Disproportionality in media representations of campaign negativity

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Abstract

We explore mediated representations of parties' campaign interactions in multi-party systems. Actors in multi-party systems can engage with different actors on multiple issues. One crucial aspect of such engagement is the element of negativity—voicing criticisms of other actors' actions and policy proposals. This contribution argues that the media systematically exaggerate patterns of negativity based on issue ownership structures, such that attacks originating from or targeting issue owners are significantly more likely to be covered. We analyze a broad sample of news content from the 2013 Austrian national election campaign with generalized exponential random graph models to capture the complexities of mediated campaign negativity in a multi-party system while controlling for non-mediated campaign negativity. The results show that issue owners are more likely to be featured as attackers and targets in owned policy domains, suggesting a violation of the normative ideal of a fair representation of campaign interactions.

Electoral campaigns offer parties the opportunity to present their policy platforms to the public, while simultaneously scrutinizing opponents' proposals. While mutual critique informs the public of the available alternatives and their shortcomings (Mayer, 1996; Kahn and Kenney, 2000), attacks need to be covered by the media in order to impact electoral decisions: as the mass media continue to play a pivotal role in informing voters, their function entails an enormous potential to shape electoral decisions (McLeod *et al.*, 1983; Dalton *et al.*, 1998a). Hence, it is important to understand what factors influence how the media prioritize which campaign interactions to highlight.

Previous scholarship has emphasized that mediated party representations are conditioned by parties' issue reputations (Petrocik *et al.*, 2003; Hayes, 2008). Issue owners—parties associated with an issue area (Petrocik, 1996; Walgrave *et al.*, 2012)—are disproportionately featured in coverage of owned issues due to journalistic perceptions of news value and narrative constraints (Petrocik *et al.*, 2003). For each individual news item, it is reasonable for journalists to seek out testimony from parties with a reputational surplus. However, when issue coverage continuously highlights the position of issue owners, individual journalistic choices can cause disproportionality in aggregate party representations.

We argue that not only do news values shape the disproportionate association of parties and issues, but that they have more widespread implications for the mediated representation of campaign communication. Focusing on campaign interactions and attack patterns in Austria,

a fairly typical European multi-party system, we propose that news media tend to disproportionately feature attacks that are voiced by issue owners as well as attacks that target issue owners.

The study aims to make three contributions. One, it ties into a broader effort to understand negative campaigning in multi-party systems (Elmelund-Præstekær, 2008; Hansen and Pedersen, 2008; Walter, 2014b). Campaign negativity in a multi-party environment is a fairly complex phenomenon as neither the selection of targets nor the effects of campaign negativity are obvious (Ridout and Walter, 2015). Capturing such interactions calls for network models, which have only recently begun to inform analyses of multiparty campaign communication (De Nooy and Kleinnijenhuis, 2013; Song *et al.*, 2017). Two, the study links campaign negativity and issue ownership, two concepts that have rarely been integrated in a comprehensive analytical framework (for a notable exception see Elmelund-Præstekær, 2011). An integrated perspective allows assessing systematic distortions in the coverage of negative campaigning due to news selection. Three, a unique dataset of party interactions in the news media and press releases during the 2013 Austrian national election permit a detailed analysis of attack patterns and mediated representations thereof. Our results indicate that the ordinary mechanisms of news selection introduce a systematic misrepresentation into mediated campaign exchanges, suggesting a violation of the normative ideal of a fair representation of campaign interactions.

1. Negative campaigning in multi-party systems

A fundamental characteristic of electoral campaigns is the opportunity they provide to political actors to voice their policy proposals, allowing voters to decide between different visions for the future of the country. At the same time, political actors highlight shortcomings of competitors' policies and differences between their respective platforms. In this sense, critique—*negative campaigning*—serves an important democratic function by informing electoral decisions (Kahn and Kenney, 2000; Arceneaux, 2006).

Originating in the US context, scholars have emphasized the potentially detrimental effects of excessive campaign negativity (Ansolabehere and Iyengar, 1995; Lau and Pomper, 2001). More recently, several studies have begun to assess campaign negativity in European multi-party systems (Elmelund-Præstekær, 2008; Hansen and Pedersen, 2008; Elmelund-Præstekær, 2010; Walter, 2014b) with a less pessimistic stance. For instance, Walter (2014b) shows that most attacks are issue-based, underlining the potential benefits for voter learning. A different perspective might result from the fact that multi-party systems temper the level of campaign negativity. In their analysis of the 1996 electoral reform in New Zealand, Ridout and Walter (2015) show that a proportional electoral system engendered less negative campaigns, as hostility might not translate into support for the attacker and could hurt coalition potentials.

