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DISSERTATION / DOCTORAL THESIS

Titel der Dissertation /Title of the Doctoral Thesis

The dark side of campaigning.
*Negative campaigning and its consequences
in multi-party competition*

verfasst von / submitted by

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Contents

Acknowledgements

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1 Introduction

The origins of negative campaigning probably concur with the emergence of political campaigns. Sources go back to 64 BC, when Quintus Tullius Cicero, probably among the first spin-doctors in the world, drafted a letter of advice to his brother, Marcus Tullius Cicero, then running for the consulate. He insisted on including 'negative campaigning' in the campaign, to remind the people '(…) of what scoundrels your opponents are and to smear these men at every opportunity with the crimes, sexual scandals, and corruption they have brought on themselves' (Cicero 2012).

Several centuries later, negative campaigning 'took off' in early US campaigns. A prominent example is the 1800 presidential race opposing John Adams and Thomas Jefferson. Notably, this was also the first and only example in US history, when a president was running against his former vice president. In the campaign, both camps launched strong, sometimes anonymous, personal attacks in newspapers or secretly funded pamphlets. Americans were warned that 'murder, robbery, rape, adultery and incest, will openly be taught and practiced, the air will be rent with the cries and distress, the soil soaked with blood, and the nation black with crimes'[1] if Jefferson were to be elected. Similarly, John Adams was characterized as 'hideous hermaphroditical character, which has neither the force and firmness of a man, nor the gentleness and sensibility of a woman' (Callender 1800) by his opponents.

Jumping to modern elections, the twentieth century saw the emergence of professional spin doctors and campaign ads, which have been at the core of negative campaigning in contemporary US elections. In 1968 President Lyndon B. Johnson released a TV spot that entered the 'annals of negative advertising'. The 'Daisy-Spot'[2] unsubtly suggested that

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[1] Quote from The Connecticut Courant, September 15, 1800, Gardner (1993: 161).
[2] https://www.youtube.com/watch?v=dDTBnsqxZ3k [16.01.2018]

electing the Republican candidate, Barry Goldwater, would bring on nuclear war and destroy the future of American children.

Today, parties and candidates around the world 'go negative' and they may choose among a palette of tools. In 2016, Donald Trump's campaign team used footage of Hillary Clinton's collapse at a campaign event for an ad suggesting a lack of 'stamina' to face the challenges of presidency.[3]

In the 2010 British election, the Tories produced a series of posters attacking Prime Minister Gordon Brown, who was held responsible for, 'taking billons from pensions', having 'doubled the national debt' or having 'let 80,000 criminals out early'. Austria's most recent national election saw a 'dirty campaigning scandal' featuring a campaign adviser of the Social Democrats (SPÖ) running an anonymous Facebook group defaming Christian Democratic (ÖVP) chancellor candidate Sebastian Kurz. Insidiously, the site tried to attribute these attacks to the Freedom Party trough racist and anti-Semitic posts. Information about the SPÖ's involvement leaked to the media and the story broke the news in the last weeks of the campaign and compromised the party's campaign strategy. Notably, the SPÖ and ÖVP were coalition partners at that time. Their leaders were also fiercely competing to win the election and to become Austria's next head of government.

These examples illustrate that negative campaigning takes a variety of forms. It may cover substantive criticism, such as disagreement between two parties or candidates over a specific policy, character assassinations, pejorative language or insinuate rumours about a politician's very private life.[4]

Political actors use negative campaigning to emphasize the weak spots of their opponents or to make them look bad in the eye of the electorate (Nai and Walter 2015a; Mattes and Redlawsk 2014; Lau and Brown Rovner 2009; Geer 2006; Lau and Pomper 2004;

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[3] https://www.youtube.com/watch?v=WTylz2WToXw [16.01.2018]
[4] In Austria's 2016 presidential election, rumours on Facebook suggested that the later-elected president, Alexander Van der Bellen, was suffering from lung cancer.

Riker 1996). Ultimately, they strive for electoral benefits through negative campaigning. Hence, they want to reach as many voters as possible, for example by conveying their campaign messages via the news media (Haynes and Rhine 1998). Yet, attacks may backfire on their sponsor if voters dislike negativity and blame the attacking camp (Garramore 1984). Or, the media may deplore a decline in political discourse and condemn the role of parties and candidates in eroding democratic politics and 'disgusting voters' (West 2014; Capella and Jamieson 1997; Patterson 1993).[5]

So why do parties and candidates rely on this campaign strategy in the first place? Under what circumstances are they willing to take the risk to 'go negative'? What are the effects of negative campaigning? Do journalists prefer negative over positive party communication and thus reward parties for negative campaigning with coverage of their campaign activities? How do voters perceive different types of campaign messages? What are the electoral consequences of employing negative messages?

This dissertation contributes to these questions by studying three aspects of negative campaigning: party behaviour, media coverage and voter perceptions. It presents a new conceptualization that enriches the dichotomous operationalization dominating the research field with a graded measure of negativity. It studies the incentives for negative campaigning among coalition parties and analyses, on which issues parties attack. Investigating the consequences of negative campaigning, it studies if media report more on negative messages than on positive ones and examines the impact of partisanship on perceptions of negative campaigning. It examines campaign negativity in Austria, a typical European country with multi-party competition, a tradition of coalition governance and a media system comparable to many Western and Northern European countries (Hallin and Mancini 2004).

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[5] e.g. https://www.nytimes.com/2016/11/04/us/politics/hillary-clinton-donald-trump-poll.html [11.10.2017]

The road thus far: Research on negative campaigning

Despite its rich tradition, the wealth of its means and increasing public attention, empirical research into negative campaigning only got off slowly in the 1990s. Based on a keyword search in the ProQuest[6] database, Figure 1 illustrates that the number of annually published articles was at the low binary level at the start of the decade. From the mid-1990s on, the number of yearly articles grew steadily. Research on negative campaigning finally took off in mid-2000 with more than 200 research articles dealing with the topic in each year and about 100 from political science. Since then, negative campaigning has become a prominent topic in political science research with about 100 research articles per year. Many studies have explored why parties and politicians attack their opponents, and explored its consequences on vote choice, turnout and perceptions of democracy (see Nai and Walter 2015b; Lau and Brown Rovner 2009 for reviews).

Figure 1: Academic research on negative campaigning
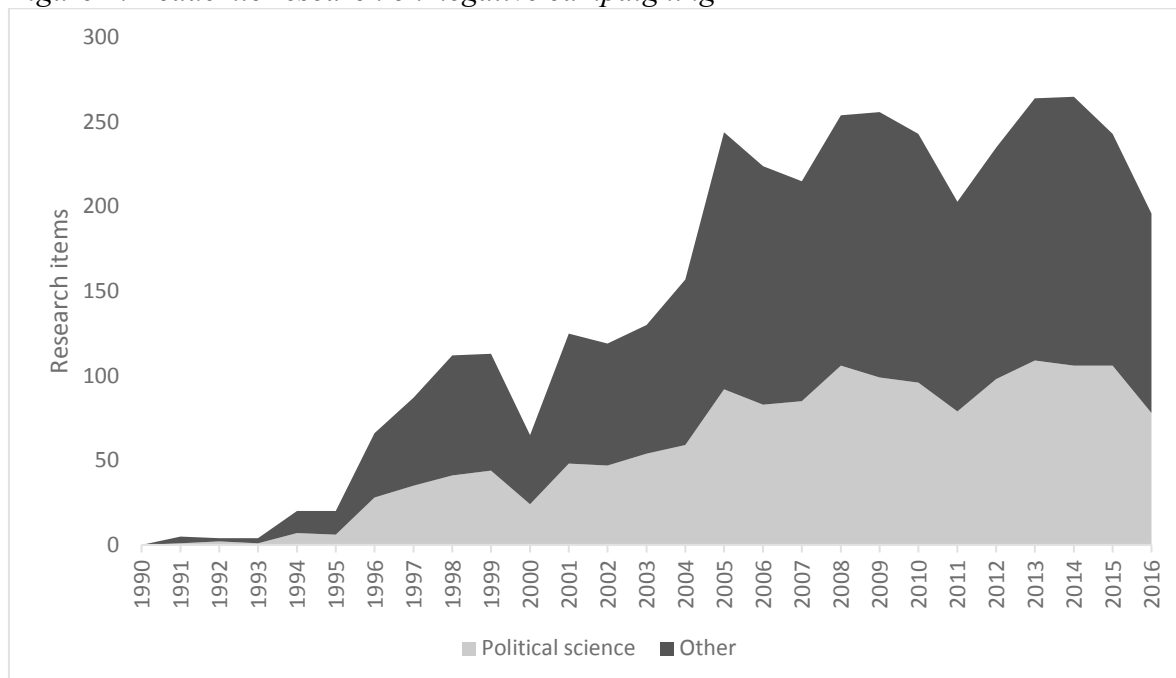
Note: ProQuest results including 'negative campaigning'
n=2,335 (all) and 1,549 (Political Science)

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[6] http://www.proquest.com/ [10.02.2018]

Before reviewing the existing literature on negative campaigning, it is important to stress the issue of defining and operationalizing it. The question of what constitutes negative campaigning and how to measure it has been widely debated in the literature (see Nai and Walter 2015a for an overview). This dissertation argues that the definition and measurement of negative campaigning may determine both, findings on party strategy and its consequences.

Defining and measuring negative campaigning

Thus far, studies on negative campaigning almost exclusively define it as 'attacking' an opponent (Geer 2006). Geer (2006: 23) argues that his definition of negative campaigning is, '(…) simple and straightforward: negativity is any criticism levelled by one candidate against another during a campaign. Under this definition, there is no gray area. (…). Any type of criticism counts as negativity.' Accordingly, all, remaining campaign communication is thus 'positive' campaigning, which includes the emphasis of own policy positions or a party's record in government (Benoit 1999). Figure 2 provides a simplified graphic illustration of such a binary definition of negative campaigning.

Figure 2: Binary definition of negative campaigning

Positive	Negative
We love party X. We like party X. Party X is ok. We don't talk about party X.	We insult party X. We detest party X. We dislike party X. We don't agree with party X.
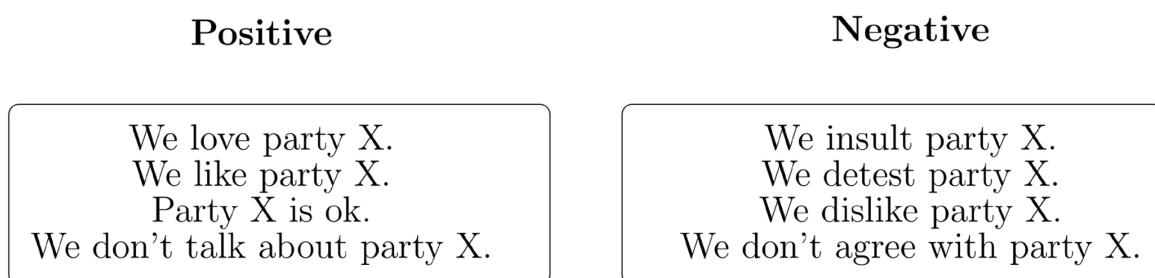
Even if this common definition puts the focus on 'attacks', the negative category on the right side of Figure 2 covers a vast array of messages including comparative advertising, dirty attacks or mudslinging. To provide more examples from a recent Austrian election

campaign, consider the difference between the headline of a newspaper article that SPÖ-minister Gabriele Heinisch-Hosek 'criticizes ÖVP plans regarding the working hours'[7] and tweets from Team Stronach, claiming that Josef Bucher (then party leader of the BZÖ) 'had no balls'.[8]

Differences in the intensity or strength of negativity in these messages suggest different effects on targeted parties, public perception, or media coverage. Would Josef Bucher want to collaborate with members of Team Stronach insinuating his lacking manhood? How likely is it that partisans of the BZÖ will withdraw their support because of offensive personal, apolitical allegations? On the other hand, ÖVP partisans might be more likely to re-consider their support if they strongly object to liberalization of the working hours. Would the media jump on both stories, or would they privilege the more sensational allegation against the BZÖ leader over criticism among coalition partners? Hence, differences in the strength of negative messages may have different effects on sender, target, media coverage and public perception.

Political parties and candidates may deliberately determine the target of a negative message. Yet, they are also free to decide 'how strongly' they wish to criticize an opponent. I argue that they should anticipate potential effects of both target choice and the strength of a negative message. Thus, it is important to move the study of negative campaigning beyond the dichotomous level described in Figure 2.

Others have criticized that definitions and measurements of negative campaigning are too broad and unspecific. Jamieson et al. (2000) advise against conflating and obscuring legitimate and illegitimate attacks. They suggest to differentiate between 'contrast or comparative' advertisements and 'attacks'. Sigelman and Kugler (2003) reveal substantive inconsistencies in perceptions of negative campaigning in the research literature and among

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[7] http://www.salzburg.com/nachrichten/oesterreich/politik/sn/artikel/heinisch-hosek-kritisiert-oevp-plaene-zu-arbeitszeit-71223/ [23.09.2014]
[8] https://twitter.com/TeamStronach_at/statuses/259215146487001089 [23.09.2014]

voters. The standardized, dichotomous definition and measurement of negative campaigning does not reflect how voters perceive party communication. Lipsitz and Geer (2017) urge researchers to collect data that are consistent with the public's understanding of the concept if we want to understand its effects on voters.

I concur that this inconsistency could explain the ambiguity of findings on the effects of negative campaigning (Lau et al. 2007; Lau et al. 1999). Hence, '[e]mbracing the variance in the content and tone of messages may help explain whether negative messages enhance or depress turnout' (Fridkin and Kenney 2011: 323).

Exploiting the 'wealth' of negative messages should be particularly helpful in the context of multi-party competition and coalition governance. Low levels of negativity, such as emphasizing disagreement over specific policies, may be likely among (potential) coalition partners. Even coalition parties have to signal their different positions and sell their achievements by contrasting it to their coalition partner to appeal to their core voters (Sagarzazu and Klüver 2017). Yet, we would not expect political actors seeking to renew or build a coalition after the election to compromise future collaboration by firing broadsides against each other during the campaign.

Scholars examining differences between weak expressions of criticism and strongly worded attacks or uncivil messages indeed find that exposure to the latter may produce negative feelings about politicians and democracy (Fridkin and Kenney 2011, 2008; Brooks and Geer 2007; Mutz and Reeves 2005).

Typically, these operationalizations use a two-fold (civil versus uncivil) category scheme. Yet, there are concerns about how such a measurement travels to large-scale content analyses of party communication, such as advertisements or press releases. The question, when a political message 'crosses the line' is challenging for scientific research: 'The more subjective and complicated a coding scheme, the more difficult (and thus expensive) it is to use, and typically the less reliable are its results' (Lau and Brown Rovner 2009). Are such

claims still valid? In this dissertation, I introduce a graded conceptualization of negative campaigning and present a measurement approach that consolidates efficiency, validity and reliability. This enables researcher to exploit the wealth of negative campaigning with implications for party behavior and its consequences.

Why so negative? Party incentives to 'go negative'

As an electoral strategy, negative campaigning aims at persuading risk-averse voters 'not to vote' for a party or candidate and to mobilize own supporters (Riker 1996, 1991; Ansolabehere et al. 1994; Lau 1985). Hence either by capturing these voters, or by deterring them from casting a vote, negative campaigning should help attacking parties to maximize votes – either in absolute, or relative terms.

Parties will 'go negative' if the presumed benefits outweigh its potential costs. They will attack if they expect the damage done to the target to be greater than the risk of alienating (potential) voters. The risk stems from potential backlash or boomerang effects (Garramore 1984). If potential voters or partisans dislike negative campaigning they might withdraw their support if messages exceed their individual levels of acceptance for this campaign strategy.

A more general explanation for the use of negative campaigning comes from cognitive psychology. Individuals pay more attention to, and give more weight to negative information, compared to positive one (Baumeister et al. 2001; Rozin and Royzman 2001). Hence, negative campaigning is a promising strategy to raise awareness and gain publicity. Communication research attests of this as journalists prefer reporting on negative stories and events (Soroka 2014; Galtung and Holmboe Ruge 1965).

Based on these general ideas, researchers have derived a set of expectations for the behavior of political actors. Basically, the literature expects three main factors to determine

which candidates or parties will 'go negative' during an election campaign: i) campaign context, ii) ideology, and iii) candidate or party attributes.

Context includes the position of parties in the polls or the closeness of the race. Parties or candidates leading in the polls should rely on positive messages, whereas their challengers resort to negative campaigning to catch up with them (Skaperdas and Grofman 1995). The idea behind this argument is that frontrunners can secure their lead by appealing to their supporters through positive messages. Challengers predominantly use negative campaigning to raise attention of their campaign (Druckman et al. 2009; Haynes and Rhine 1998). If the outcome of an election is uncertain, the level of negative campaigning by frontrunners and challengers should increase (Druckman et al. 2009; Lau and Pomper 2004; Skaperdas and Grofman 1995). A related argument states that the use of negative campaigning will spread in the course of a campaign as parties reiterate attacks with counterattacks (Lau and Pomper 2004; Damore 2002).

Turning to the ideological factors determining negative campaigning, candidates may use it to shift their opponents' ideological position and thereby reduce their appeal to undecided voters (Harrington and Hess 1996). Political actors may also select particular issues for maximizing the impact of negative campaigning. Following issue-ownership theory (Petrocik 1996; Budge and Farlie 1983), they may attack on topics where they have a competence advantage in the voters' eyes to increase the credibility of attacks (Damore 2002; Riker 1996) or attack their opponents' weak spots (Geer 1998).

At the level of candidates (or parties), incumbents should rely less on negative campaigning than the opposition. The logic is similar to that of frontrunners. Yet, incumbents further benefit from their ability to emphasize their record in government (Benoit 1999). Also, those with fewer resources should rely on negative campaigning to increase visibility of their campaign. This relates to the surplus of information to negative messages by both, media and the public (Druckman et al. 2009; Petersen and Djupe 2005;

Lau and Pomper 2004; Haynes and Rhine 1998). There is also a broad literature on gender differences in negative campaigning that has produced mixed results on the gender of the attacker and more consistent evidence that men are more often targets of negative campaigning than women (Lau and Pomper 2004, 2001; Kahn and Kenney 2000; Kahn 1993).

These accounts for explaining the behavior of parties and candidates come from the context of the US-two-party system and assume that negative campaigning is a zero sum game, where vote gains by party A translate to votes lost by party B. How well do these general expectations and observations travel to European multi-party systems? May institutional rules and traditions of governance shape negative campaigning?

In the past decade, researchers have explored negative campaigning in Austria, Denmark, Germany, Italy, the Netherlands, Switzerland and the United Kingdom (e.g. Maier and Jansen forthcoming; Dolezal et al. 2015; De Nooy and Kleinnijenhuis 2013; Nai 2013; Walter 2012; Curini and Martelli 2010; Elmelund-Præstekær 2008; Hansen and Pedersen 2008). Yet, despite a growing interest in negative campaigning in Western European countries, we still know relatively little about how negative campaigning and its effects differ in these party systems as most research transferred hypotheses from the US and did not adapt the measurement to reflect the particular environment of multi-party competition and coalition governance.

Many researchers emphasize that multi-party competition obscures the electoral risks and benefits of negative campaigning (Walter 2012; Elmelund-Præstekær 2010, 2008; Hansen and Pedersen 2008). If two parties attack each other, voters may still decide to cast the ballot for a third party. For example, an undecided voter may follow corruption allegations from party A against party B and disregard to vote for party A. Yet, she may also dislike negative campaigning and exclude party B from her consideration. In a two-party system, this voter might stay away on Election Day, which would benefit neither of the

parties. In a multi-party system, they could simply vote for party C, which runs an entirely positive campaign.

A tradition of coalition governance introduces further nuances: during elections coalition partners need to sharpen their profiles to distinguish themselves from each other (Sagarzazu and Klüver 2017). On the other hand, even opposition parties aspiring government membership may have to restrain from heavy attacks against potential coalition partners to preserve their office-seeking aspirations (De Nooy and Kleinnijenhuis 2015). The complexity of these strategic incentives results in ambiguous findings on the amount of negative campaigning among coalition partners: whereas some find coalitions parties to restrain from criticizing each other (Walter 2012; Elmelund-Præstekær 2010, 2008; Hansen and Pedersen 2008), they attack each other frequently during some Austrian and Dutch elections (De Nooy and Kleinnijenhuis 2015; Dolezal et al. 2015). Is it possible that the contradiction in these results could be resolved through a different measurement of negative campaigning? To resolve this question, I analyze if negative campaigning among coalition partners is less virulent than between parties that do not consider to form a coalition government after the election.

People pay more attention to negative messages, which also contribute more strongly to human decision making (Soroka 2014). Hence, parties may use negative campaigning to increase attention for a campaign (Druckman et al. 2009; Haynes and Rhine 1998). They could also use it to raise public awareness of particular issues, or challenge an opponent's issue ownership (Elmelund-Præstekær 2011b). A decline of partisanship and a growing importance of issue-based voting decisions (Meguid 2008), should raise awareness for strategies to manipulate salience or competence impressions among voters. Hence, issue-based negative campaigning may have important electoral implications if parties are able to steal issues or raise awareness of their best issues (Budge and Farlie 1983). What determines, which issues parties choose when deciding to 'go negative'? To answer this question, my

dissertation studies, whether parties try to raise media and public attention for their best issues through negative campaigning or if they attack their opponents' competence advantages.

Much ado about something? Consequences on media coverage and voters

During campaigns, parties work hard to get their messages across to the public (Dalton et al. 2011). This is particularly important for parties as electoral volatility is growing and issue preferences are increasingly shaping voting decisions in recent elections (Dalton 2013; Green-Pedersen 2007). News media are still the most important sources of information for voters during election campaigns (Strömbäck and Van Aelst 2013; Strömbäck and Kaid 2008). National media coverage is a scarce resource and political actors compete for media attention (Strömbäck and Van Aelst 2013; Tresch 2009; Strömbäck and Kaid 2008). Thus, parties and candidates are sensitive to means enhancing their chances of getting into the news to convey their key messages to a broad audience (Cook 2005).

Negativity is among the most important factors augmenting the news value of a story or an event (Harcup and O'Neill 2001; Sande 1971; Galtung and Holmboe Ruge 1965; Østgaard 1965). Negative campaigning should therefore attract media attention and increase the chances that journalists report on campaign messages. Obtaining news coverage of negative campaigning could be particularly relevant as it may help parties to challenge issue ownership advantages of their opponents or increase the salience of owned issues (Tresch et al. 2015; Elmelund-Præstekær 2011b).

The media often laments about the current election campaign being *the* most negative one and journalists bemoan the decline of political discourse and democratic competition: for example, the 2016 US presidential election campaign was 'the most bitter in recent

American history'.[9] Media reported about how the overwhelming majority of American
citizens were 'disgusted' about the campaign.[10] Yet, the same media jumped on every juicy
soundbite and devoted a substantive part of their election coverage on campaign strategies,
accusations, attacks and counter attacks (e.g. Patterson 2016; Patterson 2002, 1993). Such
observations are not limited to the US. To provide an example, all four of Austria's latest
national campaigns were particularly *dirty* according to media reports.[11]

Journalistic routines and norms such as gatekeeping or news factors are among the
sources that guarantee an overrepresentation of negative political news (Shoemaker 1996;
Galtung and Holmboe Ruge 1965). Yet, the professionalization and Americanization of
political communication across the world (e.g. Plasser and Plasser 2002) is also prominently
cited among the main reasons for the dissemination of campaign negativity.

We know that media reports on politics are (increasingly) negative and cynical (Soroka
2014; Farnsworth and Lichter 2010; Capella and Jamieson 1997; Patterson 1993). There is
also broad empirical evidence that campaign coverage is more negative than party messages
(Ridout and Walter 2015a; Elmelund-Præstekær and Molgaard Svenson 2014a; Geer 2012;
Walter and Vliegenthart 2010; Hansen and Pedersen 2008; Geer 2006). These studies
provide strong evidence for a structural negativity bias in the media at the macro level. Yet,
they are no direct evidence that the media are more likely to report on negative campaign
messages and thus 'reward' negative campaigning. Journalists could also supplement an
article with a negative or critical angle only after having selected a source. Thus, they may

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[9]https://www.newyorker.com/news/john-cassidy/closing-arguments-the-logic-of-negative-campaigning [11.10.2017]

[10]https://www.nytimes.com/2016/11/04/us/politics/hillary-clinton-donald-trump-poll.html [11.10.2017]

[11] http://derstandard.at/2589805/Neue-Dimension-des-Negative-Campaigning - 2006 [11.10.2017]
http://www.wienerzeitung.at/dossiers/wahlen/oesterreich/282148_Wahlkampf-Vorwiegend-negativ.html - 2008 [11.10.2017]
http://orf.at/stories/2200209/2200182/ - 2013 [11.10.2017]
https://diepresse.com/home/innenpolitik/nationalratswahl/5296832/Schritt-fuer-Schritt-durch-die-DirtyCampaigningAffaere [13.02.2018]

collect negative reactions from rival parties, experts or commentators to include a critical angle in an article even if the original party press release does not contain negativity or conflict. Hence, it remains unclear, whether politicians or media (or both) are responsible for an increase in campaign negativity. To examine this question empirically, I provide a direct test of the relationship between negative campaigning in party messages and subsequent media reports.

The question of responsibility is important as several studies report that negative campaigning provokes voter disaffection and lowers turnout (West 2014; Ansolabehere et al. 1994; Jamieson 1992). A more recent meta-analysis on the effects of negative campaigning reveals a 'potential to do damage to the political system as it tends to reduce feelings of political efficacy, trust in government, and perhaps even satisfaction with government itself' (Lau et al. 2007: 1184).

However, others find that negative campaigning may inform voters about the weak spots of political actors and thereby enables them to make more informed voting decisions (Mattes and Redlawsk 2014). Which factors determine if voters are able to learn from negative messages or if they are disgusted with democratic politics? Variation in the *intensity* of campaign statements and the *content* of attacks may influence voters' perception of negative campaign messages (Mattes and Redlawsk 2014; Fridkin and Kenney 2011; Brooks and Geer 2007; Kahn and Kenney 1999). In addition, a vast body of literature shows that voters strongly rely on partisan preferences when making judgments about politics (Petersen et al. 2013; Taber and Lodge 2006; Kam 2005; Bartels 2002; Redlawsk 2002; Lodge and Taber 2000). Thus far, effects of partisanship on perceptions of negative campaigning have attained rather limited attention from researchers (but see: Mattes and Redlawsk 2014; Ridout and Franklin Fowler 2012; Ansolabehere and Iyengar 1995). Yet, partisan bias could explain varying findings on its effects. If partisans tone down the strength of negative campaign messages sent by their preferred party and minimize allegations against parties

they favor, results in studies on the effects of negative campaigning may also depend on the distribution of partisans in the sample studied. Studying partisan bias of campaign communication in a European, multi-party context further extends the literature on perceptions of negative campaigning that has focused on the US two-party system so far.

Leading scholars in the field attest that research in negative campaigning is still in its infancy (Nai and Walter 2015a) and the bulk of studies still centers on US elections (Nai and Walter 2015a; Walter 2012). Studies typically use a dichotomous definition that may misread its incentives – in particular under multi-party competition – and understate its effects. It disregards that (potential) coalition parties may have to distinguish themselves during an election period, but should not use strong attacks in order to preserve the chances for post-electoral collaboration. With the growing importance of issue-based party competition, the role of issue-based negative campaigning is understudied. We further lack solid empirical evidence on the question if negative campaigning helps parties to make the news and thus, whether parties or media are responsible for the proliferation of negativity in contemporary election campaigns. Finally, a factor that may determine perceptions of negative campaigning has been unnoticed in the context of multi-party competition: a potential bias in the evaluation of campaign communication stemming from partisan preferences.

In my dissertation, I present a graded conceptualization of negative campaigning that goes beyond the dichotomous operationalization in the current literature. Applying this measurement to the study of negative campaigning among coalition parties, I demonstrate that this refinement enhances our understanding of the electoral dilemma of coalition parties. Studying issue-based negative campaigning, I analyze how issue ownership shapes attack behavior under multi-party rule. Focusing on the consequences of negative campaign messages, my dissertation studies the direct relationship between party press releases and

media reports. Finally, I examine how partisanship influences perceptions of negative campaigning.

Enhancing the understanding of negative campaigning

The dissertation provides a measurement strategy, and studies party strategy, media reports and voter perceptions in the context of multi-party competition and coalition governments.

One goal of the dissertation centers on the measurement of negative campaigning. I use sentiment analysis to provide a graded measurement of negative campaigning. Sentiment analysis identifies the polarity of texts and provides solutions to measure their intensity or tonality (how negative). It detects and assesses expressions people use to evaluate persons, entities or events (Mohammad 2016; Taboada 2016; Soroka 2014; Liu 2012; Pang and Lee 2008). Such measures come close to general perceptions of negativity. In addition it is easier to reliably determinate sentiment and more streightforward than to establish, if a message is (un)civil or (un)substantial. For example, Brooks and Geer (2007: 5) define incivility as 'claims that are inflammatory and superfluous'. In their study, the difference is 'two strong, pointed words' – such as cowardly or utterly – that transform a 'civil negative' message into an 'uncivil negative' one (Brooks and Geer 2007: 5; examples in Appendix A). Thus they implicitly rely on negative sentiment strength to determine the (un)civility' of a campaign message.

To address the issue of coding negativity efficiently (Lau and Brown Rovner 2009), my dissertation draws on crowdcoding, that is the large-scale online coding of texts using lay coders, which has produced good results for large-scale text analysis (Lehmann and Zobel 2017; Benoit et al. 2016). Harvesting the 'wisdom of crowds' (Howe 2006), it aggregates multiple judgments, rather than using individual perceptions. This omits problems of subjective perceptions and individual-level factors, such as partisanship or

political knowledge that may affect reactions to negative campaigning (Fridkin and Kenney 2011).

In joint work with my co-author (Haselmayer & Jenny 2017), I apply crowdcoding to scale the sentiment of campaign messages directly, which works well for analyzing texts of limited scope, such as press releases or even party manifestos (Lehmann and Zobel 2017; Benoit et al. 2016). I also use crowdcoded texts to build a sentiment dictionary (Thelwall and Buckley 2013; Taboada et al. 2011) for large-scale applications to political communication, such as media reports or parliamentary debates (Proksch et al. n.d.; Soroka, Young, et al. 2015; Young and Soroka 2012).

Figure 3 provides a simplified representation of a graded conceptualization of negative campaigning based on a sample of hypothetical campaign messages.

Figure 3: Graded conceptualization of negative campaigning

We hate party X.			We love party X.
	We detest party X.		We like party X.
		We dislike party X.	Party X is ok.
		We don't agree with party X.	We don't talk about party X.

Strongly negative   Weakly negative   Positive
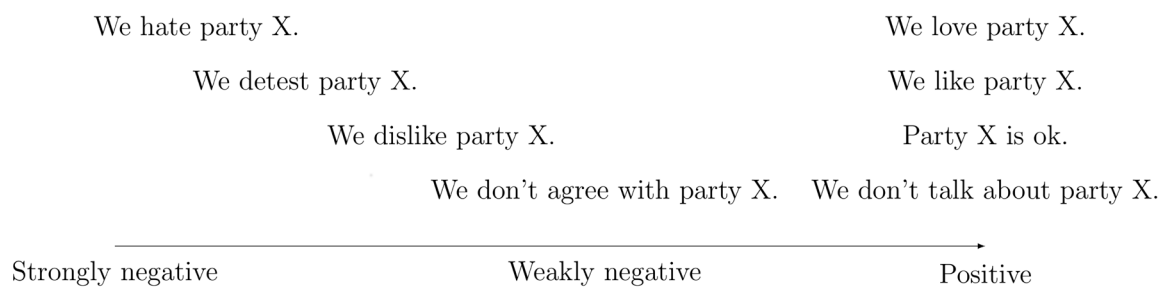
The second contribution of this dissertation is to enrich our understanding of negative campaigning in the context of multi-party competition by measuring differences in the tonality of negative campaigning. In the context of coalition governance, government parties face the strategic dilemma of campaigning 'against' their respective coalition partner (Sagarzazu and Klüver 2017). Using a fine-grained measurement of campaign tonality, this dissertation demonstrates that coalition parties use a softer tonality even when criticizing each other frequently. My dissertation further analyzes, on which issues parties go negative (Elmelund-Præstekær 2011b; Damore 2002; Riker 1996, 1991; Doron and On 1983). This

is relevant as issue advantages may ultimately influence voting decisions (Meguid 2008). I find that parties try to attack their opponents' best issues and thus use negative campaigning to challenge competence perceptions of voters.

The third goal of this dissertation is to study the consequences of negative campaigning under conditions of multi-party competition. First, I examine, whether media reward negative campaigning by disproportionally reporting on parties' attack messages. Establishing a clear link between party messages and media reports, I find that negative messages are more attractive to journalists than positive ones. Journalists offer the strongest surplus in media attention for negative messages to less prominent politicians, such as 'ordinary' MPs.

Second, I focus on the consequences of negative campaigning on voters. An experimental application examines how partisanship affects perceptions of positive and negative campaign messages. Drawing on the literature of motivated reasoning (Taber and Lodge 2006; Bartels 2002; Redlawsk 2002; Bartels 2000; Lodge and Taber 2000), which argues that partisans will dismiss or counterargue information running against their political preferences, it explores limits and opportunities of negative campaigning in multi-party competition. It finds that attacks will hardly affect perceptions of voters with strong party preferences, which limits electoral consequences to undecided voters and parties with a more volatile electorate, such as new parties. Considering the eroding partisanship across Western Democracies this may suggest an increasing effectiveness of negative campaigning in contemporary elections.

The case: Austria

My dissertation studies negative campaigning in Austria, a typical European democracy with a proportional electoral system and coalition governance. With the exception of two decades

(1966-1983) of single party majority governments, and a brief episode of a three-party cabinet (1945-1947), Austria has been governed by two-party coalitions.

Until the 1980s, SPÖ and ÖVP accumulated up to 90 percent of all votes in national elections. Since then, the two parties lost much of their support and in 2013, they hardly obtained a parliamentary majority together. Their electoral decline was absorbed by the raise of challenger parties on the left (Greens), the right (FPÖ/BZÖ, Team Stronach), and from liberal parties (LiF, NEOS). Similar to other Western European countries, the Austrian party system evolved steadily from a two-party system to a party system with moderate pluralism and five to six parties represented in parliament (Sartori 1976).

Austria is an outlier in comparative perspective as the majority of government coalitions have been 'grand coalitions' including the two largest parties, SPÖ and ÖVP (Müller 2000a). Since 1947, only four government coalitions had a different composition (1983-1987 SPÖ-FPÖ; 2000-2003, 2003-2007, 2018- ÖVP-FPÖ/BZÖ). The early and continued success of right-wing populism from the late 1980s on is another distinctive characteristic of Austrian politics (Mudde 2013). In comparative perspective, the Freedom Party was more successful and persistent than most of Europe's right-wing populist parties (Luther 2011).

Turning to the patterns of party competition, the traditional coalition parties have remained their strongest and fiercest opponents in electoral contests. Paradoxically, they kept on renewing their partnership – often in the absence of viable alternatives (Linhart and Shikano 2007). As Dolezal et al. (2015: 167) put it, Austria's 'long history of heated and largely negative campaigns followed by coalitions of the main contenders in these battles suggests that parties tend to see the campaign and government formation episodes only loosely connected'.

Negative campaigning in Austria

The country has a rich and colorful history of negative campaigning (Jenny and Haselmayer 2015). Descriptive accounts of the elections between 1945 and 1971, report that campaigns were largely dominated by parties' attempts to spread fear during this period of 'aggressive polarization' (Dachs 1998; Hölzl 1974). After a short period of pacification in the 1970s, Austrian parties rediscovered negative campaigning barely a decade later over swelling policy conflicts, accentuated by the Freedom Party's drift to the right (Müller 2000b). From the early 1990s on, political observers report of a general trend towards negativity in party campaigns and political news coverage (Lengauer 2012; Kohl 2009; Hofer 2006; Plasser 2000; Plasser et al. 1995; Müller and Plasser 1992).

