

Contesting Reputational Advantages: Issue Ownership and Negative Campaigning

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Abstract

Research on issue-based negative campaigning typically emphasizes issue salience and parties' own issue strengths. This paper shifts the focus to the targets of attacks. We argue that negative campaigning on policy issues is systematically structured by the competence of the opponent, as parties seek to challenge rivals' reputational advantages within specific issue domains. Using a dyadic dataset of party press releases from five Austrian national election campaigns (2006–2019), combined with survey-based measures of perceived issue competence, we show that parties are significantly more likely to direct negative messages at highly competent opponents. In contrast, sender-party competence and voter issue salience do not consistently shape targeting patterns. These findings suggest that issue-based negative campaigning is driven less by parties' own issue strengths than by their opponents' relative standing, highlighting how attacks serve as a strategy of reputational contestation in issue competition.

Keywords: Issue ownership; Negative campaigning; Party competition, Austria

1. Introduction

Research on issue competition has long shown that parties seek to shape electoral competition by emphasizing issues on which they are perceived as competent and by deciding whether to engage with or avoid issues raised by their competitors (Budge and Farlie 1983; Petrocik 1996; Green-Pedersen and Mortensen 2015). At the same time, an extensive literature on negative campaigning examines when and why parties choose to attack their rivals rather than promote their own strengths (Lau and Brown Rovner 2009; Haselmayer 2019; Walter 2014). Yet these two strands of research are rarely integrated to explain how parties use negative campaigning as part of issue competition, and which opponents they target when doing so.

Existing studies of issue-based negative campaigning focus mainly on the issues parties choose for attack or on sender-side incentives shaping campaign tone. Damore (2002) and Poljak and Seeberg (2024) argue that issue salience and parties' own issue ownership may increase the likelihood of negative campaigning, while Elmelund-Præstekær (2011) shows that parties often campaign more positively on issues they own and more negatively on issues owned by others. These studies substantially advance our understanding of issue-based negativity, but they leave one relational question unresolved: when parties attack on a policy issue, which opponent do they target?¹ This question is particularly important in multiparty systems, where several parties may compete over the same issue and where reputational advantages are defined relative to those of specific competitors.

We argue that target selection is central to understanding the role of negative campaigning in issue competition. Because issue competence is comparative, especially in multiparty systems where ownership is often shared rather than exclusive (Walgrave et al. 2015; Stubager 2018; Green and Jennings 2017), parties have incentives to direct negative messages at opponents who are perceived as highly competent on the issue at stake. Such attacks allow parties to challenge rivals' reputational advantages precisely where those advantages are strongest.

We test this argument using a dyadic dataset of party press releases from five Austrian national election campaigns (2006-2019), combined with survey-based measures of perceived issue competence. The results show that parties systematically direct negative messages at opponents who are perceived as highly competent on a given issue. By contrast, sender-side competence and issue salience do not consistently explain targeting patterns.

¹ This does not imply a strict temporal sequence in which parties first select issues and only then choose targets. We conceptualize issue-based attacks as joint issue-target choices and empirically observe the resulting sender-target-issue combinations.

The findings show that issue-based negative campaigning is not a mere function of issue salience or parties' own issue strengths. It is also a strategy of reputational contestation, directed disproportionately at opponents who are seen as especially competent within an issue domain. More broadly, they suggest that electoral competition over issues unfolds not only through selective emphasis and engagement, but also through attacks on the parties most strongly associated with those issues—attacks that may, as experimental research suggests, reshape perceived issue competence.

2. Issue ownership and targeted negative campaigning

Issue ownership is a central concept in electoral research and refers to the association between parties and policy domains, whereby voters perceive certain parties as more competent in handling specific issues (Budge and Farlie 1983; Petrocik 1996). These reputational advantages are electorally consequential, as parties benefit when issues they are associated with become salient during a campaign (Van der Brug 2004; Bélanger and Meguid 2008; Green and Hobolt 2008).

Existing research distinguishes between associative ownership, which captures the parties voters associate with an issue, not necessarily because they view them as most competent, and competence-based ownership, which captures perceived governing ability in a policy domain (Walgrave et al. 2015; Stubager 2018). Associative ownership is therefore often durable, whereas competence perceptions are more directly open to contestation through campaign communication (Walgrave et al. 2009; Tresch et al. 2015). Given our focus on strategic attacks on opponents' reputational advantages, we rely on competence-based measures, which directly capture parties' perceived ability to handle specific issues.

In multiparty systems, issue ownership is rarely exclusive. Instead, multiple parties may be perceived as credible on the same issue, resulting in varying degrees of shared ownership (Geys 2012). This implies that issue competition is comparative, as parties' reputational advantages are defined relative to those of their competitors rather than in isolation.

A large body of research links issue ownership to campaign strategy. Applied to negative campaigning, one sender-centered expectation is that parties attack on issues on which they themselves enjoy a credibility advantage. Damore (2002) argues that attacks on party-owned issues are more credible, allow candidates to highlight opponents' weaknesses on favorable terrain, and may offer higher returns than additional positive appeals on issues voters already

associate with the attacking party. Poljak and Seeberg (2024) develop a similar expectation and show that parties devote more attention to attacks on issues they own, especially when those issues are also salient. However, this logic is not uncontested. Elmelund-Præstekær (2011) argues, and finds, that stronger issue ownership is associated with a more positive campaign tone, suggesting that parties may instead use owned issues to promote their own strengths. Sender-side competence therefore does not generate an unambiguous expectation for negative campaigning.

A different, target-centered logic starts from the competence of the opponent rather than that of the sender. Research on issue engagement and avoidance shows that parties may refrain from addressing opponents' strongest issues because doing so can be difficult to make credible and may draw attention to a rival's advantage (Green-Pedersen and Mortensen 2015; Meyer and Wagner 2016; Seeberg 2022). Negative campaigning changes this calculus because parties can address a rival's owned issue without promoting the issue positively or conceding the rival's competence. Elmelund-Præstekær (2011) notes that parties may attack opponents on their strongest issues in order to cast doubt on their reputational advantage, while Seeberg (2020) conceptualizes such behavior as "issue ownership attacks" and shows experimentally that blame and framing strategies can weaken a rival's perceived issue competence.

This strategy involves a trade-off. Attacking highly competent opponents is risky because these parties may be credible and resilient targets. Yet the potential payoff is also high: if negative messages raise doubts about a rival's competence on an issue where that rival enjoys an advantage, they can weaken an electorally valuable reputation (Seeberg 2020). These incentives may be particularly pronounced when the target enjoys a clear competence advantage over the sender. In such cases, positive competition on the issue may offer limited opportunities for the sender to match the rival's established reputation directly, making negative campaigning a potentially attractive strategy for challenging that advantage. More generally, this logic is consistent with research showing that issue ownership structures parties' decisions about the issues on which they attack (Poljak and Seeberg 2024). By contrast, where sender and target are more evenly matched in perceived competence, parties may have greater scope to compete through positive issue emphasis rather than by attacking the rival's reputation. Although our main argument centers on target competence, we therefore also examine whether issue-based attacks vary with the relative competence of sender and target.

Importantly, our argument concerns parties' incentives to contest rivals' issue reputations. We do not assume that such attacks necessarily persuade voters to revise their competence perceptions, transfer issue ownership to another party, or change their electoral choices.

Yet existing research has not systematically examined how variation in opponent competence shapes targeted negative campaigning across issues. We therefore expect parties to direct negative messages at opponents who are perceived as highly competent on a given issue. These actors represent particularly consequential competitors within an issue domain, especially when they enjoy a competence advantage over the sender. Attacking them allows parties to challenge established reputational advantages. This expectation is consistent with experimental evidence suggesting that issue-based attacks can, under some conditions, weaken opponents' perceived competence, although such effects are not uniform (Seeberg 2020; Seeberg and Nai 2021; Lefevere, Seeberg, and Walgrave 2020).