The bulk of research on campaign negativity has focused on advertisements and other communication channels under the direct control of party organizations (e.g., Cheng and Riffe, 2008; Elmelund-Præstekær, 2008; Walter, 2013). By contrast, this study focuses on attack patterns in media coverage, as the media remain the principal source for campaign-related voter learning. Some scholars have suggested that mediated attack patterns are potentially less corrosive than negativity in direct party communication (Elmelund-Præstekær, 2010; Walter and Vliegenthart, 2010). However, as mass media might systematically misrepresent party interactions, there might be a different set of normative challenges.[1]

2. News values, issue ownership, and disproportionality in mediated party interactions

Agenda setting research has observed a substantial degree of overlap between party and media agendas (e.g., Petrocik *et al.*, 2003; Semetko *et al.*, 1991). Scholars have concluded that "political

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[1]We select the term misrepresentation over the more conventional term bias. In our reading, the term media bias in the political communication literature is quite entangled with the editorial favoring of one party over another (Eberl *et al.*, 2017).

parties are quite successful in shaping the media agenda […], while the media have limited or no power to influence the issue agendas of the political parties" (Hopmann *et al.*, 2012, 175). This does not mean, however, that the media cover parties to an equal extent. Especially in European multi-party contexts, parties differ in their ability to get their messages covered (e.g., Brandenburg, 2006; Hopmann *et al.*, 2012). As parties and politicians differ in terms of their newsworthiness (Harcup and O'Neill, 2001), media coverage of parties is systematically governed by differences in *news value*. For instance, there is a broad consensus that stories about elite conflict—the quintessential aspect of negative campaigning—are newsworthy (Semetko and Valkenburg, 2000; Hansen and Pedersen, 2008; van der Pas and Vliegenthart, 2016), generating more coverage when parties' interactions allow for a conflict frame.

Beyond the news value of conflict, coverage of attacks between parties may also be due to journalistic norms of balance. To ensure balanced reporting, media coverage tends to systematically link competing views (Tuchman, 1972; Hopmann *et al.*, 2012). Therefore, although conflict and negativity are frequently criticized (e.g., Lau and Rovner, 2009), there is a clear didactic element to attack interactions. Hayes (2010, 596) argues that "[b]eing able to pit candidates' statements against one another increases the news value of campaign discourse, making it more likely that a candidate's message will be reported." This suggests that not only do candidates have an incentive to engage in attack interactions, but that attacks highlight crucial differences between party platforms and can enhance voter learning (Patterson and McClure, 1976; Ansolabehere and Iyengar, 1995; Meffert *et al.*, 2006).

Despite the potential upside of attack interactions in media coverage, there is also a downside—the possibility of *misrepresentation* (Dalton *et al.*, 1998b; Ridout and Mellen, 2007; Hayes, 2010). In their seminal study, Petrocik *et al.* (2003) provide evidence that media do not accurately represent the topical emphasis of candidates' campaign speeches, but that candidates are more likely to be portrayed with issues that their respective parties own, regardless of the content of their campaigns. This empirical regularity is echoed by van der Brug and Berkhout (2015) who find that issue ownership is systematically linked with more media coverage. Moreover, Hayes (2008) shows that candidates are displayed more favorably in coverage of owned issues.

We argue that this effect is similarly evident in the coverage of campaign *interactions*. We expect that attacks by issue owners have a greater probability of being featured in the media, as much as attacks that target issue owners are more likely to receive coverage. Such over-emphasis by and toward issue owners may well be due to journalists' perceptual biases (Petrocik *et al.*, 2003). Much like ordinary citizens, journalists are susceptible to parties' issue reputations in processing political information, making their perceptions of typical party issues a crucial factor in shaping their decision to select attacks featuring issue owners. Yet, observing disproportionate attack patterns in the media can be explained by rational news selection criteria. As parties voice countless attacks during a campaign, editorial judgments are necessary to select a subset of attacks to be featured (Shoemaker and Reese, 1991; Shoemaker *et al.*, 2001). On a case-by-case basis, it is entirely reasonable for journalists to select attacks that feature issue owners as they carry greater news value and are more aligned with journalistic narrative and audience expectations. While acknowledging that the news values theory cannot explain every decision in the news production process, broader patterns of how news take shape can be attributed to news values (Donsbach, 2004; Schultz, 2007).

Beyond the newsworthiness of attacks, it is the combination of attacks and issue ownership that is at the heart of this study. The disproportionate coverage of issue owners as senders of attacks can be linked to the news values of expertise. Attacking opponents on owned issues fits with journalistic preconceptions and the general narrative about who is knowledgeable on an issue. Attackers seemingly know what they are talking about, so if they critique another actor, there must be something that is worthy of reporting. By contrast, attacks on issue owners may contain an element of surprise. If those with the highest attributed expertise are attacked on an issue, it stands out as unusual. Consequently, we expect attacks *targeted at* and *voiced by* issue

owners to be more newsworthy, as issue owners are either criticized on their home turf or level a critique at an opponent with more attributed expertise.