Empirical research into negative campaigning in Austria finds that parties frequently resort to negative campaigning (Dolezal et al. 2016, 2015; Dolezal, Haselmayer, et al. 2014). This includes rhetorical exchanges between coalition partners, in particular during SPÖ-ÖVP (grand) coalitions (Dolezal et al. 2015; Dolezal, Haselmayer, et al. 2014). Austrian parties have developed quite sophisticated skills in negative campaigning. They have established a division of labor where leaders of the party parliamentary group release a plethora of negative messages whereas cabinet members are less negative to preserve their chances of staying in office (Dolezal et al. 2017). Tapping into the dynamics of negative campaigning, Dolezal et al. (2016) show that parties are responsive to attacks by their competitors and that heated interactions fuel the amount of negativity. Finally, female politicians in Austria are in general less prone to rely on this strategy; this finding is nuanced by the parties' parliamentary groups' gender balance (Ennser-Jedenastik et al. 2017).

This suggests that Austria is an interesting case for studying negative campaigning. A tradition of grand coalitions, facing the dilemma of governing together, but competing against each other in elections, arguably constitutes a challenging case for detecting strategic rhetorical restraint.

The country's long and rich tradition of negative campaigning further suggests that we should be able to detect issue-based negative campaigning. Regarding media coverage, Austria's national press still reaches about three quarters of the population (Aichholzer et al. 2014), which makes newspapers important targets for parties willing to get their messages across to the public. In short, Austria, shares similarities with many Western and Northern European countries. Hence, results from the studies presented in this dissertation should travel to similar electoral contexts.

Data and methods

This dissertation covers four national election campaigns: 2002, 2006, 2008, 2013 using data collected in the Austrian National Election Study (AUTNES). It analyzes party communication in 7,421 press releases from all parties represented in parliament before an election. Press releases issued six weeks ahead of each election campaign are included. Three studies further use data on the media coverage of the 2013 election campaign. These cover up to fifteen daily newspapers eight weeks prior to the election and include up to 15,096 news reports. Two papers use representative voter survey data. The chapter on issue-based negative campaigning uses data from the AUTNES pre-election voter survey to measure issue ownership perceptions ahead of the 2013 election campaign (Kritzinger, Zeglovits, et al. 2014). This study also includes data from the AUTNES candidate survey (Müller et al. 2015) to calculate parties' left-right placement. Studying media coverage of negative campaigning, we use a rolling cross-section voter survey for a dynamic measure of party competence during the campaign (Kritzinger, Johann, et al. 2014). In one study, we collect data from a non-representative sample of 300 respondents using Crowdsourcing.

Party press releases were manually coded using a relational content analysis identifying their sender, up to three targets and two issues for each of them (Müller et al. 2014). The original coding differentiates between positive, neutral and negative relations

between senders and targets. To collect fine-grained sentiment scores, the negative press releases were submitted to an online crowdsourcing platform. Thus, a group of lay coders determined their sentiment strength (see Benoit et al. 2016 for crowdcoding of party manifestos). The first study of the dissertation presents a sentiment dictionary for the semi-automated analysis of political texts and describes a procedure for developing such tools. Similar to the coding of press releases, media reports of eight national newspapers were coded using the same relational content analysis on the sentence level. The content analysis of media reports further identifies the most important issue and actor in each article (Eberl et al. 2015; Haselmayer et al. 2015). The survey experiment presents users of a crowdsourcing platform with vignettes containing realistic campaign messages and asks them to evaluate their sentiment. The study relies on a sample of German respondents. Similar to Austria, Germany is a typical case of multi-party competition in an environment of decreasing partisanship and growing electoral volatility. Germany was included to embed the experiment in a (pre-)electoral context as German elections were held in the same year.[12]

Implications

My dissertation addresses theoretical, methodological and empirical aspects of negative campaigning. It adds to and expands various aspects of negative campaigning research and has several implications for electoral competition, coalition politics, political communication and democratic politics, more generally.

Negative campaigning aims at mobilizing own supporters or at persuading undecided and risk-averse voters to cast the ballot for the lesser evil (Riker 1996, 1991; Skaperdas and Grofman 1995; Lau 1985). It has the potential to challenge issue reputations, undermine personal competence evaluations and to attract media attention (Mattes and Redlawsk 2014;

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[12] At the time the survey was in the field (spring 2017), it was not clear that Austria will have early elections in September 2017. Therefore, the study used German participants. Another benefit of using a larger country was to obtain more responses.

Elmelund-Præstekær 2011b; Geer 2006; Damore 2002; Haynes and Rhine 1998). Thus, it pertains to many factors that are shaping voting decisions in contemporary elections, such as political issues (Dalton 2013; Green-Pedersen 2007), political leaders and personalization (Karvonen 2010; Poguntke and Webb 2005), and how the media report about politics (Esser and Strömbäck 2014; Mazzoleni and Schulz 1999). Increasing electoral volatility and a stronger fluctuation in the number and type of parties gaining parliamentary representation (Dalton and Wattenberg 2000) further enhance the electoral potential of negative campaigning in recent elections.

Research suggests that negative campaigning may lower turnout and deteriorate public perceptions of democracy (Lau et al. 2007; Mutz and Reeves 2005; Ansolabehere and Iyengar 1994). Therefore, it is important to understand parties' incentives to go negative and to assess its consequences, in particular under multi-party rule.

Coalition politics

One central goal of my dissertation is to enhance our understanding why coalition parties 'go negative'. This is important, as negative campaigning could (pre)determine the formation of future government coalitions. If a party burns bridges with potential coalition partners, this may seriously compromise its chances in the post-electoral coalition negotiations: either because no other partner will be willing to form a government with that party, or as it minimizes the set of viable options and thus limits the party's bargaining power. Results from papers one and two indeed suggest that (potential) coalition partners use a less virulent campaign tonality, even if they criticize each other frequently. Hence, measuring the *sentiment strength* of negative party communication, enriches our understanding of contra-intuitive patterns of negative campaigning among coalition parties reported in some multi-party settings (De Nooy and Kleinnijenhuis 2015; Dolezal et al. 2015). Studying campaign tonality thus extends our understanding of coalition formation:

parties willing to form a coalition should use a mild tonality to 'signal' the willingness for post-electoral collaboration.

Mutual distrust following virulent attacks during election campaigns may further delay coalition negotiations or increase the bargaining costs. Excessive delays could weaken democratic accountability (Conrad and Golder 2010; Martin and Vanberg 2003), defer important reforms or reduce the ability of countries to respond to international events or economic crisis (Ecker and Meyer forthcoming; Golder 2010).

Similarly, conflict termination (Tavits 2008) between coalition partners could explain fierce electoral competition – and strong attacks – between these parties. Campaign tonality could thus improve models that aim at studying the life-cycle of coalitions (Müller et al. 2008).

Issue competition

A second aim of my dissertation is to expand our knowledge on issue competition by emphasizing if parties use negative campaigning to challenge their opponents' issue ownership. My findings suggests that combining 'positive' saliency strategies on one's best issue (Petrocik et al. 2003; Petrocik 1996; Budge and Farlie 1983) with negative campaigning on issues with weak or imperfect ownership (Geys 2012) appears electorally promising.

Negative campaigning increases the newsworthiness of campaign messages, which could help political parties to challenge issue ownership (Tresch et al. 2015; Elmelund-Præstekær 2011b).

Parties could benefit from the surplus in media attention to alert voters about the government's poor performance (Petrocik 1996). They could also use negative campaigning to shift the attention of media and voters to preferable issues (Meyer et al. forthcoming; Hopmann et al. 2012; Brandenburg 2006; Walgrave and Van Aelst 2006).

Parties further choose to attack their competitors on issues that are salient in the news. As parties need media coverage in order to get their issue strategies across to the public, they have to respond to the electoral issue environment. This limits the agenda setting power of political parties (Hopmann et al. 2012; Brandenburg 2006) and indicates that they even have to respond to unfavourable issues or those that are not among their own or their voters' priorities.

Perceptions of (mediated) party communication

The third goald of this dissertation is to study the consequences of negative campaigning with one application to media coverage of negative messages and another one on voter perceptions. I analyze how parties get their negative messages across to the public via national news coverage. A micro-level analysis of party input and media output expands on prior research that has compared overall levels of negativity in party communication and media reports (Walter and Vliegenthart 2010; Hansen and Pedersen 2008; Geer 2006). I find that newspapers are more likely to report on negative messages when compared to positive ones. Thus, media reward negative campaigning and provide incentives for parties to 'go negative' if they seek to reach a broad public with their campaign messages (Haynes and Rhine 1998). Beyond that, media select messages that fit their own issue agenda and contain news values.

Consequently, voters will perceive party communication more negatively if they rely on the news media to gather information about politics and elections. Such a structural negativity bias of the news media could have broad implications for (voter perceptions of) democratic quality and citizens' trust in democratic institutions or political actors (Kleinnijenhuis et al. 2006; De Vreese and Semetko 2002; Bennett et al. 1999; Capella and Jamieson 1997).

A biased represenation of party issue strategies and political actors in the news could also impact on the ability of voters to cast an informed and correct vote (Lau et al. 2014; Lau et al. 2008; Lau and Redlawsk 1997) as people may fail to update the spatial allocation or issue priorities of parties correctly.

Findings on the success of negative messages in obtaining news coverage should also be of interest to political actors and campaign advisors. They indicate rewards for communication strategies that account for the different characteristics of various tools (Elmelund-Præstekær 2011a).

Differences in the representation of political actors, issues and campaign tone further suggest that research into negative campaigning may produce different results according to the chosen communication channel. Therefore, scholars should choose a communication channel that fits their research interest (Bodlos 2015; Elmelund-Præstekær and Molgaard Svenson 2014a; Elmelund-Præstekær 2010; Walter and Vliegenthart 2010; Ridout and Franz 2008).

Studying the effects of partisan preferences on perceptions of campaign messages, I find that partisanship strongly affects how voters evaluate negative party communication. This sounds a note of caution for studies generalizing about individual effects of negative campaigning. Prior research has shown that personal predispositions or the incivility of negative messages affect voter perception of negative campaigning (Mattes and Redlawsk 2014; Brooks and Geer 2007; Mutz and Reeves 2005).

This points at important limits and opportunities for negative campaigning: voters with strong preferences will discount or counterargue negative messages about a favored party, which will polarize them and reinforce their partisanship according to the literature (Ridout and Franklin Fowler 2012; Meffert et al. 2006; Riker 1996). On the other hand, negative campaigning could influence undecided and independent voters. The growing importance of

this segment of the electorate suggests that negative campaigning could be particularly effective when targeting these voters.

Text analysis

Finally, the dissertation demonstrates the validity of crowdsourcing for coding the sentiment strength of political communication. Following pioneering work of Benoit et al. (2016), a growing number of studies has applied this new source of data generation and coding for analyzing political texts (Horn forthcoming; Carlson and Montgomery 2017; Lehmann and Zobel 2017; Lind et al. 2017). Crowdcoding is about to enter the methodological toolkit in the social sciences.

The general approach for building sentiment dictionaries proposed in my dissertation further advances large-scale sentiment analysis of political communication in a language of choice (Burscher et al. 2015; Ceron et al. 2014, 2015; González-Bailón and Paltoglou 2015; Soroka, Young, et al. 2015; Young and Soroka 2012; Hopkins and King 2010b; Van Atteveldt et al. 2008).

Plan of the dissertation

The following chapter (paper 1) puts forward an approach for automatically measuring negativity in political communication. The paper also presents an extensive validation of the automated coding of negativity and provides a case study on negative campaigning and media negativity in the Austrian 2013 election campaign. Chapter three (paper 2) studies whether coalition partners go easy on each other and which patterns of party competition fuel negative campaigning. This paper also compares different measures of negative campaigning with each other to test how a fine-grained measurement of campaign tonality enhances our understanding of negative campaigning. Chapter four (paper 3) continues with a study of issue-based incentives for going negative during an election campaign. Thus, the

chapter analyses whether and how issue salience and issue ownership determine the attack strategies of parties. The next chapter (paper 4) empirically tests whether the media rewards negative campaigning and thus provides incentives for political parties to embark on such a strategy. Chapter six (paper 5) presents an experimental study on the effects of partisanship on the perception of negative campaigning. The final chapter jointly discusses the results and implications of the studies and puts them into a broader perspective within the discipline. This chapter also considers potential avenues for future research.

2 Sentiment Analysis of Political Communication: Combining a Dictionary Approach with Crowdcoding

Abstract

Sentiment is important in studies of news values, public opinion, negative campaigning or political polarization and an explosive expansion of digital textual data and fast progress in automated text analysis provide vast opportunities for innovative social science research. Unfortunately, tools currently available for automated sentiment analysis are mostly restricted to English texts and require considerable contextual adaption to produce valid results. We present a procedure for collecting fine-grained sentiment scores through crowdcoding to build a negative sentiment dictionary in a language and for a domain of choice. The dictionary enables the analysis of large text corpora that resource-intensive hand-coding struggles to cope with. We calculate the tonality of sentences from dictionary words and we validate these estimates with results from manual coding. The results show that the crowdbased dictionary provides efficient and valid measurement of sentiment. Empirical examples illustrate its use by analyzing the tonality of party statements and media reports.

Introduction

Sentiment analysis of textual data has manifold applications in the social sciences, among them the study of polarization, public opinion or media tone (e.g., Monroe et al. 2008; Van Atteveldt et al. 2008; Hopkins and King 2010b; Soroka 2012; Young and Soroka 2012; Burscher et al. 2015; González-Bailón and Paltoglou 2015; Soroka et al. 2015a; Soroka et al. 2015b). However, a lack of tools or procedures for producing or collecting sentiments ratings of acceptable quality for large-scale data analyses currently hampers progress, in some languages more than in others.

Computer-based approaches dominate the field of sentiment analysis, which attempt to produce the same sentiment rating of texts as a human reader. Unfortunately for social scientists interested in phenomena such as political polarization or media tone in non-English countries, automated methods exhibit a strong language bias as they are developed and validated predominantly with textual data in English language. The number of sentiment analysis tools available for other languages is much smaller and their output tends to be of lower quality (Mohammad 2016).

If computer-based sentiment analysis is not available or its results are not good enough, one can resort to traditional content analysis with human coders. However, in 'big data' research projects manual content analysis quickly faces the restrictions of limited time, money and small numbers of trained coders.

We outline a measurement procedure that (1) alleviates resource constraints, (2) produces sentiment ratings that meet conventional quality standards, and (3) allows a researcher to conduct sentiment analyses in his or her language and domain of interest. Applying this procedure, we create a German language sentiment dictionary for the analyses of party statements and media reports. We use crowdcoding, the services of online coders, to produce the sentiment ratings of dictionary words. The sentiment dictionary is available

for download[13], but similar to Laver and Garry (2000, 626) we want to highlight the procedure rather than a specific product: 'Most important, given changing political meanings of words over time and space, is the *procedure* for deriving a dictionary, rather than the substantive content of any given dictionary.' By presenting our procedure we want to support 'sentiment analysis in the resource poor languages' (Mohammad 2016: 203) and encourage the creation of customized dictionaries that fit well for the domain (Grimmer and Stewart 2013) *and* language studied.

The structure of the paper is as follows. The next section deals with the measurement of sentiment in political discourse. Section three introduces crowdcoding as a data collection technique. Section four covers the creation of a sentiment dictionary, section five the rating of texts. Then we compare dictionary-based sentiment scores of texts with the results of manual coding. We also compare the scores from our custom-built sentiment dictionary for political communication with scores from existing, non-domain specific sentiment dictionaries. Section six includes two empirical illustrations to show the value of the data produced. The first covers negative campaigning in the 2013 Austrian national elections, the second looks into media tone. Finally, we discuss critical points and outline future uses of the procedure.

Measuring sentiment in political texts

Sentiment analysis measures the polarity or tonality of texts by identifying and assessing expressions people use to evaluate or appraise persons, entities or events (Pang and Lee 2008; Liu 2012; Soroka 2014; Mohammad 2016). Sentiment analysis of political texts has been used to establish the level of support for legislative proposals or polarization from the analysis of parliamentary debates (Monroe et al. 2008), to identify issue positions or public

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[13] http://homepage.univie.ac.at/martin.haselmayer

opinion in online debates (González-Bailón and Paltoglou 2015; Ceron et al. 2014; Hopkins and King 2010b), negative campaigning by candidates (Kahn and Kenney 2004; Lau and Pomper 2004; Geer 2006; Nai and Walter 2015b) or the tone of media coverage (Van Atteveldt et al. 2008; Soroka 2012; Young and Soroka 2012; Burscher et al. 2015; Soroka et al. 2015a; Soroka et al. 2015b), to mention just a few prominent uses.

The classification of text as positive, negative, or neutral, is denoted by expressions such as polarity, valence or tone (Wilson et al. 2005; Young and Soroka 2012; Thelwall and Buckley 2013; González-Bailón and Paltoglou 2015; Mohammad 2016). An incomplete list of terms for the gradual or quantitative measurement of sentiment includes potency (Osgood et al. 1957); intensity, sentiment strength (e.g. Thelwall et al 2010) or emotive force (Macagno and Walton 2014). We will use sentiment strength and tonality as synonymous terms for a fine-grained measure of negativity. We cover only the neutral to negative part of the sentiment scale as psychological research has highlighted fundamental asymmetries between positive and negative evaluations of situations, persons or events (Baumeister et al. 2001; Rozin and Royzman 2001; Cacioppo and Berntson 1994; Peeters and Czapinski 1990; Peeters 1971). We also do not probe into different 'negative' emotions (Ekman 1992) nor look into the causes of negative evaluations (Soroka 2014; Soroka et al. 2015a).

The field of sentiment analysis is dominated by computer-based, automated approaches whose progress varies strongly by language (Mohammad 2016). Many social scientists will be still more familiar with human-based content analyses with or without dictionaries (Krippendorff 2013; Young and Soroka 2012; Laver et al. 2003; Baumgartner and Jones 1993; Budge and Farlie 1983; Stone et al. 1966). Both manual and automated text analysis require an initial step of coding (or annotating or labelling) the sentiment of a text unit. Supervised and non-supervised automated approaches employ sample texts with coded sentiment ratings to 'learn' the sentiment of words. Once that phase of the research process has been concluded – which usually includes a considerable amount of 'fine-tuning' the

procedure –, the algorithms are scalable to large text corpora. Manual coding, in contrast, does not scale well as human coders often have to rate small units of texts such as sentences or words. Compared to unit by unit hand coding creating and using a dictionary of words already coded is a great step towards higher efficiency. An automated search can then find out whether a new text unit contains a dictionary word and retrieve its sentiment value.

A basic assumption of using a dictionary is that it contains the most important words required for rating a text. A recent comparison of English language dictionaries and machine learning approaches found that 'dictionaries had exceptional precision, but very low recall, suggesting that the method can be accurate, but that current lexicons are lacking scope. Machine learning systems worked in the opposite manner, exhibiting greater coverage but more error' (Soroka et al. 2015a: 112). A large dictionary can provide good scope, but dictionary size misleads about the quality of the output as irrelevant vocabulary produces less discriminating sentiment scores (González-Bailón and Paltoglou 2015).

Related is the problem of domain specificity (Young and Soroka 2012). Sentiment scores of words extracted from a training set of annotated texts do not generalize well to texts from other domains. Social scientists have accordingly stressed the need for custom-made dictionaries (Grimmer et al. 2013; González-Bailón and Paltoglou 2015; Soroka et al. 2015a)

We have pointed out that creating a customized dictionary or setting up a sample of training texts for machine learning requires an initial step of human coding which will be a procedural bottleneck if unit-by-unit sentiment coding has to be done with a small number of coders. We mitigate this bottleneck through crowdcoding, which offers a cheap and faster way to collect annotations for large amounts of text.

Employing crowdcoding[14] to create a sentiment dictionary

The idea of crowdsourcing draws on 'wisdom of the crowd' arguments (e.g., List and Goodin 2001) and evaluations of expert-coded versus crowdcoded data show that for many tasks small aggregates of non-expert annotations are as good as single-expert annotation (Snow et al. 2008; Alonso and Baeza-Yates 2011).

Crowdsourcing online platforms like Amazon's Mechanical Turk, CrowdFlower and others provide access to an international large workforce for 'micro tasks' requiring human intelligence. These lay coders have identified sentiment in texts with good results (Taboada et al. 2011; Hsue et al. 2009). Political scientists have employed crowdsourcing for data generation (Berinsky et al. 2014; Berinsky et al. 2012), for instance for content analyses of election manifestos (Benoit et al. 2016)

Using a large anonymous online workforce naturally raises data quality concerns. The best crowdsourcing platforms provide tools for quality control and real-time scrutiny of the data generation process, such as coder recruitment based on previous work record, skills, context knowledge or geographic location. Test questions can be randomly interspersed in a coding task to identify bad performance, and 'screener' questions to check the attention of coders during the coding process (Berinsky et al. 2014).

Crowdcoding facilitates the completion of a large coding project at relatively low costs. Yet it still is unit by unit coding, and time and monetary costs increase with the number of units to be coded. If the goal is to code large amounts of texts using a dictionary with a good scope is an economic alternative. Creating the dictionary is a one-time, fixed-coast investment in time and money. Its application to large text corpora incurs no further costs, apart from some text preprocessing. Large-scale text analyses can be easily repeated

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[14] The tasks carried out on crowdsourcing platforms extends far beyond text coding. We use the term crowdcoding to indicate the task in content analyses of texts.

whenever a dictionary collects additional entries or modified sentiment scores. The next section shows step by step how to build your own sentiment dictionary.

Building a negative sentiment dictionary

A negative sentiment dictionary consists of words with sentiment scores. Creating it requires the following steps:

        (1) Sampling sentences from the domain of interest

        (2) Crowdcoding the sentiment strength of sentences

        (3) Estimating a sentence tonality score

        (4) Estimating a word tonality score

        (5) Discriminating between important and unimportant words

Note that we move from words to sentences and back to words as relevant units. The reason is that we ask coders to rate complete sentences instead of single words taken out of context.

Figure 1 shows a flow chart of the procedure:

Figure 1: Creating a sentiment dictionary

Sampling of sentences with negative sentiment from domain of interest
(1) Sentence (s_i)

$\downarrow$

Crowdcoding sentiment strength of sentences
(2) $(s_i) : \mathrm{coder}(c_1 - c_j) \mid scale(0,1,2,3,4, \mathrm{uncodable})$

$\downarrow$

Estimating sentence tonality score
$$(3)\ t(s_i) = \frac{\sum_{j=1}^{j} c_j(s_i)}{i}$$

$\downarrow$

Estimating word tonality score:
$$(4)\ t(w_k) = \frac{\sum_{l=1}^{n} t_l(s_i\{w_k\})}{n}$$

$\downarrow$

Selecting relevant words
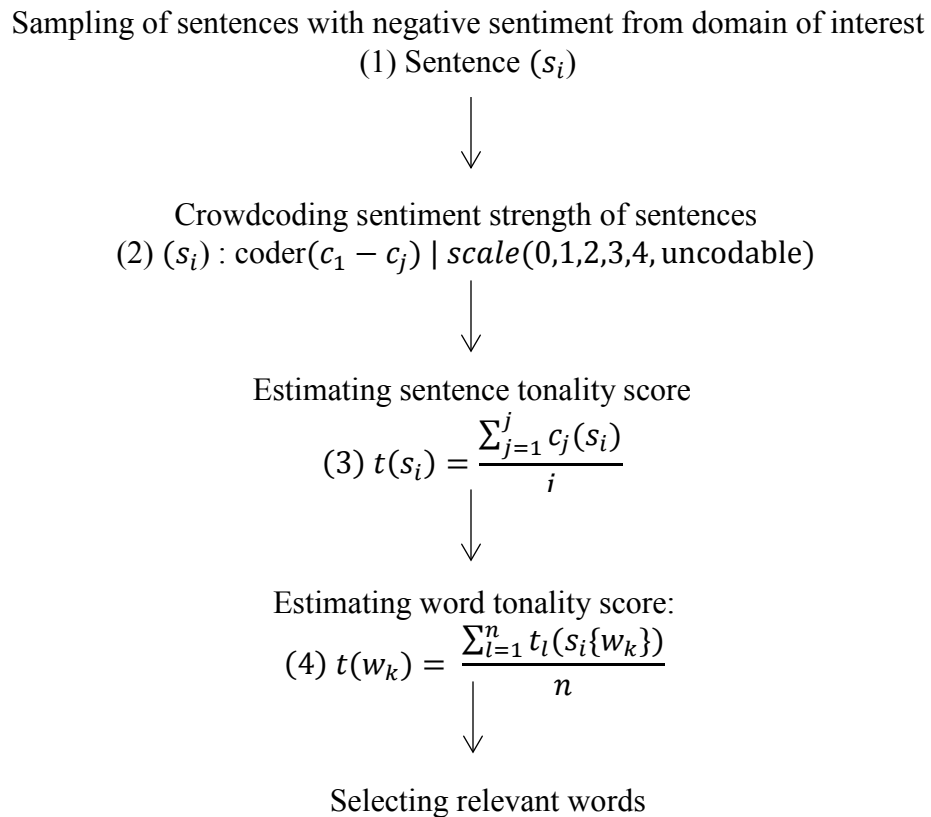
Note:
i…number of sentences, j…number of coders, k…number of dictionary words, l…number of tonality ratings, n…number of sentences containing a rated word

i) Sampling sentences with negative sentiment from domain of interest

We are substantively interested in the tonality of political communication of Austrian parties and media, and assemble a corpus of party press releases, minutes of parliamentary debates and media reports on election campaigns from the years 1995–2013. The texts are available in machine-readable format.[15]

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[15] Press releases and media reports were collected as part of the Austrian National Election Survey (AUTNES). The parliamentary debates are available online at the Parliament's Website (https://www.parlament.gv.at).

Following Remus et al. (2010) and Liu (2012) we use a small set of common negative words from existing German language sentiment dictionaries as 'seed words' to select potentially negative sentences (Remus et al. 2010; Waltinger 2010; Momtazi 2012; Diwisch and Siegel 2014). The corpus initially consists of about 470,000 sentences. Pre-filtering with seed words cuts its size to about 215,000 sentences with negative sentiment. From that corpus, we randomly select 13,000 sentences for crowdcoding.[16] Pre-filtering with seed words is not required, but it reduces the coding costs. Sentiment lexica are available for many languages. If not, researchers can set up their own small set of negative words. The alternative is to submit an unfiltered set of sentences to crowdcoding, with many of these subsequently coded as neutral or positive.[17]

ii) Crowdcoding the sentiment strength of sentences

As the texts are in German, we recruit only coders from Austria or Germany through the platform CrowdFlower. We provide the coding instructions in the appendix. Each sentence is assigned to ten coders to rate its negativity on a 5-point scale ranging from 0 (not negative) to 4 (very strongly negative) or judge it uncodable. Individual coder performance is monitored. Before actual coding begins four test questions have to be answered correctly, and one out of five sentences of a task is another test question. Coding sentiment strength on a five-point ordinal scale is difficult (Hopkins and King 2010b; Pang et al. 2002) and for the test questions we accepted two adjacent options on the five-point scale as correct answers. Coders 'usually have difficulty distinguishing between two adjacent ordinal classes whereas distinguishing between two classes which are far away from each other is much easier' (Zhou

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[16] The target sample size corresponded to a budget limit of about 2,000 US-Dollar for coding, based on estimated task duration and payment of local minimum wages. After deleting duplicate and incomplete sentences from the automatic text preprocessing, the final sample size was 12,713 sentences.

[17] Some may view collecting negative and positive sentiment words even as an advantage.

et al. 2014: 2). The probability of passing the first test by guessing is only 4 percent and it

gets smaller with each additional test unit.[18] A coder dropping below an accuracy threshold

of 75 percent during coding is stopped from further contributing and his or her data not

included in the data set. 480 coders answered on average 92 percent (standard deviation of

0.07) of the tests questions correctly and contributed ratings to the data set.

iii) Estimating sentence tonality scores

For each sentence we collect negativity ratings from ten coders (c_j) and calculate a mean
sentence score $t(s_i)$.

$$(3)\ t(s_i) = \frac{\sum_{j=1}^{j} c_j(s_i)}{j}$$

iv) Estimating word tonality scores

This is also the initial tonality score of each word or more specifically word form contained

in a sentence. We lemmatize the word forms and do Part-of-Speech tagging with the tool

Treetagger (Schmidt 1994), a process that due to the current quality of such tools for the

German language, requires some manual post-processing of results. Then we check the

frequency of words. If a word w_k appears in more than one sentence, we calculate a mean

word score from these sentences $t(s_i)$.

$$(4)\ t(w_k) = \frac{\sum_{l=1}^{n} t_l(s_i)}{nk}$$

Note that the double step of mean aggregation of ordinal scores produces numbers with

decimal places, which methodological purists can object to. Alternative aggregation

measures exist if one wants to preserve the original 5-point scale (Felt et al. 2015; Zhou et

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[18] An accuracy threshold of 75 percent means three of the four initial test questions have to be correct. Including 'uncodable" a coder has six options with two accepted as correct. The probability of passing by guessing then is $(\frac{2}{6})^3 = 0.04$.

al. 2014; Dawid and Skene 1979). A recent crowdsourcing study by Benoit et al. (2016) found that 'means of means' gave almost the same results as more complex algorithms.

v) Separating relevant and irrelevant words

At this stage the complete list or 'bag of words' contained in the rated sample of sentences has a sentiment score. However, we want only words in a sentiment dictionary that express negative tonality with a high probability and delete the rest of the list as irrelevant. We start by cleaning the database and remove all words that have less than three characters (n=960, most of which are due to errors in text pre-processing). Word frequency is a standard indicator of relevance in automated text analyses. The more common a word is the less informative is it about a specific quality such as negativity. There is no gold standard for deleting high-frequency words. We delete highly frequent words such as articles and pronouns using Part-of-Speech-tags and online available lists of 'stopwords' (the Leipzig Corpora Collection (Quasthoff et al. 2006) provides frequency-based stop word lists) (n=4,518). For a different reason we also delete rare words. We aim at collecting word negativity as a global rather than as a local, highly context-dependent quality. Therefore, we drop unique words (n=24,511) that appear in a single sentence as containing too much measurement error. We identify and remove positive words from existing sentiment dictionaries (Diwisch and Siegel 2014; Momtazi 2012; Waltinger 2010; Klenner et al. 2010; Remus et al. 2010; Wolf et al. 2008) (n=3,725). Then we delete the remaining named entities from the list. We use online available lists for named entity recognition (Benikova et al. 2014; Steinberger Ralf et al. 2011; Faruqi and Pado 2010) and a set of named entities from the AUTNES project to identify and delete the names of politicians, parties, or organizations (n=6,378). The deletion of named entities, of high frequency words and rare words reduces the number of words from initially about 40,000 to about 5,000 words.

Figure 2 shows the distribution of tonality scores for the 5,001 words in the dictionary which range from 0.06 to 3.8 on the scale from 0 (not negative) to 4 (very strongly negative). The mean tonality score of the dictionary words is 2.04 (standard deviation of 0.65).

Figure 2: Histogram of tonality scores of dictionary words (n=5,001).
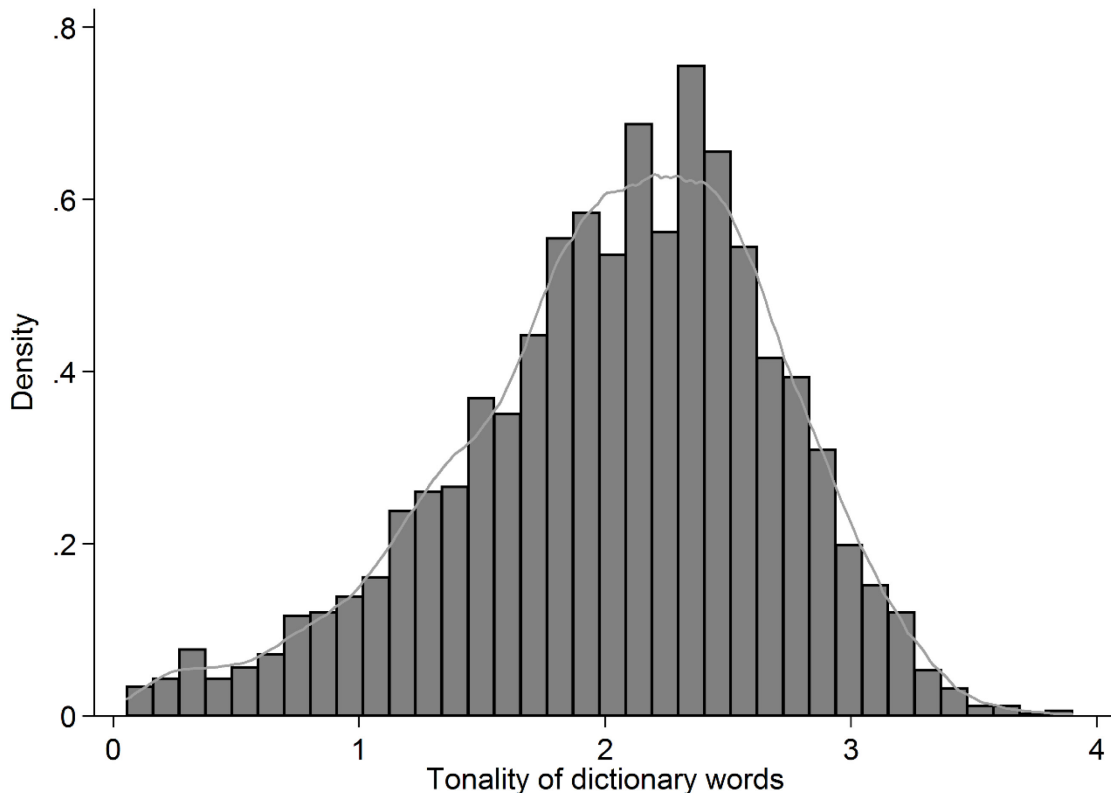
Scoring sentences and texts

Units in sentiment analysis vary in scale from documents to sentences to smaller textual unit such as word groups or single words. If a procedure estimates sentiment scores for words one needs an aggregation rule to get at sentence-level or document-level score. Our scoring approach rests on the 'bag of words' assumption (Laver et al. 2003; Monroe et al. 2008; Slapin and Proksch 2008). We equate the tonality of a sentence with the tonality of a dictionary word contained in it. If a sentence (s_i) contains several different sentiment words

(w_k), we apply the 'maximum' rule of Thelwall et al. (2013) which means the most strongly negative word ($\max(w_k)$) sets the tonality of the sentence.

$$(3)\ t(s_i) = \max(w_k)$$

The dictionary includes negation words (n=13, such as no, not, never, neither, without) and intensifier words (n=53, e.g. completely, exceedingly, extremely, heavily, very). If a negation word immediately precedes a dictionary word, we exclude the latter from the calculation of the tonality score for the sentence rather than flipping the polarity of a sentence (see Thelwall et al. 2012). Following Taboada et al. (2011) we amplify a dictionary word's negativity score by a factor of 1.25 if it is preceded by an intensifier word, up to the maximum value set by the scale's boundary.

Validating the procedure

Face validity (e.g., Monroe et al. 2008) and cross-validation (e.g., Laver et al. 2003; Slapin and Proksch 2008) are popular standards used to evaluate results from automated text analyses, but the gold standard is a comparison with results from human coding (Grimmer and Stewart 2013; Lowe and Benoit 2013: 13).

To check the validity of our approach we use a random sample of 200 sentences from party press releases from four national election campaigns held between 2002 and 2013 as well as media reports from the most recent campaign. Like Benoit et al. (2016), we evaluate the validity of our approach by comparing the aggregated, rather than individual coder results obtained through crowdcoding to manual expert annotation. Each of the authors separately coded the sample sentences on a 5-point scale. A group of ten online recruited coders completed the same task. The mean sentence scores, aggregated for two expert ratings on the one hand and the group of lay coders on the other hand, exhibits a Pearson correlation of 0.82. Thus in line with previous research, we find that the group of lay coders was able to

replicate the expert data (e.g. Snow et al. 2008; Benoit et al. 2016), with a slight centrist bias in these aggregate ratings (Saal et al. 1980).