H1 (Target competence): *Parties are more likely to direct negative messages at opponents with higher perceived issue competence.*

Finally, while our focus is on target selection, other factors discussed in the literature may shape patterns of issue-based negativity. Issue salience captures the prominence of policy issues in public debate and is associated with incentives for issue engagement (Green-Pedersen and Mortensen 2015) and, potentially, negative campaigning (Damore 2002; Poljak and Seeberg 2024). Similarly, sender issue competence may shape parties' willingness to attack on a given issue (Damore 2002; Poljak and Seeberg 2024). We account for these factors in the empirical analysis to assess whether targeting patterns persist once alternative explanations are taken into consideration.

3. Case selection and data

We test our expectations using party press releases issued during five Austrian national election campaigns between 2006 and 2019. The analysis includes all parties represented in the Nationalrat during the period under study: the Social Democratic Party of Austria (SPÖ), the Austrian People's Party (ÖVP), the Freedom Party of Austria (FPÖ), the Alliance for the Future of Austria (BZÖ), the Greens, Team Stronach, NEOS, and Liste Pilz/Jetzt. Austria is a useful case for studying issue-based negative campaigning because parties compete in a moderately pluralized system marked by repeated coalition government, frequent direct competition

between major parties, and a campaign environment in which parties often confront one another on the same issues rather than merely emphasizing their own strengths (Dolezal et al. 2014).

The core data source consists of press releases issued during the final six weeks of each election campaign and distributed by the Austrian Press Agency (www.ots.at). As part of the Austrian National Election Study, trained coders identified the issuing party, up to two issues from the title and subtitle, and up to three political targets together with the valence of each reference (Müller et al. 2021). This coding scheme yields explicitly relational data and makes it possible to map directed interactions between parties within specific policy domains. Press releases are also an important channel of campaign communication in Austria: about one in six campaign press releases is picked up by a national newspaper and negative messages are particularly likely to attract public attention (Meyer et al. 2020; Haselmayer et al. 2019). Although parties also campaign through posters, advertisements, direct mail, media appearances, and other voter-facing channels, press releases provide systematic, frequent, party-controlled, and issue-rich data on inter-party targeting (Dolezal et al. 2014; Russmann 2017). Whereas social media gained in relevance during the research period, Austrian parties rarely used it even in the 2013 election (Dolezal 2015). Our focus is therefore on parties' strategic communication choices rather than on media uptake or voter exposure.

Issue coding relies on the fine-grained AUTNES issue classification (Müller et al. 2021). To link campaign communication to external measures of issue characteristics, these codes are mapped onto a common set of 13 broader issue categories derived from Eurobarometer data: crime, economy, education, environment, government debt, health and social security, housing, immigration, pensions, inflation, taxation, terrorism, and unemployment (Ennser-Jedenastik et al. 2022). This harmonization reduces issue-level granularity but ensures comparability across data sources and enables the integration of survey-based indicators of party competence and voter issue priorities. The underlying issue coding achieves high intercoder reliability (Krippendorff's $\alpha = 0.81$).

Measures of party issue competence are derived from available pre-election survey data that capture voters' perceptions of which party is most capable of handling specific issues for 2006 and 2008. For the election years 2013, 2017, and 2019, these data are drawn from the Austrian National Election Study (Kritzinger et al. 2019; 2020), while earlier election years rely on a patchwork of available surveys compiled by Ennser-Jedenastik et al. (2022; see Appendix A for more details). Issue competence is measured as the share of respondents naming a given party as most capable of handling a particular issue, capturing the competence dimension of

issue ownership (Walgrave et al. 2015; Stubager 2018; see also Petrocik 1996). Responses are aggregated to the party-issue level using survey weights. To ensure comparability across survey sources, responses are mapped onto a common set of issue categories (see Appendix A).

The message-level dataset contains 5,486 issue-coded statements across the five campaigns, corresponding to 4,867 unique press releases. Press releases may contain up to two coded issues and up to three political targets, with the predicate—including its valence—coded separately for each target. We restructure these data into sender–target–issue observations and aggregate them to the sender–target–issue–year level. For each combination, the dependent variable captures the share of a sender’s issue-specific communication containing negative references to the respective target. Party- and issue-level covariates, including perceived competence and voter issue salience, are then added for each election year.

Thus, each observation represents a possible directed relationship between a sender party, a target party, an issue, and an election year. For example, if the SPÖ addressed immigration in 2017, the dataset records the share of this issue-specific communication that was directed negatively at each potential party target. Cells with no attack on a specific target are retained as zeros, provided that the sender addressed the issue at all. This structure allows us to distinguish between parties not addressing an issue and parties addressing an issue without attacking a particular opponent. The appendix reports additional information on campaign periods, party-level communication volume, issue-competence measures, and descriptive statistics, including the distribution of party issue competence across parties, issues, and election years (Tables A.1–A.5; Figures A.1–A.2).

Dependent variable

The dependent variable captures issue-specific negative campaigning at the dyad level. We define negative campaigning as statements that contain explicit criticism of another political actor (Geer 2006). Based on the AUTNES coding scheme, negative references include instances in which a party attributes responsibility, criticizes policies or performance, or questions the competence of a specific opponent. The dependent variable measures the share of negative references directed at a given opponent within a party’s issue-specific communication. The resulting variable is a fractional measure bounded between zero and one.

Independent variables and sample

The central explanatory variable captures the issue competence of the target party. Issue competence is defined as the share of respondents naming a given party as most capable of handling a particular issue, thereby reflecting the graded and non-exclusive nature of issue ownership in multiparty systems (Geys 2012; Walgrave and De Swert 2007). We focus on the competence dimension of issue ownership, which captures parties' reputational standing within specific issue domains (Walgrave et al. 2015; Stubager 2018; see also Petrocik 1996).

Issue competence is measured using pre-election survey data from multiple sources that differ somewhat in question wording and issue coverage (see Appendix A). Responses are aggregated to the party-issue level using survey weights and harmonized to a common issue scheme. The resulting measure captures variation both within and across parties and follows established approaches to measuring issue ownership in multiparty settings (e.g., Walgrave et al. 2015; Stubager 2018). Issue competence varies substantially across parties, issues, and election years, supporting the use of a time-varying measure (see Figure A.1 in the Appendix).

In addition, we include measures of voter issue salience and sender-party issue competence to account for alternative explanations emphasized in previous research (Damore 2002; Green-Pedersen and Mortensen 2015; Poljak and Seeberg 2024). Voter issue salience is measured using survey data on the most important problems facing the country drawn from Eurobarometer surveys. All responses are mapped onto the same issue categories, yielding a measure of the proportion of respondents identifying a given issue as among the most important. Voter issue salience likewise varies across issues and election years (see Figure A.2 in the Appendix).

The dyadic dataset comprises 1,846 sender–target–issue–year combinations, including both observed and potential interactions between parties. The estimation sample includes 964 observations in which the sender addresses the issue and all core variables are observed. Restricting the analysis to addressed issues ensures that the sample captures substantively relevant instances of issue competition.

Model specification

To analyze targeted negative campaigning, we estimate fractional regression models, as the dependent variable is a share bounded between zero and one. The dyadic specification follows directly from our argument: we ask whether parties devote a larger share of their issue-specific

communication to attacking opponents who are seen as more competent on that issue. The campaign period constitutes the relevant strategic horizon because our theoretical interest concerns how parties allocate issue-specific negative communication across potential opponents over the course of an election campaign, rather than short-term fluctuations in the timing of individual attacks. Aggregating at this level also preserves the full feasible target set: when a sender addresses an issue but does not attack a particular opponent, that sender-target combination constitutes a meaningful zero. As a robustness check, we replicate the analysis using weekly sender-target-issue observations. Standard errors are clustered at the sender-target dyad level to account for repeated observations of party pairs across issues and election years. In addition, we include measures of voter issue salience and sender party competence to account for alternative explanations of the issue environment discussed in the literature.

