indicating that valence attacks have a significantly different effect on the behavior of leftist and rightist voters.¹⁷ To better understand the substantive significance of the results of the logistic regression model, Figure 3 presents predicted probabilities of vote loyalty. The probabilities are calculated by holding all other variables at their mean or modal value, depending on variable type. The plot on the left shows predicted probabilities for a representative rightist voter with an ideology value of 0.3 (the first quartile of the distribution of

¹⁷As we saw in the party level analysis, the coefficient for *Leftist* is reliably positive, suggesting that leftist voters are in fact more likely to reward a party in the absence of valence problems. Again, this implies that the negative effect of valence attack on vote loyalty for leftist voters is substantial since it counteracts their tendency to reward parties for good valence.

Leftist). The plot on the right shows predicted probabilities for a typical leftist voter with an ideology value of 0.7 (the third quartile of *Leftist*). The plots reveal clearly opposite trends for the two types of voters. For the rightist voter, an increase in *Valence attack* from the first quartile to the third quartile does not have a significant effect on the predicted probability of vote loyalty (first difference: 0.01, 95% confidence interval: [0.00, 0.03]). For the leftist voter, the same increase in *Valence attack* from the first quartile to the third quartile *decreases* the predicted probability of vote loyalty by three percentage points (95% confidence interval: [-0.05, -0.02]). The difference is starker when we consider change in valence attack from its minimum to maximum. For the rightist voter, there is no significant effect on the predicted probability of vote loyalty (first difference: 0.08, 95% confidence interval: [-0.01, 0.17]). For the leftist voter, predicted probability of vote loyalty decreases by about 16 percentage points (95% confidence interval: [-0.21, -0.10]).

OA4 presents various robustness tests of the individual-level analysis. The results are robust to (a) including previous party vote share as a control instead of *Media attention* to account for party prominence and (b) using a logistic multilevel model with country or election varying intercepts in order to account for unobserved heterogeneity across countries or elections that could affect vote loyalty, such as electoral competitiveness and state of the economy. Moreover, as explained previously, Table OA4.3 shows the result when we code voters who did not turn out as ‘0’ on the dependent variable. We also find that the results do not change when we include country or year fixed effects, cluster the standard errors by party, exclude influential observations from the analysis, or estimate models with controls for perceived ideological distance, the party’s position change, economic performance, party system size, and governing status. Details of these additional analyses are presented in OA4.¹⁸

¹⁸One might be concerned that our results are due to the characteristics of parties rather than those of voters (e.g., leftist parties may be less media savvy and therefore more vulnerable

Overall, the results of the observational analyses provide strong support for our hypothesis that valence attacks have a differential effect on the electoral fate of leftist and rightist parties. We have shown that leftist individuals are less likely to remain loyal to their party if that party’s valence is attacked. Rightist voters, to the contrary, continue to support their party despite its valence being questioned by rivals. This is reflected at the party level: leftist parties are likely to suffer a vote loss when their valence is attacked by rivals. Rightist parties’ vote share, on the other hand, remains largely unaffected by such attacks. In short, valence attacks are harmful to the left but not to the right.^{19 20}

to valence attacks). We explored this possibility in various ways in OA5 and OA6, and conclude that party characteristics are unlikely to be driving the results.

¹⁹One potential concern is that we might be considering an unusual time period in terms of voter loyalty to leftist parties. To address this concern, we used t-tests to compare changes in vote shares (1) between the left and the right in the 70s, 80s, and 2010s and (2) between time periods for the left and the right separately. We find that there is no statistically distinguishable difference in any of the comparisons. Moreover, the experimental analysis we present in the next section further alleviates the concern that our observational analyses are simply picking up time trends. We discuss this in further detail in OA7.

²⁰One might ask whether the null effect for right-wing parties is because these parties are attacked less than left-wing parties, and/or because there is little variation in the data for right-wing parties. We think that this is unlikely because the mean of the valence attack measure is not significantly lower for right-wing parties than left-wing parties (difference: -0.06 , $p\text{-value}=0.1$), and the standard deviation of the variable is in fact larger for right-wing parties (0.23 compared to 0.17).