Figure 3: Comparing expert scores and crowdscores.
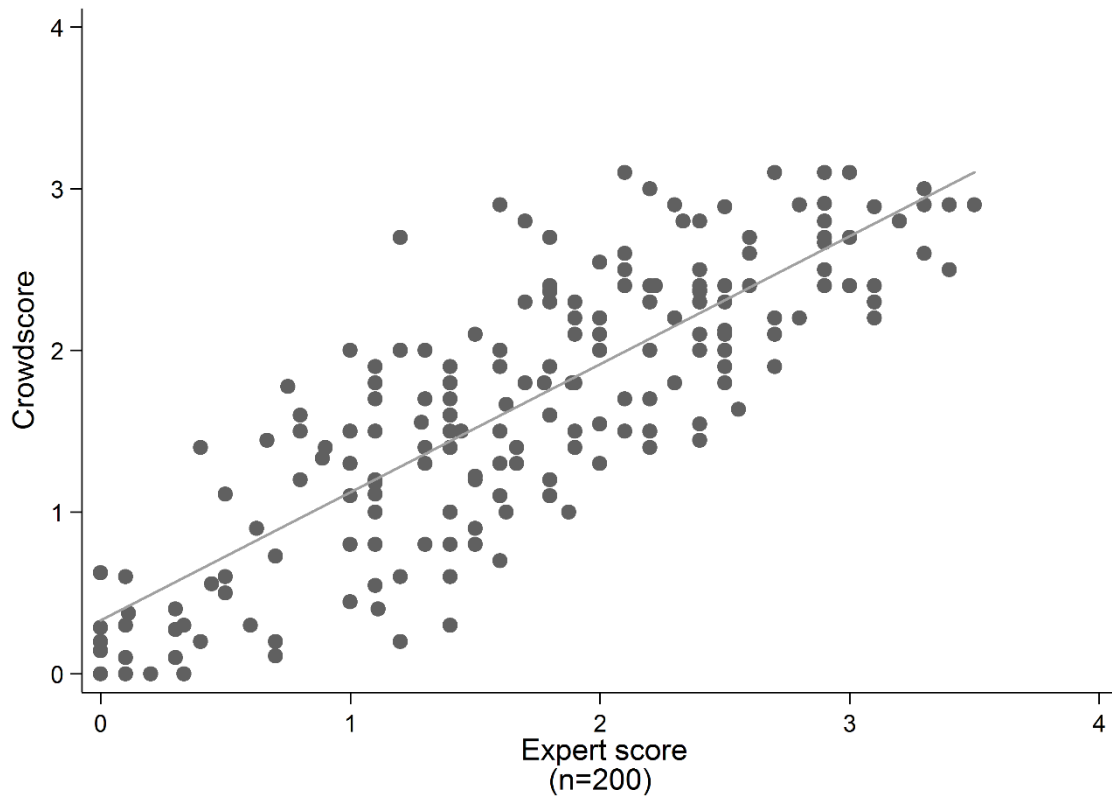
Note: Line indicates linear regression of crowdscores on expert scores.

We score the test sample with our dictionary, which results in a Pearson correlation between manual expert ratings and dictionary ratings of 0.65 with 84 percent coverage. The level of correlation is at par with recent English language sentiment analyses employing similar levels of granularity (e.g., Strapparava and Mihalcea 2008; Thelwall and Buckley 2013). Figure 4 provides a graphical representation of the correlation between dictionary-based scores and expert scores, including the linear regression between these two.[19] There is again some degree of a centrist bias of the crowdscores due to mean aggregation.

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[19] We provide an extended validation with a larger set of sentences coded by one of the authors in the appendix, where we also report on effects of text preprocessing.

Figure 4: Comparing expert scores, crowdscores and automated, dictionary-based scores
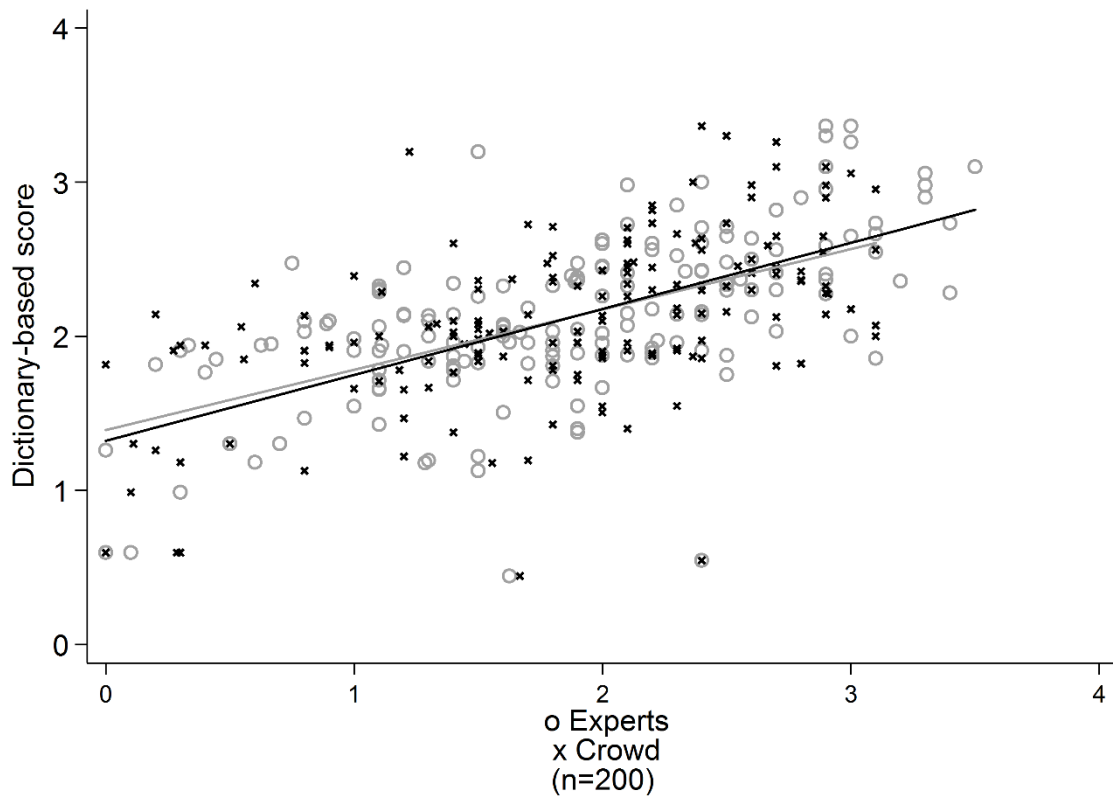
Note: Lines indicate linear regression of dictionary-based scores on expert scores (grey line) and crowdscores (black line).

To provide a direct test of our argument that we need context-sensitive dictionaries, we subject our sample to analysis with two existing German-language sentiment dictionaries (Remus et al. 2010; Momtazi 2012). These dictionaries are translations of English sentiment dictionaries.[20] These dictionaries differ in size and in type of entries (e.g. words, word stems, word flexions, lemmas and synonyms). Applied to our test sample they exhibit a lower rate of coverage and their sentence scores have almost no correlation with the manual expert coding of negative sentiment strength. This confirms the point that dictionary-based analysis requires a customized dictionary to begin with (Grimmer et al. 2013; González-Bailón and Paltoglou 2015; Mohammad 2016).

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[20] SentiWS (Remus et al. 2010) contains positive and negative words along with word flexion. The sentiment score provided by the dictionary indicates the probability of the word appearing in a positive or negative context. The sentiment dictionary created by Saeedeh Momtazi (2012) contains positive and negative words and word stems, as well as valence shifters and negation words.

Table 1: Characteristics of three German sentiment dictionaries, coverage and Pearson correlations with expert coding (n= 200 sentences)

	Unique words	Search terms	Sentiment scale	Correlation with expert coding	Coverage (% matched sentences)
Political Sentiment Dictionary	5,001	5,001	0-4	0.65	84%
Momtazi dictionary	1,074	1,074	0-4	0.13	46%
Senti-WS dictionary	1,818	13,814	0-1	0.19	31%

Note: Entries for the Senti-WS and Momtazi dictionary refer to the number of negative words in the dictionary.
Source: Remus et al. 2010; Momtazi 2012

We check whether our dictionary is large enough to provide a good coverage for the phenomenon under study. A negativity dictionary with perfect scope should assign a negativity score to all sentences with a negative content. Accordingly, the 32 out of 200 sentences without any matching dictionary word should not be negative. We assign these sentences zero negativity and recalculate the correlation with manual coding which gives a slightly lower Pearson correlation of 0.6. Closer inspection shows a few sentences without a dictionary word that coders rated negatively. Most of these either contain separable verbs (that we could not match) or express irony or sarcasm. A few sentences are rhetorical questions. A politician's statement 'Politics for Women is different' expressed dissatisfaction with the current state without a manifestly negative word. The rhetorical question 'Where has the Green's objective environmental policy gone?' criticizes the party's actions without a negative word. Irony, sarcasm and rhetorical questions are common pitfalls in automated text analyses. However, as long as these phenomena do not make up a major portion of the text corpus under analysis the coverage rate of our dictionary appears fine. It is at a par with comparable English language sentiment dictionaries.

Applications

We now turn to applying our political sentiment dictionary to two test cases. Specifically, we study the parties' strategies of using negative campaigning and look into the tone of media coverage. Both illustrations use data from the Austrian National Election Study.

Negative campaigning in the Austrian national elections 2013

Research on negative campaigning has predominantly relied on binary classifications of statements as negative or non-negative (e.g., Damore 2002; Lau and Pomper 2004; Walter 2014b) which is easier to operationalize than a fine-grained measure of tonality. However, we contend that the degree of negativity matters. Weak expressions of criticism have different effects than strongly worded attacks. Studies find that voters react to the intensity of negative messages (e.g., Mutz and Reeves 2005; Fridkin and Kenney 2011).

Negative campaigning featured prominently in the 2013 Austrian national elections. Our first application analyzes rhetorical interaction between parties via press releases during the final six weeks of the campaign. As part of the Austrian National Election Study (Müller et al. 2014), a relational content analysis with human coders of the headlines of 1,958 party press releases was done. We use a subset of these press releases, which contain 755 directed, negative relations between two parties. Words from the sentiment dictionary matched 82 percent of these statements. Table 2 shows the frequency and tonality of negative campaigning of the six parliamentary parties competing in the 2013 Austrian election.

Table 2: Amount and tonality of negative statements in party press releases

Party	Negative statements		Statements with a tonality score		Tonality of statements
	Count	Percent	Count	Percent	Mean
Social Democratic Party (SPÖ)	164	21.7	128	20.7	2.13
People's Party (ÖVP)	199	26.4	169	27.3	2.36
Freedom Party (FPÖ)	232	30.7	193	31.2	2.24
Greens (Grüne)	59	7.8	53	8.6	2.16
Alliance for the Future of Austria (BZÖ)	68	9.0	48	7.7	2.05
Team Stronach (TS)	33	4.4	28	4.5	2.32
Total	755	100	612	100	2.23

Source: Own calculations based on AUTNES coding of 2013 national election campaign.

The number of negative press releases sets the three largest parliamentary parties apart from the three smaller parties. The government parties SPÖ and ÖVP, and the opposition party FPÖ account for almost four out of five negative press releases. Studies of negative campaigning in multi-party systems argue that government parties use fewer negative campaign statements than opposition parties (e.g., Walter and Van der Brug 2013). At the same time, parties in government are expected to be the most important targets of negative campaigning (Walter 2014b). We draw on these arguments to explore the patterns of negative campaigning in the 2013 election campaigns. Additionally, we want to test evidence from a recent study, that the government parties (SPÖ and ÖVP) devote most of their negative campaigning on each other (Dolezal et al. 2015). We expect that coalition partners criticize each other frequently but less strongly than other parties.

To test these expectations, we perform an OLS regression using the tonality of a press release as our dependent variable. We have binary indicators for government (SPÖ, ÖVP) and opposition parties (FPÖ, Greens, BZÖ, Team Stronach) and distinguish negative statements among the coalition partners SPÖ and ÖVP from other party pairs. We use the performance of a party in the pre-electoral polls (using the net difference in poll standings

at the beginning of the campaign with the election result) and the proximity of the election

(in days) as control variables. Empirical research shows that parties that are losing ground

in the electoral competition employ more negative campaigning and that campaigns become

increasingly negative towards the end (Damore 2002).

The results in Table 3 and Figure 5 indicate significant differences with regard to the

tonality of negative campaign messages made by government and opposition parties. We

also find evidence that parties refrain from using aggressive statements against their coalition

partner.

Table 3: OLS regression of negative campaigning tonality

	Model 1	Model 2
Sender: Gov. party	-0.10*	-
	(0.04)	
Target: Gov. party	-0.08	-
	(0.05)	
Pair: Gov. party		-0.13***
		(0.03)
Electoral losses	0.12***	0.10
	(0.03)	(0.06)
Proximity of the election	-0.01	-0.01
	(0.03)	(0.03)
Constant	2.28***	2.22***
	(0.06)	(0.04)
Party fixed effects	*Yes*	*Yes*
Observations	619	619
Adjusted R^2	0.03	0.03
Log likelihood	-446.16	-445.81

Note: Standard errors clustered across party pairs in parentheses.
[+] $p < 0.1$, [*] $p < 0.05$, [**] $p < 0.01$, [***] $p < 0.001$.

Negative campaigning from a government party was ceteris paribus 0.1 units less negative

than negative statements from opposition parties. Inter-government conflict was on average

0.13 units less negative than criticism exchanged between other party pairs. Parties showing

bad electoral performance issued more strongly worded campaign messages, but this effect

disappears in the second model. We find no escalation of negativity towards the end of the

campaign

Figure 5: OLS regression coefficients (with 95%-confidence intervals)
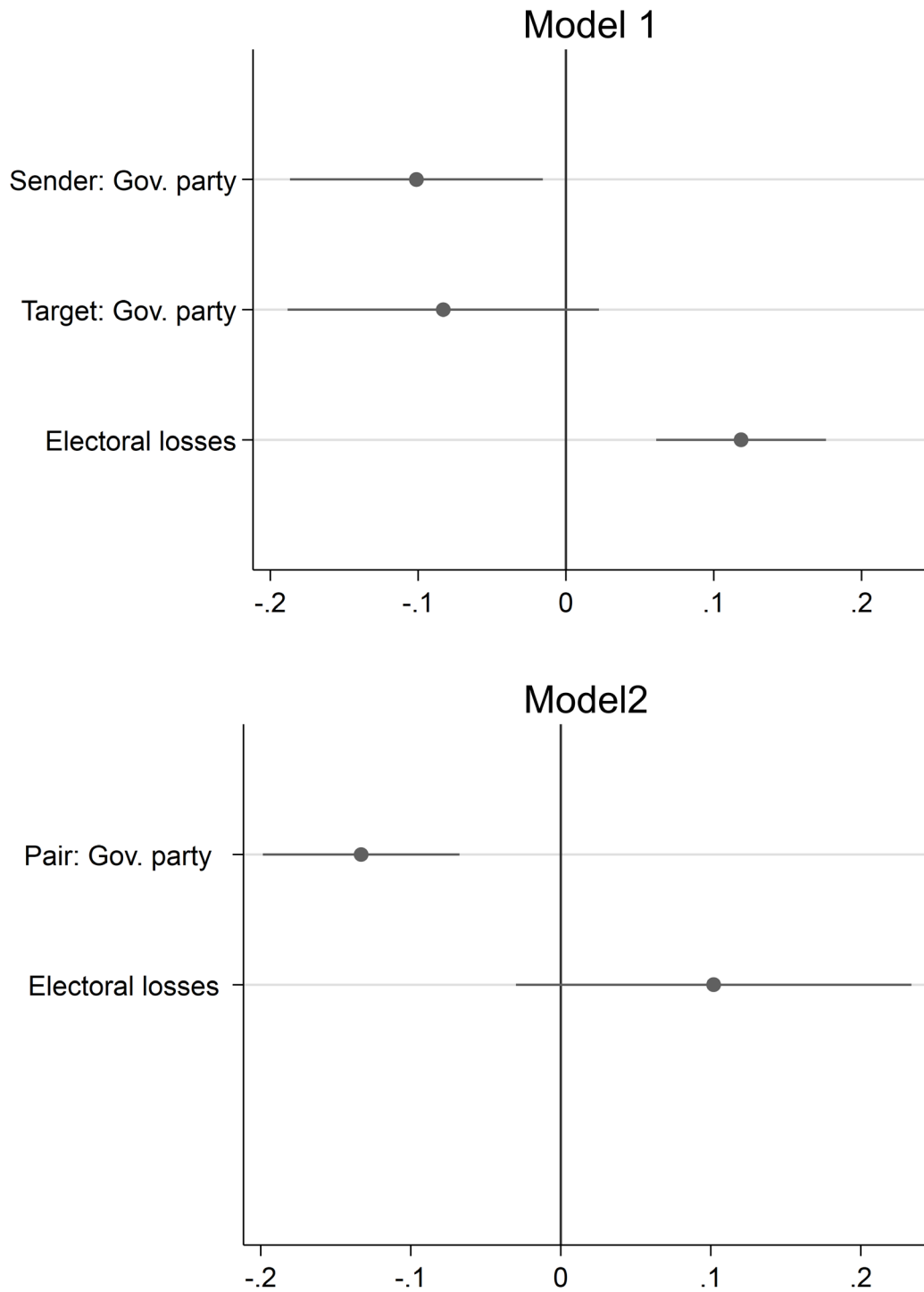
Media tonality in campaign reporting

The second application focusses on how the media cover politics and transmit the parties'

campaign messages. These topics deserve study because mass media are the most important

source of information for voters about a specific electoral contest (Strömbäck and Kaid 2008). Our starts off from the classic finding (Galtung and Ruge 1965) that negativity is a highly important factor determining the newsworthiness of an event. A wealth of studies from the United States has established the findings of the media's focus on negative stories or its cynical reporting on politics (Patterson 1993; Capella and Jamieson 1997; Farnsworth and Lichter 2010).

We want to know whether sentences in media reports that mention a political party or a top candidate are more critical than statements without a reference to these political actors. We use the dictionary to measure the tonality of reporting on the six parliamentary parties and their top candidates in fifteen Austrian daily newspapers.

The raw data consist of 15,096 news reports published during the final eight weeks of the campaign for the national parliamentary elections of 2013. The media reports were collected as part of the Austrian National Election Study (Haselmayer et al. 2015; Kleinen-von Königslöw et al. 2015). They consist of 439,954 sentences, of which about one in five has a reference to a party or candidate. Slightly more than half (55 per cent) contain a dictionary word. For the rest we assume that the scope of the dictionary is sufficient to identify all overtly negative statements and code them as neutral statements. We compare the tonality of sentences with and without a reference to a party or candidate and find that the mean tonality of sentences with a reference is 1.23 across the fifteen print news outlets compared to 1.00 for the contrast group of statements without actor reference. It indicates that media coverage was slightly negative on average. Figure 6 shows the temporal variation in the last six weeks before the election. The slightly more negative tone whenever a political actor is mentioned can be clearly seen. Note that this application is purely illustrative. Whether it constitutes evidence of a critical or cynical perspective of journalists on politics (Patterson 1993; Capella and Jamieson 1997) would require further study.

Figure 6: Mean tonality of campaign coverage on parties and others
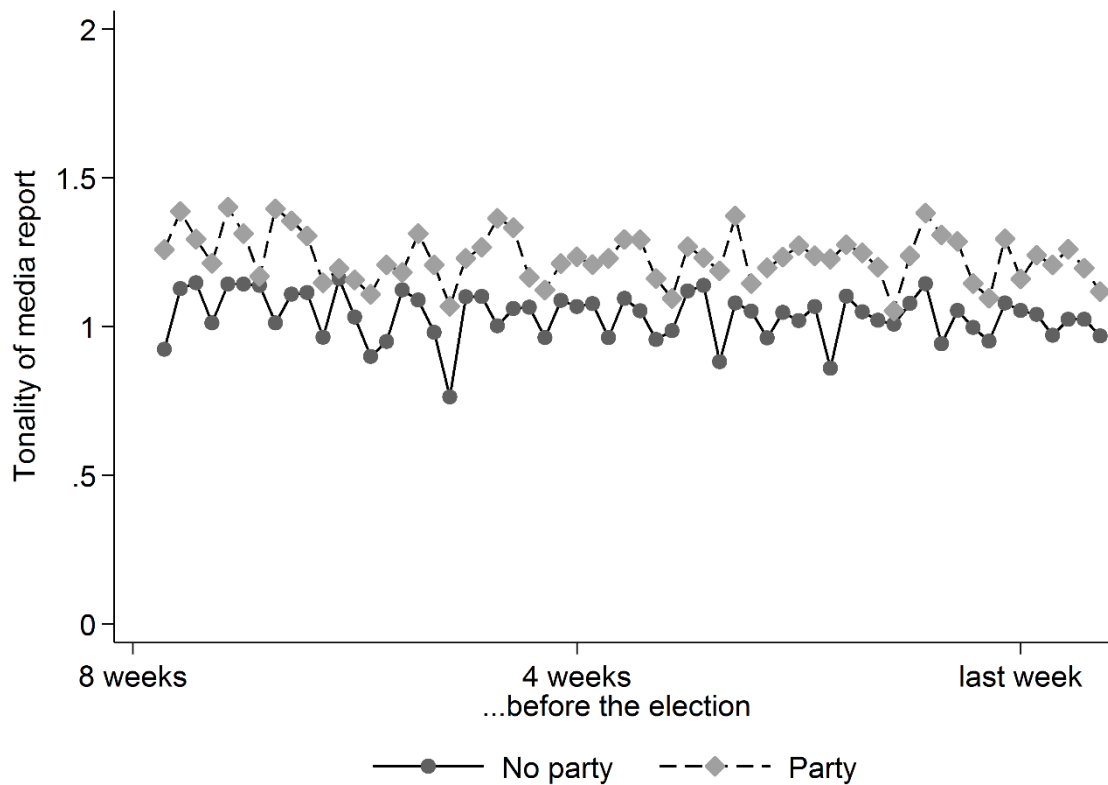
Conclusions

This article shows how to create a dictionary-based measurement procedure for negative sentiment in a language of choice that is cheap, fast, reliable and valid when compared to human coding. The English language bias of computer-based sentiment analysis constrains social scientists interested in studying textual data in other languages. For this reason, with the help of crowdcoders, we have created a German political language dictionary tailored to party statements and media reports. Our procedure can be applied to build dictionaries in any language for which crowdcoders are available. Our results underscore that crowdcoding is a viable alternative to the use of expert coders or trained coders (Benoit et al. 2016).

Computer-based sentiment analysis dominates the field and its pace of innovation, low costs and easy scalability make it a highly attractive, alternative approach. Yet, most tools for (semi-)automated text analyses were developed using English language texts. Convinced

of their value social scientists frequently apply them to texts in other languages. Algorithms do not object to a language transfer as long as the strings to be processed appear well formed. Yet, a user should want evidence on how well an automated text analysis tool operates in another language, which brings us back to the need for validation (Grimmer and Stewart 2013; Lowe and Benoit 2013).

A change of language warrants calls for validation even more than the more limited risk of domain transfer, of applying automated text analysis tools on textual data produced in very different contexts. We have empirically demonstrated the importance of using a customized dictionary. General-purpose sentiment dictionaries tested had substantially lower coverage and agreement with manual codings of sentiment strength. We therefore recommend the use of any general-purpose dictionary with caution (see already González-Bailón and Paltoglou 2015; Soroka, Young, et al. 2015; Grimmer and Stewart 2013).

Our fine-grained dictionary-based sentiment scores move beyond a simple polarity classification of text. Although the sentences taken from press releases and media reports were a challenging test set our dictionary-based scores reflected the human ratings of crowdcoders and expert coders to a large degree. While the bag-of-words approach has its limitations, for example when confronted with figurative language, it performed well in the vast majority of cases.

Sentiment analysis offers many exciting avenues for innovative social science research. We have shown the usefulness of our new sentiment dictionary with two illustrative applications: negative campaigning by parties and mass media tone. Future research could look at the incentives for negative campaigning in multi-party systems, for example rhetorical interaction between potential coalition partners (e.g., Walter and Van der Brug 2013), and study the effects of campaign tonality on post-electoral government formation.

Parallel sentiment analyses of campaign communication and its media coverage allow the empirical assessment whether parties can attract media attention through negative campaign messages as hypothesized by Geer (2006). Comparing the tonality of party campaign messages and their news coverage enables testing the presumed 'negativity bias' of the news media (Patterson 1993; Capella and Jamieson 1997; Farnsworth and Lichter 2010). Sentiment analyses can also add to our understanding of the effects of negative campaigning and media negativity on voting behavior. Studying how voters react to variation in campaign tonality provides new contributions to the debate on potential benefits from negative campaigning with regard to political knowledge and turnout (e.g., Lau and Pomper 2004; Geer 2006).

Sentiment analysis can also contribute to other research topics at the intersection of communication science and political science such as the study of public opinion and political polarization (e.g., Monroe et al. 2008; Hopkins and King 2010b; González-Bailón and Paltoglou 2015). Parliamentary debates, party manifestos, blogs and social media platforms provide rich data sources for sentiment analyses. We have shown how to create and use a dictionary for large-scale sentiment analyses. There are no limits in using the same or similar procedures to create a customized dictionary for other research areas.

Finally, we foresee sentiment analyses with multi-language dictionaries. Debate transcripts from the European Parliament or the United Nations General Assembly provide multi-lingual textual data. Comparative sentiment analyses can submit textual data in several languages to crowdcoding or use tools for automated text translation. We have identified several research topics that may benefit from fine-grained sentiment analyses and have described our procedure for German language texts. We hope we convinced readers that undertaking similar analyses with textual data in a language of their choice is both worthwhile and doable.

3 Friendly fire? Negative Campaigning Among Coalition Partners

Abstract

In democracies with multi-party competition, government parties face a dual challenge in election campaigns: on the one hand, they have to compete against and criticize their coalition partners. On the other hand, they should avoid virulent attacks on their partners to preserve their chances for future collaboration in government. Going beyond a dichotomous operationalization of negative campaigning, this manuscript analyses the tonality and volume of negative campaigning. Studying 3,030 party press releases in four national Austrian election campaigns, different patterns for the tonality and frequency of negative campaigning reflect the electoral dilemma of government parties. Coalition parties criticize each other abundantly, but refrain from 'burning bridges' towards their partners through virulent attacks. These findings have implications for studying negative campaigning and coalition politics.

Introduction

Studies on negative campaigning in multi-party systems argue that government parties should avoid to 'go negative' (Nai and Walter 2015b; Walter 2014b; Walter et al. 2014; Walter and Van der Brug 2013; Elmelund-Præstekær 2010; Hansen and Pedersen 2008). These parties may emphasize their record in government and have less to gain from attacking their opponents than opposition parties. Yet, some studies find a puzzling pattern where coalition parties criticize each other abundantly in election campaigns (De Nooy and Kleinnijenhuis 2015; Dolezal et al. 2015).

Coalition parties face the dilemma of governing together and emphasizing their own policy profile (Sagarzazu and Klüver 2017). This is particularly relevant in election campaigns as parties have to stress their differences and sell their achievemnts to appeal to voters. Accordingly, government parties may criticize each other quite frequently in election campaigns. However, as we argue in this contribution, they should do so in a more civil tone.

To shed light on the puzzle of intra-coalition criticism in election campaigns, we study the tonality, or sentiment strength[21] of campaign statements. This enables us to distinguish between mild and strongly worded criticism in Austrian elections. We argue that 'friendly fire' – negative campaigning among coalition partners – is less virulent than attacks among parties across the government-opposition divide. To achieve government alternation, we also expect opposition parties to be more lenient with each other and concentrate attacks on the ruling coalition parties.

We measure the tonality of campaign statements through crowdcoding, the use of lay coders recruited via the internet (Haselmayer and Jenny 2017; Benoit et al. 2016). Comparing our finer grained measure with a dichotomous classification into positive and negative messages (Geer 2006), we find that coalition parties indeed released numerous negative statements about each other to stress policy divergences and mobilize respective

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[21] We use tonality and sentiment strength as synonyms.

supporters. Yet, the tonality of these messages indicates that the same parties refrained from 'burning bridges' towards a potential future partner. Similarly, opposition parties exhibit rhetorical restraint against each other, resulting in a pattern of bloc competition between government and opposition parties. We discuss implications for negative campaigning in multiparty systems and coalition research in the conclusions.

Negative campaigning among coalition parties

A standard definition of negative campaigning identifies it as 'criticism level[l]ed by one candidate against another' (Geer 2006: 22). In this dichotomous understanding, anything else is in the 'positive' campaigning category, which covers campaign statements emphasizing a party's own policy positions or its record in government office and neutral or positive comments about a competitor. The lack of discriminating power of this dichotomous classification in the face of large intra-class variation of campaign statements has been repeatedly discussed by scholars investigating the variety of negative messages that extends from comparative statements to 'dirty' or uncivil attacks on competitors (e.g. Fridkin and Kenney 2011; Mutz and Reeves 2005; Kahn and Kenney 1999). Some argue that campaign sentiment is an entirely different dimension of campaigns that supplements the available set of party strategies (emphasizing issues or valence, self-centred versus opponent-centred – Crabtree et al. n.d.).

We concur with that critique of a dichotomous classification of campaign statements. To improve on the current state, we propose a graded conceptualization of negative campaigning and use crowdcoding to operationalize it (Haselmayer and Jenny 2017). Taking the tonality of negative messages into account sheds light on patterns of party competition and government formation in multi-party systems. Low levels of negativity, such as emphasizing disagreement over specific policies, will likely occur even among coalition partners, which have to signal their different positions to appeal to their core voters

(Sagarzazu and Klüver 2017). However, we expect that political actors seeking to renew a coalition after the election will not compromise future collaboration by firing broadsides against each other in the election campaign.

In general, a party in government should be keen to defend its policy achievements and use positive messages rather than attack others in the campaign (Benoit 1999). In several multiparty systems, government parties indeed issue fewer negative messages than opposition parties (Walter and Van der Brug 2013; Elmelund-Præstekær 2010; Hansen and Pedersen 2008). However, some government parties frequently resort to negative campaigning (Walter et al. 2014) or even criticize their coalition partners abundantly during election campaigns (De Nooy and Kleinnijenhuis 2015; Dolezal et al. 2015).

We argue that studying the tonality of campaign messages may solve this puzzle. Parties in a coalition government have to signal their distinct positions and stress own achievements by emphasizing differences with their coalition partner(s) to appeal to voters and partisans (Sagarzazu and Klüver 2017). Large volumes of negative campaigning exchanged between coalition partners is consistent with that explanation. Yet, if coalition partners intend to renew the coalition after the election, they should avoid virulent attacks that endanger post-electoral cooperation. Mutual distrust fuelled by a heated campaign may also increase post-electoral bargaining costs or the duration of coalition negotiations (Golder 2010). Therefore, we should expect a rather mild tonality of negative campaigning between coalition partners.

The incumbency advantage in government formation demonstrates that these parties prefer to continue their coalition after an election (Martin and Stevenson 2010; Martin and Stevenson 2001). Parties that shared government office have a stock of mutual trust and understanding, which facilitates future cooperation (Franklin and Mackie 1983). Re-negotiating the formation of the incumbent coalition is also less costly than bargaining with new partners (Martin and Stevenson 2010; Warwick 1996).

Finally, preserving their joint record in office provides another reason why coalition parties should exert restraint in criticizing each other. The last argument applies even to parties that have no intention to renew their cooperation after the election.

For these reasons, our first hypothesis states:

Hypothesis 1a: The tonality of negative campaigning among coalition parties is less negative than among parties situated across the government-opposition divide.

While we expect government parties to tread carefully with each other during campaigns, we expect that opposition parties should concentrate their rhetorical fire on the current coalition parties. An important electoral goal of an office-seeking opposition party, is to break the current government's parliamentary majority. This is a precondition for the formation of an alternative coalition that includes a previous opposition party through complete or partial alternation (Mair 1996). In addition, a vote-seeking opposition party has more to gain from attacking government parties as they represent the largest group of voters (Walter 2014b). Winning votes from a rival opposition party could maintain the parliamentary majority of the current coalition. Based on these arguments, negative campaigning should follow a pattern of 'bloc competition' opposing government to opposition parties.

We therefore expect:

Hypothesis 1b: The tonality of negative campaigning among opposition parties is less negative than among parties situated across the government-opposition divide.

Case selection, data and methods

We study the tonality of negative campaigning in four national Austrian election campaigns (2002, 2006, 2008, and 2013). The country shares many commonalities with other European parliamentary democracies, such as a proportional electoral system and a party system

characterized by moderate pluralism (Sartori 1976). The tradition of grand coalition governments of Social Democratic Party (SPÖ) and Christian-democratic People's Party (ÖVP) makes it an interesting case to study negative campaigning strategies of government and opposition parties. Previous research revealed abundant negative campaigning among coalition partners (Dolezal et al. 2015), which makes it an interesting case to demonstrate the added value of studying campaign tonality.

During the period of study, Austria has been ruled by three different two-party coalitions. The right-wing coalition of ÖVP and Freedom Party (FPÖ; 2000-2003) was followed by a joint government of ÖVP and the Alliance for the Future of Austria (BZÖ, 2003-2006). That government was replaced by grand coalitions of SPÖ and ÖVP, formed following the 2006 election and renewed in 2008. Apart from the four parties which held government office during this period (SPÖ, ÖVP, FPÖ and BZÖ), our study also includes the Greens and Team Stronach as opposition parties.

Data and methods

We analyse party press releases published in the last six weeks of four legislative election campaigns (2002, 2006, 2008 and 2013). During campaigns, media frequently use them as sources for their news reports (Meyer et al. forthcoming), which makes them attractive targets of party communication and valuable sources for studying issue strategies and negative campaigning (Sagarzazu and Klüver 2017; Haselmayer et al. forthcoming; Dolezal et al. 2015).

The press releases are first processed by trained coders who identify subject actors and up to three object actors in their headlines. A press release addressing several parties, e.g. the Greens criticizing the SPÖ and the ÖVP, is multiplied by the number of targeted parties (see appendix B for examples) and each relational statement is coded separately as conveying a positive, negative or neutral statement about an object actor (Müller et al.

2014).[22] The six parliamentary parties issued a total of 7,409 press releases, of which 3,030 press releases included criticism of other parties leading to a dataset with 3,461 negative statements. At this stage we can already study frequency patterns of negative campaigning and the share of attacks directed at a particular opponent. In our data, there is a strong relationship between these two variables (Pearson's *r* of 0.76). In this paper, we analyse the frequency of negative campaigning. A robustness test using the share of negative messages as dependent variable (Appendix C) provides almost identical results.

To see the tonality patterns we collect a sentiment strength score for each negative statement via crowdcoding, a term coined for the crowdsourcing of coding tasks (Haselmayer and Jenny 2017; Benoit et al. 2016). Ten coders rate each statement on a five point scale ranging from not negative (0) to very strongly negative (4). We aggregate the ten codings per statement according to the Dawid and Skene (1979) algorithm which preserves the five point scale, but apart from that is similar to the arithmetic mean. Comparing the aggregate crowdcoded scores for a subset of statements (n=615) coded by the authors gives an ordinal Krippendorff's alpha of 0.73.

We argue that a graded measure of campaign tonality enhances our understanding of negative campaigning in the multi-party context. To provide empirical evidence for our argument, we compare the frequency and tonality patterns of negative campaigning. To determine how often and how strongly a party criticized its competitors in each election campaign we calculate the number and average tonality of all statements from a sender party (A) to each targeted parties (A→B, A→C, A→D) in a campaign. The dyadic *frequency* of negative statements and their mean *tonality* constitute the dependent variables in subsequent analyses.

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[22] Mean reliability of six coders (Krippendorff's alpha) for the original coding (n=100): sender (automatically pre-determined), target 1-3 (0.86), predicate 1-3 (0.86).