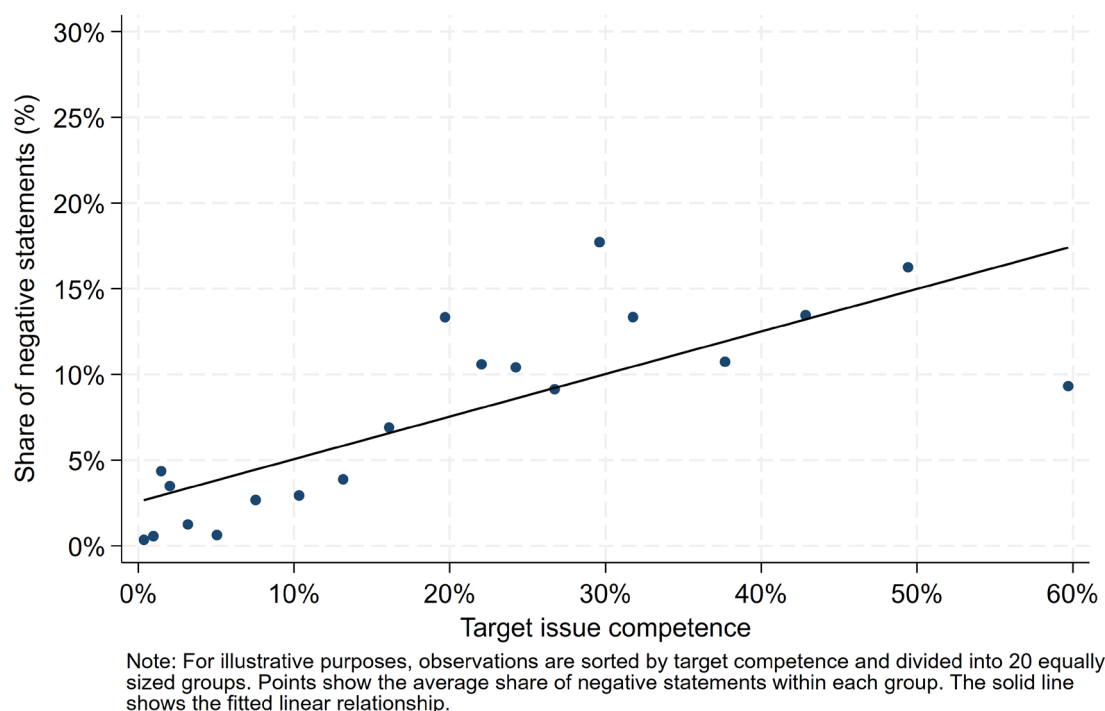
All models include fixed effects for sender parties, target parties, issue categories, and election years. This accounts for systematic differences in communication strategies across parties, variation in how parties are targeted, issue-specific dynamics, and campaign-level factors. Identification relies on variation in targeting patterns net of stable differences across senders, targets, issue domains, and election years.

We assess the robustness of the main results in several ways. First, we include additional party-level and dyadic controls, including sender and target vote share, dyadic size differences, sender and target government status, and whether sender and target were both governing parties. Second, we include a sender-by-target competence interaction to assess whether the target-competence result is conditional on the sender's own issue competence. Third, we exclude issue domains that are rarely addressed and sparsely covered in the survey data (terrorism and inflation). Fourth, we restrict the analysis to election years with high-quality competence data from the Austrian National Election Study (2013–2019). Fifth, we exclude observations based on imputed or extrapolated competence measures. Sixth, we restrict the sample to the main parliamentary parties (SPÖ, ÖVP, FPÖ, Greens). Seventh, we restrict the analysis to issues mentioned in press-release headlines. Finally, we estimate alternative model specifications, including Generalized Estimating Equations (GEE) to account for dyadic dependence, negative binomial models using the count of negative references as the dependent variable, and weekly models of issue-based attacks. Across all robustness tests, the results remain substantively unchanged (see Appendix Tables B.1 and B.2).

4. Results

Figure 1 groups observations by target competence and plots the average share of negative statements within each group. The descriptive pattern is positive: the share of attacks is higher when target competence is greater. At very high levels of competence, the relationship appears to flatten, although this is based on few observations and should be interpreted with caution.

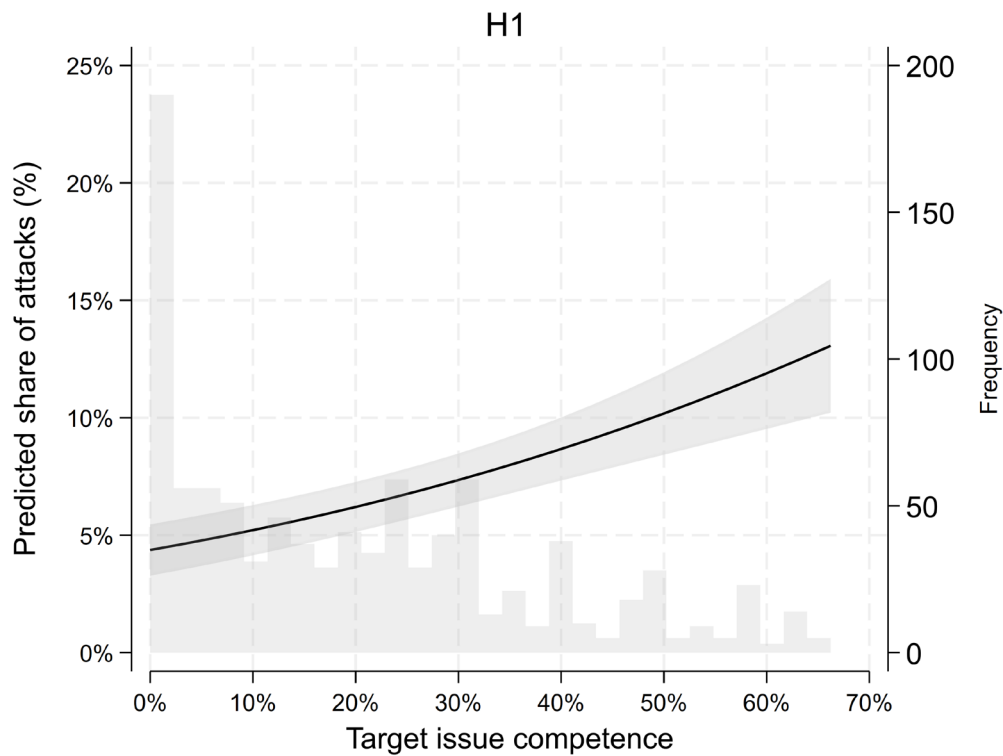
Figure 1: Share of issue-based attacks by target party competence (2006–2019)



While this pattern is informative, it does not account for the relational structure of party competition or potential confounding factors. To assess this relationship more systematically, we estimate fractional regression models. Figure 2 presents predicted shares based on the main specification, illustrating how negative campaigning varies across the observed range of target competence. Full model estimates and robustness checks are reported in the Appendix.

The results confirm a clear positive relationship between target competence and negative campaigning. At low levels of competence, negative references are rare, with predicted shares of about 4 percent. The share of issue-based attacks increases with target competence, reaching approximately 13 percent at higher levels. Substantively, this corresponds to an increase of around nine percentage points across the observed range, meaning that the predicted share of issue-based attacks roughly triples. The estimated effect of target competence is positive and statistically significant in the main model, and remains robust across alternative specifications and sample restrictions (see Appendix, Table B.1).

Figure 2: Predicted share of issue-based attacks in party press releases (2006–2019)



Note: Figure is based on Table B.1, Model 1.

The results provide weaker support for the alternative sender- and issue-centered explanations. Sender-party issue competence is not consistently associated with issue-based negative campaigning once target competence and fixed effects are included. Voter issue salience is positive in some specifications, but the relationship is not robust across alternative samples and model specifications. Overall, this suggests that issue-based attacks are structured more consistently by the competence of the target party than by the sender's own issue reputation or the general salience of the issue. Additional analyses examine whether relative sender–target competence also structures issue-based attacks. The interaction between sender and target competence is not statistically significant, while target competence remains positive and significant, suggesting that the main result is not conditional on sender competence. A separate model using the relative competence difference between sender and target shows that parties are more likely to attack opponents whose issue competence exceeds their own by a larger margin. We therefore interpret this supplementary result as reinforcing the target-centered pattern (Appendix Table B.2).

Taken together, the findings show that issue-based negative campaigning is structured by the competence of the target party. Rather than avoiding strong opponents, parties are more likely to attack competitors with strong reputational advantages, even when accounting for party-level characteristics such as size and government status.