Study 2: Experimental Analysis

Although we believe that our observational analysis is well designed and the results provide strong and generalizable support for our argument, observational analysis cannot completely overcome endogeneity problems to firmly establish causality. Study 2 serves to mitigate this concern. Here, we use an experimental design that allows us to exogenously administer individual’s exposure to valence attacks against his or her party. Comparing subjects who were randomly assigned to such treatment condition to those who were not, provides a compelling and straightforward between-subjects design for causally identifying the effect of valence attacks.

We conducted the survey experiment on Labour (leftist) and Conservative (rightist) identifiers in the U.K. We believe the U.K. is a good context for testing our hypothesis. Most importantly, it is largely a two-party system, which provides a hard test of our hypothesis since turning away from one’s party is more consequential to electoral results in this context than it is in multiparty systems.²¹ If we find that valence attacks affect voter loyalty in this context, we can be more confident that this relationship holds also in the multi-party systems. Second, the two-party system offers us a clean test of our argument. Most voters support one of the two major parties, and we can clearly identify Labour supporters as leftist and Conservative supporters as rightist.

The experiment was carried out as part of an online survey that we administered through Prolific, a crowdsourcing platform for researchers developed in the U.K. It is similar to Amazon’s Mechanical Turk (MTurk) but overcomes many of the problems that researchers face with MTurk and other similar platforms (Palan and Schitter 2017). For our purposes, Prolific is particularly useful because it allows us to restrict survey respondents based on party

²¹That said, vote switching has become more common in Britain as well (Mellon et al. 2018). In relative terms, however, vote switching is easier in multi-party than in two-party systems.

identity. Prolific enables this by having participants answer pre-screening questions that researchers request. Participants are incentivized to answer these pre-screening questions because doing so potentially qualifies them for more studies. For our study, Prolific added the question “Which political party do you most identify with?” to their list of pre-screening question. This allowed us to restrict our survey to the appropriate pool of respondents without having to ask for party identity during the survey, and conduct our experiment on Conservative and Labour identifiers separately.²²

The survey was administered from September 30 to November 1, 2017 on 600 Conservative and 600 Labour identifiers (total $N = 1,200$) for a reward of \$0.90 to each participant. Our survey started by asking standard demographic questions, which include gender, age, education, and ethnicity. Then, subjects read a hypothetical campaign message from the party they support. The message played up the party’s valence by talking about its competence and integrity positively. After reading the message, subjects were randomly assigned to the treatment or control group. The treatment group read a hypothetical campaign message from a rival party that attacked the valence of the subject’s party. For Conservative identifiers, the rival party was the Labour Party, and for Labour identifiers, the Conservative Party. The control group did not see the valence attack message. We believe that such design creates an externally valid experimental setting where voters are exposed to competing arguments, rather than just one (Chong and Druckman 2007; Druckman and Lupia 2016). The vignettes were written up so that the messages are realistic to all respondents, regardless of which party they identify with.

²²The information about respondents’ party identification was collected several months before we fielded our study. Our theory does not provide expectations about whether the length of identification affects responses to valence attacks, which is why we did not collect this information about the respondents. However, exploring these effects would be an interesting avenue for future research.

The following is the pro-valence message that all respondents received:

Imagine that the [Conservative/Labour] Party is using the following message in its campaign:

“The political options voters face are clear. The choice comes down to competence and integrity. It’s the competence of us and our long-term economic and social plans that will secure Britain’s future. We pride in doing what is right and good. We are the party of hope and leadership. Our party is united to serve the British people.”

The following is the valence-attack message that the treatment group received:

Now imagine that the [Labour/Conservative] Party is using the message below in its campaign:

“The [Conservative/Labour] Party does not serve the interests or the values of the British people. It falls short in every aspect of British life—the deficit, growth, living standards, social policies, you name it. The word incompetent doesn’t come close to covering it. The [Conservative/Labour] Party is untrustworthy. Its many policy U-turns reveal how chaotic the organization is. It is the party of the past.”