Our independent variable measures *government incumbency* for a party dyad. There are three options: (1) both the author and its target are government parties at the time of the election campaign, (2) both are opposition parties or (3) or the two parties sit on different sides of the government-opposition divide.

We include as control variables the intensity of electoral competition and the ideological distance between a pair of parties. Intensity of electoral competition derives from the relative standing of the two parties in pre-election polls. Leaning on Skaperdas and Grofman (1995) we identify the frontrunner party leading in the polls, challenger parties that are within a winning margin and the trailing parties in each election campaign. Combining the relative position of sender and target party of a statement gives an ordinal five point indicator of competition intensity. It is highest between two parties vying for the position of largest party (4) and lowest between two trailing parties (0) (Appendix A gives coding details). We control for the left-right distance between sender and target party because ideological distance may increase negative campaigning (Walter 2014b). We use party position estimates from the Chapel Hill expert survey (Bakker et al. 2015) and compute the absolute distance between the two parties.

Model specification

For the dyadic *frequency* of negative statements in an election campaign we employ a negative binominal multiple regression model[23], for the mean *tonality* of these statements we use an ordinary least squares regression setup. Variation of our independent and control variables is at the level of party dyads per election. Therefore the unit of analysis is the aggregate directed party dyad per campaign, for example all SPÖ statements criticizing the

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[23] The variable exhibits overdispersion with a mean of 45.4 statements per campaign and a standard deviation of 66.4.

FPÖ in an election (see Table 1). The aggregate-level dataset (n=76)[24] provides enough cases

for multiple regression models with three variables and the election years as fixed effects.

Table 1: Negative campaigning in press releases, 2002-2013[25]

Party	Elections	Party dyads	Negative statements	Mean number	Mean tonality
SPÖ	4	15	1,166	77.73	2.24
ÖVP	4	15	1,010	67.33	2.40
FPÖ	4	15	542	36.13	2.35
Greens	4	15	345	23.00	1.88
BZÖ	3	13	357	27.46	2.19
Team Stronach	1	3	33	11.00	2.49
All parties	-	76	3,453	45.43	2.22

Note: The mean score is calculated for all statements of a party about other parties made in four election campaigns.

Results

Figure 1 displays the tonality and frequency of negative campaigning. Each panel shows

whom a party addressed how often and how negatively. For both, SPÖ and ÖVP, their

frequent coalition partner was always the most targeted party.[26] However, the tonality

between them is slightly lower in campaigns following a coalition government of these two

parties (2008 and 2013). The pattern is more evident for the SPÖ than for its junior coalition

partner (ÖVP). The ÖVP prematurely ended the 'grand coalition' with the SPÖ in 2008

which translates into numerous, quite strongly worded statements directed at the SPÖ. In

2013 the ÖVP campaign was quite negative altogether with its strongest criticism hitting the

opposition parties FPÖ and BZÖ. A clear pattern characterizes how the FPÖ dealt with the

ÖVP. In 2002 the FPÖ was still a government party and its rhetorical attacks against the

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[24] In 2013 only the ÖVP criticized the BZÖ and Team Stronach spared the Greens.

[25] Separate tables for each election are included in Appendix C.

[26] These two parties formed a coalition government following the 2006, 2008, and 2013 election campaigns in our data.

ÖVP were bland. Even though the ÖVP poached its voters and even ministers (the ÖVP presented Karl-Heinz Grasser, the FPÖ's most popular cabinet member as 'independent' candidate for the Ministry of Finance), the FPÖ was still hopeful that the coalition would be renewed which in fact happened. After the FPÖ dropped out of government (due to its ministers and almost all MPs joining the party split-off BZÖ in 2005), it criticized the ÖVP in subsequent campaigns more strongly than other parties. Opposition parties issued on average more virulent attacks against government parties than at other opposition parties.

Figure 1: Mean tonality and number of press release statements on rival parties
in Austrian parliamentary election campaigns
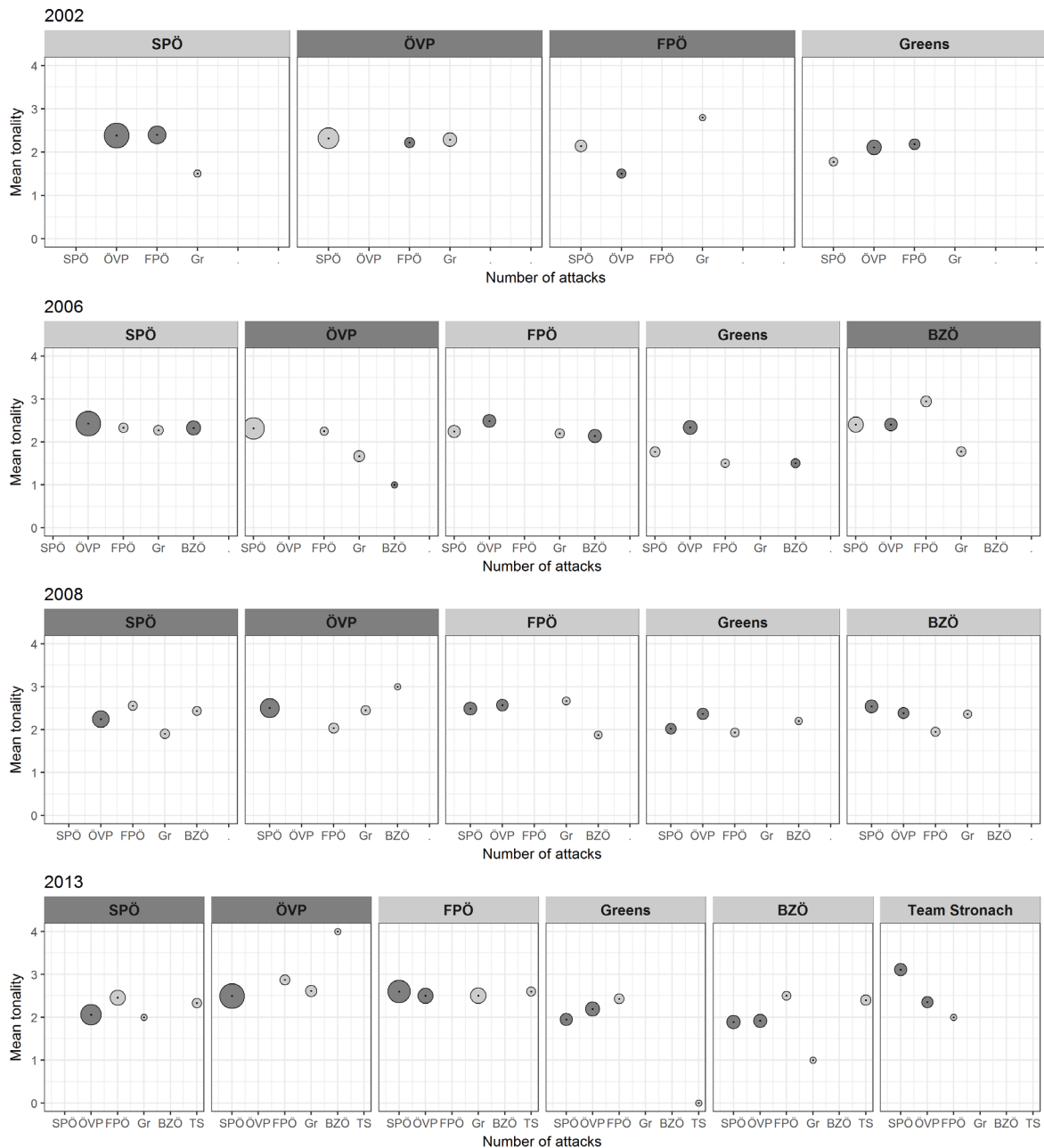
Note: Panels show how strongly (mean tonality) and how often (number of directed statements indicated by circle size) a party attacked its competitors. Government parties are highlighted using dark grey colours.

Figure 2 provides bivariate evidence which again reveals differences between the frequency and tonality of negative campaigning. The average number of negative statements exchanged between coalition partners is twice (about 103) the number of statements traded between government and opposition parties (about 52). Opposition parties targeted each other rarely in the four campaigns studied (11). However, campaign tonality shows

something different. Opposition parties addressing government parties and vice versa issued the most negative statements with a mean tonality score of 2.36. Statements between government parties were less negative (mean tonality of 2.05) and so were statements between opposition parties (mean tonality of 2).

Figure 2: Mean number and mean tonality of negative messages by type of party dyad
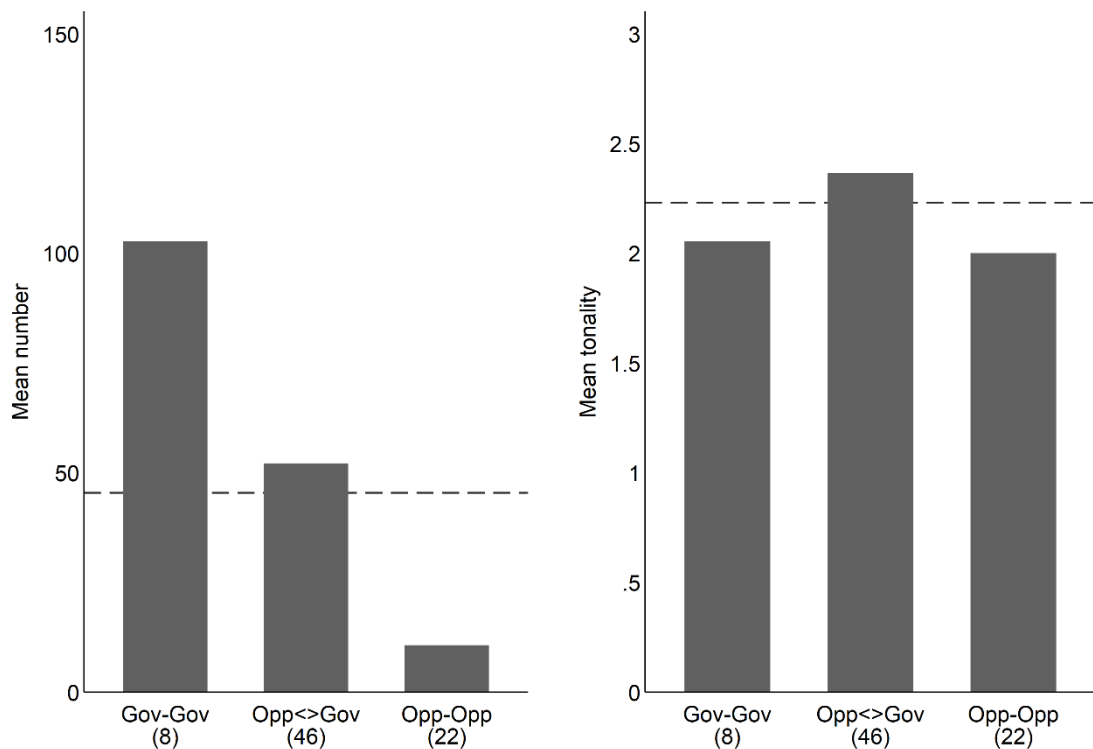
Note: Dashed line indicates mean value. Number of party dyads in four elections studied is listed in parentheses.

Concluding with multiple regression models we employ a negative binomial regression model for the count variable frequency and an OLS regression model for tonality. The reference case in each model is the aggregate party dyad for statements that cross the government-opposition divide. To directly compare effect sizes and to facilitate their interpretation, we provide marginal effects plots (Figure 3). Model specification includes election years as fixed effects and bootstrapped standard errors. Table 2 shows the regression

coefficients and Figure 3 plots the marginal effects (robustness tests in Appendix D confirm

the results reported below).

Table 2: Explaining negative campaigning: Negative Binomial Regression (frequency) and
Ordinal Least Squares Regression (tonality)

	Frequency of campaign message (Model 1)	Tonality of campaign messages (Model 2)
Gov. party –Gov. party	0.60	-0.38*
	(0.54)	(0.19)
Opp. party-Opp. party	-1.00***	-0.27*
	(0.26)	(0.13)
Intensity of party competition	0.51***	0.14*
	(0.10)	(0.06)
Left-Right Distance	0.08	0.002
	(0.05)	(0.03)
Constant	2.97***	2.02***
	(0.46)	(0.18)
Ln alpha	-0.37*	-
	(0.19)	
Election year fixed effects	*Included*	*Included*
Adjusted R^2 / pseudo R^2	0.09	0.15
BIC	704.3	128.2
N	76	76

Note: Bootstrapped standard errors in parentheses (200 replications), * $p < 0.05$, *** $p < 0.001$

The hypotheses expect a lower tonality of negative campaigning involving two coalition

parties or two opposition parties than negative campaigning between parties crossing the

government-opposition divide. Table 2 and Figure 3 show that based on the number of

negative statements there is no restraint between coalition partners (they trade, on average,

38 negative messages more than the control group but the effect is not significant at

conventional levels). However, these parties refrain from virulently attacking each other. On

average, statements targeting a coalition partner are 0.38 units less negative than statements

crossing the government-opposition divide. We illustrate the difference with an example

from the 2013 election. SPÖ statements on its coalition partner, ÖVP, in this campaign have

a mean tonality of 2.06, compared to a mean tonality of 2.46 for its statements addressing

the FPÖ as the main challenger party from the opposition. At the level of individual

messages, 11 percent of the SPÖ statements about the ÖVP were very strongly negative, compared to 26 percent of its messages targeting the Freedom Party. Thus, about one in ten negative campaign statements of the SPÖ targeting its coalition partner were very strongly negative. To the contrary, more than a quarter of its attacks on the main opposition challenger, the FPÖ, were very strongly negative.

Figure 3: Marginal effects plots from the negative binominal regression model for the frequency and the OLS regression model for the tonality of campaign statements.

Frequency of negative campaigning

Tonality of negative campaigning

Notes: Continuous variables are standardized.
Whiskers indicate 95% confidence intervals.
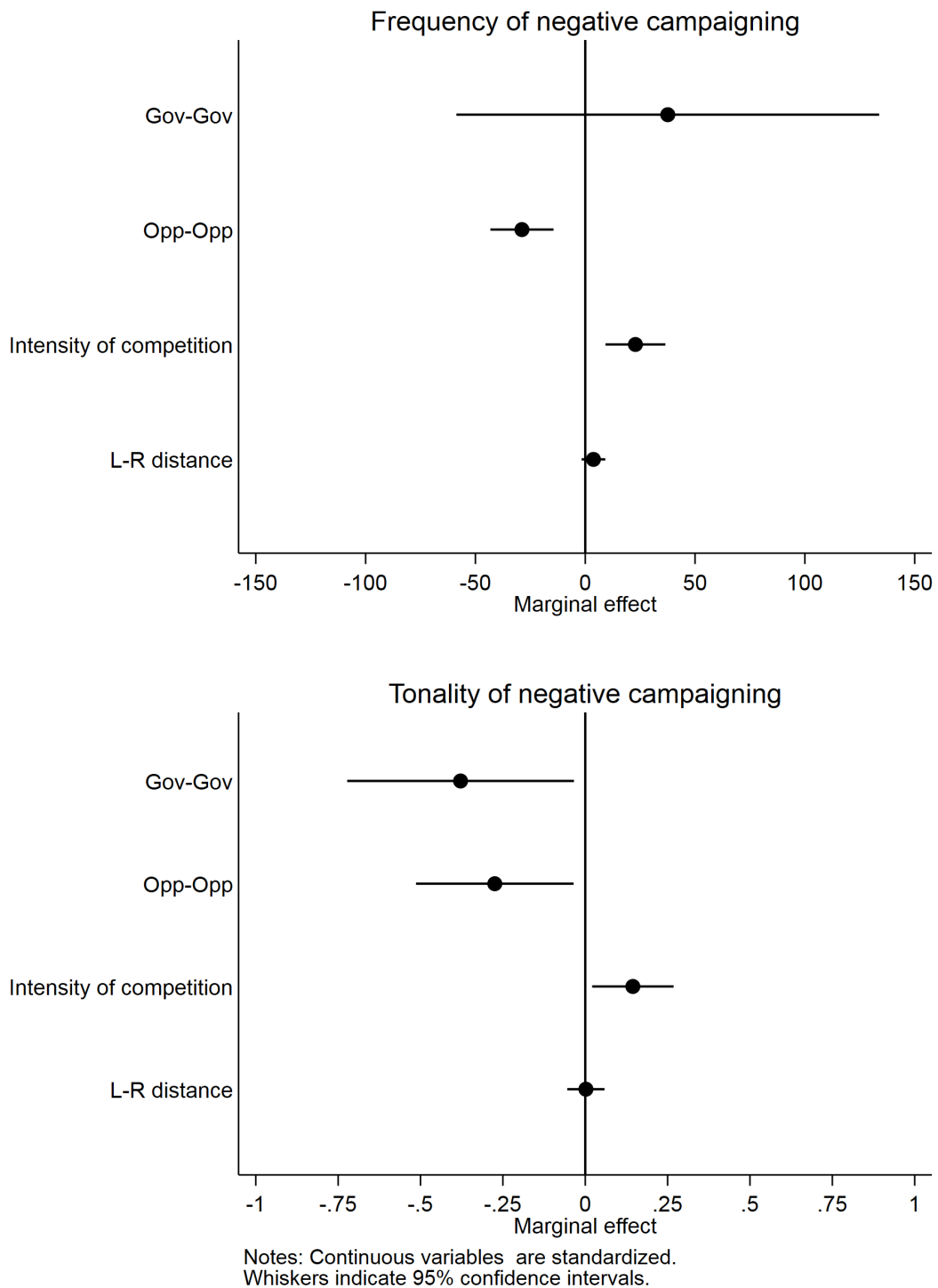
Similarly, opposition parties address each other with lower tonality compared to attacks crossing the government-opposition divide (0.27). The most virulent attacks in four election campaigns oppose opposition parties to government parties and vice versa. Opposition

parties also attack each other less often compared to negative campaigning that crosses the government-opposition divide (on average 29 negative messages less). Turning to the control variables we find that intensity of competition increases the frequency and tonality of negative campaigning (on average 23 attacks more or a 0.35 increase in campaign tonality). Left-right distance between parties neither affects the frequency, nor the tonality of negative campaigning.

Conclusions

Studying negative campaigning, this manuscript investigates the electoral dilemma of coalition parties. These parties have to govern together, but at the same time, they should emphasize differences with their coalition partner(s) to appeal to voters and partisans (Sagarzazu and Klüver 2017). Presenting a graded measurement of negative campaigning, our findings reflect this dilemma: Whereas coalition parties direct large volumes of 'friendly fire' against their coalition partners (De Nooy and Kleinnijenhuis 2015; Dolezal et al. 2015), the tonality of these messages was restrained. Opposition parties tend to spare their peers and focus on attacking the ruling coalition in order to achieve (partial) alternation. Hence, the tonality of negative campaigning follows a pattern of bloc competition opposing government to opposition parties.

Understanding why coalition parties 'go negative' is important, because negative campaigning could (pre)determine the formation of future government coalitions. If a party burns bridges with potential coalition partners, this may seriously compromise its chances in post-electoral coalition negotiations: either because no other partner is willing to form a government with that party, or as it minimizes the set of viable options and thus limits the party's bargaining power. Heated electoral campaigns and virulent attacks among coalition partners may also delay coalition negotiations and the formation of a new government. This could be problematic as caretaker governments typically lack the capacity to implement

major policy reforms and are less able to respond to external shocks, such as economic crisis (Golder 2010).

Beyond that, our measure of campaign tonality reveals substantive differences with dichotomous measures of negative campaigning. These definitions have been criticized for their lack of discriminatory power (Fridkin and Kenney 2011; Kahn and Kenney 1999), but concerns prevailed that a refined measurement may not travel well to large-scale content analyses of party communication (Lau and Brown Rovner 2009). This manuscript shows that crowdcoding (Haselmayer and Jenny 2017; Benoit et al. 2016) enables efficient and reliable analyses of campaign tonality.

This manuscript analyses four election campaigns in one country. Studying the tonality of negative campaigning in a cross-country design offers potential for several topics at the intersection of electoral competition and government formation. Such studies would gain leverage through variation in institutional rules or by exploring various predictors of a party's government potential (Martin and Stevenson 2001). Studying campaign tonality could further extend our understanding of bargaining duration and delays (Golder 2010) caused by mutual distrust due to virulent attacks among potential coalition partners.

The relationship between government termination (Laver 2003; Lupia and Strøm 1995) and negative campaigning appears likewise worth of study. Intra-coalition conflict ending with premature government termination reduces the probability of a coalition's renewal after the election (Tavits 2008), which could already be reflected in the tonality of party statements during the campaign. Campaign tonality could thus improve models that aim at studying the life-cycle of coalitions (Müller et al. 2008).

We also see rewards in extending research on the dynamics of negative campaigning (Dolezal et al. 2016) to study the tonality of campaign messages or investigate patterns of retaliation among government and opposition parties. Similarly, future research could devote more attention to variation in the tonality of campaign messages government parties direct

at the opposition and vice versa. Exploring whether a junior coalition partner issues more strongly negative messages against challenger parties that might replace it in government and testing whether opposition parties are in general more likely to use strongly worded attack messages seems particularly worthwhile.

Finally, exploring the wealth of negative campaign messages may contribute to studies on its effects. Scholars examining differences between weak expressions of criticism and virulent attacks or uncivil messages find that exposure to the latter may produce negative feelings about politics and democracy (Mattes and Redlawsk 2014; Fridkin and Kenney 2011; Mutz and Reeves 2005). This suggests different effects for mild and strongly worded criticisms. Understanding *which* negative messages convince voters, produce lower turnout or turn voters away from politics would have broad implications for society and voter perceptions of democratic quality.

4 Defending the Home Turf or Attacking Rival Strongholds? Issue salience, issue-competence and negative campaigning strategies of parties

(Manuscript under review with Marcelo Jenny)

Abstract

Research suggests an 'issue revolution' in electoral behavior due to eroding partisanship and a more volatile electorate. We examine whether and how issue salience and issue competence of parties influence the parties' negative campaigning strategies. Using press releases from the 2013 Austrian national election campaign in combination with crowdcoded statements, data from a pre-election voter survey, a content analysis of media reports and a candidate survey we provide the first study of campaigning in a multiparty system that links frequency and tonality of negative campaigning to issue characteristics. We analyze whether parties defend their 'home turf' by attacking others on issues they 'own' or whether they go negative on an opponent's issue stronghold to undermine the latter's issue ownership. We find that a) parties are sensitive to issue salience, and b) that rather than defending their home turf, Austrian parties in 2013 preferred to attack the issue strongholds of rival parties.

Keywords: Negative campaigning, party competition, issue salience, issue ownership, crowdcoding

Introduction

Recent electoral research attests an increasing importance of issue competition for explaining party behavior (e.g. Green-Pedersen 2007; Hayes 2005; Petrocik et al. 2003; Ansolabehere and Iyengar 1994) and vote choice (e.g. Bélanger and Meguid 2008; Green and Hobolt 2008; Bellucci 2006; Thomassen 2005; van der Brug 2004; Dalton 2002). This body of research suggests that issue ownership constitutes a crucial advantage for a party, which rival parties may contest in an election campaign through negative campaigning. Issue ownership as a highly valued good could also motivate a strong rhetorical defense by an issue owning party. Our study attempts an empirical test of theoretical arguments linking issue characteristics with negative campaigning.

Studies of negative campaigning have looked at the relative positions of contestants in the electoral race (Skaperdas and Grofman 1995), the timing of attacks (Petersen and Djupe 2005; Damore 2002), individual attributes of the 'sender' or 'targets' of critical messages (Druckman et al. 2009; Lau and Pomper 2004, 2001; Benoit et al. 2000; Benoit 1999) or at pairwise attributes such as their policy distance (Walter and Van der Brug 2013; Walter et al. 2013; Haynes and Rhine 1998). Closer to our focus of interest are studies concentrating on the issues which were employed in negative campaigning (Elmelund-Præstekær 2011b; Geer 2006; Damore 2002; Geer 1998; Riker 1996, 1991). While these studies differ considerably regarding hypotheses, empirical approaches and findings, they share the common assumption that issue ownership, salience and negative campaigning are systematically related.

So far, Elmelund-Præstekær's (2011b) study of Danish election campaigns has been the only issues-focused negative campaigning study of a European multiparty system. We bring in the Austrian case as another multiparty system. Moving beyond replication, we analyze whether and how issue ownership and salience influence negative campaigning against rivals. We use survey data on issue ownership and media issue salience and introduce

a fine-grained measurement of negativity, based on crowdcoding (Haselmayer and Jenny 2017) of party press releases from the 2013 election campaign. We find that parties 'go negative' on issues that are salient during the campaign corroborating similar results from studies on negative campaigning in the US, a two-party system. Thus, when parties are unable to avoid certain issues, they react through issue-based negative campaigning in their press releases. This could indicate that parties react to an unfavorable issue environment by attacking their rivals. Or, it simply shows that parties follow media logic to push their campaign messages into the news by going negative and thus supplementing their press releases with the news factor of negativity (Meyer et al. forthcoming; Haselmayer et al. 2017).

In addition, we find that parties go negative more strongly on their opponent's best issues. At first sight, this refutes US-based findings (Damore 2002) of parties defending their home turf and corroborates results from the Danish case (Elmelund-Præstekær 2011a).

Our results indicate opportunities and limits of issue-based negative campaigning: parties are seeking to respond to the media's issue agenda in order to get coverage of their campaign messages. Yet, we also see that parties are deliberately more virulent when attacking their rivals' best issues, which indicates that they are willing to actively contest these issue-specific advantages. We take up the broader implications of these findings in the concluding section.

The paper proceeds as follows. The next section discusses the central issue-based concepts of interest. Section 3 recapitulates the basic tenets of negative campaigning and presents our hypotheses. Section 4 introduces the data. Section 5 presents the evidence, starting with univariate and bivariate analyses leading to multivariate models. The final section provides a concluding discussion.

Issue ownership, issue competence and issue salience

A central concept in current electoral research is issue ownership, which posits non-random patterns of association between parties and issues in the voters' minds. Some parties develop a reputation of being more competent and/or more attentive to specific issues or policy areas than others. Such a party is considered the 'owner' of the issue, which is seen as a potentially important electoral advantage. The party benefits most from it when the issue is not only owned but also highly salient in an electoral campaign (Petrocik et al. 2003; Petrocik 1996; Budge and Farlie 1983).

Subsequent studies have added to the concept and introduced conditions under which issue ownership translates into actual vote gains (Walgrave et al. 2012; Bélanger and Meguid 2008; Green and Hobolt 2008; van der Brug 2004). Recent studies distinguish between associative ownership and issue competence as separate dimensions of issue ownership (Walgrave et al. 2015). From a voter's perspective, the party most strongly associated with an issue is not necessarily the party most competent to deal with it (Tresch et al. 2015; Lachat 2014; Walgrave et al. 2012; Bellucci 2006). The first dimension refers to a spontaneous association between a party and an issue in a voter's mind as a consequence of the party's long-term attention to the issue, and the second to its reputation of handling a policy area or a given issue (Walgrave et al. 2015: 5).

Most empirical studies of issue ownership study the competence dimension of issue ownership, without considering the two dimensions' different implications. Experimental and observational studies show that competitors can successfully challenge a higher ranked opponent on the competence dimension in a single election (Walgrave et al. 2009), especially of incumbents with a bad performance record (Petrocik 1996). Associative issue ownership is more robust. Parties seem to be unable to steal issues from their associative owners in the short run and such attempts can backfire and reinforce existing ownership perceptions (Tresch et al. 2015). More recently, a negative dimension of issue ownership has been

discussed (Wagner and Meyer 2015). Poor issue performance records may provide parties with an attractive opportunity to spotlight weaknesses of opponents and thereby be attractive for selective negative campaigning on issues. We do not investigate this relationship in this chapter, as we focus on testing arguments from the current body of literature.

These findings have implications for strategies of negative campaigning. We discuss the concept of negative campaigning first and then its strategic use.

Negative campaigning

According to a broad definition, any statement a political actor makes about a political opponent constitutes negative campaigning (Lau and Pomper 2004). A relational statement including a sender and a target defines the concept. Even an appraisal of a political competitor – admittedly a rare event in an election campaign – thus classifies as negative campaigning using this definition. A more restrictive definition, which we adhere to, requires negativity as an additional element of such statements (Geer 2006). In line with recent empirical research, we further posit that parties and politicians are able to deliberately increase or decrease the rhetorical heat of their speeches and texts (Haselmayer and Jenny 2017). Measuring the tonality of campaign statements advances on previous research and is particularly relevant in multiparty systems with frequent coalition governments, as parties and candidates often have to balance vote-maximizing strategies with the post-electoral bargaining of government membership.

However, different levels of negativity produce different effects on communication targets, such as news coverage by media and voters' perceptions. Media tend to select stories based on their negativity (Harcup and O'Neill 2001; Galtung and Holmboe Ruge 1965). Freedman and Goldstein (1999) argue that voters recognize variation in negativity. Voters are receptive to criticism of a politician's behavior or personal traits, but are likely to dismiss information 'when negative messages center on questionable topics and are presented in an

excessively strident or pejorative manner' (Fridkin and Kenney 2008; Mutz and Reeves 2005; Kahn and Kenney 1999: 878). Accordingly, parties face the risk of boomerang or backlash effects, which may backfire on the sponsor of an attack (Garramore 1984). In multiparty systems, the potential risks are even higher as negative campaigning may reduce the set of potential coalition partners or increase bargaining and transaction costs during coalition negotiations (Haselmayer and Jenny, forthcoming).

Negative campaigning on issues[27]

Issue ownership theory expects parties to focus their campaign messages on owned issues and to avoid talking about issues owned by their opponents. However, sometimes parties may be unable to adhere to the 'Don't talk about it!' maxim on an issue that they do not own, because it is too important to voters or mercilessly spotlighted by the media (Elmelund-Præstekær 2011b: 212). In such instances a party may have to react to an issue agenda set by others. Empirical studies indeed find overlaps between different parties' issue agendas (Green-Pedersen and Mortensen 2010; Damore 2005; Sigelman and Buell 2004). Dolezal et al. (2014) even find that Austrian parties respond to their rivals' issue agendas in their election manifestos.

Cornered by the political agenda of the day a party can attempt to 'go negative'. At this point the literature bifurcates into two camps of strategic advice. Some authors argue that a party should defend its 'home turf' and focus negative campaigning on issues that the party owns. Other authors expect a party to direct its rhetorical attacks at the 'issue strongholds' of political competitors.

A prominent representative of the 'home turf' defending is William H. Riker (1996, 1991) whose 'dominance' and 'dispersion' principles posit that a rational political actor should

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[27] We thereby exclude negative campaigning that rests only on *ad hominem* arguments and slander (Geer 2006: 64-84).

avoid talking about issues owned by political rivals and focus instead on issues that are favorable to this actor. Riker expected parties to campaign predominantly on issues they own, and to use strongly negative campaign messages to raise their voters' interest and turnout. Damore (2002: 673) makes a similar claim arguing that parties should concentrate negative campaigning on issues they own to 'increase the veracity of their attacks'. His study of campaign advertisements by US presidential candidates in elections from 1976-1996 also suggests that the probability of attacks increases the higher an issue's salience to voters. An impact of issue salience is also postulated and demonstrated by Geer (2006) with data from four decades of US presidential campaigns.

In contrast to these authors, Elmelund-Præstekær (2011b) in a study of Danish parties' campaign behavior found them to go negative on issues that they do not own. He followed the reasoning of Geer (1998), who claims that parties will more likely attack the weak spots of opponents than go negative on their own best issues. As a party has less credibility on issues it does not own, the party cannot express a positive statement or claim a record on it. Instead, it will resort to attacks on an opponent to damage the latter's issue reputation 'and perhaps in the longer run try to conquer the issue ownership in question' (Elmelund-Præstekær 2011b: 212).

There are at least two possible explanations for inconsistent empirical findings. The first explanation is that they may be due to the different party system formats and patterns of electoral competition. A second explanation is that the differences may extend to the level of issues. Recent studies have shown that in the US the more detailed dimensions of associative issue ownership and of issue competence overlap to a large extent (Egan 2013). Walgrave et al. (2015) argue that this pattern of overlapping issue ownership and issue competence does not hold for European multiparty systems. Contrasting findings could relate to different sub-dimensions of issue ownership and corroborate a claim that the sub-

dimensions are 'analytically very different and lead to distinct hypotheses as about how parties and voters behave' (Walgrave et al. 2015: 14).

Research on negative campaigning in Austria is fragmentary, apart from recent studies by Dolezal et al. (2015; 2014). In addition to studies surveying several campaigns (Dachs 1998; Hölzl 1974), only a small number of authors have investigated single elections (see Dolezal et al. 2015 for an overview). We extend these recent analyses by looking at the issues fought over. An interesting finding on Austrian national election campaigns of the recent past is that in contrast to what issue ownership theory postulates, parties' electoral manifestos engaged in a lot of 'direct confrontation' instead of selectively emphasizing relative strengths (Dolezal, Ennser-Jedenastik, et al. 2014). A longitudinal study of Austrian survey data by Meyer and Müller (2013) found that issue ownership was temporally unstable and often split among several parties.

The Austrian party system shares similarities with other Western European party systems (Meyer and Müller 2014), but at the same it has peculiar features such as frequent coalition governments between the Social Democratic Party and the People's Party since 1945. A long history of joint government is a major challenge for these parties in election campaigns when they attempt to present distinct profiles to voters. The greater similarity of the Austrian and the Danish multiparty system, relative to the US two party system, leads us to expect that Austrian parties will, similarly to Danish parties, follow a strategy of challenging the issue ownership of rival parties. However, we include the rival hypothesis for a comprehensive check of the arguments found in the literature.

As it is easier for parties to attract attention on already salient issues than to increase the salience of 'dormant' issues (Elmelund-Præstekær 2011a; Damore 2002) we expect the following:

Hypothesis 1: Parties tend to attack on issues that are highly salient.

The literature provides contrasting hypotheses on how parties use or react to issue ownership: defend the party's issue home turf or weaken the issue strongholds of other parties. Hypothesis 2 states that parties attack on issues where they think they are strong, hypothesis 3 that parties prefer to attack where a rival party exhibits issue ownership.

Hypothesis 2 (defending the issue home turf): Party A attacks party B on issues owned by party A.

Hypothesis 3 (attacking rival issue strongholds): Party A attacks party B on issues owned by party B.

We posit the hypotheses as general claims for all parties, but will examine whether a party's status as government or opposition party contributes additional explanatory power.

Data and methods

We analyse rhetorical interaction between parties via party press releases that were issued in the last six weeks ahead of the national election (Müller et al. 2014). Press releases are very cheap, easy to produce and a priori there is no reason to exert restraint in using them in campaign communication. Previous studies have found that Austrian national media are highly likely to report on parties' press releases (Lengauer 2012; Melischek et al. 2010). The parties' success rates depend strongly on being able to add news factors, such as negativity or surprise and the parties' ability to address issues that are salient in the news or discussed by other parties (Haselmayer et al. forthcoming; Meyer et al. forthcoming).

The integrated character of AUTNES allows us to combine original data from various data sources: we use data from a representative voter survey for measuring issue ownership, a manual media content analysis of all nationally relevant newspapers to determine the salience of issues during the campaign. We also use crowdcoding to measure the tonality of negative campaign statements on an ordinal scale (Haselmayer and Jenny 2017) and the

Candidate Survey 2013 (Müller, Eder and Jenny 2015) for the left-right distances between a sender and a target party.

Our primary source for studying issue-based negative campaigning is the AUTNES relational content analysis of party press releases (Kleinnijenhuis and Pennings 2001). It includes an issue coding, the sender and target of a message and a manual coding of each press release as positive, neutral or negative. As we are interested in negative campaigning on issues, we include only the subset of directed statements between parties which were represented in parliament ahead of the election (SPÖ, ÖVP, FPÖ, BZÖ, Greens, Team Stronach; n=732).