While reasonable at the level of individual stories, this news selection mode runs the risk of unintended disproportionality at the aggregate level, such that media coverage of campaign interactions does not reflect the underlying campaign interactions. This leads us to expect that the *media disproportionately feature attacks targeting issue owners as well as attacks originating from issue owners*. Understanding the systematics of such distortions has important implications for the information available to voters over the course of the campaign.[2]

There are several important determinants of mediated campaign interactions in multi-party environments that need to be accounted for as potentially confounding factors. The most important is parties' *incumbency* status as opposition parties are more likely to voice criticisms of governing parties (Elmelund-Præstekær, 2010; De Nooy and Kleinnijenhuis, 2013). This expectation clearly reflects the nature of political competition as governing parties can engage more easily in record claiming (Sellers, 1998), whereas opposition parties have more evident targets for policy-based criticisms. In a similar vein, the literature suggests that *large parties* are more likely to be the target of negative campaigning than small parties (De Nooy and Kleinnijenhuis, 2013; Walter, 2014a).

Attack patterns among coalition partners is another factor that is highlighted in the existing research. Elmelund-Præstekær (2008) finds that potential or actual coalition partners are less likely to attack one another. However, due to the specific historical context of the 2013 Austrian election campaign, this pattern is unlikely to be observed in this study, where the incumbent government was composed of the two largest parties. As both were aiming to head the subsequent government, they are likely to offer different visions and, consequently, criticize each other's policy proposals (Haselmayer and Jenny, 2018).[3] Finally, we control for *ideological proximity*. However, the direction of the effect of ideological proximity on negative campaigning is not clear. While Walter (2014a) argues that proximate parties are more likely to attack one another due to competition for the same subset of the electorate, De Nooy and Kleinnijenhuis (2013) find that policy agreement predicts inter-party support relationships.

3. Methods and data

3.1. Data

We employ data from the Austrian National Election Study (AUTNES) 2013, which offer a unique perspective on patterns of disproportionality in media representations of negative campaigning. Austria's political landscape during the 2013 campaign was comprised of two catch-all parties, the incumbent coalition partners SPÖ (center-left) and ÖVP (center-right), and two mid-sized parties, the left-wing liberal GRÜNE and the far-right populist FPÖ, along with a split-off of the latter, BZÖ (right-wing populist), and two new party system entrants, NEOS (liberal) and Team STRONACH (center-right). In some senses, the Austrian party system can be considered a fairly typical case of a Western European multi-party system that is rooted by a left-wing and a right-wing catch-all party and several minor competitors. At the same time, the Austrian political system exhibits several distinctive features, most importantly the long history of grand coalitions and the long-standing electoral strength of a right-wing populist competitor. The Austrian media landscape is defined by a comparatively strong standing of print media that are split between national high-quality and tabloid papers, as well as several regional papers. With regard to negative campaigning, party competition in Austria is characterized by a fair amount of hostility (e.g., Dolezal *et al.*, 2017).

The data for the analysis stem from a manual content analysis of media coverage in the six weeks before the election (Kleinen-von Königslöw *et al.*, 2015). The sample covers eight daily newspapers

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[2]It is important to distinguish between media representations of campaign interactions and the overall tonality of media reporting. Our research focuses on the misrepresentation of negative campaign interactions, not on the overall tonality of the campaign coverage.

[3]See Dolezal and Zeglovits (2014) for background information on the Austrian federal election of 2013.

—three quality papers (*Der Standard*, *Die Presse*, and *Salzburger Nachrichten*), two midrange papers (*Kurier* and *Kleine Zeitung*), and three tabloids (*Kronen Zeitung*, *Österreich*, and *Heute*).

All articles were collected daily between 19th August and Election Day (29th September 2013). Every sentence in every article featuring known political actors published in the six-week period was coded at the sentence level to assess whether they contain statements of one actor about another (cf. Koopmans and Statham, 1999; van Atteveldt, 2008). It was coded whether these actor–actor relationships contain an evaluation from the *subject actor* to the *object actor* on a specific issue (cf. Ridout and Franz, 2008). To provide an example, one article featured the statement "[Frank] Stronach accused [Werner] Fayman of having 'sold out the workers to the banks' and to be responsible for higher unemployment." This was coded as follows: The *subject actor* Frank Stronach (Team Stronach) makes a *negatively valenced* statement about the *object actor* Werner Fayman (SPÖ) on the *issue* of the economy.[4]

We subset the attacks by policy field for the subsequent analysis, allowing us to investigate patterns of negative campaigning in the different policy domains and relating them to patterns of issue ownership. In total, there are a little over 20 broad topical categories in the coding scheme (Dolezal *et al.*, 2016).