Randomization and balance tests reported in OA8 indicate that the treatment and control groups are balanced across the pre-treatment sociodemographic variables and the treatment randomization was successful for both Labour and Conservative samples. Moreover, in both experiments, we had a manipulation check question at the very end to see if the attack vignette is in fact perceived as an attack. The question asked “How positive or negative is the tone of the message below?” The answer options are very positive, somewhat positive, neither negative nor positive, somewhat negative, and very negative. We find that the manipulation worked: 94% of the Labour sample and 92% of the Conservative sample responded that the vignette is somewhat negative or very negative.

Post-treatment, subjects were asked “If there were a UK General Election tomorrow,

which party would you vote for?” We coded answers to this question as a binary variable, with “1” indicating that the subject chooses to vote for his/her party and “0” otherwise. This is conceptually similar to the *Vote loyalty* variable that we used in the observational analysis. Answer options included all major parties in the U.K.

Results of Study 2

To analyze the results, we ran bivariate logistic regression models. In Table 3, we present the results for Labour and Conservative identifiers separately as well as combined. The first column shows that in the Conservative sample, the treatment does not have any effect on vote loyalty. That is, for rightist voters, valence attacks against their party have no effect on their vote loyalty, which is consistent with our expectation. The second column is for the Labour sample, and here we see a significant *negative* effect of treatment on voting for the Labour Party. That is, compared to leftist subjects who were not exposed to a valence attack against their party, those subjects who experienced such an attack were more likely to withdraw their support. In terms of predicted probabilities, we find that for Labour identifiers, the predicted probability of vote loyalty is 0.97 in the control group and 0.93 for the treatment group, resulting in a four percentage-point drop (95% confidence interval: [-0.08, -0.01]). Recall that the U.K. offers a hard test of our hypothesis: with few alternative parties in the same party family to choose from, voters may be compelled to remain loyal to their party despite any valence concerns. Given this, we interpret the effect size as substantively meaningful.

The last column in Table 3 combines both samples and includes an interaction effect between *Treatment* and *Labour identifier*. The coefficient for this interaction variable is negative and statistically significant at the 0.1 level. This provides suggestive evidence that the treatment effects are significantly different for the rightist (Conservative) and leftist (Labour) subjects, with valence attack having a stronger negative effect on vote loyalty of the leftist than the rightist voters. The conditional coefficient of *Treatment* when the

Table 3: Effect of Valence Attack on Vote Loyalty

	Conservative	Labour	Both
Treatment	-0.16 (0.23)	-0.94** (0.40)	-0.16 (0.23)
Labour identifier			1.63*** (0.38)
Treatment \times Labour			-0.78* (0.47)
Intercept	1.84*** (0.17)	3.48*** (0.34)	1.84*** (0.17)
Log Likelihood	-249.89	-119.08	-368.97
N	600	600	1200

Note: The dependent variable is *Vote loyalty*, which is coded ‘1’ if the respondent chooses to vote for his/her party and ‘0’ otherwise. Table entries are logistic regression coefficients with standard errors in parentheses. The first column is for the Conservative sample, the second column is for the Labour sample, and the third column combines the two with an interaction term. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

variable *Labour identifier* is ‘1’ is: $\beta = -0.94$, $SE = 0.40$, $p = 0.02$. In terms of predicted probabilities, as mentioned before, the first difference is 0.04, with a 95% confidence interval of $[-0.08, -0.01]$.²³

Overall, the results from all of these different analyses provide consistent support for our expectation that valence attacks are effective on the leftist but not on the rightist voters: leftist voters are discouraged from supporting their party if the party’s valence is called into question while rightist voters are unfazed by such attacks.

Conclusion

We have argued that leftist parties are more vulnerable to valence attacks than their rightist competitors. We have drawn insights from the literature on left-right personality to argue that leftist voters are more open-minded than their rightist counterparts, and therefore more

²³Our substantive conclusions do not change when we control for pre-treatment sociodemographic covariates to the models in Table 3 (see Table OA8.7 for the results).

likely to update their political preferences in response to valence attacks. Using the CCDD data on media coverage of party campaigns, we provided robust cross-national evidence for our argument at both the party level and the individual voter level. We then replicate our finding in a tightly controlled experiment that allows for better causal identification. Specifically, a vignette experiment, that we conducted in the U.K. and which directly manipulated individuals' exposure to a valence attack against their party, showed that leftist party supporters are receptive to valence attacks while rightists are not. The fact that we were able to replicate our finding using different research strategies, levels of analysis, and research contexts, bolsters our confidence in the robustness of our results. In short, parties can harm the valence and thus the electoral prospects of their leftist but not rightist competitors.