A second important data source comes from crowdcoding the titles of the press releases. We collect for each directed statement from anonymous lay coders recruited through a crowdsourcing platform a tonality score, on a five-point scale (0 for 'positive or neutral' to 4 for 'very strongly negative'). Each statement is coded by ten coders. Studies have demonstrated that groups of lay coders can produce data similar to expert coders' judgments (Alonso and Baeza-Yates 2011; Nowak and Rüger 2010; Sheng et al. 2008; Snow et al. 2008). More recently, social scientists have also turned to crowdcoding or crowdsourcing, the more generic term for tasks assigned to workforce recruited through the internet (Keating et al. 2013). Applications cover experimental research (Berinsky et al. 2012), surveys (Behrend et al. 2011), the coding of party manifestos (Benoit et al. 2016).

In a recent study we have used crowdcoding to establish the sentiment strength of political statements and media reports (Haselmayer and Jenny 2017). In total, 260 lay coders contributed sentiment codings of the headlines and the subtitles of the press releases. We aggregate the ten scores per statement with the EM-algorithm by Dawid and Skene (1979). As a validity check we computed the Spearman correlation between the crowd-based tonality scores and a reference coding by one of the authors, which gave a Spearman correlation value of 0.78.

We want to explain how parties choose the target party and the issue area of negative campaigning and need to arrange our data to represent the choice of (1) a target, (2) an issue area and (3) a tonality for a campaign statement. This implies that there is the possibility that a party ignores another party on a specific issue area.

We compute mean tonality scores for all directed party dyads over all issue or policy areas: 6 sender parties x 5 target parties x 18 issues areas results in a dataset with 540 observations. Our dependent variable is the mean tonality of all statements issued by party A about party B on issue I. Out of these directed dyads, more than two thirds (374) were directed party dyads that did not occur once during the election, which skews our dependent variable (mean=0.65, sd 1.07). To control for the over dispersion of zeros, we include in the multivariate analyses the number of negative statements per directed dyad and policy area as a covariate.

The measurement of issue ownership and issue salience has been extensively discussed in the literature (Walgrave and De Swert 2007; Hayes 2005; van der Brug 2004; Petrocik 1996; Kuechler 1991). Walgrave et al. (2015) critically review the lack of agreement among scholars and stress the need to conceptualize and measure the multidimensionality of the concept. We established issue competence with the help of a pre-election voter survey (Kritzinger et al 2017). We use the responses to the questions on 'most important issue' and issue competence ('the best qualified party') to deal with these issues. The identification of issue ownership in a multiparty system is less straightforward than in a two party system. There is a growing debate on when parties own an issue and if dichotomous attributions of ownership reflect the variation of opinions among voters (Geys 2012; Walgrave and De Swert 2007).

We operationalize it as the relative share identifying a party as best qualified to deal with an issue (area). We pool the answers to the 'most important issues' questions and recode very narrow issues mentioned to 18 policy areas (see below) that match broader issue

categories from content analyses of press releases and newspapers. In order to avoid endogeneity issues, we use a different source for issue salience: AUTNES content analysis of eight newspapers for the same period based on codings of the main topic of each article. We use this information to aggregate the share of issue attention across all media outlets as an indicator of the general media issue agenda during the campaign. As the general purpose of press releases is to make it into the news, the importance of the media agenda in the national press has a strong influence on the party issue agenda (Meyer et al. forthcoming).

For the multivariate analyses we also include the left-right distance between parties as a control variable. The data are from the AUTNES Candidate Survey 2013 (Müller, Eder and Jenny 2015).

Results

We will first present the perceived issue competence of the parties ahead of the election of 2013, then the issue salience in the media during the campaign, the amount and tonality of negative campaigning and the relationship between media salience. The bivariate data on the relationship between issue competence and tonality provide already rather clear answers to our rival hypotheses 2 and 3 on party strategies for negative campaigning. The final multivariate analyses confirm these bivariate patterns.

Issue competence

Issue competence in the Austrian multiparty system at the eve of the election campaign 2013 is predominantly partial or 'incomplete' (Geys 2012). Table 1 provides the details.

Table 1: Pre-campaign issue competence of parties and most important issues

Policy area	Issue competence		Most important issue	
	Most often cited party	Party's share of cites	Total number of cites	Rank
Agriculture	ÖVP	87	38	16.
Environment	Greens	83	214	9.
Pensions	SPÖ	58	340	5.
Employment	SPÖ	57	685	1.
Healthcare	SPÖ	54	210	10
Social welfare and Poverty	SPÖ	52	283	6.
Immigration	FPÖ	48	375	4.
Education	SPÖ	46	418	3.
Budget and Taxes	ÖVP	43	227	7.
Foreign Affairs and Defence	SPÖ	41	32	17.
Economy	ÖVP	39	469	2.
Family affairs	SPÖ	39	122	11.
Fighting Political Misconduct and Corruption	Greens	38	81	13.
Individual rights and Societal values	Greens	37	41	15.
Law and Order	SPÖ	36	44	14.
European Integration	ÖVP	34	218	8.
Government Reforms and Direct Democracy	Greens	33	115	12.
Infrastructure	ÖVP	30	30	18.

Source: own calculations based on AUTNES-Pre-Election Survey, N=3,266 with 4020 most and second important issue answers coded.
Note: Calculation of party's share of cites included survey weights.

Voters overwhelmingly agree in only two of the 18 policy areas on the most competent party: they identify the ÖVP on agriculture and the Greens on the environment. Neither one of these policy areas is at the top of the list of most important problems identified by the voters. Narrow majorities of voters see the SPÖ as the most competent party on pensions, employment, healthcare and social welfare, and almost a majority identifies the FPÖ as the most important party on immigration. Policy areas such as government reforms and direct democracy or infrastructure are not clearly associated with the same party in the voters' minds. In relative terms, these policy areas are 'owned' by the People's Party, but less than a third of the respondents thought that the party was most competent in handling it. Counting majorities and pluralities across the 18 policy fields, eight are (partially) 'owned' by the SPÖ, five by the ÖVP, four by the Greens and only one by the FPÖ.

We established issue competence from a pre-election voter survey. To proceed from here to party campaign strategies we have to assume that parties agree with voters' verdicts on their own thematic strengths and weaknesses. We expect that parties are well aware of their public evaluation, through media polls and own surveys, which should produce similar results on perceived issue competence.

Issue salience in the media

We operationalize media issue salience as the relative share of issues in media reports from the eight nationally relevant Austrian newspapers during the six weeks preceding the election (Eberl et al. 2016). Figure 1 presents the resulting numbers.

Figure 1: Media issue salience of policy areas in 2013 campaign
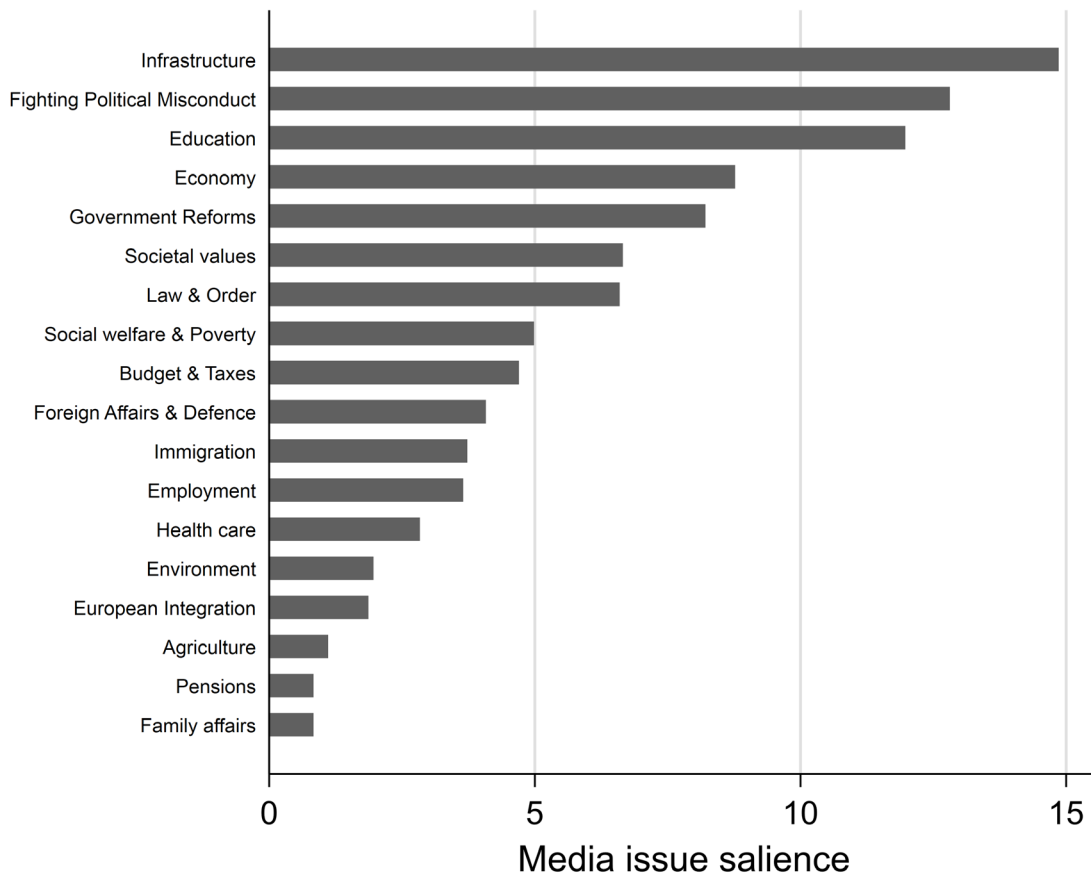
Source: own calculations using AUTNES content analysis of media reports (n=8,536)

The most salient policy issues during the campaign 2013 were infrastructure (15%), corruption (13%) and education (12%). The prominence of infrastructure stems from the controversy over the transformation of the most important shopping street into a pedestrian area in the capital Vienna, where most of the newspapers of national relevance have their headquarters. A large number of policy areas, including family affairs, pensions, agriculture and, notably, also European integration, had small shares of media reporting during the campaign.

Campaign tonality

Table 2 shows the amount and tonality of negative campaigning on substantive issues for the parliamentary parties competing in the election.

Table 2: Mean tonality of directed issue-statements per party

Party	Mean tonality	N
FPÖ	2.41	180
ÖVP	2.31	149
Team Stronach	2.12	30
SPÖ	2.01	116
BZÖ	1.88	56
Greens	1.54	55
Total	2.37	586

Source: own calculations from dataset of crowdcoded statements.

The number of directed, issue-based campaign messages in party press releases sets the three largest parliamentary parties apart from the three smaller parties. Social Democrats (SPÖ), People's Party (ÖVP) and Freedom Party (FPÖ) account for almost three out of four negative press releases, and the largest opposition party (FPÖ) issues most of them. The level of negativity of SPÖ press releases is lower than that of its two strongest competitors. SPÖ party leader Werner Faymann was Federal Chancellor in a coalition government with the ÖVP. The party depicted him as a statesman who successfully steered the country through the European financial crises. The ÖVP as the SPÖ's main challenger for government leadership launched a series of attacks against Faymann calling him a liar and a coward ('Lügenkanzler', or 'Feigmann') and associated him with new taxes ('Faymann taxes'). The FPÖ issued many strongly negative statements as well. One of its central campaign messages was restricting social policy benefits to Austrians only. A relative majority of its negative press releases contained allegations of misconduct and/or corruption against the federal government. Team Stronach, a new party founded by Austro-Canadian billionaire Frank Stronach also released a number of strongly negative messages. The party's statements became increasingly shrill towards tend the end of the campaign when its numbers in the polls were sliding downwards. Press releases of the Greens were on average the least negative. One of its central campaign issue was the fight against corruption, but the wording was rather moderate on average. The Alliance for the Future of Austria (BZÖ) fought for political survival in the election. The party tried to present itself as a moderate and

responsible party of economic liberalism, which is reflected in the second lowest mean tonality of its press release statements.

Issue salience and the tonality of attacks

Moving closer to the core of our research questions, we present results based on exchanges at the level of 540 directed pairs of parties and substantive issue areas. Our first hypothesis suggests that negative campaigning is more likely to occur on salient issues. Figure 2 indeed attests a positive relationship between tonality and media issue salience in the Austrian election of 2013.

On most policy areas figure 2 exhibits a moderate overall tonality in the party's statements. An exception is the policy areas misconduct and corruption, where the parties used more strongly negative statements. National media also extensively covered this policy area, which included allegations of illegal campaign financing, the Hypo Alpe Adria affair, a bank formerly owned by the Land Carinthia, which had to be nationalized in order to save both bank and Land from going bankrupt. The parties were least negative on the issues of European Integration and agriculture. Both of these issues received the lowest amount of media coverage.

Figure 2: Media issue salience and campaign tonality of press releases by policy field
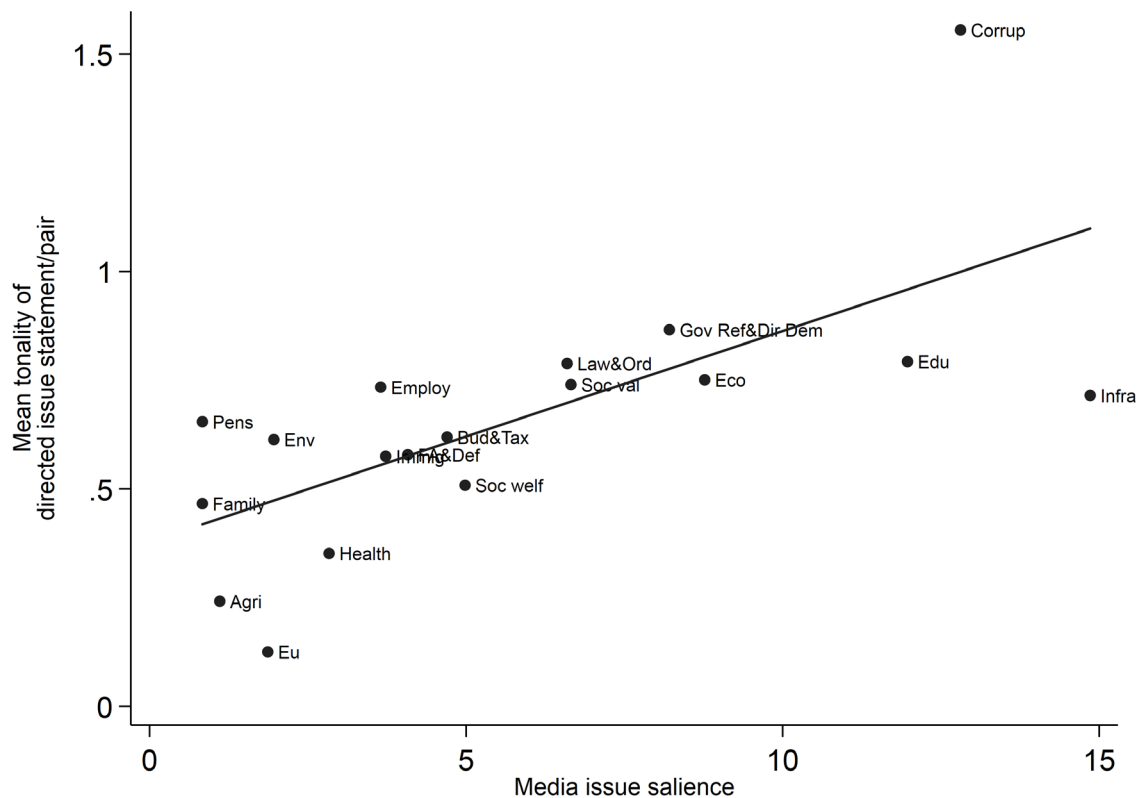
Source: own calculations using AUTNES Press Releases dataset and AUTNES Media dataset.
Note: Salience correlations and the means in figure 2 are based on the complete set of press releases, regardless of the party issuing the statement.

Issue competence and tonality of attacks

Can we find commonalities among parties such as a tendency to attack each other on some policy areas more strongly than on others? External forces, such as the media agenda, impacting on the issue agenda of an election can be strong. A party may get embroiled in a rhetorical exchange that it has not actively sought. As hypotheses 2 and 3 state the initial trigger of such an exchange could be either a party trying to fight on its home turf or a party attempting to weaken the issue ownership of a rival. If either one of this arguments is plausible, we should find more than one party on the same policy area emitting strongly negative statements about other parties.

We calculate a tonality-based rank order of the 18 issue areas by party and sum these ranks into an overall index (see Table A1 in the appendix). The higher the index value the stronger is the tendency across parties to issue negative statements in the respective policy

area. At the other end of the index range are the policy areas where parties issue emitting strongly worded press releases. The range of policy areas in between is where parties differed in how negatively they communicated about each other.

Figure 3: Rank order of campaign tonality of press releases by policy field
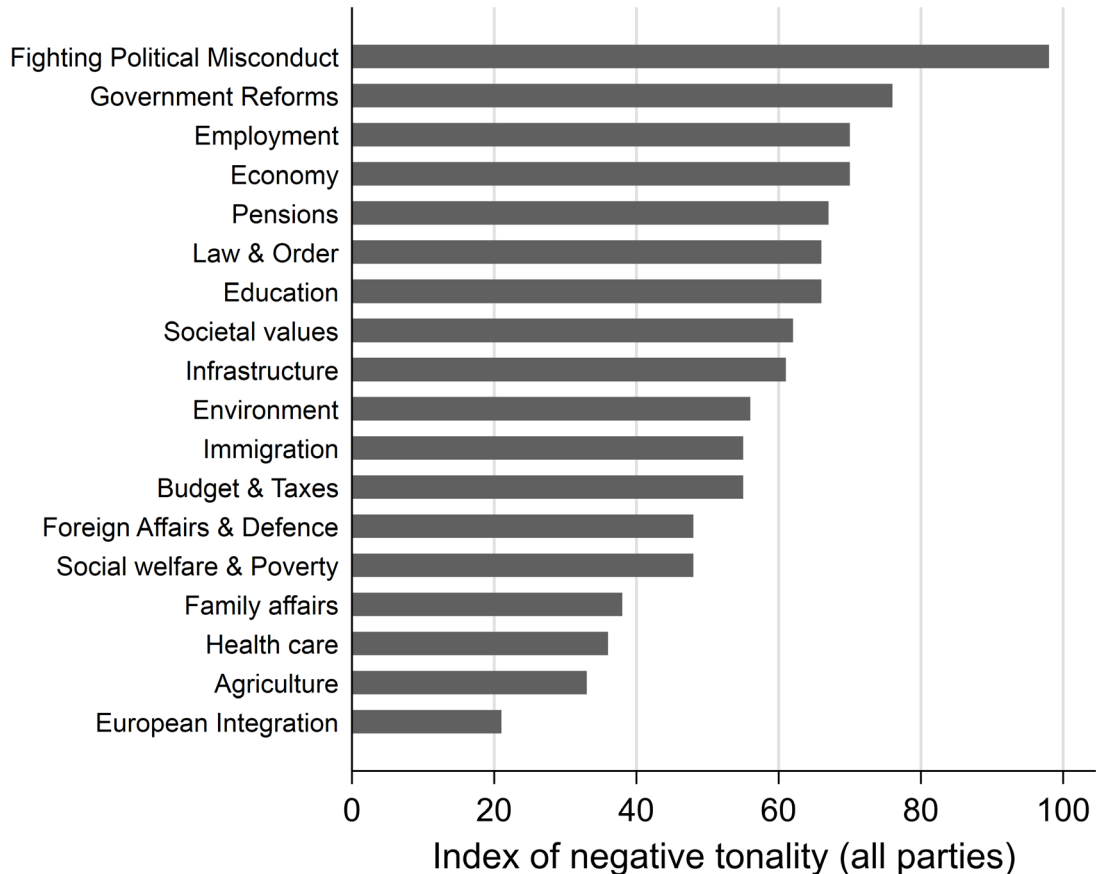
Source: AUTNES Press Releases dataset
Note: Higher values indicate higher tonality scores for these issue areas.

The issue of corruption had by far the highest level of negativity during the campaign. All parties unanimously attacked each other fiercely with allegations of corruption and illegal campaign financing. The broad issue category of 'Individual rights and societal values', which includes as sub-topics gender-related issues as well as right-wing extremism, had the second most negative press releases across parties, followed by the policy areas of employment and the economy. The most civil exchanges were found in the policy areas family affairs, healthcare, agriculture and European integration.

We find some differences between government and opposition parties. The coalition partners traded barbs on education, the environment and pensions. Opposition parties were more negative on government reforms, the economy and employment.

Next, we analyze the relationship between issue competence and tonality of directed campaign statements for all parties. Figure 3 jointly presents results for parties attacking their rivals' issue strongholds and for parties defending their home turf.

Figure 4: Tonality of press releases and issue ownership of sender and target party
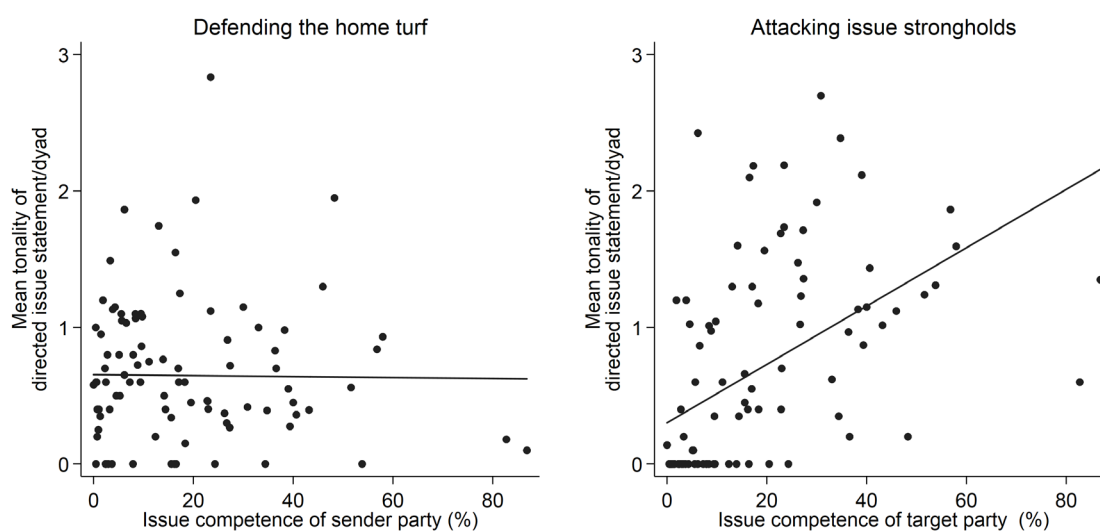
Source: own calculations using AUTNES Press Releases dataset and AUTNES Pre-election Survey.
Note: Each data point represents the mean tonality of all statements from party A directed at party B in a policy area.

There is no relationship between the tonality and the competence of the party releasing a campaign message. Thus, parties do not seem to defend and strike out from their issue home turf. We see a strong positive correlation between the tonality and issue competence for parties' attacking their opponents' best issues. The relationship is not linear, but there is evidence that parties use stronger worded attacks for rival parties with a competence advantage.

Multivariate analyses of the tonality of negative campaigning

For the multivariate analyses we turn to OLS regression modelling. The dependent variable is the mean tonality over all directed statements from party A towards party B in one of the 18 policy areas. We attempt to explain how strongly negative parties are in their campaign towards other parties. There is limited variation in these dyadic aggregated data. Small beta coefficients therefore should not come as a surprise.

The first model in Table 4 includes the media issue salience and the issue competence of sender and target party. Model 2 adds the information whether the sender or target party is a government party as well as the left-right distance between the two parties involved. We use the mean values of the party candidates' left-right self-placements. Finally, model 3 also adds the number of directed statements.

Table 4: Multivariate OLS regression models of campaign tonality

	Model 1	Model 2	Model 3
Media issue salience	0.05***	0.05***	0.05***
	(0.0)	(0.01)	(0.01)
Issue competence (% of cites)			
Sender party	0.01*	0.0	0.0
	(0.0)	(0.0)	(0.0)
Target party	0.02***	0.01*	0.01**
	(0.0)	(0.0)	(0.0)
Government party status			
Sender party		0.15	-0.07
		(0.11)	(-0.67)
Target party		0.95***	0.43**
		(0.11)	(0.13)
Left-Right distance of party dyad		0.11***	0.04
		(0.02)	(0.03)
Number of directed statements per party dyad and policy area			0.01***
			(0.0)
Constant	-0.09	-0.38***	-0.18
	(0.09)	(0.10)	(0.10)
Observations	540	540	540
Adjusted R²	0.18	0.30	0.35

Note: Standard errors in parentheses, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

The multivariate analyses confirm the bivariate findings: increasing media salience of issues runs together with more strongly negative campaign statements. The issue competence of the target party explains more of the variation than the issue competence of the sender party. At least, in the election of 2013 parties did not strike out from their home turf policy areas, but rather attacked the policy stronghold of other parties. Turning to the control variable government status we find that rhetorical attacks directed towards one of the two government parties were, overall, more negative than attacks directed at one of the opposition parties, an asymmetry in negative campaigning in multiparty systems that might surprise few observers. The left-right distance between the parties involved in the rhetorical exchange seems to play a bit of a role. Adding the amount of criticism lowers the coefficient, but perhaps because it is another consequence of the left-right distance. However, a larger number of directed statements between two parties on a particular issue also points to potential attack and counter-attack exchanges that lead to increasingly negative statements.

Conclusions

In this chapter we looked at the relationship between issue salience, issue ownership and negative campaigning. Previous studies have argued that issue competence and issue salience should influence the choice of issues on which parties attack each other. Using a measure of campaign tonality for party press releases during the Austrian national election 2013, together with data on the parties' issue competence in the eyes of the voters and media issue salience we find empirical evidence that issue salience and issue competence affect how parties employ negative campaigning during the election campaign. Including these issue-related factors increased our understanding of how parties use negative campaigning.

We do not find issue owning parties aggressively defending their home turf as reported for the US by Damore (2002). Based on a combination of high quality data sources collected on a single election campaign in Austria we find rather strong support for the rival argument

that parties do not hesitate to attack rivals on issue strongholds of the latter, as found by Elmelund-Præstekær (2011a) for the Danish case. Issue-based negative campaigning in multiparty competition in a parliamentary democracy with coalition governments exhibits different patterns and apparently follow a different logic than negative campaigning in a two-party system.

The findings also point to potential limits of issue-based negative campaigning in an election. We find that parties' press releases covered the policy areas which were salient in the media, which is accord with a related study finding that parties profit from responding to the campaign agenda in order to get their own messages into the news (Meyer et al. forthcoming). Issue ownership may constitute a crucial advantage in a specific election (e.g. Dalton 2002). However, experimental and observational studies show that a competitor can successfully challenge a higher ranked opponent on the competence dimension over the course of a single election campaign (Walgrave, Lefevere, and Nuytemans 2009), whereas parties seem unable to steal issues from their associative owners in the short run. Such attempts can backfire and reinforce the established issue ownership perceptions of voters (Tresch et al. 2015). We see a need for more research on how negative campaigning impacts on short-term issue ownership evaluations and the electoral consequences.

Rohrschneider (2002) contrasts as campaign strategies the 'mobilizing' of a party's core voter constituency versus 'chasing' volatile voters, perhaps from the orbit of other parties' voter constituencies. In the context of negative campaigning, defending the home turf appears akin to a strategy of 'mobilizing' core voters and damaging the issue strongholds of rival parties to the alternative of 'chasing' volatile voters. Negative campaigning in Austria in 2013 then seems to have mostly targeted such volatile voters. A generalization of this chapter's findings will require comparative research on issue-based negative campaigning to control for country and election specific effects.

5 Fighting for Attention. Media Coverage of Negative Campaign Messages

Abstract

The paper studies whether and how negative campaigning is a successful strategy for attaining media attention. It combines extensive content analyses of party and news texts with public opinion surveys to study the success of individual press releases in making the news. The empirical analysis draws on 1,496 party press releases and 6,512 news reports in all national media outlets during the final six weeks of Austria's 2013 general election campaign. We find that negative campaigning is a successful strategy to attract the attention of journalists and editors. It is particularly relevant for rank-and-file politicians, who lack the intrinsic news value of high public or party office, and for messages that focus on a rival's best issues. These findings have broader implications for understanding party strategies and 'negativity bias' in the news.

Keywords: Negative campaigning, election campaign, media coverage, gatekeeping, media bias

Acknowledgments:

Introduction

Negative campaigning is an important component of modern election campaigns (e.g. Geer 2006; Lau and Pomper 2004; Mattes and Redlawsk 2014; Nai and Walter 2015b). It can provide electoral benefits by undermining rivals' competence evaluations, demobilizing support for the targeted politician or party, mobilizing supporters, and persuading undecided and risk-averse voters to cast their vote for the 'lesser evil' (Damore 2002; Elmelund-Præstekær 2010, 2011a; Riker, 1996; Skaperdas and Grofman 1995). Thus, many campaign advisors believe that negative campaigning is an effective strategy for winning elections (Lau and Pomper 2004; Walter and Nai 2015: 107).

Yet, negative campaign messages may have additional benefits beyond their immediate impact on voters. In this paper, we study whether negative campaigning is also a successful strategy for getting the media's attention. The news media are valuable targets for party campaign communication, as they still represent the single most important source of information for voters during elections (Hallin and Mancini 2004; Strömbäck 2008; Strömback and Van Aelst 2013). Negative campaigning should help parties to attract media attention as conflict or negativity is attractive to journalists, thus increasing the perceived newsworthiness of statements or events (e.g. Galtung and Ruge 1965; Harcup and O'Neill 2001). In turn, increased media attention helps parties to highlight their major campaign messages. This is particularly relevant within a context of partisan dealignment and a growing importance of issue-based voting (Dalton 2013; Green-Pedersen 2007): if voting decisions are increasingly based on short-term factors, then it is important to know how parties can change the information environment, for example by influencing media coverage of their rivals. Successfully gaining coverage for negative messages could, for instance, help parties to steal an owned issue (Elmelund-Præstekær 2010; Tresch 2015).

While negativity make messages more newsworthy, we argue that this added value is particularly relevant for rank-and-file politicians. It should thus matter most for those

political actors that have no intrinsic news value, i.e. those without high public or party office
(Bennett 1990; Gans 1979). Whereas journalists consider most messages from elite
politicians with great interest, the rank-and-file may benefit most from the added news value
of negativity or conflict.

We further expect that the news value of negative campaign messages depends on their
topic. Journalists and editors prefer unexpected and surprising news (Galtung and Ruge
1965). Campaign messages may be more likely to make the news if they address issues
owned by rival parties, as such communication differs from the bland repetition of a party's
own issue profile (Helfer and Van Aelst 2016). Thus, we expect a multiplicative effect of
negative campaigning on issues that are not owned by the party releasing the message.

The empirical analysis is based on original party, voter and media data on the 2013
Austrian general election. We study campaign messages in party press releases and their
coverage in media reports throughout all nationally relevant newspapers in the final six
weeks of the election campaign. Following Grimmer (2013, 2010), we combine cheating
detection software with manual checks to match 1,496 press releases with 6,512 media
reports published the following day. We further use content analyses on party messages,
media reports and voter survey data to complement these data.

By explaining variation across individual messages, this study adds to a growing
literature on micro-level party-media agenda setting (Flowers et al. 2003; Grimmer 2010,
2013; Helfer and Van Aelst 2016). It is one of the first empirical studies outside the US to
examine the effects of negative campaigning on the chances of individual campaign
messages of making the news; the only other non-US study we know of is by Ridout and
Walter (2015b), which takes a more aggregate-level approach than we do. Beyond that, we
show how the success of negative campaign communication is contingent on the role of
individual politicians and the topical focus of their messages. Understanding whether
negative messages are more likely to make the news addresses the *presumed* causal

relationship of media-based incentives for this campaign strategy (e.g. Capella and Jamieson 1997; Farnsworth and Lichter 2010; Geer 2006; Hansen and Pedersen 2008; Patterson 1993; Walter and Vliegenthart 2010). Beyond the potential implications of such a structural negativity bias on the part of the news media, the paper provides evidence for political practitioners on how to succeed in getting campaign messages into the news.

Finally, the paper contributes to a wider debate on the level of negativity in election campaigns. Previous research has revealed differences in the degree and characteristics of negative campaigning across various communication channels such as advertisements, press releases and media reports (e.g. Elmelund-Præstekær 2010; Ridout and Franz 2008; Walter and Vliegenthart 2010). Our findings explore the reasons behind these differences: because negativity helps party actors to get media attention, we expect that the degree of negativity is higher in those communication channels that target journalists and editors than channels targeting different audiences (e.g. party activists). Beyond that, media gatekeeping, and journalistic norms and routines should increase the negativity and modify the set of actors and issues in newspapers, news broadcasts or TV debates. We take up the broader implications of our findings in the concluding section.

Media coverage of negative campaign messages

Political actors who seek to convey their campaign messages to a broad public need to get the media's attention. Even with the growing importance of direct communication channels such as social media platforms, traditional news media are still the single most important source of information during election campaigns (Hallin and Mancini 2004; Strömbäck 2008; Strömback and Van Aelst 2013). Accordingly, parties have professionalized their organization and communication style to attract media attention (Cook 2005; Plasser and Plasser 2002; Strömbäck and Van Aelst 2013). Yet, for the most part, they also need to rely on the decisions of journalists and editors, who select among a plethora of potential news

items according to personal preferences, economic pressures and professional norms and routines (Shoemaker and Reese 1996).

There are good reasons why negative campaign messages may attract media attention. Negativity or conflict are among the most prominent factors determining the chances of messages or events to become news (Galtung and Ruge 1965; Harcup and O'Neill 2001; Lippmann 1922). Thus, negative campaigning should be more newsworthy than campaign messages including self-praise or statements emphasizing the party's issue priorities. Following Galtung and Ruge (1965: 69f), negative news is more consensual and unambiguous in a sense that people will more easily agree upon the interpretation of a negative event. Negative events are also less predictable and thus contain unexpected information, all of which enhances their attractiveness to newsmakers.

Psychological research further highlights fundamental asymmetries in the attention to positive and negative information (e.g. Baumeister et al. 2001; Rozin and Royzman 2001). Thus, negative content may dominate the news simply because 'journalists are humans, and humans are more interested in negative than in positive information' (Soroka 2014: 21; Soroka and McAdams 2015). Such reasoning also makes sense in economic terms: as readers prefer negative content, profit orientation should motivate newsmakers to satisfy the consumer demand for negativity (Trussler and Soroka 2014).

Empirical research indeed shows a negativity bias of (political) news coverage and the prevalence of a critical or cynical journalistic angle towards political elites (e.g. Capella and Jamieson 1997; Farnsworth and Lichter 2010; Patterson 1993; Soroka 2014). In addition, media reports tend to be more negative than party communication (Elmelund-Præstekær 2010; Elmelund-Præstekær and Molgaard Svenson 2014a; Geer 2006; Hansen and Pedersen 2008; Ridout and Walter 2015; Walter and Vliegenthart 2010).

These studies provide strong macro-level-evidence for a structural negativity bias in the media. Yet, they cannot tell us whether the media are more likely to *report on* individual

campaign messages that contain criticism or conflict. It could also be that journalists themselves *supplement* an article with a negative or critical view only after having selected a source. Thus, they may report on a press release from one politician that does not contain negativity or conflict and then collect negative reactions from rival parties to include a critical angle in their final article.

Our study provides an empirical test of the direct causal relationship between negative campaigning in party messages and subsequent media reports. Given the overwhelming evidence of a negativity bias in the media coverage of politics, we expect journalists to disproportionately report on campaign messages containing criticism or conflict between rival politicians or parties.

Hypothesis 1 (Negativity): Negative press releases are more successful in attracting media attention than positive ones.

While the presence of negativity or conflict should increase the chances to attain media coverage, we also expect variation according to the intrinsic news value of the person drafting a negative message. That is, the added value of negativity is higher for some party actors than for others. Elite politicians should find it much easier to attract media attention for their campaign communication than a party's rank-and-file. For example, members of government are able to influence political outcomes by drafting laws and shaping political reality, and are thus more newsworthy for editors and journalists (Bennett 1990; Galtung and Ruge 1965; Gans 1979; Harcup and O'Neill 2001). Similarly, party leaders and high party officials are newsworthy as they enable journalists to present the election as personal contests (Balmas et al. 2014; Van Aelst et al. 2008). These elite politicians are less likely to depend on the additional benefit of negativity as a news factor in their campaign communication. Moreover, parties may want to avoid potential backlash effects of negative campaigning for their elite politicians (e.g. Garramone 1984). For example, cabinet members

should have little to gain from negative campaigning, as they will want to preserve their individual chances of staying in office (Dolezal et al. 2017). Accordingly, they should predominantly focus on positive messages by defending the government's record or presenting plans for the next legislative term.