5. Conclusions

This paper examined how issue competition shapes negative campaigning in multiparty systems. Research on issue competition has long emphasized how parties strategically promote issues on which they are perceived as competent and decide whether to engage with or avoid issues raised by competitors (Budge and Farlie 1983; Petrocik 1996; Green-Pedersen and Mortensen 2015). A smaller literature has extended this perspective to negative campaigning, examining when parties attack on policy issues and how such strategies relate to issue ownership and issue salience (Damore 2002; Elmelund-Præstekær 2011; Poljak and Seeberg 2024). While these studies provide important insights, they focus primarily on issue characteristics or sender-party incentives. This paper adds a target-centered perspective by examining which opponents parties attack within specific issue domains.

The empirical findings show that parties are more likely to direct negative messages at opponents who are perceived as highly competent on a given issue. This suggests a more limited role for sender-centered expectations and extends prior work that explains issue-based attacks through salience and issue ownership (Damore 2002; Poljak and Seeberg 2024). Consistent with this, we find no robust evidence that sender-side competence or voter issue salience systematically shapes targeting decisions.

These findings do not contradict the core logic of issue ownership, but refine its implications for negative campaigning. Rather than simply exploiting their own reputational advantages, parties use negative messages to challenge those of their opponents. Issue-based negative campaigning thus emerges as a mechanism through which parties contest issue ownership (Elmelund-Præstekær 2011; Seeberg 2020). Additional analyses suggest that this pattern is also shaped by relative sender–target competence: attacks are more likely when the target enjoys a larger competence advantage over the sender (Table B.2). This is consistent with a strategic distinction between competing for issue ownership through positive emphasis when reputational advantages are relatively balanced and challenging the reputation of a stronger issue owner through negative campaigning when the target holds a clearer competence advantage.

More broadly, the results suggest that electoral competition over issues is shaped not only by selective emphasis and engagement, but also by attacks directed at the parties most strongly associated with those issues. This interpretation is consistent with experimental evidence showing that issue-based attacks can, under some conditions, weaken perceived issue competence (Seeberg 2020; Seeberg and Nai 2021). The findings therefore help connect research on party campaign strategies with work showing that parties can actively contest and reshape not only their own issue ownership, but also that of their opponents.

Beyond explaining party strategy, this relational perspective also matters because issue-based attacks may shape how voters evaluate parties' competence and how campaigns structure reputational competition among parties. These findings should be evaluated against the study's focus on election campaigns and press releases, which capture party-controlled communication during periods of heightened electoral competition. Patterns of issue-based attacks may differ in routine politics or in communication channels with different audiences, formats, and degrees of journalistic mediation.

Several avenues for future research emerge from this study. First, patterns of issue-based negative campaigning may differ between two-party systems, where issue ownership is more concentrated, and multiparty systems, where ownership is typically shared and competition is more fragmented. Second, future research could examine how issue competence interacts with parties' issue positions. Attacks may be driven not only by a target's reputational advantage, but also by positional conflict, especially when parties that are perceived as highly competent hold distinctive or polarizing positions on the issue. Third, future work could extend this relational perspective to other forms of political communication, such as social media, parliamentary questions, advertisements, or routine party communication, and link party-controlled campaign messages to media coverage to examine whether attacks on competent opponents enter the broader information environment.

Taken together, these findings show that issue competition is not confined to parties promoting their own strengths. It also involves strategic efforts to challenge competitors' reputational advantages through negative campaigning. Because perceptions of issue competence matter for voter evaluations and electoral competition, understanding when and how parties attack issue owners is important for a fuller account of campaign strategy and its potential electoral consequences.

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Appendix A: Additional data information and descriptives

The unit of analysis is the sender–target–issue–year. The original AUTNES data identify up to two issues in each press release and up to three political targets, with the predicate—including its valence—coded separately for each target. We restructure these data into sender–target–issue observations and subsequently aggregate them by election year. For each sender, issue, and election year, the risk set includes all parties that could potentially be targeted. When the sender addresses an issue but does not direct a negative reference at a particular opponent, that sender–target–issue combination is retained as a zero. Cases in which the sender does not address the issue are not treated as equivalent zeros. The resulting dataset contains 1,846 possible sender–target–issue–year combinations and 964 observations in the main estimation sample for which the sender addresses the issue and all core covariates are observed.

Table A.1: Campaign periods, Eurobarometer field work periods and sample sizes

Election	Campaign Start	Election Day	EB Field Work	n
2006	21 Aug	01 Oct	06 Sep to 05 Oct	1,016
2008	18 Aug	28 Sep	06 Oct to 28 Oct	1,003
2013	19 Jul	29 Sep	02 Nov to 17 Nov	1,032
2017	04 Sep	15 Oct	05 Nov to 12 Nov	1,016
2019	19 Aug	29 Sep	21 Nov to 24 Nov	1,018

Table A.2. Number of issue-coded observations by party and election year

Party	2006	2008	2013	2017	2019	Total
SPÖ	597	618	301	250	208	1,974
ÖVP	264	529	262	105	104	1,264
FPÖ	119	271	268	196	209	1,063
Greens	99	148	81	91	62	481
BZÖ	143	245	55	0	0	443
Team Stronach	0	0	65	0	0	65
NEOS	0	0	9	61	66	136
Liste Pilz	0	0	0	23	37	60
Total	1,222	1,811	1,041	726	686	5,486

Note: The 5,486 issue-coded observations are based on 4,867 unique press releases with up to two coded policy issues.

Table A.3: Issue coverage and question wording for issue ownership data

Issue	Year(s)	Item Wording
Crime	2006/08	Promoting domestic security and less crime
	2013	Crime
	2017/19	Protecting citizens from crime
Economy	2006/08	Securing economic growth
	2013	Economy
	2017	Promoting economic growth
	2019	Economic policy
Education	2006/08	Improving and modernizing the education system
	2013	Education reform
	2017/19	Introducing comprehensive schools
Environment	2006/08	Protection of natural forests and clean water
	2013	Environment
	2017	Protecting the environment
	2019	Environmental protection
Government Debt	2006/08	Balancing the budget
	2013	Government debt
	2017/19	Trade-off: government debt vs. unemployment
Health & Soc. Sec.	2006/08	Securing decent medical care for all Austrians
	2013	Health and social security
	2017/19	Creating social justice
Housing	2006/08	Creating more affordable housing
	2013	Housing
	2017/19	Creating affordable housing
Immigration	2006/08	Coming to grips with the 'foreigners problem'
	2013	Immigration
	2017	Controlling immigration
	2019	Immigration
Inflation	2006/08	(values for 'Economy' used)
	2013	Inflation
	2017/19	(values for 'Economy' used)
Pensions	2006/08	Securing pensions
	2013	Pensions
	2017	Fighting poverty in old age
	2019	Pensions
Taxation	2006/08	Tax reform, cutting taxes and contributions
	2013	Taxation
	2017/19	(values for 'Economy' used)
Terrorism	2006/08	Promoting domestic security and less crime
	2013	Terrorism
	2017/19	Protecting Austria from terrorism
Unemployment	2006/08	Securing and creating jobs
	2013	Unemployment

Issue	Year(s)	Item Wording
	2017	Fighting unemployment
	2019	Job market and employment

Table A.3 displays the coverage and question wordings in the surveys from which we draw data on perceived party competence (issue ownership). We use surveys fielded by Fessel-GfK in May 2006 and April 2008 for the 2006 and 2008 elections, respectively (N = 500 in both cases). The 2013 data were collected within the Austrian National Election Survey (AUTNES) between November 2012 and June 2013 (N = 3,266). For 2017 we use ICCP data (<https://doi.org/10.11587/5XWPKK>) collected in September and October 2017 (N = 1,002), for 2019 we rely on data from wave 11 of the AUTNES Online Panel Study 2017-2019 collected in September 2019 (N=2,994). To maximize data coverage, several items were used multiple times (especially for items related to economic issues). The 2006-2008 data for the housing issue were imputed using party competence data on this issue collected in earlier Fessel-GfK surveys (1989-1995). Since this earlier series correlates highly with the party competence data on pensions ($r = 0.98$), a linear regression with the pension data as a predictor was specified and imputed values for the years 2006 and 2008 (for which pension data are available) thus calculated. Data for 2013 are based on responses to the “most important problem” question and the related question on the party best able to handle the named issue. Responses were recoded to match the AUTNES issue scheme and merged according to the Eurobarometer recoding. To account for potential distortion due to imputation and/or extrapolation from other survey items, we also run robustness checks that exclude all such observations. Results presented in Table B.1 (Model 5) confirm our main results.