Our paper has several important contributions. First, we add to the study of valence in party competition. Our findings highlight the role that political rivals can play in trying to shape focal party's valence. We show that at least some parties are able to emphasize the valence problems of their rivals to their advantage. Attention to the valence-related rhetoric and framing attempts by rivals paints a more dynamic, strategic, and interactive view of party competition. This helps push forward comparative research on valence, which so far has primarily focused on parties' own actions or external events to understand the role of valence in party competition (see, for example, Adams and Merrill III 2009; Clark and Leiter 2014; Stone and Simas 2010). Our results also speak to how voters form their valence perceptions of parties—an area of research that scholars are only starting to explore (see Green and Jennings 2012; Zakharova and Warwick 2014).

Second, our paper contributes to the literature on negative campaigning. Studies on negative campaigning, both American and comparative, have focused on the circumstances under which elites are more likely to go negative (e.g., Harrington and Hess 1996; Skaperdas and Grofman 1995; Walter, van der Brug and van Praag 2014). When it comes to the effects of negative campaigning, results are rather inconclusive. That is particularly the case for parties and politicians on the receiving end of attacks. According to Lau, Sigelman and

Rovner (2007)’s meta-analysis, some scholars find the target party experiencing a decrease in voter support while some others find surprising improvement in electoral performance. Our paper suggests that such inconsistent patterns might be a consequence of unexplored differences in the characteristics of leftist and rightist voters.²⁴ Our intuition that individual-level factors might be at work is echoed by other scholars. For example, the effectiveness of negative campaigning has been related to the civility and relevance of the message (i.e., the type of valence attack), individuals’ tolerance of negativity (Fridkin and Kenney 2011), and their perception of messages as negative (Pattie et al. 2011). We propose cognitive flexibility as another moderating variable. Our observation that cognitive flexibility plays out along ideological lines has a deep significance because it means that individual-level differences lead to party-level consequences. That is, openness is relevant for understanding party competition *because* of its correlation with ideology; this correlation is the reason, we claim, for why parties suffer differently from valence attacks.

Third, our study provides interesting implications for research on partisan motivated reasoning, which is increasingly being used to explain a range of different political phenomena, such as retrospective voting and policy attitudes (Bisgaard 2015; Homola and Tavits 2017; Rogowski 2016; Slothuus and de Vreese 2010; Taber and Lodge 2006). Scholars have acknowledged the conditional strength of partisan motivated reasoning on individual traits like strength of partisanship and political awareness. Our findings suggest that personality might be an important moderator of partisan motivated reasoning as well, with rightist individuals having higher propensity to engage in partisan motivated reasoning in response to information that is incongruent with their prior views. An interesting avenue for future research is to consider how left-right personality interacts with partisan motivated reasoning

²⁴Banda and Windett (2016) directly attempt to resolve the inconsistent findings in the literature. They provide a temporal explanation, arguing that getting attacked harms the attacked in the short run but helps the attacked in the long run.

to affect political opinions and behavior.

More broadly, our argument contributes to the work that highlights the different ways leftists and rightists react to political stimuli. For example, Homola and Tavits (2017) argue that contact with immigrants has different consequences on leftists' and rightists' views toward immigration: the former are likely to decrease their immigration-related fears while the latter are not. Our findings suggest the left and the right are different not only in their attitudes, values, and beliefs, but also in their cognitive and experiential flexibility, with consequences to party competition.

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Biographical Statement

Jae-Hee Jung (jae-hee.jung@bsg.ox.ac.uk) is a postdoctoral fellow at the Blavatnik School of Government and Nuffield College at the University of Oxford, Oxford, UK, OX2 6GG.

Margit Tavits (tavits@wustl.edu) is a professor of political science at Washington University in St. Louis, St. Louis, MO 63130.