In contrast, rank-and-file politicians such as ordinary MPs are more likely to depend on the presence of news factors in their messages for attracting the interest of journalists and editors. Because their overall chances to attain media attention are relatively small, going negative is a more risky, but also a more beneficial strategy to make the news. In addition to the rank-and-file's own incentives for negative campaign messages, their parties may also encourage them to send out negative campaign messages on behalf of the party elite, and to protect the latter from potential backlash effects. Recent empirical evidence indeed suggests that rank-and-file politicians can increase their chances of attracting media attention by supplementing their messages with news factors; for example by focusing on important issues, engaging with other parties or by stressing unexpected issues (Helfer and Van Aelst 2016; Meyer et al. forthcoming). As their initial level of newsworthiness is low, these politicians should benefit most from drafting negative press releases to compensate their lack in newsworthiness.

Accordingly, we expect that negative campaigning should help rank-and-file politicians more than party elites to get media coverage for their campaign messages.
Hypothesis 2 (Rank-and-file politicians): The effect of negativity for attracting media attention is higher for rank-and-file politicians than for party elites.

We also expect that the success of negative messages in getting the media's attention depends on the content of the campaign message (Elmelund-Præstekær 2011a). Here, we focus on whether parties 'own' the issue they send out messages about. In general terms, there are incentives for parties to talk about both issues they own and about other issues,

even those owned by rivals. On the one hand, saliency and issue ownership theory (Budge and Farlie 1983; Petrocik 1996; Petrocik et al. 2003) suggest that political actors emphasize their best issues during campaigns to set the campaign agenda, and to make sure that voters consider these topics in their voting decisions. On the other hand, parties may also need to address other issues if they are important to voters, if they figure prominently on the media's agenda or if they want to challenge rivals on them (Ansolabehere and Iyengar 1994). Indeed, empirical evidence shows that party issue agendas tend to overlap and that parties do not necessarily 'talk past of each other', as would be predicted by pure salience theory (Green-Pedersen and Mortensen 2015; Dolezal, Ennser-Jedenastik, et al. 2014; Wagner and Meyer 2014; Kaplan et al. 2006; Sigelman and Buell 2004).

We think that parties may get more attention by sending out negative messages on issues they do not own. 'Going negative' on issues owned by a rival can make sense, as it can allow parties to challenge their opponent's issue reputation, conquer their issue ownership, or cast doubt about the ability of a party to deliver desired policy outcomes (Elmelund-Præstekær 2011a; Walgrave et al. 2009). In terms of media coverage, this strategy may also be more successful than when a party attacks other parties on an issue it already owns. Journalists and readers are interested in unexpected, surprising or different news (Galtung and Ruge 1965; Harcup and O'Neill 2001). Recent experimental evidence also suggests that journalists are more likely to report on messages where parties address issues they do not own (Helfer and Van Aelst 2016). These shifts in issue attention are unexpected to journalists and readers. In deviating from the routine campaign content, they have the potential to contain newsworthy information. It is these issues where negativity is beneficial (in particular if a party attacks the issue owner).

In contrast, messages where parties focus on their best issues are in general less interesting for the media. Choosing from the multitude of campaign massages, journalists are not particularly likely to report on repeated and unsurprising campaign messages. Even

if a party 'goes negative' on these issues, the added news value of such a message remains relatively small. However, there is also evidence that parties get more coverage on issues they own (e.g. Petrocik et al. 2003; Walgrave and De Swert 2007). One reasons for this might be that time-pressed journalists may rely on trusted, reliable sources (e.g. government ministers) for comments on key issues of the day (Gans 1979; Walgrave and De Swert 2007). Issue owners should have more such experts in their ranks, so that they should be more likely to get coverage on owned issues. Yet, our focus in this paper is on the marginal benefit of 'going negative' for receiving media coverage, and it is not clear why parties should gain *more* media coverage on an issue they own if they use their messages to attack other parties.

For example, consider press releases by a radical-right party that decides whether to 'go negative' to increase its news value. In a press release on immigration, attacking other parties will not be particularly newsworthy. The issue is unsurprising and there is little added value or new information in the message that other parties are described by the radical-right party as worse on that issue. In contrast, a radical-right party that accuses other parties of (bad) economic performance should be more likely to gain media attention. The issue is more surprising, and the radical-right party might contrast its own position with that of the government and/or the party that owns the issue. Hence, our main expectation is that the media privilege coverage of negative campaign messages that address an issue owned by a party's rivals.

Hypothesis 3 (Owned issues): The effect of negativity for attracting media attention is lower for press releases that focus on issues that a party owns.

Data and methods

We use press releases of party actors to analyze whether these campaign messages get coverage in the print media. Press releases are attractive to both politicians and journalists. For the former, they are cheap and easy-to-use communication tools with the potential

benefit of winning nationwide media coverage. For the latter, press releases contain readily available information from relevant actors that facilitate and accelerate the day-to-day political news coverage. Recently, press releases have also gained increasing interest from scholars studying political communication (e.g. Grimmer 2010, 2013; Hänggli 2012; Helfer and Van Aelst 2016; Hopmann et al. 2012; Klüver and Sagarzazu 2016).

Our empirical analysis is based on content analyses of party press releases and newspaper articles published during the last six weeks of Austria's 2013 general election campaign. Studying one country and a single campaign enables us to analyse the success of individual campaign messages to get the media's attention based on the complete set of party messages and media reports. Any restriction in the number or content of the newspapers would bias the parties' chances of getting media reports of their campaign messages.

While social media platforms are becoming more important, in 2013 press releases were a major tool for communication purposes: only a minority of candidates used a personal website, and about 16 per cent of them had a Twitter account (Dolezal 2015). Facebook is the exception to the rule: about half of all candidates used it at least partly for political purposes (Dolezal 2015). In terms of outreach, social media platforms were also rather limited: only about 20 per cent of respondents in 2013 indicated that they had read or posted about politics in social media platforms such as Facebook or Twitter (Kritzinger et al. 2017). Yet, this estimate includes fans of FPÖ leader Strache's Facebook page, with about 170.000 fans in 2013 clearly the single most social media site in Austria at the time (Dolezal, Eberl, et al. 2014). We therefore focus on press releases as communication tools that are available to a wide range of party actors.

Austria, a multiparty parliamentary democracy, is particularly well suited for studying the success of party campaign messages to attract media attention. First, press releases are a tool commonly used by politicians and parties. During the 2013 election campaign, Austrian parties distributed roughly 2,000 press releases in the last six weeks of the campaign (on

average 45 press releases a day). This figure appears to be high compared to other countries: Klüver and Sagarzazu (2016) report that German parties published about 3,700 press releases in 2009 (on average 10 press releases a day). Hopmann et al. (2012) collected 334 issue-related press releases in the 20 days prior to the Danish 2007 election campaign (on average 17 press releases a day). The high number of press releases might partly be due to the relatively decentralized way of distributing them. Instead of a single central channel for distributing press releases, political actors can access those of auxiliary organizations (e.g. labour unions), regional party organizations, intra-party groups (e.g. youth organizations), and parliamentary party groups. This means that press releases in Austria vary broadly in their authorship. During the 2013 campaign, the 2,000 press releases were sent out by 292 individual party actors; this includes MPs, members of government, state (Land) members of government, interest group leaders tied to parties (e.g. trade unions), as well as 'ordinary' candidates who are relatively unknown.[28]

In addition, data collected in the Austrian National Election Study (AUTNES) allow us to match data on press releases directly with data on media coverage in all nationally relevant newspapers. While social media are increasingly important, in 2013 newspapers still reached about 73 per cent of the Austrian population (above 14 years of age) on a daily basis (Aichholzer et al. 2014: 32). Thus, they are highly relevant targets of political communication as many people read them every day. The relevance of newspapers allows us to study print editions, which enables us to closely link campaign messages at day t and media reports at day $t+1$ (see below). Finally, AUTNES survey data from 2013 also allow us to match the coded press releases and newspaper reports with public perceptions of the issue agenda and issue-ownership attributions from voter surveys.

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[28] All of these actors are relevant in the sense that they ran as candidates or held party or public office. Yet, not everyone affiliated with a party was deeply involved in the election campaign. To test the robustness of our results, we re-ran our models excluding all actors apart from government members, MPs, party leaders, and party chairpersons. The results (shown in Appendix F) lead to similar conclusions as those presented here.

We include press releases by individual politicians from the parties represented in parliament before the national election (SPÖ, ÖVP, FPÖ, Greens, BZÖ, and Team Stronach).[29]

We discard press releases that solely contain information about party campaign events (e.g. to inform journalists about press conferences, photo ops) and those only containing pictures and hyperlinks to audio content (N = 104). Moreover, we remove messages only informing about specific campaign events (TV debates, canvassing), opinion polls, or changes in party office (N = 288) and thus only include press releases with a clear policy focus. We further identify the politician who issued a press release. If two politicians sent out a press release together, each of them enters the analysis separately. In total, the remaining data set contains 1,496 campaign messages.

Dependent variable. We measure the success of each press release by checking if there is at least one media report using it as a source. We start by grouping press releases by day, and thus create 41 (daily) clusters of press releases. Next, we collected all media reports published in daily newspapers on the following day.[30] Focusing on paper rather than online editions allows us to establish a clear temporal relationship between a press release on day *t* and the media report on the next day (*t+1*). To avoid selection bias, all nationally relevant newspapers, including broadsheets, tabloids and mid-market media enter the analysis. For the same purpose, we do not restrict our selection of media reports to specific sub-sections (e.g. front pages). We use data from AUTNES content analyses of eight newspapers (*Der Standard, Die Presse, Salzburger Nachrichten, Kronen Zeitung, Österreich, Heute, Kurier, Kleine Zeitung*). We use front pages, media reports, and background analyses but exclude commentaries, interviews, cartoons, and letters to the editor (N=6,512).

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[29] We exclude press releases of the new liberal party (NEOS). The party only gained seats after the election. We further discard other smaller parties without representation in parliament. We only include press releases that we can attribute to individual politicians and do not consider messages that only have a party label (n=116).

[30] Sunday editions of newspapers are rare. Thus, we also consider media reports published on Monday for those press releases published over the weekend.

Each press release requires checking roughly 170 media articles published the following day (on average), and thus we have to cope with about 270,000 press release-media report dyads. We follow Grimmer (2010) and employ a two-stage coding process. First, using cheating detection software (Bloomfield 2014), we identify matches in the content of press releases and the set of all media reports published on the following day. The automated analysis reduces the amount of coding units for the subsequent hand-coding step. We use permissive matching parameters to generate more 'hits' and thus, to avoid false negatives (press releases that made that news but were not detected by the algorithm).[31] The software identifies 1,785 potential 'matches', which allows us to discard 99.5% of all press release-media report dyads.

We continue by manually checking the remaining dyads. Reading the press release and the media report side-by-side, we assess whether a press release was successful in attaining media coverage (1) or not (0). Based on our definition, a press release is successful if at least one media report published the following day (a) refers to the press release's author (i.e. name of a politician) as an active speaker and (b) deals with the same topic as the press release.[32] We provide some examples of successful press releases in the Appendix (Appendix B).

Of course, manually coding the success of press releases can be challenging in some cases. It is simple when journalists explicitly refer to their sources in the article ('…announced in a press release that…') or if the press release is a direct source for citations or quotes. It is also quite easy to identify press releases that did not make the news if a press release and an article have different topics. Yet, the coding decision can be more difficult if

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[31] More information on the settings and the software is included in the Appendix (Appendix A).
[32] There are very few instances where successful press releases are in fact used in several media reports. 60 per cent of the successful press releases (141 of 235) are used in one media report only. Only 18 press releases were used as sources in four or more media reports. This is why we stick to the dichotomous distinction of successful and unsuccessful party press releases.

a press release and a newspaper article deal with the same issue, but there is no direct evidence for a party's influence.

To address these problems, we assess the reliability of the manual coding process: two coders coded a sample of 500 potential hits (press release-media report dyads). Krippendoff's alpha is 0.82, and thus inter-coder reliability is reasonably high. In addition, we carefully checked the individual coding decisions. Coders disagreed more often when press releases and media reports refer to a third event (e.g. a press conference), which obscures whether the press release or a press conference was the source in the media report. We address this by adding a control variable in the analysis, indicating a press release's reference to a press conference (1) or not (0). As elite politicians are more likely to give press conferences, and we are more likely to code these press releases as being successful, this control variable should account for a possible disturbance in the X-Y-relationship.

Independent variables. Our main independent variable is dichotomous, indicating whether negative campaigning is present in the first paragraph of a press release (1) or not (0). We follow a pragmatic operationalization of negative campaigning, defining it as criticism between two political actors (e.g. Geer 2006; Walter and Nai 2015).[33] Such definitions have been criticized for their lack of discrimination between substantive criticism, mudslinging or character assassinations (e.g. Kahn and Kenney 1999). Yet, we expect that any kind of negative message should be more newsworthy in the eyes of journalists and editors according to news value theory (Galtung and Ruge 1965) and the supremacy of negative information (Soroka 2014). For testing expectations about actor- and issue-related campaign strategies, a coarse measure should facilitate our research task.

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[33] During the coder training process, we conducted a pretest on a random sample of 100 press releases from the 2008 election. Six coders had to identify object actors (e.g. parties and politicians addressed in the press release). We measured agreement among the coders and arrived at values of 0.88 (Krippendorff's alpha) for the identification of object actors (N = 300).

Our second independent variable distinguishes between *rank-and-file politicians* and party elites. Public office naturally translates into 'power' because the political actions of these politicians may have broad societal consequences (e.g. Bennett 1990; Galtung and Ruge 1965; Harcup and O'Neill 2001). Beyond public office, party leaders usually shape election campaigns and figure prominently in the news. Such 'centralized personalization' has recently been observed for Belgian (Van Aelst et al. 2008), British, Danish, Dutch (Vliegenthart et al. 2011) and Israeli (Balmas et al. 2014) election campaigns. A similar logic applies to party secretaries who run the campaign and are in charge of its 'spin'. Compared to these actors, ordinary members of parliament, parliamentary candidates, party actors at the state and regional level, heads of intra-party groups (e.g. youth organizations), and members of the European Parliament constitute the group of rank-and-file politicians. All of these actors are less newsworthy to the national media and therefore less successful in getting their messages into the news (e.g. Meyer et al. forthcoming.). We code all politicians with high public or party office as party elites (1) (n=387) and discriminate them from the larger group of rank-and-file politicians (0) (n=1,109).[34]

Turning to the topical focus of press releases, we first classify press releases into eighteen broader policy issue areas[35] that enable us to match party communication with voter preferences. For these issue areas, we determine *issue ownership* using a rolling cross-section voter survey carried out during the campaign (Kritzinger et al. 2014). The share of respondents naming a particular party as being best to handle an issue is our measure for the party's competence. For each issue area, we identify the party with the highest competence

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[34] Seven politicians have multiple roles. For these individuals, we assume that public or party office is more important than being a MP. Accordingly, they join the group of party elites.

[35] These issue areas are employment, social welfare & poverty, health care, pensions, family affairs, budget & taxes, agriculture, education, environment, law & order, individual rights & societal values, European integration, foreign affairs & defense, infrastructure, immigration, fighting political misconduct & corruption, government reforms & direct democracy. During the coder training process, agreement between six coders (based on a sample of 100 press releases) was 0.61 (Krippendorff's alpha).

score as the 'issue owner'. We use this information to build an indicator variable that captures, for each party-issue combination, whether the politician issuing the press release addresses an issue owned by his/her party (1) or not (0).[36]

Control variables. We control for several potentially confounding factors. First, media often privilege more powerful actors (Galtung and Ruge 1965; Gans 1979). Thus, we include a variable that distinguishes between press releases sent by members of a party in government (1) and in opposition (0) to account for a potential structural advantage of government parties. Second, we control for the time a politician sent out a press release. The publishing cycle of newspapers implies that press releases published in the morning have better chances to get media coverage than those issued in the later afternoon. We therefore include a variable measuring the time (in minutes) since midnight. Third, we also account for external events. The binary coding includes international (e.g. EU summits) or national events (e.g. TV-debates, reports by the Austrian Court of Audit). It relies on the AUTNES content analysis of party press releases, which identifies the trigger of each press release. As mentioned above, we also control for whether a press release includes a reference to a press conference (1) or not (0). Finally, we account for text length (in words), because longer press releases should (potentially) provide more information that is valuable for journalists.

Model specification. Our dependent variable measures whether a press release is successful in getting news coverage (1) or not (0). Thus, we use logistic regression models and use clustered standard errors by issue area to account for the fact that some covariates vary only at the level of issue areas.

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[36] In Appendix E, we use a more sophisticated measure of issue ownership that allows for shared issue ownership and issues that are not owned by any party (Tresch et al. 2017). Our major conclusions remain the same.

Results

Are negative press releases more likely to attract media coverage than positive ones? Figure

1 shows the share of successful positive and negative press releases by party. Five out of six

parties are more successful in making the news with negative press releases.[37] Across all

parties, negative campaign messages are slightly more likely to attain media attention (17%)

than positive ones (14%), which lends some initial support to our first hypothesis.[38]

Figure 1: Share of positive and negative press releases in the media (by party)
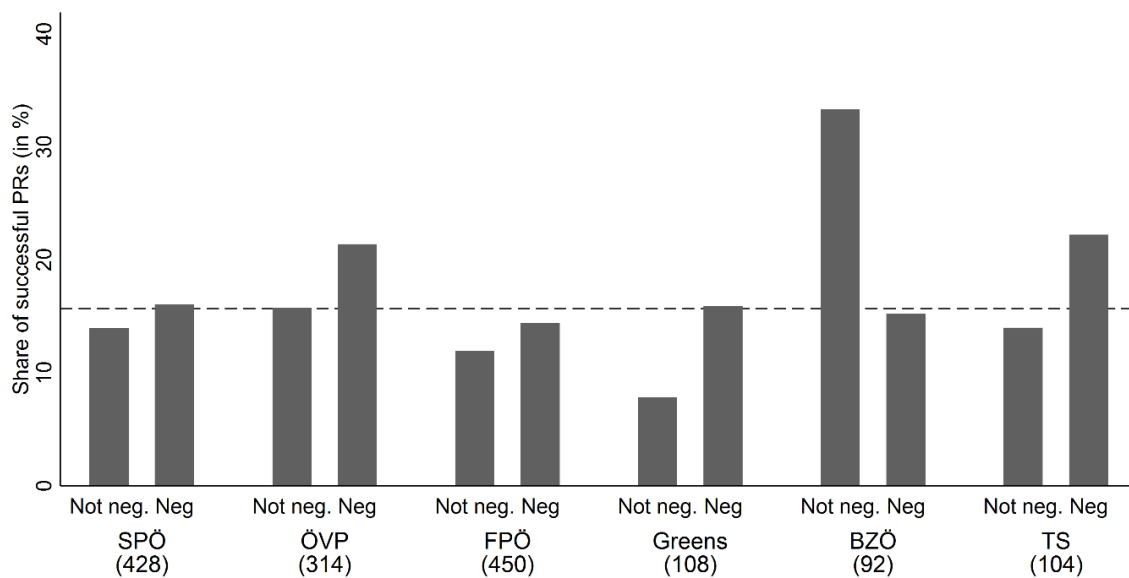
Note: The bars indicate the share of successful press releases by party (numbers in parentheses denote the total number of press releases per party). The dashed line indicates the overall mean of successful press releases (N=1,496).

Figure 2 shows the share of successful positive and negative press releases for party elites

and rank-and-file politicians. Negativity has a much higher impact for rank-and-file

politicians than for party elites. The latter make it into the news with one out of three

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[37] Overall, there are slightly more negative press releases (52.9%) in our dataset than positive ones (47.1%). There is considerable variation across parties, with the shares of negative messages ranging from 36.5 per cent for the SPÖ to 64.7 per cent for the FPÖ. The BZÖ, which was considerably more successful with its self-promotional messages, released 64.1 per cent negative press releases. We provide a graph of the campaign negativity for each party in the Appendix (Appendix C).

[38] The only exception is the BZÖ, for which more than thirty per cent of its positive messages result in a news report. The finding is mostly due to a strongly personalized campaign communication around their party leader, Joseph Bucher, who released many positive campaign messages.

campaign messages, and negative messages are not more likely to attain media attention than positive ones. In contrast, the overall chances to get media coverage for their campaign messages are significantly lower for rank-and-rile politicians, but they are almost twice as high for negative compared to positive press releases.

Figure 2: Share of positive and negative press releases in the media (by office status)
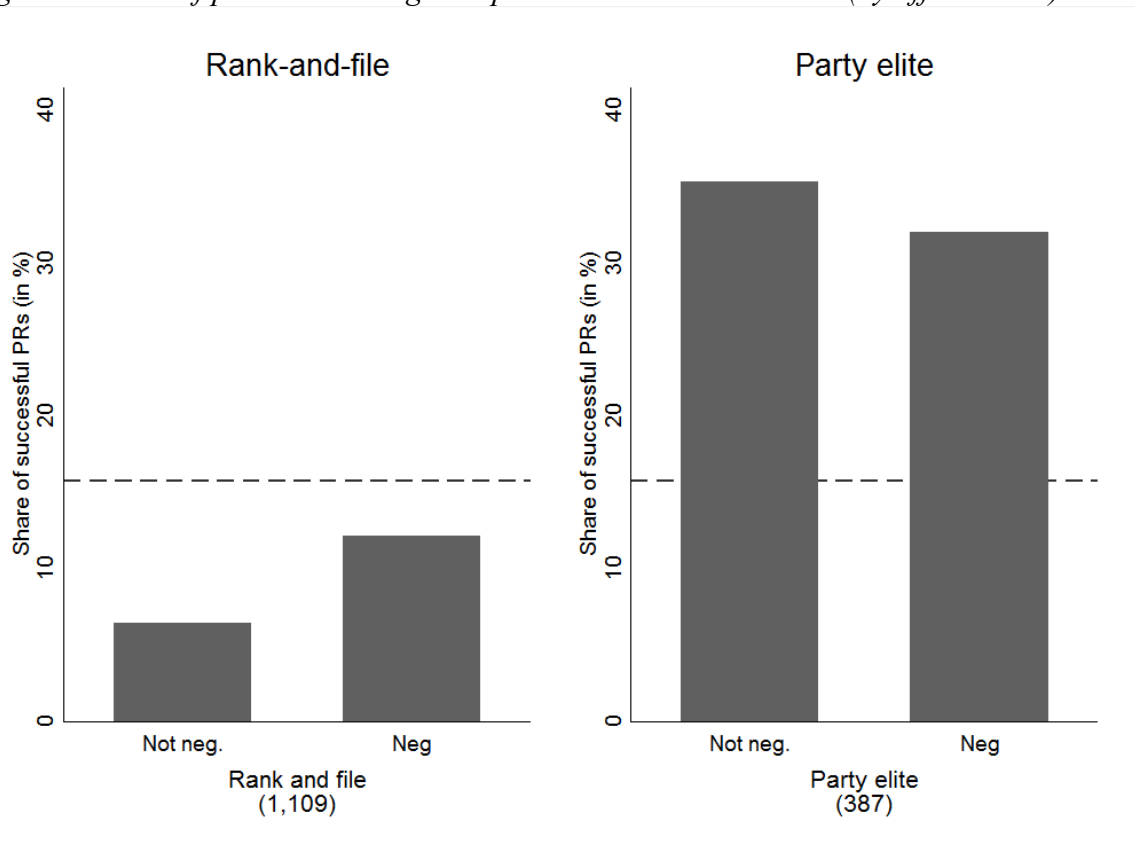
Note: The bars indicate the share of successful press releases for rank-and-file politicians and the party elite (numbers in parentheses denote the total number of press releases per group). The dashed line indicates the overall mean of successful press releases (N=1,496).

Figure 3 shows that issue-based negative campaigning has different effects for rank-and-file politicians and elite politicians. The former may double their success rate of getting media reports of their campaign messages when going negative on issues owned by a rival party (from 6 per cent to almost 14 per cent). The latter show a slight increase in their success rate for going negative on issues owned by their party (+ 3 per cent) and a decrease for topics owned by their competitors (-6 per cent).

Figure 3: Share of positive and negative press releases in the media (by issue and office status)
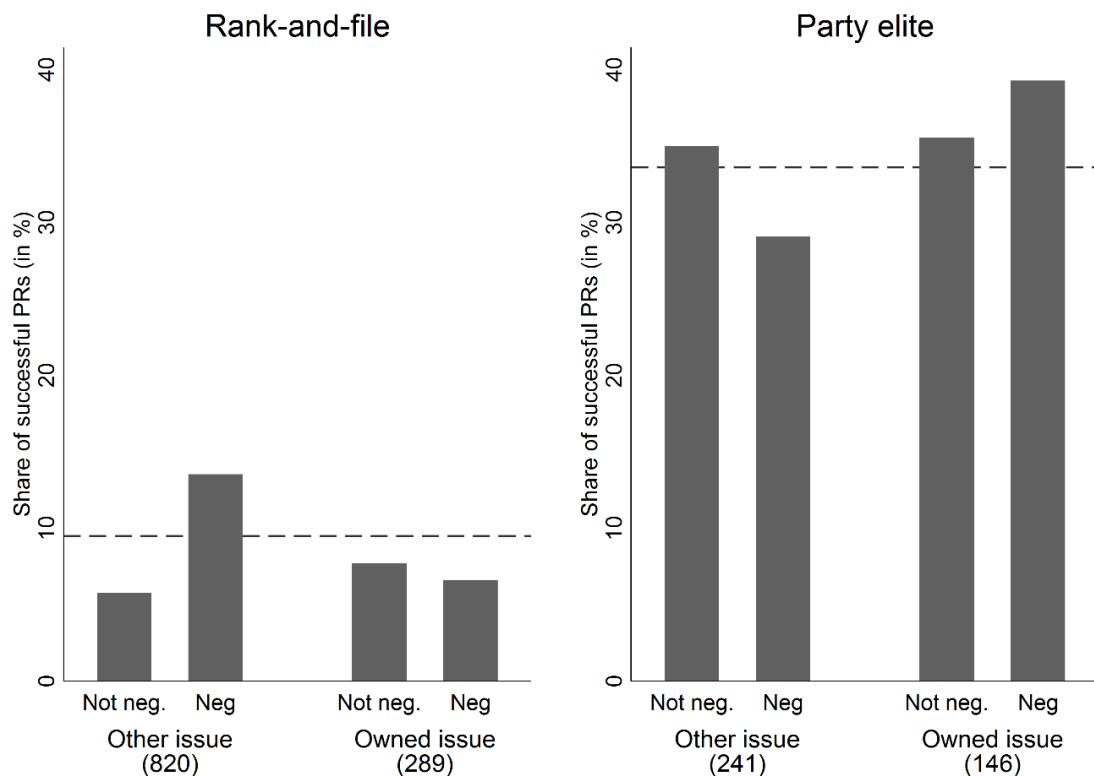
Note: The bars indicate the share of successful press releases for issues owned by other parties or the politician's party across rank-and-file politicians (left panel) and the party elite (right panel) (numbers in parentheses denote the total number of press releases per group). The dashed line indicates the overall mean of successful press releases (N=1,496).

To test our expectations more thoroughly, we estimate two logistic regression models to examine the direct (H1; Model 1) and moderated effects (H2 and H3; Model 2) of negative campaigning. We also present the results of Model 2 only for rank-and-file politicians to account for differences between the party elite and rank-and-file politicians (Model 3).[39]

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[39] We replicate the analysis using multilevel models in Appendix D. The results are similar, although the effect of negativity (Hypothesis 1) is no longer significant at conventional levels.

Table 1: Explaining success of negative campaigning in press releases (logistic regression)

	Model 1 (All)	Model 2 (All)	Model 3 (Rank-and-file)
Negative	0.358[+]	0.867[***]	1.094[***]
	(0.20)	(0.25)	(0.30)
Negative # Party elite	-	-0.897[**]	-
		(0.31)	
Negative # Owned issue	-	-0.225	-1.137[*]
		(0.34)	(0.48)
Government party	-0.0616	-0.0219	-0.00180
	(0.18)	(0.18)	(0.21)
Party elite	1.477[***]	1.993[***]	-
	(0.20)	(0.28)	
Owned issue	0.0125	0.0946	0.370
	(0.25)	(0.26)	(0.39)
PR based on campaign event	-0.224	-0.203	-0.105
	(0.16)	(0.17)	(0.17)
Press conference	1.183[***]	1.198[***]	1.326[*]
	(0.32)	(0.33)	(0.53)
Text length	0.00228[***]	0.00231[***]	0.00193[*]
	(0.00)	(0.00)	(0.00)
Time PR sent	-0.00103	-0.00116[+]	-0.00241[*]
	(0.00)	(0.00)	(0.00)
Constant	-2.194[***]	-2.445[***]	-1.583[*]
	(0.57)	(0.53)	(0.75)
Observations	1,496	1,496	1,109
Log likelihood	-565.9	-561.4	-324.8

Issue-clustered standard errors in parentheses. $^+ p < 0.10$, $^* p < 0.05$, $^{**} p < 0.01$, $^{***} p < 0.001$

The results in Model 1 provide some empirical support for our expectation that negative messages are more likely to get media attention (Hypothesis 1). By going negative, politicians increase their chances of attaining media coverage by 4.1 per cent, although the effect is only statistically significant at the 10 per cent level. In terms of predicted probabilities, drafting a negative press release increases the probability of getting the media to report on a press release from roughly 13.6 per cent to 17.7 per cent.

For an easier interpretation of the conditional effects, we use marginal effect plots. Figure 4 shows the marginal effects of negative campaigning conditional on an actor's elite status (Hypothesis 2) and the message's issue focus (Hypothesis 3). Other variables are at their observed values. Figure 4 indicates that rank-and-file politicians benefit most from

negative campaigning to attract media attention. These actors will increase their success rate of hitting the news by 6 percentage points through negative campaigning. Thus, rank-and-file politicians may substantively increase their chances of making the news by going negative from roughly 6.5 per cent of their messages to 12.5 per cent (significant at $p < 0.05$). In contrast, the effect for elite politicians points in the negative direction, but is statistically indistinguishable from zero.

Figure 4 does not show unequivocal support for Hypothesis 3. On issues owned by other parties, attacks indeed increase the changes to get media attention (statistically significant at $p < 0.05$): by going negative on these issues, politicians may increase their success rate by roughly 5 percentage points (from 13.2 to 18.1 per cent). In contrast, drafting negative messages on a party's best issues does not affect journalistic interest. Yet, the difference between both effects is not significantly different from zero (Berry et al. 2010; Brambor et al. 2006). Therefore, based on the full sample, we cannot conclude that the effect of negativity is substantially smaller than on issues a party owns.

Figure 4: Marginal effect of negative campaigning conditional on elite status and issue type
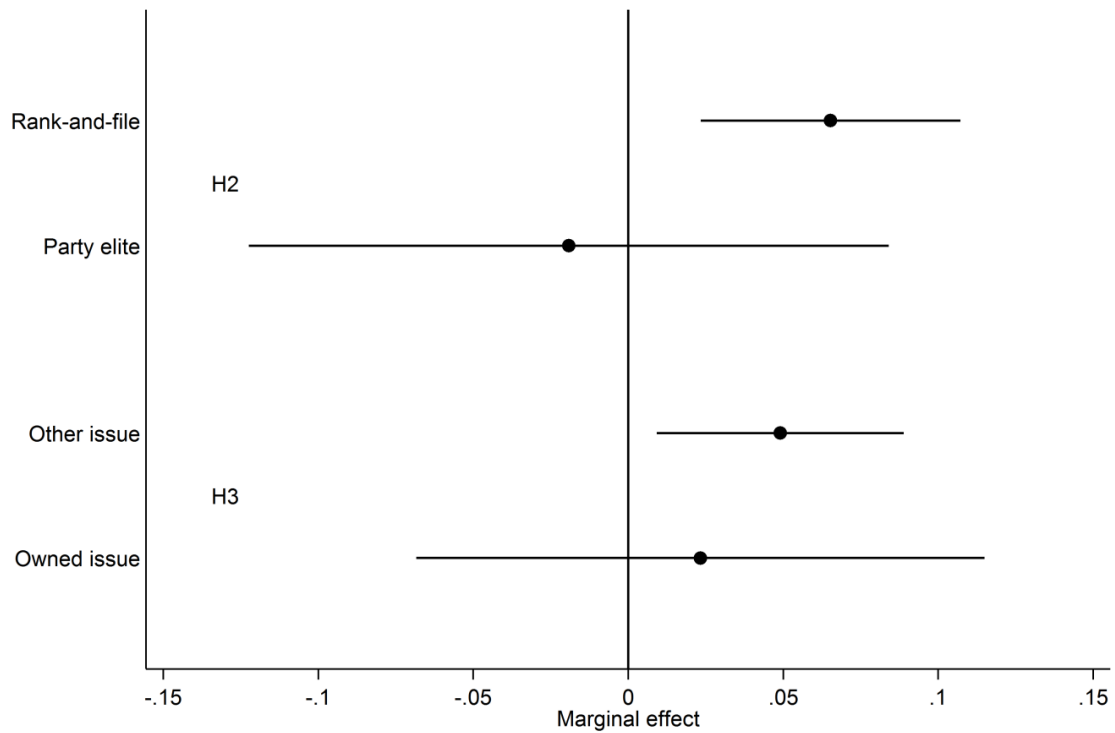
Note: Marginal effects based on changes from positive to negative campaign messages. The estimates rely on Model 2, Table 1. Lines denote 95% confidence intervals. All remaining variables are at their observed values.

In sum, these results suggest that the media are more likely to cover negative messages, and that negativity is particularly powerful for rank-and-file politicians who lack the newsworthiness of party elites. This suggests that content-related factors (such as negativity) matter more for those politicians with ex ante lower chances to make it to the news. This might mean that a message's issue focus and its conditional impact in the success of a press release (Hypothesis 3) matter most for rank-and-file politicians.

To explore this, we re-ran Model 2 on a reduced sample excluding elite politicians. The results (Model 3) show that a message's issue focus indeed matters for rank-and-file politicians: they profit from going negative on issues owned by a rival party, but not on those issues a party owns (Hypothesis 3). On issues owned by a rival party, negativity increases the chances of getting the media to report by roughly nine percentage points (8.6 percentage

points; p<0.001). In contrast, on owned issues, negativity has no significant effect (+/- 0 percentage points).

Regarding the control variables, we find no evidence that government parties are more likely to get media attention than opposition parties. Moreover, there is no evidence that external events increase a press releases' probability to make the news. Yet, we do observe positive and statistically significant effects for text length and a party's references to press conferences. Finally, press releases published earlier in the morning are more likely to make the news, but the effect is not statistically significant at conventional levels all model specifications.

Conclusion

Negative campaigning is a prominent feature of modern election campaigns. So far, most research has focused on its electoral implications (e.g. Damore 2002; Elmelund-Præstekær, 2010, 2011a; Nai and Walter 2015b; Riker 1996; Skaperdas and Grofman 1995). In this paper, we took a different approach, analyzing whether negative campaigning also helps political actors to get the media to report on their campaign messages.

We find evidence that 'going negative' increases the chances of getting the media to report on a press release, which lends support to earlier macro-level evidence of a structural negativity bias of the news (e.g. Hansen and Pedersen 2008; Walter and Vliegenthart 2010). The paper further reveals valuable opportunities for rank-and-file politicians, who usually find it harder to reach the news with their campaign communication. These actors seem to have the most to gain from adapting their campaign messages to the needs of journalists and editors (see also Meyer et al. forthcoming; Helfer and Van Aelst 2016). As media attention to their campaign communication is rather low, rank-and-file politicians may benefit most from drafting campaign messages with high news value, for example by including

negativity. Pursuing negative campaigning thus helps them to gain media attention and to build a national reputation among voters and within their own party.