Table A.4: Descriptive information

	Mean	SD	Min	Max	N
Share of negative statements/issue	0.07	0.14	0	1	964
Target party issue competence	20.14	17.18	0	66	964
Voter issue salience	16.82	10.35	2	61	964
Sender party issue competence	18.59	16.06	0	66	964
Count of negative statements/issue	1.41	4.08	0	59	964
Target in government	0.40	0.49	0	1	964
Target vote share (%)	18.98	10.54	2	37	964

Note: Descriptive statistics are based on the estimation sample used in the main models.

Table A.5. Party issue competence by issue and election year

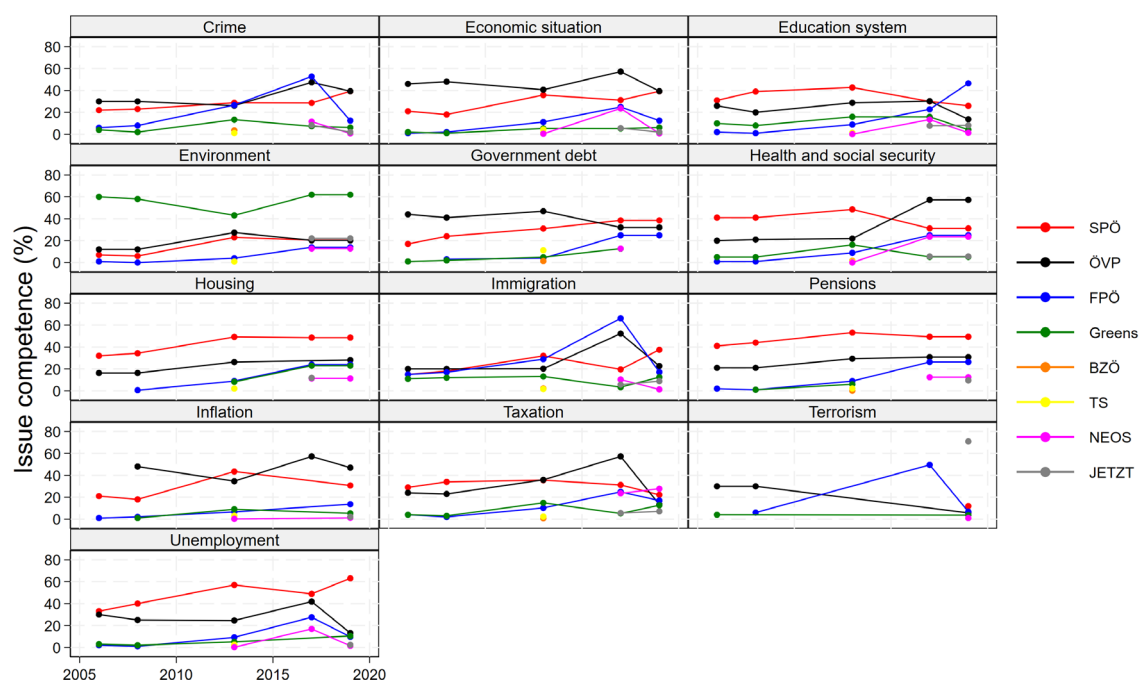
		2006	2008	2013	2017	2019
Crime	SPÖ	22.0	23.0	28.8	28.6	39.2
	ÖVP	30.0	30.0	26.1	47.4	39.4
	FPÖ	6.0	8.0	26.7	52.7	12.5
	Greens	4.0	2.0	13.3	7.3	6.2
	BZÖ	.	.	3.6		
	Team Stronach			1.1		
	NEOS			.	11.6	0.8
	JETZT / Pilz				8.3	2.0
Economic situation	SPÖ	21.0	18.0	35.8	31.2	39.2
	ÖVP	46.0	48.0	40.7	57.2	39.4
	FPÖ	1.0	2.0	11.2	24.9	12.5
	Greens	2.0	1.0	5.3	5.2	6.2
	BZÖ	.	.	1.0		
	Team Stronach			4.5		
	NEOS			0.4	23.6	0.8
	JETZT / Pilz				5.6	2.0
Education system	SPÖ	31.0	39.0	42.7	30.0	26.0
	ÖVP	26.0	20.0	28.7	30.3	13.7
	FPÖ	2.0	1.0	8.9	22.8	46.5
	Greens	10.0	8.0	15.9	15.9	4.2
	BZÖ	.	.	1.3		
	Team Stronach			1.2		
	NEOS			0.2	13.4	1.4
	JETZT / Pilz				7.8	8.2
Environment	SPÖ	7.0	6.0	23.0	20.5	20.5
	ÖVP	12.0	12.0	27.4	20.3	20.3
	FPÖ	1.0	0.0	3.9	13.9	13.9
	Greens	60.0	58.0	43.1	62.0	62.0
	BZÖ	.	.	.		
	Team Stronach			0.9		
	NEOS			.	12.7	12.7
	JETZT / Pilz				22.1	22.1
Government debt	SPÖ	17.0	24.0	31.0	38.5	38.5

	ÖVP	44.0	41.0	46.9	32.1	32.1
	FPÖ	.	3.0	4.0	24.9	24.9
	Greens	1.0	2.0	4.9	12.6	.
	BZÖ	.	.	1.4		
	Team Stronach			11.2		
	NEOS			.	12.8	.
	JETZT / Pilz				.	.
Health and social security	SPÖ	41.0	41.0	48.5	31.2	31.2
	ÖVP	20.0	21.0	21.9	57.2	57.2
	FPÖ	1.0	1.0	8.9	24.9	24.9
	Greens	5.0	5.0	16.2	5.2	5.2
	BZÖ	.	.	1.6		
	Team Stronach			0.9		
	NEOS			0.1	23.6	23.6
	JETZT / Pilz				5.6	5.6
Housing	SPÖ	32.0	34.3	49.2	48.6	48.6
	ÖVP	16.3	16.3	26.3	.	28.1
	FPÖ	.	0.6	8.9	24.0	24.0
	Greens	.	.	8.2	22.9	22.9
	BZÖ	.	.	.		
	Team Stronach			2.1		
	NEOS			.	11.3	11.3
	JETZT / Pilz				11.9	.
Immigration	SPÖ	15.0	18.0	31.9	19.6	37.5
	ÖVP	20.0	20.0	20.2	52.2	22.7
	FPÖ	15.0	17.0	28.8	66.2	17.2
	Greens	11.0	12.0	13.1	3.4	12.5
	BZÖ	.	.	2.2		
	Team Stronach			1.7		
	NEOS			.	10.4	1.3
	JETZT / Pilz				5.7	8.9
Pensions	SPÖ	41.0	44.0	53.2	49.4	49.4
	ÖVP	21.0	21.0	29.3	30.9	30.9
	FPÖ	2.0	1.0	8.9	26.4	26.4
	Greens	.	1.0	6.0	.	.
	BZÖ	.	.	0.1		
	Team Stronach			2.1		
	NEOS			.	12.5	12.5
	JETZT / Pilz				.	9.6
Inflation	SPÖ	21.0	18.0	43.5	.	30.8
	ÖVP	.	48.0	34.6	57.2	47.0
	FPÖ	1.0	2.0	6.6	.	13.6
	Greens	.	1.0	9.1	.	5.3
	BZÖ	.	.	0.5		
	Team Stronach			3.2		
	NEOS			0.2	.	1.2
	JETZT / Pilz				.	2.1