In this study, we analyze the topics budget, economy, environment, immigration, and welfare.[5] The topics were selected using two criteria. First, we chose topics that were covered sufficiently frequently, ensuring a minimum number of attack relations in the networks. Specifically, we selected topics that contained at least thirty attack relations. Second, we discarded topics that were dimensionally ambiguous, e.g., news stories that were classified as pertaining to "Society" or "Ideology." In order to assess the propensity of the media to *disproportionately* feature issue owners as attackers and targets, it is necessary to specify a baseline of attacks. We employ party press releases as a baseline. Press releases are a heavily employed campaign tool in Austrian politics, such that they provide a comprehensive sense of what parties and candidates would like to broadcast in their campaign and which opponents they choose to target. In practice, press releases are explicitly drafted to influence campaign coverage and are made available by party headquarters to the media (Dolezal *et al.*, 2015). This makes press releases a useful indicator for the true baseline of attacks, such that deviations are all the more noteworthy. The AUTNES has collected all party press releases that were published during the campaign and distributed to the media by the various party chapters. The press releases were coded using the same coding scheme that was applied to the media data.

Parties continue to be the focal point of political competition in Western Europe (Müller and Strøm, 1999; Müller, 2000). Interactions between individual political actors are fundamentally structured by party memberships while voters' political perceptions are profoundly shaped by party competition. What is more, the dominant explanations for patterns of negative campaigning reside at the party level, leading us to consider parties as the most obvious unit of analysis. Therefore, all individual relationships, where both actors possess a party affiliation, were aggregated to the level of their respective parties.

3.2. Statistical model

The attacks in media reports have a clear network structure, where all parties can potentially attack all other parties. Attacks could also lead to more and counter-attacks (Lau and Pomper, 2001). Therefore, the ties between parties in the network are not independent. To model such non-independence of the data while simultaneously incorporating the expected effects of

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[4]Additional examples are provided in the online appendix.

[5]The data comprise about 8,500 print news items with approximately 50,000 actor–actor relations. Of these, roughly 13,500 relations contain a negative evaluation. Coding of the news items was performed by seven trained native German speakers. The coders achieved inter-coder reliability scores between 0.74 and 0.85 (all based on Krippendorff's alpha) for the variables under consideration. For more details see Kleinen-von Königslöw *et al.* (2015).

covariates on the network, we rely on exponential random graph models (ERGMs; Wasserman and Pattison, 1996; Robins *et al.*, 2007; Cranmer *et al.*, 2017). In an ERGM, the observed network is treated as a single realization from a multivariate probability distribution, such that no assumptions about the independence of actors or ties within the network are necessary (see Desmarais and Cranmer, 2012; Cranmer and Desmarais, 2016).

The principal intuition of models in the ERGM family is that the realized network constitutes a single observation from a multivariate probability distribution. To elaborate this notion, let $\mathbf{Y}$ be a random network variable and let $\mathbf{y}$ be the observed network. Further, let $\mathcal{Y}$ be the set of all possible networks with an identical number of nodes such that $\mathbf{y}$ is a single realization of $\mathcal{Y}$. In the most general case, ERGMs have the following form:

$$
\begin{aligned}
\Pr_{\boldsymbol{\theta},\mathbf{g}}(\mathbf{Y} = \mathbf{y}|\mathbf{x}) &= \frac{\exp(\boldsymbol{\theta}\cdot\mathbf{g}(\mathbf{y},\,\mathbf{x}))}{\kappa_{\mathbf{g}}(\boldsymbol{\theta},\,\mathbf{x})}, \quad \mathbf{y} \in \mathcal{Y} \\
\kappa_{\mathbf{g}}(\boldsymbol{\theta},\,\mathbf{x}) &= \sum_{\mathbf{y}'\in\mathcal{Y}} \exp(\boldsymbol{\theta}\cdot\mathbf{g}(\mathbf{y}',\,\mathbf{x}))
\end{aligned}
\tag{1}
$$

where $\mathbf{g}(\mathbf{y}, \mathbf{x})$ is a q-length vector of network statistics that depend on a set of covariates $\mathbf{x}$ with the associated vector of model parameters $\boldsymbol{\theta}$.[6] The normalizing constant—the denominator $\kappa_{\mathbf{g}}(\theta, \mathbf{x})$—sums over all possible networks $\mathbf{y}'$ in $\mathcal{Y}$.