The contribution further shows the limits and opportunities of issue-based negative campaigning. Whereas parties may intend to increase the credibility of their attacks by drafting negative messages on their best issues (Damore 2002), this seems to be an unprofitable strategy as a means to get media attention. Instead, our findings suggest that parties, and particularly rank-and-file politicians, may gain media attention for their campaign messages if they 'go negative' on issues they do not own, which could help them to damage the issue reputation of their rivals (Elmelund-Præstekær 2011a). Such a strategy might prove successful in electoral terms if parties are able to undermine the (perceived) competence advantage of their rivals or cast doubt on their ability to deliver desired policy outcomes after the election.

In general, these findings indicate that parties have much to gain if they adapt their campaign strategy to each communication channel (Elmelund-Præstekær 2011b). Especially in their manifestos, parties tend to focus on issues they own (Budge and Farlie 1983). This strategy seems less profitable for party communication, which depends strongly on mediation by journalists and editors. Particularly rank-and-file politicians have higher chances to make the news by communicating on issues that are not among the parties' best issues (see also Helfer and Van Aelst 2016). During the period covered by this study (2013), social media still played a relatively small role in campaign communication in Austria. It will be important to see how negative campaigning differs in direct and mediated communication channels and how the changing campaign environment affects the messages parties and candidates choose to send out. For instance, it may be that social media users differ from journalists and editors in the extent they privilege negative messages.

In stressing the importance of negative campaigning in determining which campaign messages make the news, this paper extends existing research on the micro-level gatekeeping

of political communication (Flowers et al. 2003; Grimmer 2010, 2013; Haselmayer et al. forthcoming; Helfer and Van Aelst 2016). This study is among the first empirical studies providing direct causal evidence for a structural negativity bias in media gatekeeping. Showing that the media predominantly *report more on* negative campaign messages than on positive ones, the paper reveals media-based rewards for this campaign strategy (e.g. Elmelund-Præstekær and Molgaard Svenson 2014a; Hansen and Pedersen 2008; Walter and Vliegenthart 2010). While the scientific debate over the implications of such a negativity bias remains unresolved (e.g., Capella and Jamieson 1997; Farnsworth and Lichter 2010; Geer 2006; Lau and Pomper 2004; Patterson 1993), the question of whether the news media predominantly report on 'negative' news about parties and politics could have broader implications for society and perceptions of democratic quality.

The study also adds to research showing differences in the degree and characteristics of negative campaigning in election campaigns (Elmelund-Præstekær 2010; Elmelund-Præstekær and Molgaard Svenson 2014a; Ridout and Franz 2008; Walter and Vliegenthart 2010). Our results suggest a reason why party communication catered to the media (e.g. TV debates or press releases) is more likely to be negative than other communication channels (e.g. manifestos). Moreover, as rank-and-file politicians have higher incentives to go negative than elite politicians, we would expect higher levels of negativity in party communication based on many senders (e.g. social media platforms) than on those that focus on party elites. As communication channels differ with regard to their target population, the presence of party elites and their issue focus, they provide different incentives for parties to go negative in the messages presented in the respective channel. Our results further provide theoretical and empirical arguments on how media gatekeeping increases the amount of negativity in party communication and affects the representation of political actors and issues.

Our study is based on one country and a single election campaign. Hence, future research should extend our work and study other institutional or temporal contexts. Similarities with party and media systems from several Western and Northern European countries (Hallin and Mancini 2004) should facilitate comparisons with other 'democratic corporatist' countries. Nevertheless, we see a need for more comparative research to enhance our understanding of media gatekeeping of (negative) campaign messages. Preferably, comparative studies should examine common features in the gatekeeping of political messages and investigate the influence of political and media system characteristics. Party competition in presidential systems like the US or France provides different opportunities to individual politicians than in parliamentary systems like the UK or Germany. Beyond that, we would expect different incentives (and rewards) for individual candidates in closed-list electoral systems when compared to open-list systems. Similarly, media systems with higher party-media parallelism, such as Italy or Spain, may be more affected by partisan media coverage than liberal media systems like the Netherlands, Denmark or Sweden (Hallin and Mancini 2004). While the media are likely to prioritize negative messages in most contexts, the extent to which they do so may vary, and these variations should be a key focus of future research.

6 Love is Blind. Partisan Bias in the Perception of Campaign Messages

(Manuscript under review with Lisa Hirsch and Marcelo Jenny)

Abstract

We analyze how the polarity and sentiment strength of campaign messages and the partisanship of recipients influence the latter's perception of party communication. Using a crowdsourced survey experiment with German participants, we find that partisan preferences only weakly influence the perception of neutral or positive statements, but they heavily bias *how* respondents perceive negative campaign messages featuring a party they like. The stronger the partisanship and the more negative a statement including one's preferred party, the more partisans tend to discount the strength of a negative message. The asymmetries in the perception of statements of varying polarity and sentiment strength point at limits of negative campaigning with broader implications for our understanding of campaign effects.

Keywords: Campaigns, Party competition, partisan bias, survey experiment

Acknowledgments

Introduction

Negative campaigning is a prominent feature of contemporary election campaigns. Political commentators frequently bemoan an apparent ever-growing magnitude and intensity of negative campaigning with detrimental effects for democracy. Campaign advisors see it as a 'silver bullet' that may decide the outcome of elections. Research on negative campaigning explores why, when and how candidates or parties attack their competitors and studies its effects on vote choice and turnout (e.g. Ansolabehere et al. 1994; Lau and Pomper 2004; Mattes and Redlawsk 2014; Nai and Walter 2015b).

Despite an important number of studies, evidence of effects of negative campaigning is inconclusive (Lau et al. 1999, 2007). Recent studies show how variation in the *intensity* of campaign statements and the *content* of attacks influences voters' perception of negative campaign messages (Kahn and Kenney 1999; Mutz and Reeves 2005; Fridkin and Kenney 2011; Brooks and Geer 2007; Mattes and Redlawsk 2014). These studies find that voters reject negative campaigning that focuses on apolitical, personal attributes or employ uncivil language. A study of Swiss direct democratic campaigns (Nai 2013) highlights that effects on voter turnout depend on *who* goes negative.

Thus, there is observational and experimental evidence that effects of negative campaigning are not uniform. Voters apparently perceive negative campaigning differently based on actor and statement attributes. These differences will shape evaluations of parties and candidates and may ultimately influence voting decisions.

We build on and extend previous research on the perception of negative campaigning (e.g. Ansolabehere and Iyengar 1995; Mutz and Reeves 2005; Brooks and Geer 2007; Mattes and Redlawsk 2014) and explore how partisanship influences the perceptions of campaign messages in the multi-party context. A vast body of literature on partisan bias and motivated reasoning shows that voters have rather stable partisan predispositions and that they rely strongly on their partisan preferences when making judgments about politics (e.g. Taber and

Lodge 2006; Lodge and Taber 2000; Redlawsk 2002; Bartels 2002; Kam 2005; Petersen et al. 2013). The relationship between partisanship and effects of negative campaigning has attained rather limited attention from researchers (but see Ansolabehere and Iyengar 1995; Mattes and Redlawsk 2014; Ridout and Fowler 2012) and has exclusively focused on the US and a competition between two parties or candidates. Negative campaigning is more constrained in multi-party systems as parties have to look beyond Election Day and government coalitions affect party strategy (e.g. Walter 2014a). Also, partisan preferences are distributed more evenly as parties with similar policy profiles compete for votes (Benoit and Laver 2006; Adams 2001). Overall, these patterns lead us to expect a lower influence of partisan bias in message perception when compared to two-party systems, such as the US.

As parties draft their messages strategically, they want voters to correctly perceive and process them. This applies to communicating policy preferences, but extends to signaling attitudes towards opponents. The latter is particularly relevant in the context of multi-party competition where coalition signals and evaluations of possible coalition options contribute to voting decisions (Meffert and Gschwend 2011; Bargsted and Kedar 2009; Blais et al. 2006). Biased perceptions of party messages could distort the amount of information available to voters, decrease sincere voting and induce broader consequences for democratic accountability and quality. It is thus important to study the factors producing perceptual variation of party campaign messages.

Partisan bias in the perception of negative campaigning could explain the varying findings on its effects (Lau et al. 1999; Lau et al. 2007). If partisans tone down the strength of negative campaign messages sent by their preferred party and minimize allegations against parties they favor, results in studies on the effects of negative campaigning may depend on the distribution of partisan preferences in the sample studied. Exploring differences in the perceptions of negative, positive and neutral campaign messages, we further contribute to research on the 'negativity bias', that is the prevalence of negative

content in human attention, cognition and decision making (e.g Baumeister et al. 2001; Rozin and Royzman 2001; Soroka 2014).

Using a crowdsourced survey experiment, we find that respondents align their perception of campaign tonality with their partisan preferences: they perceive negative campaign statements about a preferred party less negatively and thus minimize allegations and criticism of their preferred party and they tone down attacks from parties they favor. The effects we find are substantial, in particular when considering a context of multi-party competition and our experiment's restriction to issue-based negative campaign messages only. We do not include uncivil, personal attacks. Running against the thesis of a general impact of a 'negativity bias' (e.g. Baumeister et al. 2001; Rozin and Royzman 2001; Soroka 2014) our analyses reveal that partisanship particularly affects how respondents evaluate negative campaign messages involving parties they favor, both as senders and targets of negative campaigning. We find only a weak partisan bias effect for neutral and almost no effect for positive campaign messages.

These findings shed light on the links between partisan bias and perceptions of campaign communication of varying polarity and intensity. We further contribute to the debate on the risks and benefits of campaign communication strategies, such as learning from negative information about parties (Lau and Pomper 2004; Geer 2006) and backlash effects of negative campaigning (e.g. Garramone 1984; Lau et al 2007). We take up the implications of our findings in the concluding section.

Partisan bias in the perception of campaign messages

A party's campaign statements about its rivals can vary regarding the polarity (positive, neutral or negative) and tonality or sentiment strength (how positive/negative). We argue that people perceive campaign messages more positively if they include parties they favor

and more negatively if they include parties they dislike. We further expect that partisan effects will be particularly relevant for negative messages.

We follow the theory of motivated political reasoning (Taber and Lodge 2006), which starts from the assumption that all social concepts are affectively charged and that all personal reasoning is motivated by these affective states to minimize cognitive dissonance (Kunda 1990, 1987). Voters face two conflicting incentives when they evaluate parties and politicians: the ambition to accurately assess new information about them and the preference for evaluations that fit with the personal set of opinions about them (Taber and Lodge 2006). The latter is driven by automated, instantaneous affective processes people are mostly unaware of. These processes are particularly strong for more knowledgeable individuals and those with stronger partisan ties: Partisans will privilege information congruent with their prior beliefs and easily assimilate it as it requires no particular efforts to process and accept it. To the contrary, motivated reasoning will lead partisans to discount, ignore and counterargue information at odds with their existing set of evaluations (Kunda 1987, 1990; Lodge and Taber 2000).

A large body of research shows that people use party cues to make sense of politics, be it for policy evaluations, candidate choice, or attribution of blame to politicians (Bolsen et al. 2014; Petersen et al. 2013; Goren et al. 2009; Coan et al. 2008; Malhotra and Kuo 2008; Bartels 2002, 2000; Miller and Shanks 1996). Psychological research on source cues argues that people use party labels as shortcuts to resolve complex choices, such as approving or rejecting a specific policy proposal (Bolsen et al. 2014; Petersen et al. 2013; Kam 2005). Partisanship explains how people seek information (Henderson and Theodoridis 2017), determine support for a policy (Cohen 2003), and reject proposals supported by disliked candidates (Nicholson 2012). Thus, party cues help voters to make decisions, based on their preferences. If voters encounter new information about a party they like or dislike,

they have no problem to evaluate it correctly as long as it is congruent with their own predispositions.

We argue that this is also applicable to the evaluation of message tonality: If the information of a message aligns with personal predispositions, motivated reasoners will accept it – that is, perceive its tonality correctly. Hence, a partisan reading something positive about a party she likes or something negative about a party she dislikes does not have to cope with cognitive dissonance.

What happens if campaign messages are at odds with one's political predispositions? If voters read something negative about their preferred party or encounter positive news about a party they dislike, motivated reasoners should put time and effort in mitigating cognitive dissonance by ignoring, counterarguing or downplaying that information to fit with their affective predisposition about that party (Lodge and Taber 2000; Taber and Lodge 2006). Thus, when evaluating positive or negative campaign messages at odds with their preferences, motivated reasoners should reject their true tonality and adapt it to fit their partisan predispositions. Accordingly, they should evaluate the same message about parties they favor more positively than a message about parties they dislike. Following the literature on party cues and motivated reasoning, the perceptual bias should apply equally to campaign communication *from* and *about* a preferred party.

Partisan perceptions, negative campaigning and campaign tonality

Whereas there is strong support for the existence of a 'general' partisan bias in the perception of political information, less is known about the effects of partisanship for messages of varying polarity or sentiment strength. Perceptual differences for positive and negative campaign messages are particularly relevant in the context of multi-party competition. Voters may use positive and negative statements about other parties as signals for evaluating possible coalition options which may influence voting decisions (Meffert and Gschwend

2011; Bargsted and Kedar 2009). Biased perceptions could lead to incorrect evaluations of coalition options and undermine the potential of voters to cast a sincere vote.

The literature on cognitive and perceptual differences in the evaluation, processing and recall of positive and negative information highlights that a person pays more attention to, is more interested in and more likely to believe in and remember messages with negative content (e.g. Baumeister et al. 2001; Rozin and Royzman 2001 for reviews). Following from this, a person who confronts positive and negative information of equal magnitude or sentiment strength devotes more attention and cognitive effort to the negative bits of information, which will contribute more strongly to the overall impression of that message (Baumeister et al. 2001).

News value research has demonstrated early on that journalists and editors prefer negative to positive information when deciding whether to report on a story or an event (Galtung and Holmboe Ruge 1965; Lippmann 1922). More recently, studies attest the prevalence and predominance of negative information over partisan preferences in studies of candidate evaluations (Soroka 2014; Goren 2002; Klein 1996; Klein 1991). Using survey data they report indirect effects of (negative) perceptions of character traits on candidate evaluations and voting intentions. Yet, these studies do not establish a direct link between partisan preferences and individual perceptions of campaign tonality. Thus, it remains unclear how voters react when partisanship meets negativity and which of these stimuli is stronger in a specific electoral campaign.

Research on negative campaigning often emphasizes the risk of a boomerang or backlash effect as voters may dislike negativity (Garramone 1984) and particularly disapprove of personal attacks on a candidate's family or his or her religious beliefs (Mattes and Redlawsk 2014) and strongly worded, uncivil negative messages (Fridkin and Kenney 2011; Mutz and Reeves 2005). Strong party identifiers perceive the other side's campaign messages as being more negative than their own side's (Ridout and Fowler 2012: 69)

suggesting that partisans mitigate (too strongly worded) negative campaigning by their preferred party to reconcile it with their personal rejection of this campaign strategy.[40] From a cognitive perspective this implies that voters should tone down the tonality of attacks *from* a party they identify with – either by counterarguing this information or more simply by ignoring the real message content (Lodge and Taber 2000).

A similar mechanism should be at work for negative messages *about* a favored party. We know that partisans do not avoid negative content about a preferred party or candidate (Meffert et al. 2006). Instead, processing such information may strengthen their initial partisanship and polarize them: When confronted with negative input about their candidates, respondents evaluated them even more positively than before (Redlawsk 2002; Meffert et al. 2006). Anduiza et al. (2013) demonstrate that voters downplay the importance of corruption allegations against representatives from a party they favor (also see: Wagner et al. 2014) suggesting that they adjust negative information to fit their predispositions.

Thus, people should evaluate the same negative campaign messages *from* and *about* a preferred party more positively than negative messages from and about parties they dislike. There is less evidence with regard to the relationship of partisanship and neutral or positive campaign information (Meffert el al. 2006). Accordingly, partisan preferences should interfere less strongly with evaluations of these messages.[41] We therefore expect stronger and non-linear partisan bias effects for negative campaign communication *from* and *about* a preferred party: partisanship and negative tonality interact.

In accordance with these arguments, we formulate two sets of hypothesis to test a general effect of partisan bias on message perception and to study its interaction with

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[40] Experimental evidence shows that respondents dislike messages explicitly branded as 'negative campaigning' (Mattes and Redlawsk 2014).

[41] We do not expect a strong 'ceiling effect' for positive campaign messages on a preferred party as the same logic applies to negative information on disliked parties. We could also expect respondents to evaluate positive information about a party they do not like less positively.

campaign tonality. We test these expectations separately for individual preferences for senders (H1) and targets (H2) of a campaign message:

*Hypothesis 1a (partisan bias: sender): Voters perceive campaign messages **from** parties they favor more positively, than statements from parties they dislike.*

*Hypothesis 1b (partisan bias*tonality): Voters perceive negative campaign messages **from** parties they favor more positively than negative campaign messages from parties they dislike.*

*Hypothesis 2a (partisan bias: target): Voters perceive campaign messages **about** parties they favor more positively, than statements about parties they dislike.*

*Hypothesis 2b (partisan bias *tonality): Voters perceive negative campaign messages **about** parties they favor more positively than negative campaign messages about parties they dislike.*

Data and methods

The analysis uses a crowdsourced survey experiment to study partisan biases in the perception of campaign messages about German parties in a sample of German users of the CrowdFlower platform. Germany is a parliamentary, multiparty system characterized by moderate pluralism (Sartori 1976), *frequent coalition governments* and shares many characteristics with other European countries. Negative campaigning is a rather common feature in German election campaigns (Maier and Jansen forthcoming). Comparative research (Walter 2014a) suggests commonalities in negative campaigning in Germany with similar Western European multi-party systems such as the Netherlands. It also does not stand out with regard to a trend of declining partisanship (Dalton and Wattenberg 2000, Berglund et al. 2005) which leads us to expect that findings from the German context should also extend to countries with similar party systems.

To study whether partisan preferences and the tonality of campaign messages influence voters' perceptions of campaign communication we ran a factorial survey experiment. This setup allows to experimentally vary multiple conditions (variables) simultaneously and to design statistically efficient subsamples of the full universe of possible combinations given by the varied conditions.

Factorial survey experiments (Rossi et al. 1974), have only recently been applied in political science research. Helfer and van Aelst (2016) use such experiments in a study on perceived newsworthiness and Helfer (2016) investigates media influence on MPs (also see Hopkins and King 2010a). One reason for the growing interest in factorial survey experiments is the availability of online surveys (Weinberg et al. 2014: 306), which allow an easy assignment and control of respondents and stimuli and a faster recruitment of participants. More recently, crowdsourcing platforms have further facilitated data collection. Several studies show that crowdsourcing surveys and experiments produces valid and reliable data, when compared to conventional online surveys or student panels (Clifford et al. 2015; Mattes and Redlawsk 2014; Weinberg 2014; Crump et al. 2013; Berinsky et al. 2012; Paolacci et al. 2010).

Following Mattes and Redlawsk (2014), we present respondents with realistic party statements and ask them to judge each statement's tonality on a five-point-scale ranging from strongly positive to strongly negative. Each respondent has to rate ten political statements. Party statements include a sponsoring party and a targeted party from the set of all relevant German parties: Social Democrats (SPD), Christian Democratic Union (CDU), Christian Social Union (CSU), Free Democratic Party (FDP), Alternative for Germany (AfD), the Left (Die Linke) and the Greens (Bündnis 90/Die Grünen).[42] As shown in Figure 1, we further vary the predetermined tonality (neutral, weakly or strongly positive/negative)

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[42] These parties were either represented in the national parliament (Bundestag) during the survey or figured above the five-percent-threshold in voter surveys at that time (ARD- Wahlbarometer Sonntagsfrage, n=1,006, February 2017).

for each sentence. The three variables sender, target and tonality are experimentally manipulated and randomized as well. To avoid redundancy and assure variation between vignettes we vary grammatical structures and word order using two different batteries of word clusters. Each vignette contains a randomized general political topic (economy, welfare, corruption, immigration, crime, and European Integration) to provide our respondents with realistic campaign messages.

Figure 1: Experimental setup

Treatment conditions:

Measurement of
dependent variable:

sender	target	tonality	topic
SPD	SPD	–	economy
CDU	CDU	-	welfare
CSU	CSU	∼	corruption
FDP	FDP	+	immigration
AfD	AfD	++	crime
Die Linke	Die Linke		Europe
Bündnis 90 /	Bündnis 90 /		
Die Grünen	Die Grünen		

Random assignment
of 10 vignettes
to survey respondents

(−) strongly negative
(-) weakly negative
(∼) neutral
(+) weakly positive
(++) strongly positive

We present two sample vignettes, one of each battery, below.[43] The underlined parts varied in our experiment, words that we randomized to avoid redundancy are in italics. We ran a series of pre-tests with a group of colleagues, student assistants and a sample of crowd workers from a different worker pool to improve the wording of our campaign statements and to evaluate the overall survey design.

(1) The <u>SPD completely failed</u> *with* <u>its restrictive immigration policy</u>, the <u>CDU</u>

declared on its web site.

(2) The <u>SPD welcomes CDU</u> *proposals on* <u>the reduction of corruption</u>.

The complete set of all possible combinations of our variables gives a total number of 5390. We take a random sample of 3000 combinations and distribute them into subsets of 10 vignettes, which were randomly presented to our respondents.[44] Within each deck, the order of the vignettes was randomized as well. To avoid confounding vignette characteristics with respondent attributes, we present each vignette to multiple respondents. We thereby follow Auspurg (2015, 49), who propose including each vignette at least five times as a rule of thumb.[45]

Data was collected over a span of four weeks in February 2017. We rely on CrowdFlower to recruit our respondents to a survey implemented in Qualtrics. We restricted the survey to German users who were at least 18 years old and eligible to vote in German national elections. In total, 300 respondents took the survey, however six of them had to be excluded as they did not submit answers to all questions. Consequently, 294 respondents

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[43] Appendix A provides additional examples.
[44] Simulations show that random samples are statistically as good as efficient samples if the number of sampled vignettes is larger than 60 (Auspurg and Hinz 2015, 34).
[45] There are some exceptions (n=129 vignettes), where we have less sentences per vignette. This applies when we exclude cheaters (see below) and „don't knows" from the analysis.

completed the survey, translating to 2937 judgements.[46] Before presenting our respondents

with the vignettes, they had to take a block of questions to assess their knowledge on political

actors and events. This included four questions on the year of the next general election, the

party composition of the German government, individual members of government and the

treaty partners of CETA. To avoid cheating (e.g. by searching the web), we used a timer to

automatically forward respondents to the next questions within 30 seconds. We then

presented our respondents with a list of all relevant German political parties and asked them

'how likely they would ever vote for party X' on an eleven-point scale. Respondents also

had a 'don't know' option. The following experimental block consisted of ten vignettes

including our campaign messages. Respondents had to rate the tonality of each vignette on

a five-point-scale ranging from 'strongly negative' to 'strongly positive'. They could choose

'don't know' as an answer. It was impossible to skip questions. Following the experiment,

we collected demographic information (gender, age, level of education, region of birth –

Eastern/Western Germany).

We examine coder performance and flag respondents showing a lack of variation in

their response patterns as well as too much variation[47] to identify and eliminate spammers or

cheaters (e.g. Berinsky et al. 2012).

Operationalization of variables

The dependent variable is the *perceived tonality* of a vignette, a variable with a 5 point Likert

scale (1 - 'strongly negative', 2 – 'weakly negative', 3 – 'neutral', 4 – 'weakly positive', 5 –

'strongly positive'). Respondents could also choose a 'don't know' answer.

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[46] For three respondents only nine judgements were collected.

[47] We use the following indicators: standard deviation of judgments per respondent, the skewness of
the distribution of judgements per respondent and the number of given judgements falling into the
same category. Excluding cheaters does not affect the results of our analyses (see Appendix B).

Our two independent variables are the *partisan preferences for sender and target* of a campaign message and its *predetermined tonality*. To measure partisan preferences, respondents were asked to rate how likely they were to ever vote for a given party (*propensity to vote*, PTV) on a 11-point scale ranging from 'very unlikely' (0) to 'very likely' (10). Respondents had to evaluate each party, but they could also tick 'don't know'. For each vignette, we thus have a respondent's preferences for the sender (*sender PTV*) and target (*target PTV*) parties ranging from zero to ten. A score of zero indicates that a respondent is very unlikely to ever vote for a party. A PTV score of 10 means that a respondent is very likely to vote ever for a party. Using vote intentions as a measure for partisanship is obviously a weaker measure of partisanship than party affiliation. Yet, at worst this choice could underestimate its effects and produce more conservative results (Slothuus and de Vreese 2010; Gaines et al. 2007).

The *predetermined tonality* variable is the tonality of a vignette coded by the authors and validated in our pre-tests, which ranges from strongly negative (0) to strongly positive (4).

We include a set of control variables. The respondents' *knowledge* of current political events is an additive index of the number of correct answers to four multiple-choice questions of varying difficulty (year of next election, parties in government, government members, CETA contract partners). Demographic controls include *gender* (male/female)*, age* (continuous)*, region (*Eastern/Western Germany*) and *level of education (*measured on a 6-point scale, ranging from 1 for respondents with no formal school graduation to 6 for respondents with completed tertiary education).[48]

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[48] We present descriptive information on knowledge questions and respondent characteristics in Appendix A.

Results

We exclude 142 responses from respondents who did not rate the vignettes and used the 'don't know' option. In line with prior crowdsourcing research (Eickhoff and de Vries 2013; Berinsky et al. 2012), we also exclude 41 respondents with peculiar response patterns indicating cheating. Finally, we exclude vignettes with a missing PTV score for either sender or target parties (n=93). The remaining set consists of 2,370 vignettes rated by 248 respondents.[49] The mean tonality of their ratings is 3.12 (Sd=1.35), which reflects the relatively equal distribution of negative, neutral and positive statements in the randomized vignettes (36% negative, 21 % neutral, 43% positive). Figure 2 plots the distribution of our dependent variable (perceived campaign tonality). It shows that respondents were quite reluctant to rate our vignettes as 'strongly negative', however, this is hardly surprising: As our experiment uses issue-based negative campaigning of varying intensity, we have excluded personal attacks and pejorative language, which tend to evoke stronger reactions from voters (e.g. Fridkin and Kenney 2011).

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[49] The results presented below are robust when including cheaters and observations with one missing PTV score, see Appendix B.

Figure 2: Perceived tonality of campaign messages
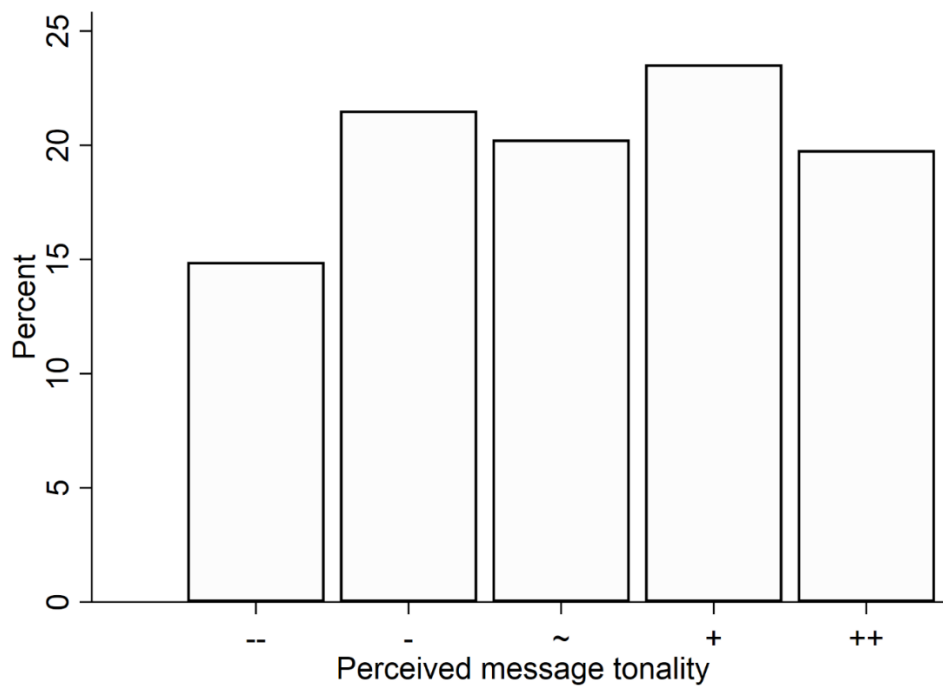
Sigelman and Kugler (2003: 145) raise concerns that respondents might not adequately identify the polarity of statements (also see: Lipsitz and Geer 2017). We checked the correlation between perceived tonality and predetermined tonality of the statements. The two are positively correlated with a Spearman's rank correlation coefficient $\rho=0.41$ ($p < 0.001$), but their moderate relationship indicates perceptual differences. In line with our expectations, weaker partisans exhibit a stronger correlation ($\rho=0.58$) than stronger partisans ($\rho=0.39$).[50] However, aggregating multiple codings increases the correlation and thus cancels out individual biases ($\rho=0.61$), which confirms that crowdcoding the sentiment strength of political messages produces good results (Haselmayer and Jenny 2017).

Figure 3 presents respondents' propensity to vote scores for each party, which are left-skewed as the respondents made strong use of the lowest category 'very unlikely'. Respondents exhibit a slight preference for parties from the moderate left, but in general, the

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[50] For this illustration, we operationalize respondents with a PTV score above six for any party as 'stronger partisans'.

sample contains weak(er) and strong(er) partisans for each of the seven parties and provides

a quite realistic representation of party preferences.[51] The mean propensity to vote values

for the seven parties range from 3.01 for the AfD to 4.88 for the SPD.[52]

Figure 3: Propensity to vote for a given party
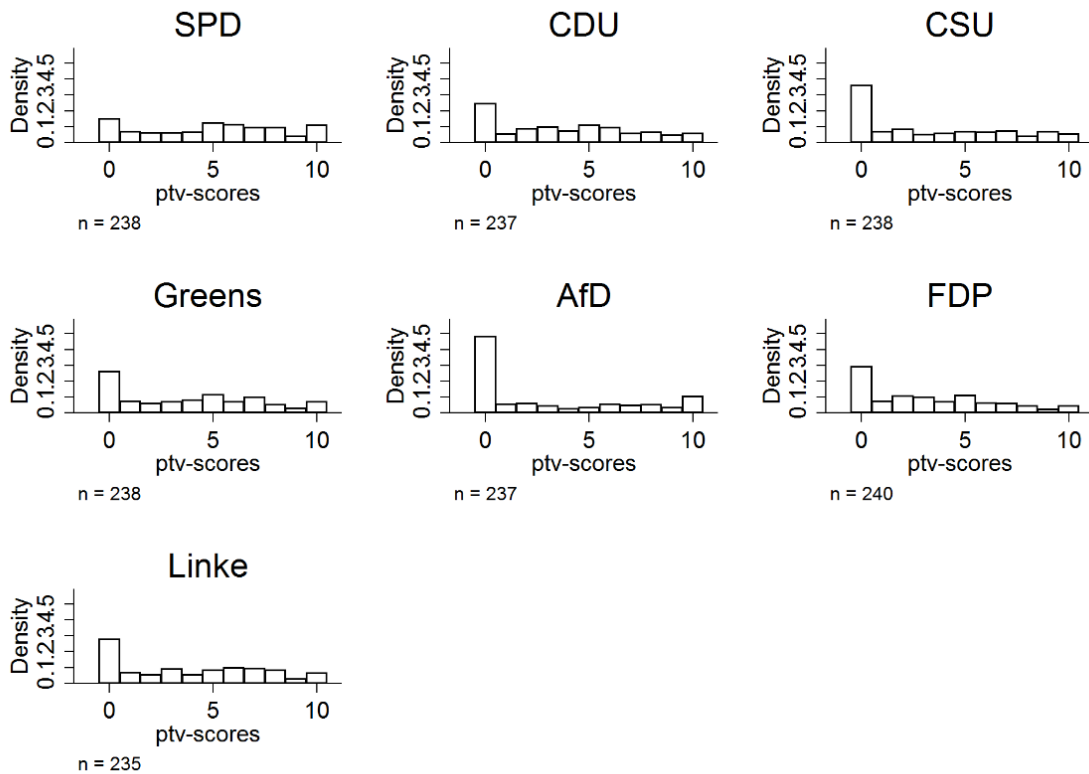
Comparing the overall mean perceived tonality for all vignettes, we see a slight positive

effect of partisanship on the evaluation of campaign tonality with a maximum increase (in

terms of PTV scores) of 0.33 points on the five-point-scale. Thus, our respondents perceive

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[51] We can only roughly compare our respondents' PTV scores with surveys on vote intentions of that period. The representative election survey for the German public broadcaster (ARD-DeutschlandTREND, February 2017, n=1,006) showed a narrowing lead of the CDU/CSU (about 34%) during February following to the SPD (28%) had presented Martin Schulz as chancellor candidate. The AfD ranged in third place (12%), Greens and Left (Linke) with 8% and the FDP (6%) were rather stable. All other parties were clearly below the 5% threshold.
[52] See Table A3 in Appendix A for further information.

and evaluate campaign statements featuring parties they like more positively, whatever the predetermined tonality is. To provide more descriptive evidence on our hypotheses, we compare the distributions of rated and predetermined tonality scores across different propensity-to-vote-scores for senders and targets of campaign messages. For an easier graphical representation, we aggregate low (0-3), medium (3-6) and high (7-10) PTV scores for both sender and targets of campaign messages. Figure 4 plots the perceived tonality against the predetermined vignette tonality: Does partisan bias vary relative to the predetermined tonality of a statement? This descriptive evidence shows that the strength of partisanship has different impact on perceptions of negative, neutral and positive information. In line with our hypotheses about a general effect of partisanship (H1a and H2a), we see that respondents seem to evaluate any message's tonality from and about parties they like more positively the stronger their partisan preferences are. However, as a first indication of support for our hypotheses focusing on negative messages, the effect of partisanship is particularly strong for negative statements and to a lesser extent for neutral messages.