Taxation	SPÖ	29.0	34.0	35.6	31.2	22.2
	ÖVP	24.0	23.0	35.9	57.2	13.3
	FPÖ	4.0	2.0	10.3	24.9	16.9
	Greens	4.0	3.0	14.9	5.2	12.7
	BZÖ	.	.	0.8		
	Team Stronach			2.4		
	NEOS			.	23.6	27.7
	JETZT / Pilz				5.6	7.1
Terrorism	SPÖ	.	.	.	.	11.9
	ÖVP	30.0	30.0	.	.	5.8
	FPÖ	.	6.0	.	49.5	6.8
	Greens	4.0	.	.	.	3.6
	BZÖ	.	.	.		
	Team Stronach			.		
	NEOS			.	.	1.0
	JETZT / Pilz				.	71.0
Unemployment	SPÖ	33.0	40.0	57.0	48.9	63.1
	ÖVP	30.0	25.0	24.6	41.8	13.1
	FPÖ	2.0	1.0	9.2	27.5	9.6
	Greens	3.0	2.0	5.1	.	10.5
	BZÖ	.	.	0.8		
	Team Stronach			2.5		
	NEOS			0.2	16.8	1.4
	JETZT / Pilz				.	2.3

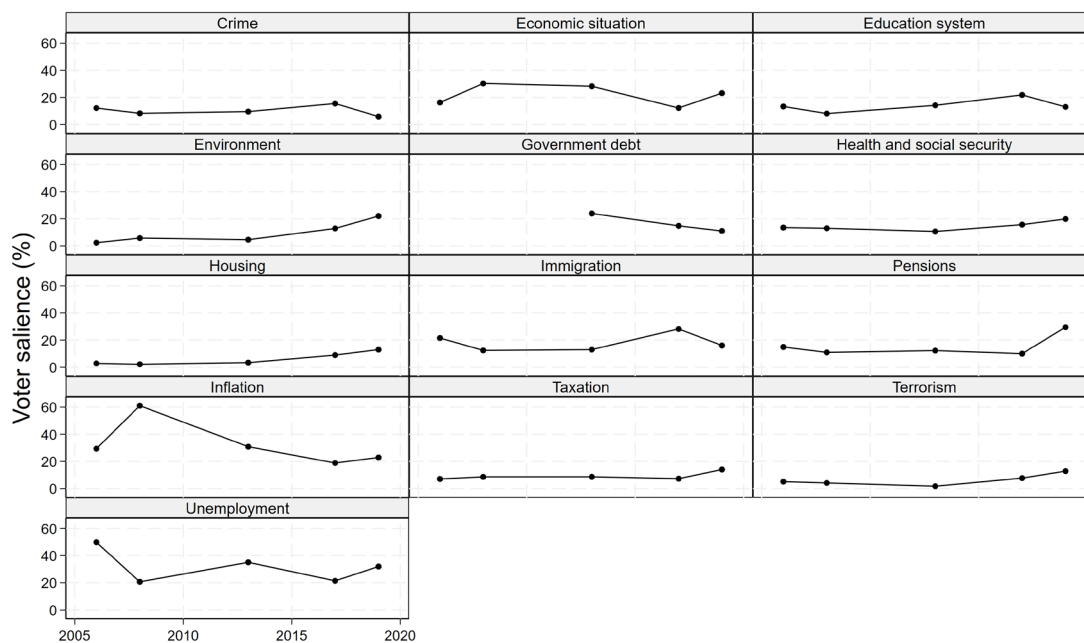
Note: Entries report the percentage of respondents naming the respective party as most capable of handling the issue. Blank cells indicate that no competence estimate is available for the respective party-issue-year combination.

Figure A.1. Temporal variation in party issue competence (2006–2019).



Note: The figure displays party-level perceptions of issue competence over time across the 13 issues included in the study. The substantial variation across parties, issues, and election years indicates that issue ownership is neither static nor exclusive. Exact competence values are reported in Table A.5.

Figure A.2. Temporal variation in voter issue salience (2006–2019).



Note: The figure shows the proportion of respondents identifying each issue as among the most important problems. Salience varies substantially across issues and election years, reflecting changing voter priorities over time.

Appendix B: Main regression models and robustness tests

Table B.1 reports the main regression model used in the manuscript together with a series of robustness tests, while Table B.2 presents additional robustness specifications.

In Table B.1, Model 1 is the main fractional logit specification. Model 2 excludes rarely discussed issues, while Model 3 restricts the analysis to the 2013–2019 election campaigns for which AUTNES competence data are available. Model 4 adds target-level attributes, and Model 5 excludes observations relying on imputed competence measures. Model 6 restricts the sample to the main parties (SPÖ, ÖVP, FPÖ, Greens). Model 7 estimates the relationship using a generalized estimating equation (GEE) specification, while Model 8 uses a negative-binomial count model instead of the fractional outcome.

Table B.2 reports further robustness tests addressing party characteristics, relative competence, issue coding, and temporal aggregation. Model 9 adds sender and target government status, while Model 10 additionally accounts for whether both parties are in government. Model 11 controls for party size, and Model 12 uses the sender–target size ratio. Model 13 includes an interaction between sender and target issue competence to test whether the relationship between target competence and issue-based attacks is conditional on the sender’s own issue competence. Model 14 uses the relative difference between sender and target issue competence to test whether relative competence structures targeting decisions. Model 15 restricts issue coding to issues identified in press-release titles. Finally, Models 16 and 17 replicate the analysis at the weekly sender–target–issue level, using respectively a binary indicator of whether an attack occurred and the weekly share of issue-specific communication directed negatively at the target. The binary specification has a somewhat smaller estimation sample because several target and issue categories perfectly predict the absence or presence of attacks and are therefore omitted by the logit estimator.

Across these specifications, the positive association between target issue competence and issue-based negative campaigning remains substantively robust. The interaction between sender and target competence in Model 13 is not statistically significant, while Model 14 indicates that attacks are more likely when the target enjoys a larger competence advantage over the sender (Table B.2).

Table B.1: Determinants of issue-based negative campaigning: Main model and robustness tests

	M1 (Main)	M2 (w/o rare issues)	M3 (2013-2019)	M4 (target attributes)	M5 (w/o imputed)	M6 (main parties)	M7 (GEE)	M8 (Count)
Target issue competence	0.02*** (0.00)	0.02*** (0.00)	0.02*** (0.00)	0.02*** (0.00)	0.03*** (0.00)	0.02*** (0.00)	0.02*** (0.00)	0.02*** (0.00)
Sender issue competence	0.00 (0.00)	0.00 (0.00)	-0.00 (0.00)	0.00 (0.00)	-0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.02*** (0.00)
Voter issue salience	0.02* (0.01)	0.01 (0.01)	-0.01 (0.01)	0.02* (0.01)	0.01 (0.01)	0.02+ (0.01)	0.02* (0.01)	0.04*** (0.01)
Target in government				0.77*** (0.23)				
Target vote share (%)				0.02 (0.03)				
Constant	-2.04*** (0.39)	-2.02*** (0.39)	-2.31*** (0.38)	-3.13*** (0.88)	-2.04*** (0.47)	-1.99*** (0.42)	-2.04*** (0.39)	0.04 (0.40)
Sender fixed effects:								
ÖVP	0.18 (0.26)	0.14 (0.26)	-0.55* (0.25)	0.20 (0.26)	0.18 (0.27)	0.17 (0.32)	0.18 (0.26)	-0.04 (0.27)
FPÖ	-0.33 (0.30)	-0.37 (0.30)	-0.30 (0.29)	-0.34 (0.30)	-0.47 (0.31)	-0.32 (0.31)	-0.33 (0.30)	-0.24 (0.34)
Greens	-0.13 (0.26)	-0.22 (0.27)	-0.51* (0.25)	-0.13 (0.25)	-0.15 (0.31)	-0.14 (0.26)	-0.13 (0.26)	-1.16*** (0.22)
BZÖ	0.15 (0.43)	0.17 (0.43)	-0.07 (0.43)	0.14 (0.41)	0.09 (0.44)		0.15 (0.43)	-1.11*** (0.33)
Team Stronach	-0.65* (0.32)	-0.73* (0.31)	-0.93** (0.29)	-0.65* (0.26)	-0.80** (0.31)		-0.65* (0.32)	-1.88*** (0.28)
NEOS	-0.23 (0.28)	-0.26 (0.26)	-0.48* (0.22)	-0.23 (0.25)	-0.33 (0.27)		-0.23 (0.28)	-1.49*** (0.28)
JETZT / Pilz	-0.66 (0.56)	-0.69 (0.55)	-0.89 (0.57)	-0.67 (0.50)	-1.16** (0.36)		-0.66 (0.56)	-2.77*** (0.45)
Target fixed effects:								
ÖVP	0.31 (0.27)	0.31 (0.27)	0.12 (0.22)	0.01 (0.25)	0.30 (0.30)	0.29 (0.36)	0.31 (0.27)	0.25 (0.22)
FPÖ	-1.59*** (0.30)	-1.56*** (0.30)	-1.42*** (0.27)	-1.04* (0.41)	-1.72*** (0.32)	-1.52*** (0.35)	-1.59*** (0.30)	-1.44*** (0.29)