ERGMs were originally formulated for binary network data and are therefore not directly applicable to the data at hand, where we investigate the *frequency* of attacks between parties. Since our data have count properties, this should be modeled as a network with valued edges. Krivitsky (2012) has proposed a generalized ERGM that contains a reference measure $h(\mathbf{y})$:

$$
\begin{aligned}
\Pr_{\boldsymbol{\theta},h,\mathbf{g}}(\mathbf{Y} = \mathbf{y}|\mathbf{x}) &= \frac{h(\mathbf{y})\exp(\boldsymbol{\theta}\cdot\mathbf{g}(\mathbf{y},\,\mathbf{x}))}{\kappa_{h,\mathbf{g}}(\boldsymbol{\theta},\,\mathbf{x})}, \quad \mathbf{y} \in \mathcal{Y} \\
\kappa_{h,\mathbf{g}}(\boldsymbol{\theta},\,\mathbf{x}) &= \sum_{\mathbf{y}'\in\mathcal{Y}} h(\mathbf{y})\exp(\boldsymbol{\theta}\cdot\mathbf{g}(\mathbf{y}',\,\mathbf{x}))
\end{aligned}
\tag{2}
$$

While the reference measure $h(\mathbf{y})$ could potentially take on a number of functional forms, we use the Poisson distribution as the reference distribution with no additional restrictions (Scott, 2016).[7]

ERGMs allow the incorporation of covariates at the level of nodes (parties) and at the level of edges (attack relations). In the present case, we control for the "true" attack interactions based on data from the press releases to assess whether the issue ownership status has an effect above and beyond this baseline, i.e., whether there is a disproportionate representation of specific attack dyads in the media. To assess the disproportionality of attacks in mediated campaign communication, we generate networks with the number of attacks for each party dyad that was reported in the news media during the six weeks of the campaign—one for each issue area.[8]

3.3. Operationalization of the variables

The most important control variable is the *baseline of attacks* that is gathered from the party press releases. This indicator is introduced as a edge-level control containing the frequency of issue-specific attacks.

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[6]As the analyzed networks are fairly small, we do not incorporate network statistics that do not depend on theoretically motivated covariates, except for individual heterogeneity (see below).

[7]All models were estimated using version 3.4.0 of the ergm.count package and version 3.10.4 of the ergm package in R.

[8]We build five asymmetrical 6-by-6 matrices that contain the attackers (parties) in the rows, the targets (parties) in the columns and the sum total of attacks from each party on each other party are written into the cells of the network matrix. The same procedure is used for the press releases, also resulting in 6-by-6 matrices that are used as one of the control variables in the analysis.

Previous scholarship on the link between issue ownership and media reporting has contended that parties with a reputational surplus have a greater likelihood of being featured in issue-specific media coverage (Petrocik *et al.*, 2003; van der Brug and Berkhout, 2015). As we are interested in the propensity of issue owners to be disproportionately featured in mediated attack relations, we aim to disentangle the baseline probability of each party to receive coverage from the more specific visibility in attack interactions as a function of issue ownership. This is done by controlling for *individual heterogeneity*, which captures the general propensity of actors to interact with other actors.

The central predictor for the analysis is *issue ownership* that is assumed to be related both to the number of incoming and outgoing ties. In accordance with common practices, we employ a survey-based measure of issue ownership (Walgrave *et al.*, 2012; Lachat, 2014; Walgrave *et al.*, 2016). Given the available survey evidence, we are restricted to analyzing the effect of perceived party competence on media representations, thus neglecting more recent arguments in favor of an associative dimension of issue ownership. Although unfortunate, both dimensions are highly related, such that the empirical results are unlikely to be strongly dependent on the specific measure.

The evidence stems from a survey that was fielded in the weeks before the election. Voters were asked to name the most and second most important problem facing the country and, subsequently, to indicate what party they perceive as most competent for dealing with the issue (Kritzinger *et al.*, 2014).[9] We treat the party as issue owner that was most frequently named as the most competent in dealing with an issue area.[10] The Social Democratic SPÖ exhibits a plausible reputational surplus in the areas of welfare and economy. The junior coalition partner, the conservative ÖVP held the ministry of finance in the incumbent government and is perceived as most competent in the area of budget. The environmentalist party GRÜNE owns environmental issues. The right-wing populist FPÖ heavily emphasizes immigration policy, which is reflected in public competence perceptions for the party.

For control variables, we include the parties' vote shares in the 2013 election as an indicator of *party size*. We also model the *incumbency status* of the parties. Finally, we incorporate parties' *ideological stances*. We use the aggregated party placements based on the pre-election voter survey using an 11-point left-right scale.

It should be noted that our analysis differs with respect to the interpretation of the control variables compared to most studies on negative campaigning. Since we control for actual attacks based on party press releases, all other variables should be interpreted as effects *in addition to* the baseline, reflecting an *over-* or *under-emphasis* in the media that cannot be explained by actual attacks.

4. Results

The results from the analysis are presented in Table 1. Each column displays the results in one policy area. The coefficients in Table 1 display the additive effects of the model terms based on the natural log of the expected number of attacks, similar to Poisson regression models. The Markov chain Monte Carlo diagnostics and goodness-of-fit diagnostics are presented in Figures S1–S10 in the online appendix. The diagnostics suggest that our model specifications reflect the data generating process that produced the observed networks (for a detailed discussion, see Krivitsky, 2012).

Considering the descriptive statistics underlying the models first, the number of unique ties show that about a third of all possible ties are empty,[11] while we observe an average of 188.4 attacks per

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[9]The survey was conducted as a face-to-face CAPI interview with a representative sample of voting-age Austrians. For more information on the AUTNES survey component see Kritzinger *et al.* (2014).

[10]An identical model employing a metric indicator of issue ownership showed no substantive changes in the results (see Table S3 in the online appendix for details).

[11]In a network with six nodes and no loops (attacks from a party about itself), there can be at most $6 \times 6 - 6 = 30$ unique ties, i.e., disregarding the frequency of attacks in each dyad. Empirically, there are an average of 15.00 non-empty ties (SD =

Table 1. Generalized ERGMs of campaign attacks

	Budget	Economy	Environment	Immigration	Welfare
Sum	−1.40	0.60	−9.96***	−1.21	−1.02
	(0.72)	(0.35)	(2.78)	(0.73)	(0.60)
Individual heterogeneity	−0.67	−0.69***	−0.87	−2.10***	−0.52
	(0.52)	(0.21)	(0.99)	(0.59)	(0.39)
Objective attacks	0.11**	0.05***	−0.05	0.17	0.00
	(0.04)	(0.01)	(0.22)	(0.19)	(0.02)
Issue owner (binary, Target)	0.96*	−0.13	2.74**	0.98*	0.61*
	(0.39)	(0.15)	(0.88)	(0.48)	(0.24)
Issue owner (binary, Attacker)	0.90	0.32	4.63***	0.95***	0.32
	(0.63)	(0.17)	(1.04)	(0.27)	(0.26)
Incumbent (Target)	1.30*	1.14***	2.67*	0.76	1.38***
	(0.59)	(0.24)	(1.08)	(0.40)	(0.36)
Party size	7.01***	6.32***	29.42***	10.97***	9.16***
	(2.00)	(1.26)	(8.12)	(2.28)	(2.03)
Ideological distance	−0.02	0.02	0.51**	0.04	0.07
	(0.12)	(0.05)	(0.19)	(0.09)	(0.07)
Total attacks	193.00	466.00	36.00	93.00	154.00
AIC	−1135.91	−2767.93	−67.49	−247.04	−456.14
BIC	−1124.71	−2756.72	−56.28	−235.83	−444.93
Log likelihood	575.96	1391.97	41.74	131.52	236.07

***$p < 0.001$, **$p < 0.01$, *$p < 0.05$
Note: AIC for the null model is defined as zero in valued ERGMs. Standard errors in parentheses. A binary indicator of issue ownership is used in the model.

issue network (SD = 166.27). This suggests a highly imbalanced distribution of attacks across parties, such that some relations are extremely conflictual, while others show no attacks at all.[12]

Turning to the parameter estimates, the baseline estimate for the attacks based on the party press releases (*Objective attacks* term in Table 1) is positive and significantly different from zero, such that actual attacks as measured in press releases are systematically related to the number of attacks reported in the media. That is, every attack instance in a press release translates to an additional attack statement for the mediated attack network between 1.05 (economy) and 1.12 (budget), suggesting that we are able to capture a reasonable baseline from the press releases. This finding is reassuring from a normative point of view, as media coverage tends to reflect actual attack patterns.

Nevertheless, we also find that issue owners are frequently over-featured—both as targets and attackers—compared to what should be expected based on parties' press releases. This is particularly true for attacks that target issue owners (*Issue owner (Target)* term in Table 1). All else equal, media accounts over-feature attacks on the issue owner. Issue owners receive additional attacks in the areas of budget (2.61 additional attack statements), environment (15.48), immigration (2.66), and welfare (1.84, all based on exponentiated coefficients). Only for attacks with an economic substance, we observe no systematic effect of ownership on the likelihood of being over-featured by the media. The effects are a little less consistent for attacks originating from issue owners as indicated by the *Issue owner (Attacker)* term in Table 1. While all coefficients are positively signed, the effects are significantly different from zero only in the areas of environment and immigration. This leads us to conclude that the media are most likely to pick up on attacks *targeting* issue owners.

6.48) across all issue networks. Descriptive statistics for the five issue networks are presented in Table S1 in the online appendix. Desscriptive statistics for each newspaper are presented in Table S2 in the online appendix.