Greens	-1.99*** (0.45)	-2.04*** (0.46)	-2.08** (0.66)	-1.05+ (0.60)	-2.05*** (0.49)	-1.77*** (0.45)	-1.99*** (0.45)	-1.75*** (0.39)
BZÖ	-15.35*** (0.51)	-15.36*** (0.51)	-15.39*** (0.52)	-13.97*** (0.75)	-14.57*** (0.53)	-15.27*** (0.58)	0.00 (.)	-16.99*** (0.61)
Team Stronach	-1.26 (0.83)	-1.24 (0.83)	-1.36+ (0.81)	-0.18 (0.96)	-1.15 (0.84)	-2.96*** (0.87)	-1.26 (0.83)	-2.76*** (0.67)
NEOS	-0.70 (0.59)	-0.62 (0.59)	-0.77 (0.58)	0.33 (0.79)	-1.25* (0.55)	-0.53 (0.60)	-0.70 (0.59)	-1.63*** (0.39)
JETZT / Pilz	-15.10*** (0.55)	-15.08*** (0.56)	-15.23*** (0.53)	-13.76*** (0.87)	-13.64*** (0.58)	-14.88*** (0.63)	0.00 (.)	-16.58*** (0.63)
Issue fixed effects:								
Economic situation	-0.94* (0.40)	-0.88* (0.43)	-0.54 (0.48)	-0.95* (0.41)	-0.87+ (0.47)	-0.97* (0.39)	-0.94* (0.40)	-0.72*** (0.15)
Education system	0.09 (0.28)	0.12 (0.28)	0.38 (0.46)	0.08 (0.28)	0.09 (0.28)	0.11 (0.21)	0.09 (0.28)	0.57** (0.21)
Environment	0.17 (0.30)	0.19 (0.30)	0.50 (0.40)	0.17 (0.30)	0.25 (0.36)	-0.04 (0.22)	0.17 (0.30)	0.62*** (0.17)
Government debt	0.17 (0.39)	0.20 (0.41)	0.52 (0.50)	0.15 (0.39)	0.03 (0.40)	0.15 (0.31)	0.17 (0.39)	-1.20*** (0.32)
Health and social security	-0.57* (0.28)	-0.55+ (0.29)	-0.41 (0.39)	-0.58* (0.28)	-0.58+ (0.31)	-0.48+ (0.24)	-0.57* (0.29)	0.40*** (0.12)
Housing	0.59+ (0.35)	0.56 (0.35)	0.66 (0.50)	0.61+ (0.35)	0.24 (0.55)	0.22 (0.27)	0.59+ (0.36)	-0.46+ (0.25)
Immigration	-0.16 (0.27)	-0.11 (0.27)	0.18 (0.42)	-0.16 (0.27)	-0.06 (0.31)	-0.12 (0.18)	-0.16 (0.27)	0.31 (0.27)
Pensions	0.04 (0.34)	0.06 (0.35)	0.49 (0.51)	0.04 (0.34)	0.10 (0.37)	-0.28 (0.22)	0.04 (0.34)	-0.28 (0.22)
Inflation	-0.84+ (0.49)	- (0.35)	-1.09 (0.85)	-0.84+ (0.49)	-14.67*** (0.54)	-0.65 (0.40)	-0.84+ (0.49)	-1.69*** (0.39)
Taxation	0.58+ (0.33)	0.57+ (0.33)	0.67 (0.49)	0.58+ (0.34)	0.63 (0.39)	0.40 (0.24)	0.58+ (0.34)	0.64** (0.23)
Terrorism	0.80 (1.02)	- (0.30)	- (0.50)	0.61 (1.00)	0.81 (0.98)	0.70 (0.98)	0.80 (1.02)	-2.16+ (1.22)
Unemployment	-0.99** (0.33)	-0.85** (0.30)	-0.35 (0.50)	-1.00** (0.34)	-0.74* (0.35)	-0.92*** (0.24)	-0.99** (0.33)	-1.69*** (0.26)
2008	-0.29+ (0.18)	-0.23+ (0.12)	- (0.50)	-0.47 (0.31)	-0.33+ (0.18)	-0.30+ (0.17)	-0.29+ (0.18)	0.40* (0.18)
2013	-0.77***	-0.69***	-	-0.91**	-0.68**	-0.69***	-0.77***	-0.56+

2017	(0.20) -0.87*	(0.20) -0.83*	-0.06	(0.28) -1.08**	(0.21) -0.66 ⁺	(0.19) -0.90*	(0.20) -0.87*	(0.31) -1.02**
2019	(0.36) -1.15**	(0.35) -1.12**	(0.24) -0.28	(0.35) -1.20**	(0.35) -1.53***	(0.37) -1.15**	(0.36) -1.15**	(0.39) -1.31**
	(0.41)	(0.40)	(0.32)	(0.39)	(0.34)	(0.42)	(0.41)	(0.43)
Overdispersion (ln α)	-	-	-	-	-	-	-	-0.60*** (0.17)
Observations	964	924	744	964	800	715	887	964
AIC	392.74	374.41	282.64	393.60	323.11	293.02	.	2125.37

Notes: Sender-target-dyad-clustered standard errors in parentheses, clustered at dyad level. + $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Table B.2: Determinants of issue-based negative campaigning: Additional robustness tests

	M9 (Government status)	M10 (Both parties in government)	M11 (Party size)	M12 (Size ratio)	M13 (Competence interaction)	M14 (Competence difference)	M15 (PR Title)	M16 (Weekly binary)	M17 (Weekly share)
Target issue competence	0.02*** (0.00)	0.02*** (0.00)	0.02*** (0.00)	0.02*** (0.00)	0.01* (0.01)		0.02*** (0.00)	0.03*** (0.01)	0.03*** (0.01)
Sender issue competence	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	-0.01 (0.01)		0.00 (0.00)	0.01* (0.01)	0.01+ (0.01)
Voter issue salience	0.02* (0.01)	0.02* (0.01)	0.02* (0.01)	0.02* (0.01)	0.02* (0.01)	0.02* (0.01)	0.02* (0.01)	-0.00 (0.01)	0.00 (0.01)
Sender x target competence					0.00 (0.00)				
Competence difference						-0.01*** (0.00)			
Sender in government	0.38* (0.18)								
Target in government	0.92*** (0.22)				0.79*** (0.24)				
Both parties in government		0.13 (0.20)							
Sender vote share			0.00 (0.02)						
Target vote share			0.03 (0.02)		0.02 (0.03)				
Sender-target vote-share ratio				-0.27 (0.26)					
Constant	-2.56*** (0.41)	-2.07*** (0.37)	-3.21*** (0.95)	-1.77*** (0.52)	-2.94** (0.91)	-1.49*** (0.40)	-2.20*** (0.39)	-0.23 (0.67)	-0.31 (0.58)
Sender fixed effects:									
ÖVP	0.05 (0.26)	0.18 (0.26)	0.16 (0.27)	0.22 (0.25)	0.17 (0.26)	0.15 (0.26)	0.19 (0.24)	0.43 (0.42)	0.30 (0.40)
FPÖ	-0.17 (0.32)	-0.28 (0.29)	-0.31 (0.38)	-0.45 (0.34)	-0.34 (0.32)	-0.54+ (0.29)	-0.37 (0.28)	-0.47 (0.56)	-0.92* (0.46)
Greens	0.09 (0.29)	-0.07 (0.32)	-0.08 (0.45)	-0.33 (0.34)	-0.08 (0.28)	-0.34 (0.28)	-0.22 (0.28)	-0.80 (0.50)	-0.97* (0.47)
BZÖ	0.39 (0.42)	0.22 (0.46)	0.22 (0.58)	-0.20 (0.43)	0.18 (0.40)	-0.21 (0.44)	0.17 (0.43)	-0.52 (0.60)	-0.81 (0.50)

Team Stronach	-0.42 (0.29)	-0.58 (0.35)	-0.58 (0.46)	-0.93* (0.38)	-0.60* (0.29)	-0.98** (0.30)	-0.56+ (0.32)	-1.19** (0.41)	-1.01** (0.38)
NEOS	0.02 (0.32)	-0.17 (0.34)	-0.17 (0.37)	-0.48 (0.31)	-0.18 (0.27)	-0.52+ (0.29)	-0.27 (0.26)	-0.93* (0.42)	-0.93* (0.37)
JETZT / Pilz	-0.42 (0.57)	-0.60 (0.58)	-0.59 (0.58)	-0.96 (0.61)	-0.58 (0.52)	-0.98+ (0.59)	-0.74 (0.51)	-1.04 (0.82)	-0.81 (0.88)
Target fixed effects:									
ÖVP	0.01 (0.25)	0.31 (0.27)	0.24 (0.29)	0.31 (0.27)	-0.01 (0.26)	0.29 (0.27)	0.22 (0.25)	0.36 (0.45)	0.20 (0.37)
FPÖ	-1.23*** (0.35)	-1.56*** (0.30)	-1.32*** (0.31)	-1.49*** (0.32)	-1.03* (0.42)	-1.76*** (0.30)	-1.83*** (0.29)	-2.23*** (0.46)	-2.46*** (0.45)
Greens	-1.39** (0.48)	-1.95*** (0.46)	-1.42* (0.57)	-1.62*** (0.37)	-1.02+ (0.58)	-2.13*** (0.45)	-2.22*** (0.50)	-2.48*** (0.55)	-2.84*** (0.61)
BZÖ	-14.64*** (0.56)	-15.06*** (0.52)	-14.65*** (0.68)	-13.93*** (1.13)	-13.94*** (0.73)	-15.32*** (0.53)	-15.07*** (0.52)	0.00 (.)	-17.56*** (0.66)
Team Stronach	-0.55 (0.86)	-1.21 (0.84)	-0.63 (0.92)	-0.64 (1.04)	-0.16 (0.92)	-1.58+ (0.83)	-1.20 (0.79)	-4.16*** (0.82)	-3.74*** (0.79)
NEOS	-0.09 (0.64)	-0.66 (0.60)	-0.01 (0.74)	-0.13 (0.80)	0.35 (0.77)	-1.02 (0.62)	-1.92*** (0.35)	-2.35*** (0.52)	-2.20*** (0.47)
JETZT / Pilz	-14.60*** (0.58)	-14.82*** (0.56)	-14.21*** (0.79)	-12.59*** (2.00)	-13.74*** (0.85)	-15.05*** (0.56)	-14.55*** (0.58)	0.00 (.)	-17.49*** (0.61)
Issue fixed effects:									
Economic situation	-0.97* (0.41)	-0.94* (0.40)	-0.93* (0.41)	-0.93* (0.40)	-0.92* (0.40)	-0.91* (0.40)	-0.95* (0.39)	-0.24 (0.33)	-0.26 (0.22)
Education system	0.07 (0.28)	0.09 (0.28)	0.11 (0.28)	0.11 (0.28)	0.10 (0.28)	0.05 (0.28)	0.08 (0.28)	0.32 (0.24)	0.01 (0.21)
Environment	0.16 (0.30)	0.17 (0.30)	0.19 (0.30)	0.19 (0.30)	0.20 (0.29)	0.12 (0.31)	0.33 (0.32)	-0.02 (0.23)	0.06 (0.23)
Government debt	0.14 (0.40)	0.17 (0.39)	0.17 (0.38)	0.17 (0.39)	0.18 (0.38)	0.15 (0.39)	-0.27 (0.39)	-0.04 (0.50)	-0.01 (0.44)
Health and social security	-0.58* (0.28)	-0.57* (0.28)	-0.57* (0.28)	-0.55+ (0.28)	-0.58* (0.29)	-0.52+ (0.29)	-0.49+ (0.27)	0.03 (0.21)	-0.26 (0.18)
Housing	0.60+ (0.35)	0.59+ (0.35)	0.60+ (0.36)	0.60+ (0.35)	0.62+ (0.35)	0.62+ (0.36)	0.49 (0.39)	-0.42 (0.37)	-0.11 (0.40)
Immigration	-0.17 (0.27)	-0.16 (0.27)	-0.16 (0.27)	-0.16 (0.27)	-0.16 (0.27)	-0.20 (0.27)	-0.13 (0.29)	0.26 (0.33)	-0.09 (0.26)
Pensions	0.03 (0.34)	0.04 (0.34)	0.06 (0.34)	0.06 (0.34)	0.06 (0.34)	0.10 (0.34)	-0.03 (0.34)	0.08 (0.30)	-0.14 (0.24)

Inflation	-0.90 ⁺ (0.49)	-0.85 ⁺ (0.48)	-0.83 ⁺ (0.48)	-0.82 ⁺ (0.48)	-0.78 (0.48)	-0.86 ⁺ (0.48)	-0.78 (0.55)	0.25 (0.66)	-0.28 (0.39)
Taxation	0.57 ⁺ (0.33)	0.58 ⁺ (0.34)	0.59 ⁺ (0.34)	0.59 ⁺ (0.33)	0.58 ⁺ (0.34)	0.57 ⁺ (0.34)	0.67* (0.32)	0.26 (0.29)	0.04 (0.31)
Terrorism	0.61 (0.99)	0.78 (1.02)	0.77 (1.03)	0.79 (1.02)	0.61 (1.00)	0.80 (1.02)	0.92 (1.08)	0.00 (.)	18.13*** (0.70)
Unemployment	-1.03** (0.34)	-0.99** (0.34)	-0.98** (0.33)	-0.97** (0.32)	-0.96** (0.33)	-1.00** (0.32)	-0.92* (0.41)	-0.22 (0.43)	-0.23 (0.29)
2008	-0.74** (0.24)	-0.34 ⁺ (0.20)	-0.09 (0.27)	-0.29 (0.18)	-0.48 (0.30)	-0.29 (0.18)	-0.31 (0.20)	0.25 ⁺ (0.13)	0.02 (0.10)
2013	-1.22*** (0.26)	-0.82*** (0.24)	-0.52* (0.26)	-0.74*** (0.19)	-0.94** (0.29)	-0.62** (0.20)	-0.69*** (0.17)	-0.28 (0.27)	-0.29 (0.22)
2017	-1.30** (0.40)	-0.91* (0.40)	-0.74* (0.37)	-0.85* (0.37)	-1.15** (0.36)	-0.59 (0.36)	-0.88* (0.35)	-0.28 (0.28)	-0.43 ⁺ (0.25)
2019	-1.38*** (0.41)	-1.18** (0.42)	-1.03* (0.41)	-1.14** (0.39)	-1.24** (0.40)	-0.98* (0.42)	-1.40*** (0.42)	0.04 (0.34)	-0.29 (0.30)
Observations	964	964	964	964	964	964	951	2017	2166
BIC	568.87	565.15	571.27	564.38	575.40	552.72	533.88	2022.18	1742.27

Notes: Standard errors in parentheses, clustered at dyad level. + $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

The size ratio is measured as sender vote share divided by target vote share. The relative competence difference is calculated as sender issue competence minus target issue competence. The weekly binary model (M16) excludes observations associated with categories that perfectly predict the outcome; this accounts for its smaller estimation sample relative to the weekly fractional-share model.