[12]The highly imbalanced distribution of interactions suggests that our reference distribution, the Poisson distribution, may be biased due to overdispersion. We estimated identical models as the ones presented in the main text with controls for possible overdispersion of the data (Table S4 in the online appendix). The substantive conclusions remain unchanged.

Importantly, observing similar patterns across different issue areas should strengthen our confidence in the underlying theoretical mechanism. Specifically, it should be reiterated that the issue ownership variable indicates different parties in the five models. Therefore, it is unlikely that any particular outlier party could be driving the results.

Beside the main results, the generally strong and negative *sum* parameters—equivalent to the intercept in an ordinary regression model, i.e., the average attacks between two randomly selected actors absent all other predictors—indicate that the networks tend to be rather sparse. Likewise, the individual heterogeneity terms show small negative effects, although they are only significant in some issue areas. While these terms control for possible unobserved heterogeneity of actors, the negative signs suggest that parties are quite homogenous in terms of their general attack behaviors, leading to lesser variability.

The incumbency status (*Incumbent (Target)* term in Table 1) is a strong and significant predictor above and beyond the attacks in press releases. This dynamic nicely reflects the common observation that opposition parties are actively engaging in attacks on the government. Party size is similarly positive and significant in all of the issue-specific networks. However, this effect should not be interpreted substantively, but rather be considered a control variable. Since we aggregate individual attack relations to the level of parties, larger parties are by definition more likely to be part of an attack dyad, irrespective of the target. The positive coefficients may also indicate that larger parties have more high-profile individuals whose utterances are inherently more newsworthy, implying that individual characteristics may influence the media visibility of some parties.

Ideological distance is not consistently associated with attack behavior with the exception of the area of environment, and dropping the variable makes no difference for the substantive results (see Table S6 in the online appendix for details). This leads us to conclude that disproportionate media representations of campaign negativity are not driven by ideological considerations.

5. Conclusion

The mass media continue to play a pivotal role in conveying information about electoral campaigns to voters, underlining the need for a fair representation of campaigns in the media. One aspect of electoral campaigns that helps voters learn are issue-based criticisms between parties as they serve to highlight differences between policy platforms, allowing voters to make electoral choices that are most aligned with their preferences (Lau and Redlawsk, 1997). We argued that ordinary mechanisms of news selection introduce a systematic misrepresentation into mediated campaign interactions. As attacks featuring issue owners possess a higher news value, it is reasonable for editorial routines to select news items from the pool of possible attacks that focus on these interactions. However, individually rational behavior yields a non-random sample of the campaign interactions that over-emphasizes certain attack patterns above and beyond their factual prevalence.

Our analysis employing exponential random graph models allowed us to systematically relate theoretically derived covariates to network structures—the policy field-specific attack patterns between parties in an Austrian election campaign. The first and foremost control variable for our models were the *actual attack patterns* as evidenced by party press releases. This puts us in the unique position to be able to study misrepresentations in negative campaigning. The results show that the actual attack patterns are systematically and positively related to the mediated attack patterns. This is reassuring not only in terms of our modeling strategy, but also fundamentally for the fair representation of issue-based campaigns. Yet our results have also clearly shown that the print media were much more likely to feature attacks involving issue owners—both as targets and as attackers—across different policy areas.

At first glance, one might be inclined to consider this type of disproportionality as little problematic or even beneficial to voters. Consider a stylized party system with three parties A, B, and C, where A owns issue X. If voters are more likely to evaluate parties on issues they own, an

overemphasis on criticisms targeted at issue owners provides voters with a better sense of the owners' performance in areas for which they can claim a reputational surplus. Likewise, voters might consider policy-based attacks from issue owners as more informative for guiding their decisions. In this sense, given voters' limited capacity and willingness to process campaign-related news, attacks featuring the issue owner are more informative than those which do not. Therefore, despite our natural tendency to consider a more proportionate media representation as inherently superior to a less proportionate representation, there are good reasons for preferring a degree of disproportionality.

Yet, while attack relations involving an issue owner may be more educational to voters on balance, the marginal utility of each additional message linking a party dyad already covered by the media should be decreasing. The question is thus not whether the media should exclusively report attacks involving the issue owner but rather what might be the optimal level of disproportionality —a question that is exceptionally hard to answer. We believe that three arguments can be put forward which suggest erring on the side of a more proportionate representation.

One, we observe frequent attack relations that do not feature the issue owner, suggesting that (a) parties clearly find fault with the proposals of their competitors who are not associated with a particular issue and that (b) they consider these flaws sufficiently damaging to be worth publicizing in the hopes that they might sway voters. Thinking about the question of optimal levels of disproportionality from a rather principled level, we might therefore argue that journalistic selection mechanisms disallow possibly damaging critique from reaching the public which can be criticized, irrespective of how influential that critique might be for electoral decisions.

Two, above and beyond such a principled argument, the more fundamental concern is that journalistic selection *systematically* discards points of criticism. Consider the stylized party system again and assume that we can judge the objective qualities of a set of policy proposals. We can imagine a situation where C voices multiple attacks about the similarly flawed proposals of parties A and B but the media systematically favors the C–A relation while disregarding the C–B relation. This might lead to a situation where voters choose party B due to their ignorance of party B's full range of proposals. In a more general sense, systematically discarding some proposals from public scrutiny due to journalistic selection mechanisms may have undue electoral consequences.

Three, a disproportionate focus on attacks featuring issue owners can also be criticized for creating a status quo bias with regard to ownership structures. We are aware from previous research that party competition is not exhaustively described by parties voicing opposing points of view. Parties also aim to win public support by building a reputation for being more qualified to deal with a particular issue area than their competitors. One way to achieve this is by selectively emphasizing the issues in one policy field, while deemphasizing others (Budge and Farlie, 1983). Although attack relations are far from the poster child for this type of party strategy, a disproportionate media attention on attack relations featuring the issue owner nonetheless cements the public perception that one party is the focal point of a given policy debate. This kind of associative issue ownership (Walgrave *et al.*, 2012) is likely to result even when the majority of attacks are targeted at the issue owner. Consider the case of the immigration policies voiced by right-wing populist parties. Mainstream competitors often react to right-wing populist parties by vocally pushing back against their proposals, which may well play into the hands of the populists. In addition to politicizing the immigration issue (Rydgren, 2004), criticizing the populist policy stance necessarily highlights that stance, while making abundantly clear to the public who they should consider the pacemaker in the immigration debate. To be sure, even though the example illustrates a particular mechanism linking party competition and issue ownership, it does not speak to disproportionate media representations specifically. Nevertheless, the example underscores how a disproportionate focus on attack dyads featuring the issue owner can make it immensely difficult for competitors to upend public perceptions of party reputations.

In sum, while it is not implausible to view attacks featuring the issue owner as more informative to voters, we believe the arguments in favor of a more proportionate representation of

campaign interactions are sufficient to consider the documented findings at least somewhat troubling from a normative point of view. In a broader sense, then, this study might prompt editors to be mindful whether individually reasonable news selection criteria might cause disproportionality in aggregate party representations—and whether an uncommon voice is sometimes the way to achieve a more balanced reporting.

Reasonably consistent effects across multiple policy areas notwithstanding, our study is subject to a number of limitations. Despite extensive data, several policy areas could not be investigated as there were too few observations. Given that we analyzed a fairly comprehensive sample of the Austrian print media landscape, extending the data collection effort is not a viable remedy. There are two additional upshots of this data sparsity problem beyond the inability to study certain policy fields. One, we studied all news outlets in a common model to ensure a sufficiently large sample. Although it is reasonable to assume that the effect of news values on news selection operates on all outlets, we cannot make any more specific statements on patterns of misrepresentation in different outlets. To be sure, the interest of this paper are misrepresentations of attack interactions in the print media landscape. In this sense, studying a representative sample of the Austrian print media landscape in a pooled analysis provides the best possible evidence for the question at hand. Two, we had to assume that misrepresentation is a stable property across the electoral campaign since we analyzed all incidents of campaign attacks in a single model.

Our analysis has focused on mediated campaign negativity in Austria. The theoretical mechanism does not suggest any marginal conditions for its applicability in other media systems. Future research should therefore assess these relationships for other systems. In fact, the empirical results presented by Petrocik *et al.* (2003) indicate that party misrepresentations based on issue ownership are a more general phenomenon. Nonetheless, there are certain aspects of the results presented in this study that are specific to the Austrian party system—not least the comparatively uncommon situation of a coalition between the two largest competitors.

It was argued that campaign interactions in multi-party systems are systematically different from attack patterns in two-party systems where the choice of target is straightforward. We are therefore left to wonder how our results might translate to a two-party system. While the possible relationships are difficult to distort—party A attacks party B, and *vice versa*—, there are plenty of opportunities for distortions even in a seemingly less complex communication environment. Apart from distorting the level of hostility originating from one actor or the other, one might even observe issue-specific distortions on the basis of issue competence, where the media systematically over-report attacks by one party on an issue that is owned by the target.

While the above discussion gives rise to further investigations of misrepresentations of mediated negative campaigning, and undoubtedly the increasing role of social media will add an additional layer of complexity to such endeavors, we contend that our study has provided an important impetus for studies in this area. While it should not be expected from journalists to simply provide copies of parties' campaign communication, journalists and editors, as well as campaign planners need to be aware of possible distortions, and ultimately the degree to which these distortions happen may not be inconsequential for campaign outcomes.

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