Figure 4: Grouped propensity to vote (sender and target PTV) and biased perception of campaign tonality, for different predetermined tonality levels
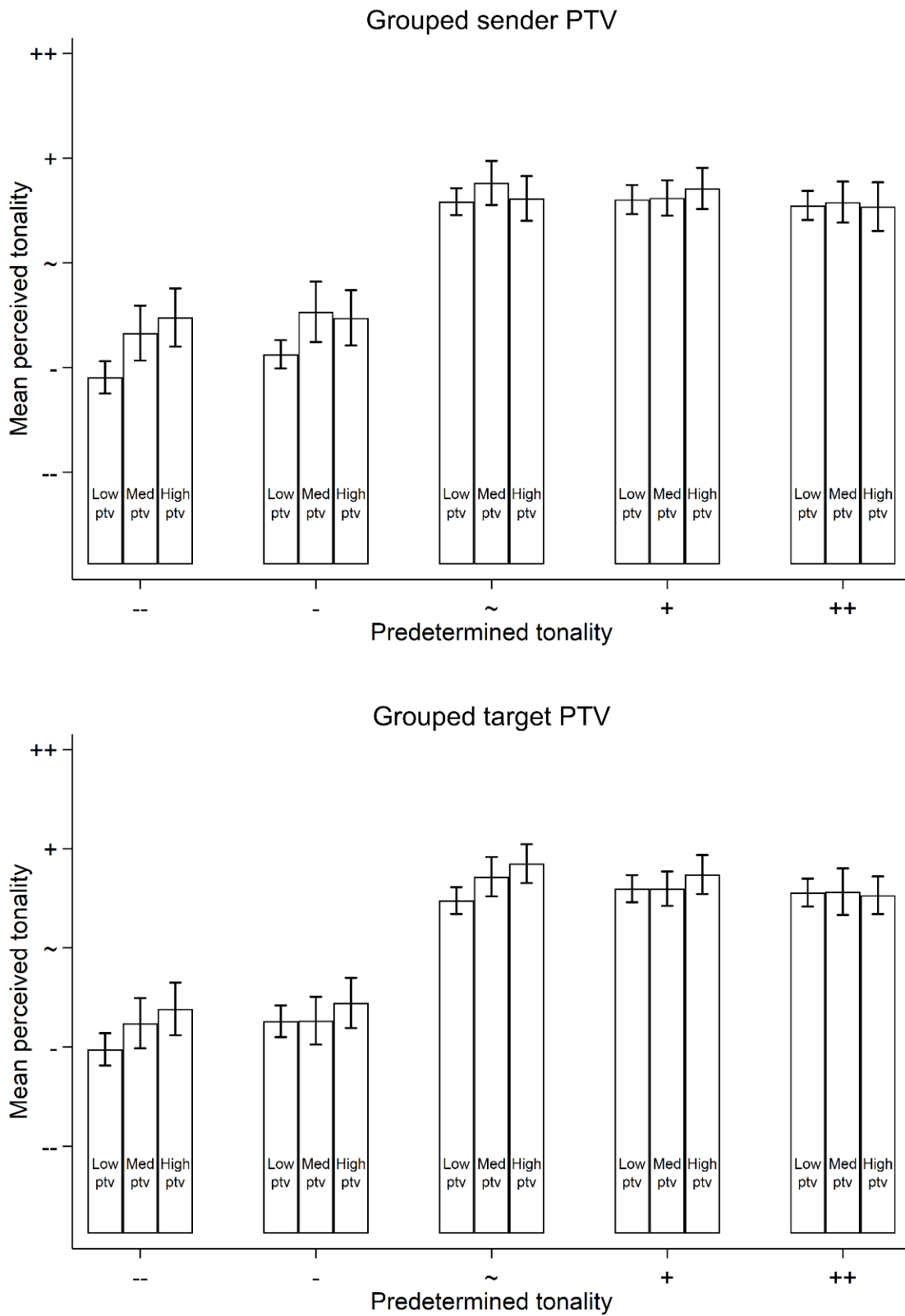
Note: Whiskers indicate standard deviation

Besides rather small differences on the aggregated level, there are substantial differences if we compare vignettes with strong variation in our respondents' preferences. Thus, a maximum increase (from 0 to 10 of the PTV index) translates to a 0.6 shift in the mean perceived tonality of negative messages from a preferred party (the difference is roughly 0.3 for target PTV scores). For neutral messages, strong partisans evaluate messages by favored parties up to 0.3 points more positively (0.2 for targets). There is no evidence that our respondents' partisan preferences interfere when evaluating positive statements. Quite surprisingly, there is hardly any difference in the evaluation of positive vignettes across all groups (on average, the effect is almost zero for maximum changes in both sender and target PTV scores).

We are interested in direct effects of partisan preferences and its interaction with the polarity of campaign communication. Thus, we continue by presenting two OLS multiple regression models. As our observations are not independent of each other, we cluster standard errors at the level of individual respondents. To provide a robustness check of our findings, Appendix C shows regression models using random intercepts at the level of respondents and respondent-fixed-effects. These additional analyses confirm the results presented below. In addition to our independent variables, we include issue-fixed effects to control for topic-related variations in the perceived tonality. The first model also controls for the predetermined tonality score. We use the same variable to test for the interaction of tonality and partisanship in Model 2. Additionally, demographic variables as gender (0/1), age (continuous), level of education (1-6) and an indicator of political knowledge (0-4) enter all Models. A dichotomous regional indicator discriminates between respondents from Western and Eastern Germany (0/1). To check for ordering effects and grammatical variations in our vignettes, we also control for vignette order (0-10) and our two grammatical batteries.

Results presented in Table 1 and Figure 5 show support for our two sets of hypotheses. This applies to both sender and target PTV scores. Models 1 and 2 show that respondents evaluate the tonality of any campaign message slightly more positively if it includes parties they favor. The marginal effects indicate that they perceive statements both from and about their preferred parties more favorably: the maximum increase is 0.32 for the sender and 0.21 for the target. The overall effect is not very strong, but given the large number of parties and rather low average PTV scores for most parties, this is a considerable effect. Moreover, we use short, issue-based campaign messages with a rather moderate variation of campaign tonality in our vignettes. Our sample does not include personal attacks and pejorative language, which would probably produce stronger effects.

Turning to our second set of hypotheses, Models 3, 4 and Figure 5 confirm the descriptive evidence presented above. There is a substantive effect of partisan preferences on perceptions of negative messages. For a maximum change in preferences for the sender or the target party, the effect is of 0.71 and 0.53 respectively for strongly negative messages. For slightly negative messages, the maximum effect is of 0.50 for senders and 0.38 for targets of negative campaigning. There are smaller effects for neutral messages (0.30 and 0.22) and no differences whatsoever for positive ones with regard to preferences of either sender or target party.

Turning to our control variables, we find that neither a respondent's age or gender influence their perception of tonality. The remaining control variables age, political knowledge and our dummy for Eastern Germany have a negative effect on perceptions of campaign tonality: younger voters perceive messages more negatively, however, the effect is not robust across all model specifications (see Appendix C). More knowledgeable respondents perceive the tonality of campaign messages more negatively, the substantive effect being relatively small. The largest effect among the control variables shows

respondents who were born in Eastern Germany perceiving messages more negatively than respondents from Western Germany, but this effect again vanishes in our robustness checks.

Table 1: Explaining perceptions of campaign tonality

	Model 1	Model 2	Model 3	Model 4
Sender PTV	0.03***	-	0.07***	-
	(0.01)		(0.02)	
Target PTV		0.02**		0.05**
		(0.01)		(0.02)
Sender PTV # Vignette tonality	-	-	-0.02***	-
			(0.01)	
Target PTV # Vignette tonality	-	-	-	-0.02*
				(0.01)
Vignette tonality	0.40***	0.40***	0.47***	0.46***
	(0.02)	(0.02)	(0.03)	(0.03)
Self-reference	0.01	0.00	0.01	-0.01
	(0.07)	(0.07)	(0.07)	(0.07)
Vignette order	-0.01	-0.00	-0.01	-0.00
	(0.01)	(0.01)	(0.01)	(0.01)
Female	-0.00	0.01	-0.00	0.00
	(0.07)	(0.07)	(0.07)	(0.07)
Age	-0.01*	-0.001*	-0.01*	-0.01*
	(0.00)	(0.00)	(0.00)	(0.00)
Education	0.01	0.01	0.01	0.01
	(0.02)	(0.02)	(0.02)	(0.02)
Political knowledge	-0.10***	-0.10***	-0.10***	-0.10***
	(0.02)	(0.02)	(0.02)	(0.02)
Eastern Germany	-0.12#	-0.12#	-0.12#	-0.12#
	(0.06)	(0.06)	(0.06)	(0.06)
Constant	2.49***	2.34***	2.35***	2.23***
	(0.17)	(0.16)	(0.17)	(0.16)
Battery fixed effects	*Yes*	*Yes*	*Yes*	*Yes*
Issue fixed effects	*Yes*	*Yes*	*Yes*	*Yes*
Sender fixed effects	*No*	*Yes*	*No*	*Yes*
Target fixed effects	*Yes*	*No*	*Yes*	*No*
bic	7756.2	7761.2	7749.3	7760.8
N	2370	2370	2370	2370

Standard errors in parentheses, #$p < 0.1$, *$p < 0.05$, **$p < 0.01$, ***$p < 0.001$

Figure 5: Marginal effect of partisan bias on the perception of campaign tonality conditional on vignette tonality
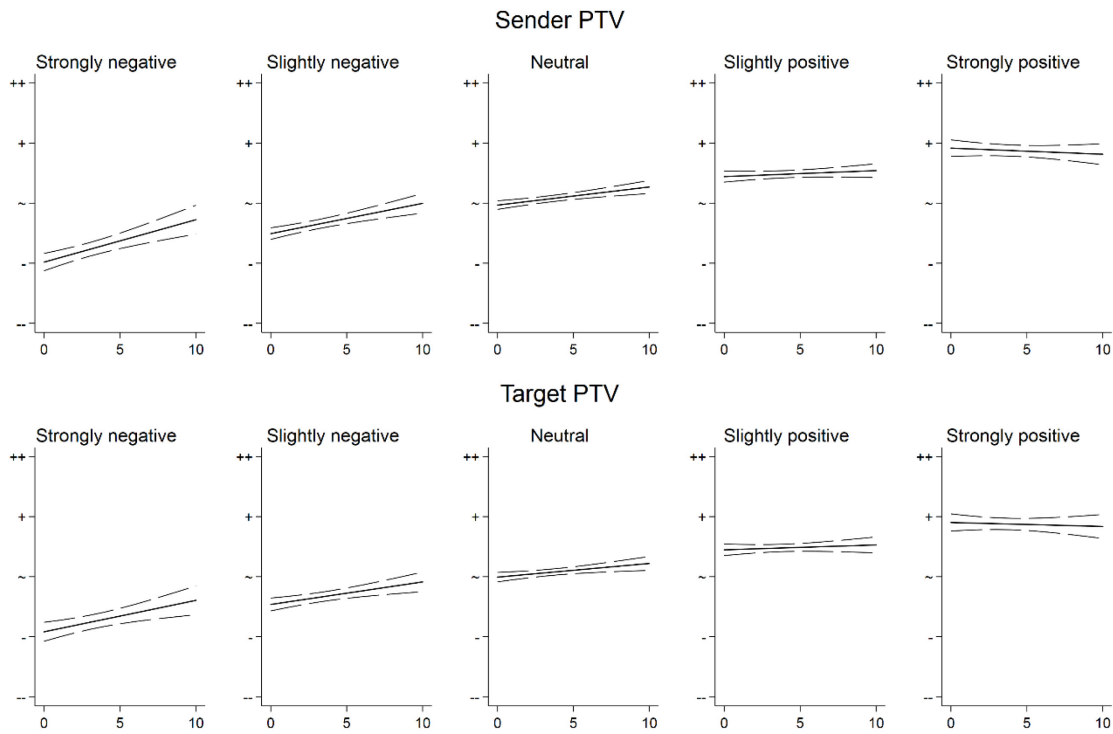
Conclusions

Using an online crowdsourced survey experiment, we have investigated the effects of partisanship and message tonality on perceptions of campaign communication in Germany, a country with multi-party competition and a tradition of coalition governance. Running against the thesis of a general 'negativity bias' (Baumeister et al. 2001; Rozin and Royzman 2001; Soroka 2014) our analyses show that partisan preferences particularly affect how people evaluate negative messages from or about a party they like. Partisan bias only has a weak effect for neutral and almost no effect for positive campaign messages.

The moderating effect of partisanship indicates that perceptions of negative campaign messages do not only depend on personal predispositions or the incivility of negative campaign messages (e.g. Fridkin and Kenney 2011; Mutz and Reeves 2005). It thus enhances our understanding of the sometimes inconclusive effects of negative campaigning on vote choice and turnout (e.g. Lau et al. 2007).

Our findings point at the limits of negative campaigning: it has a much weaker effect on stronger partisans, who discount negative information about their favored party. Thus, for voters with strong partisan preferences, negative campaigning is more likely to bring about other effects identified by the literature such as polarization and mobilization (see Riker 1996; Damore 2002; Meffert et al. 2006; Ridout and Fowler 2012). Polarizing effects of negative campaigning should be likely if rival parties – with non-overlapping voter pools – attack each other during an election campaign, as partisans in each camp will resort to motivated reasoning and thus reject or counterargue the negative information about their preferred party (Lodge and Taber 2000).

If partisans reject negative information about parties they favor, negative campaigning will be more effective in persuading or demobilizing voters with weak partisan preferences or in altering voters' perceptions of new parties with a more volatile support base. Given the decrease of partisanship (for Germany: Dalton 2014; Dassonneville et al. 2014, 2012), negative campaigning thus may provide a 'silver bullet' for winning electoral contests. However, in multi-party systems with a tradition of government coalitions, winning a majority of seats is unlikely and a vote-maximizing strategy based on negative campaigning can backfire at the later stage of coalition formation.

With regard to potential backlash effects of negative campaigning (Garramone 1984), our findings further indicate that they will mostly affect weaker partisans, too. Partisans mitigate (too strongly worded) negative campaigning by their preferred party to reconcile it with their personal rejection of this campaign strategy as suggested by Ridout and Fowler (2012: 69). However, intense negative campaigning and uncivil attacks could demobilize and alienate undecided and nonpartisan voters from democratic politics (e.g. Fridkin and Kenney 2011; Mutz and Reeves 2005).

Studies on effects of negative campaigning further argue that issue-based negative campaigning provides voters with valuable information about party positions (e.g Lau and

Pomper 2004; Geer 2006; Mattes and Redlawsk 2014). Our findings suggest that the amount of learning from negative campaign messages is limited in the case of partisans receiving negative information about the party they like. The same applies to (mis)perceptions of party coalition signals, which are important in the context of multi-party competition as evaluations of possible coalition options contribute to voting decisions (Meffert and Gschwend 2011; Bargsted and Kedar 2009; Blais et al. 2006). Biased perception of (negative) party messages could decrease voters' abilities to cast a sincere vote and induce broader consequences for democratic accountability and quality.

Our study is based on a sample of German respondents confronted with statements about German parties. Future studies will have to examine whether the patterns we find are robust and hold for other countries. Yet, we are confident that the findings presented in this paper travel to countries with similar party systems. As party system characteristics or contextual factors may influence the prevalence of partisan preferences in the decision-making of voters (Lachat 2011, 2008), we particularly encourage future research to investigate differences at the level of party systems or accounting for the competitiveness of elections.

Beyond a need for comparative research to probe our findings' robustness, we identify several avenues for future research on the role of partisanship in negative campaigning. We have only tested how partisanship affects tonality perceptions of campaign messages. Future studies could look at electoral effects of negative campaigning on strong and weak partisans in terms of vote choice, turnout and disaffection with democracy. Of interest would also be studies that examine the cognitive processing of negative information about a favored party. The use of response latency (e.g. Redlawsk 2002; Meffert et al. 2006; Petersen et al. 2013) appears a good indicator to check the argument that voters engage in motivated reasoning to play down negative information that conflicts with partisanship.

The focus of this paper was on issue-based negative campaigning and substantive criticism. Several studies suggest that voters react more strongly if negative messages focus on personal characteristics or use pejorative language (Mattes and Redlawsk 2014; Fridkin and Kenney 2011; Mutz and Reeves 2005). Future research could examine how partisan preferences interfere with perceptions of uncivil messages or personal attacks and explore differences to issue-based negative campaigning. Also, parties 'go negative' on issues owned by their opponents to challenge their issue reputation and to get media coverage of their campaign messages (Haselmayer et al. forthcoming; Elmelund-Præstekær 2011a). Thus far, evidence about their ability to succeed in doing so is mixed (Walgrave et al. 2009; Tresch et al. 2013). Yet, we lack research that examines the impact of negative campaigning. It seems worthwhile to explore how selectively attacking a rival's best issue may affect the ability of parties to 'steal' their rivals' best issues.

7 Discussion

The documented origins of negative campaigning go back to 64 BC and Quintus Tullius Cicero's famous advice to his brother to attack his competitors in the senate elections. Today, it is a common campaign strategy across the world. Despite its long tradition and a growing interest among scholars, journalists and the general public, there are still important gaps regarding our understanding of negative campaigning and its consequences.

My dissertation studies negative campaigning in a typical European multi-party setting. Building on the emerging literature on negative campaigning outside the US (Maier and Jansen forthcoming; Dolezal et al. 2017; Dolezal et al. 2016, 2015; Nai and Walter 2015b; Elmelund-Præstekær and Molgaard Svenson 2014a,b; De Nooy and Kleinnijenhuis 2013; Nai 2013; Walter 2012; Elmelund-Præstekær 2011b, 2010; Elmelund-Præstekær 2008; Hansen and Pedersen 2008), it advances this research in several aspects.

First, I refine the conceptualization of negative campaigning by proposing a graded measurement to improve the granularity of empirical analyses. Second, I present efficient strategies for obtaining a graded measurement of negative campaigning that produces valid and reliable estimates and suits large-scale analyses of political communication. Third, I empirically demonstrate the benefits of exploring the wealth of negative messages for understanding party behavior and voter perceptions. This provides new insights into this campaign strategy and its consequences in the context of multi-party competition.

Summary of findings

The first chapter of my dissertation proposes a solution to the lacking conceptual clarity of negative campaigning. I argue that negative campaigning research benefits from a more nuanced operationalization and measurement of the dependent variable. Illustrating differences between substantive criticism, personal attacks and mudslinging, I suggest that discriminating between various types of negativity is particularly helpful in the European

multi-party context where parties have to balance vote-seeking and office-seeking incentives (Strøm and Müller 1999; Strøm 1990). The chapter proposes crowdcoding and sentiment analysis as efficient and reliable strategies for large-scale content analyses of campaign tonality.

The second chapter presents a dictionary-based approach to sentiment analysis of party communication and political news. The use of crowdsourcing enables annotating the sentiment strength of political communication at the sentence-level. Individual ratings are aggregated to obtain a valid estimate. The sentiment dictionary contains aggregations of the tonality scores for each word from its occurrence in all sentences of the data set. The validation of this approach consists of a comparison to human coders and existing German-language sentiment dictionaries (Momtazi 2012; Remus et al. 2010). The political sentiment dictionary matches the validity of state-of-the-art applications to sentiment analysis at similar levels of complexity and outperforms the existing German-language dictionaries (Rudkowsky et al. 2018; Socher et al. 2013; Wang et al. 2012).

The third chapter focuses on party behavior. Linking research on negative campaigning to coalition research, I study how coalition and opposition parties employ negative campaigning in the four most recent Austrian national elections. The chapter explores differences in the frequency and tonality of negative campaigning. The main finding is that discriminating between criticism and virulent attack messages leads to a more nuanced understanding of negative campaigning in the multi-party context. Showing that the tonality of campaign messages is lower for coalition partners, my findings attenuate contra-intuitive patterns of frequent negativity among coalition parties reported in some multi-party settings (De Nooy and Kleinnijenhuis 2015; Dolezal et al. 2015; Dolezal, Haselmayer, et al. 2014). As opposition parties also spare their peers in terms of negative campaigning, this results in a pattern of bloc competition between government parties and the opposition (Elmelund-Præstekær 2011b).

Chapter four deals with issue-based negativity. Drawing on saliency theory and the concept of issue ownership (Petrocik 1996; Budge and Farlie 1983), the chapter studies on which issues parties attack their competitors in Austria's 2013 national election campaign. The chapter tests two competing arguments claiming opposite rationales for negative campaigning on policy issues: it examines whether parties go negative on their best issues (Damore 2002) or attack their opponent's issue strongholds (Elmelund-Præstekær 2011b). The chapter empirically supports that parties go negative on salient issues. With regard to issue ownership, parties attack their competitors more strongly on issues owned by their rivals. Similar to evidence from the Danish case (Elmelund-Præstekær 2011b), this indicates different patterns of issue-based negativity in multi-party and two-party systems: In the US, political actors go negative on their best issues in order to mobilize voters (Damore 2002; Riker 1996). European parties use issue advantages for emphasizing their record and self-promotional messages in line with saliency theory (Budge and Farlie 1983).

Studying how negative campaigning increases parties' chances to get news coverage of their press releases, I provide a direct test of the assumed 'negativity bias' of the news media (Soroka, Stecula, et al. 2015; Walter and Vliegenthart 2010; Hansen and Pedersen 2008; Bennett 1990) in chapter five. My analyses reveal that negative campaigning is a particularly effective strategy for 'ordinary' politicians, such as MPs, to obtain a national platform for their campaign messages. These politicians benefit most if they attack on their opponents' best issues suggesting that journalists preferably select campaign messages that include several news factors (such as negativity and surprise: see Meyer et al. forthcoming; Haselmayer et al. 2017; Helfer and Van Aelst 2016).

My findings point at valuable opportunities for issue-based campaign strategies – such as challenging issue ownership through negative campaigning. Beyond that, they comfort the strategic division of labor within parties, where rank-and-file politicians typically carry out the 'dirt work' of attacking the competitors (Dolezal et al. 2017).

Chapter six of my dissertation studies differences in voter perceptions of negative messages. A number of studies show that voters strongly rely on partisan preferences when they make judgments about politics (Petersen et al. 2013; Taber and Lodge 2006; Kam 2005; Bartels 2002; Redlawsk 2002; Lodge and Taber 2000). A survey experiment on individual level-effects of partisan bias finds that respondents evaluate messages more favorable if they feature their preferred parties. This includes both, messages from and about a preferred party. Running against the prevalence of a general 'negativity bias', which expects negative information to prevail over personal predispositions (Soroka 2014; Baumeister et al. 2001; Rozin and Royzman 2001), the analyses reveal that partisanship affects evaluations of negative campaigning. By contrast, there is only a weak partisan effect for neutral and no effect for positive messages. Beyond partisan bias, younger people and those with higher political knowledge perceive campaign messages more negatively.

Implications

One central aim of my dissertation is to add to a more general understanding of negative campaigning among political scientists, journalists, political practitioners and the general public. Several authors suggest that the established definition and operationalization of negative campaigning in the scholarly literature lacks conceptual clarity (Fridkin and Kenney 2008; Richardson 2002; Jamieson et al. 2000; Kahn and Kenney 1999; Kamber 1997; Mayer 1996; Jamieson 1992) and is far off from how 'common people' perceive this concept (Lipsitz and Geer 2017; Sigelman and Kugler 2003).

To address this issue, I propose a graded conceptualization of negative campaigning. This comes closer to general perceptions of differences in negative messages and facilitates a simple and efficient measurement that suits large-scale analyses of campaign communication. It further omits the risk of handcrafted typologies associated with arbitrary cut-off points, such as civil versus uncivil messages (Brooks and Geer 2007; Mutz and

Reeves 2005). Collecting and aggregating multiple judgments produces valid and reliable data and minimizes the risk of individual coder bias (Haselmayer and Jenny 2017).

Beyond its conceptual contribution, my dissertation shows, how a graded operationalization of campaign tone enriches our understanding of negative campaigning in the multi-party context. This has implications for research on coalitions, issue competition and the effects of negative campaigning. Moreover, the methodological approaches presented in this dissertation should facilitate a number of text analysis tasks in the social sciences.

Coalition politics

Demonstrating that coalition partners refrain from strongly attacking each other has implications for the study of coalitions. First, these results denote that parties which consider forming a government coalition after the election should signal their commitment through restrained campaign tonality. Thus, campaign tonality could (pre)determine the formation of future government coalitions and thereby provide a new explanatory variable for predicting coalition governments.

Second, mutual distrust created by a heated campaign may increase post-electoral bargaining costs or delay the duration of coalition negotiations, which in turn extends the mandate of caretaker governments. Excessive bargaining delays may weaken democratic accountability (Conrad and Golder 2010; Martin and Vanberg 2003) in the absence of a (new) popular mandate for the old government that typically remains in office during this period. Caretaker governments further lack the capacity and authority to implement important reforms or for addressing external events, such as economic crisis (Ecker and Meyer forthcoming; Golder 2010). In such an environment, growing investor uncertainties in foreign exchange and stock markets (Bechtel 2009; Bernhard and Leblang 2002) could threaten a country's economic and financial stability.

Beyond government formation, negative campaigning might also reflect the termination of coalitions. Conflict termination of a coalition government lowers the probability that the same parties will renew their partnership after the election (Tavits 2008). In such a case, former coalition partners could attack each other more aggressively in the subsequent election campaign (Walter and Nai 2015). Linking the electoral campaign to coalition politics, studying campaign tonality could improve our understanding of the life-cycle of coalitions (Müller et al. 2008).

Issue competition

My findings are also important for issue-based campaign strategies. They suggest that combining classic strategies of 'positive' saliency strategies on one's best issue (Petrocik 1996; Budge and Farlie 1983) with negative campaigning on issues with weak or imperfect ownership (Geys 2012) should be most promising.

Empirical evidence shows that 'going negative' increases the newsworthiness of party campaign messages, which could help parties to steal an owned issue (Tresch et al. 2015; Elmelund-Præstekær 2011b). As parties obtain coverage for negative messages, they may be able to inform voters about the government's poor record in office (Petrocik 1996), or to shift the attention of media and voters to preferable issues (Meyer et al. forthcoming; Hopmann et al. 2012; Brandenburg 2006; Walgrave and Van Aelst 2006).

Second, parties 'go negative' on issues that are salient in the news. As political actors need media attention to highlight their major campaign messages, they are strongly constrained by the daily news agenda and journalistic criteria if they strive for campaign coverage of their (negative) issue strategies. Hence, parties have to respond to the electoral issue environment even if it centres on issues that are not among their own or their voters' priorities. This constrains parties' agenda setting power (Hopmann et al. 2012; Brandenburg

2006) and should promote issue engagement if all parties have to respond to the media agenda (Meyer et al. forthcoming).

Perceptions of (mediated) party communication

Expanding on earlier macro-level research (Walter and Vliegenthart 2010; Hansen and Pedersen 2008; Geer 2006), my dissertation reveals a structural negativity bias of the news media. Journalists tend to over-report on negative messages, select messages according to their topical fit, or based on the news value of parties or politicians. Thus, different patterns of negative campaigning prevail in mediated communication channels, such as party press releases and those directly targeting voters – such as social media.

Accordingly, voters will experience party communication and politics more negatively if they follow politics in the news. Thereby, a structural negativity bias might affect perceptions of democratic quality and efficiency with potentially undesirable consequences for democratic accountability, democratic quality and political representation (Soroka 2014; Farnsworth and Lichter 2010; Capella and Jamieson 1997; Patterson 1993). A reduced or inaccurate representation of a party's issue agenda and representatives due to journalistic selection criteria could also affect how people learn about campaigns. Voters could fail to update party positions or issue priorities, which could reduce their ability to cast an informed and correct vote (Lau et al. 2014; Lau et al. 2008; Lau and Redlawsk 1997).

Revealing which negative messages attract the interest of journalists and editors should also be of interest to political practitioners and parties. This indicates rewards for parties customizing their campaign strategies to various communication channels at hand (Elmelund-Præstekær 2011a). Accounting for channel characteristics is likely to improve a party's communication strategy and could thereby contribute to its electoral success.

Biases in the representation of actors and campaign tone further suggest that research into (negative) campaigning in newspaper coverage are likely to produce different results

than studies based on party communication. Accordingly, scholars should select communication channels that fit best with their research goals (Bodlos 2015; Elmelund-Præstekær and Molgaard Svenson 2014a; Elmelund-Præstekær 2010; Walter and Vliegenthart 2010; Ridout and Franz 2008), for example, those under direct party control are more suitable for studying party strategies (e.g. choice of target, issue-based negative campaigning). Research on voter perceptions of negative campaigning should look at communication channels that reach voters directly, such as media reports or social media.

However, the results of my dissertation also sound a note of caution for studies that generalize about individual effects of negative campaigning.

Beyond personal predispositions or the incivility of campaign messages (Mattes and Redlawsk 2014; Brooks and Geer 2007; Mutz and Reeves 2005), partisan preferences strongly determine how voters perceive and process negative campaigning. This points at important opportunities and limits of negative campaigning under multi-party competition. Voters with stronger preferences are most likely to discount or counterargue negative information about a party they favor. Prior research suggests that such messages polarize these voters and even reinforce their initial partisanship (Ridout and Franklin Fowler 2012; Meffert et al. 2006; Riker 1996). This could reflect recent developments in some political systems, such as the US, where affective polarization between Democratic and Republican elites (McCarty et al. 2016; Poole and Rosenthal 1997) and voters has increased continuously throughout the past decades (Hetherington 2009; Fiorina et al. 2005; Abramowitz and Saunders 1998; Carmines and Stimson 1989).

On the other hand, partisanship has declined steadily across most democratic countries and electoral volatility is growing (Berglund et al. 2005; Dalton and Wattenberg 2000). A rising importance of independent or undecided voters suggests that negative campaigning could become an increasingly promising electoral strategy for targeting these voters.

Text analysis

Methodically, the dissertation demonstrates that crowdcoding the sentiment strength of political communication produces valid results. It thereby contributes to the proliferation of this new data generation and coding technique (Carlson and Montgomery 2017; Benoit et al. 2016). A growing number of applications has relied on crowdsourcing for the coding of party positions, media tone, or to replicate trained coders and experts (Horn forthcoming; Lehmann and Zobel 2017; Lind et al. 2017; Marquardt et al. 2017). This suggests that crowdcoding is about to enter the methodological tool kit for analyzing texts in the social sciences.

Introducing a general approach for building sentiment dictionaries the dissertation advances sentiment analysis of political communication in a language of choice (Rauh forthcoming; González-Bailón and Paltoglou 2015; Soroka, Stecula, et al. 2015; Soroka, Young, et al. 2015; Trussler and Soroka 2014; Young and Soroka 2012). The German political sentiment dictionary replicates human codings to a large extent and outperforms existing, general-purpose sentiment dictionaries (Momtazi 2012; Remus et al. 2010).

On a general note, researchers should be careful when relying on available tools for automated text analysis (Lauderdale and Herzog 2017; Proksch and Slapin 2009). Any such application requires extensive validation. This should extend face-validity checks or indirect cross-validation on a high level of aggregation (Monroe et al. 2008; Slapin and Proksch 2008; Laver et al. 2003). The only plausible validation of computerized scoring is by comparing its results to those of human coders at the actual level of analysis (Grimmer and Stewart 2013; Lowe and Benoit 2013).

Limitations and future research

My dissertation puts the focus on a single country within a restricted period of time, which puts a limit to the generalization of its findings. Through similarities at the level of the

party system and the media system, I expect my findings to apply to many other Western and Northern European countries, including Scandinavian and Benelux countries or Germany. Yet, I encourage future research to replicate these findings in countries with different party and/or media systems. Beyond that, there are a couple of directions for future research.

Comparative research

First, the field still lacks comparative, cross-country research covering multiple party systems, media systems and elections. Despite pioneering work on rather small sets of countries (Walter 2014a; Walter et al. 2014), studies of negative campaigning would tremendously benefit from accounting for the role of political institutions (see Ridout and Walter 2015b for a single-country study with a changing elcetoral rule).

A cross-country research design, covering different party systems and a longer time frame could directly model the effects of electoral rules, party system patterns (Laakso and Taagepera 1979; Sartori 1976), the prevalence of government coalitions and the impact of general 'patterns of democracy' (Lijphart 1999) on negative campaigning. Such studies could test whether negative campaigning under proportional electoral rule is less negative than in majoritarian systems. As the former typically produce more fragmented party systems, which require the formation of coalition governments, we could expect higher levels of inter-party cooperation and strategic restraint.

Similarly, comparative cross-country research would contribute to our understanding of political communication and media gatekeeping. While research suggests a general or structural negativity bias of the news media (Soroka 2014), my findings on partisan bias in message perception indicate significant variation which should attract scholarly interest in the future.

Future studies should also test how structural patterns such as news factors and partisan bias (Meyer et al. forthcoming; Haselmayer et al. 2017; Helfer and Van Aelst 2016) apply across different countries and media systems (Hallin and Mancini 2004). Highly competitive media systems will increase the importance of news factors for journalistic message selection as newspapers have to meet economic standards and attract a large readership (Brants and de Haan 2010). Therefore, we could expect a stronger negativity bias in competitive media systems and higher rewards for negative campaigning. On the other hand, countries with high party-media parallelism, such as Italy or Spain should exhibit higher and more direct partisan bias in the coverage of politics and elections when compared to liberal media systems, such as the Scandinavian countries (Hallin and Mancini 2004).

Inter-election periods

I also see rewards in studying non-election periods (Green-Pedersen et al. 2017; van Aelst and De Swert 2009). This applies to studies on the interaction of government and opposition parties – and the behavior of coalition partners. Future studies could provide additional insights into the dilemma of coalition governance (Sagarzazu and Klüver 2017; Van der Velden 2017) and extend our understanding of the life-cycle of coalitions (Müller et al. 2008). Researchers could rely on message tonality to study conflict and cooperation between government parties throughout the electoral cycle and investigate how critical events such as economic crisis or regional elections affect the relationship between government and opposition parties. We could expect that the amount and intensity of negative messages traded between coalition partners increases when the stakes are higher – for example, when parties disagree over important policy reforms or when their regional party branches compete severely in a regional campaign. On the other hand, external shocks or threats from mutual enemies could stimulate cooperation and a softer tonality in

the relationship of coalition partners. Ultimately, studies could use the tonality of party communication to predict conflict or early government termination (Tavits 2008).

Studying media gatekeeping in inter-election periods, future research could examine variation in the importance of news factors. In between elections, the relevance of cabinet members and government parties could impact more strongly on the selection of party messages, as journalists and editors put a stronger emphasis on controlling those in power and follow the legislative agenda (Green-Pedersen et al. 2017). Accordingly, opposition parties and ordinary politicians should depend even more strongly on the addition of news factors – such as negative campaigning – to attract the interest of journalists and editors if they want to make the news (Meyer et al. forthcoming; Helfer and Van Aelst 2016).

Social media

My dissertation focuses on 'traditional' communication channels. Press releases were of high relevance to parties and journalists during the elections studied (Meyer et al. forthcoming) and newspapers were still the most important source of information for Austrian voters during this time frame (Aichholzer et al. 2014).

However, the growing importance of social media suggests that future research should investigate how political actors use these channels for agenda setting and negative campaigning (Feezell 2017; Harder et al. 2017; Auter and Fine 2016; Gross and Johnson 2016; Ceron and d'Adda 2015). Party messages distributed on Twitter, Facebook or other social media channels may be more attractive to online media and are likely to differ in content and tone from press releases. These messages are more likely to include pictures and videos more often and should be less complex. As social media platforms are decentralized and offer ungated access for rank-and-file politicians, we could expect higher levels of negativity, as these actors are more prone to rely on news factors to attract a larger audience (Haselmayer et al. forthcoming).

Despite attracting the interest of (online) media, social media platforms are also attractive as they enable parties to communicate more directly and immediately with the electorate (Graham et al. 2013; Skovsgaard and Van Dalen 2013). Studies on 'digital gatekeeping' and the diffusion of news via social media channels (Bro and Wallberg 2014) could investigate which party messages are distributed via social media (Valenzuela et al. 2017; Trilling et al. 2016). It would be worthwhile to study if negative campaigning or virulent attacks attract more interest from users of social media platforms and thereby increase the audience of party messages. As negative campaigning may reinforce partisanship, such research could investigate if selective exposure to negative messages in the social media promotes polarization (Bakshy et al. 2015).

Effects on voters

Future studies could also investigate how differences in campaign tonality affect voters. Prior research has revealed differences in reactions to negative messages focusing on personal characteristics or featuring uncivil language (Mattes and Redlawsk 2014; Fridkin and Kenney 2011; Brooks and Geer 2007; Kahn and Kenney 1999). This research should benefit from a graded measure of campaign tonality, which provides a more thorough understanding of negative political behavior. Distinguishing between comparative advertising and virulent or uncivil attacks, future research could investigate which negative messages produce positive (learning, persuasion, mobilization) or negative (disaffection, demobilization, polarization) effects by looking at interactions of message tonality and content.

More research is also needed into individual-level factors on the effects of negative campaigning. Beyond differences between strong and weak partisans (Meffert et al. 2006) or gender (Kahn 1993), age, political interest or knowledge should affect perceptions of negative campaigning. It seems particularly relevant to link findings on the perception of

campaign tonality by younger respondents with studies on lower turnout among young voters (Blais et al. 2004; Franklin et al. 2004). If younger voters react more strongly to negative messages as suggested by experimental evidence in chapter six, it seems worthwhile to investigate if this affects (lower) turnout among early voters.

Research on negative campaigning effects would further benefit from exploring cognitive mechanisms producing differences in message perception. Research on motivated reasoning suggests that voters who devote a substantial amount of time and effort to counterargue incongruent (negative) information about a preferred party will reinforce their partisanship and experience polarization (Petersen et al. 2013; Meffert et al. 2006; Redlawsk 2002). Others may simply ignore such information. Future studies should therefore investigate whether variation in campaign tonality and/or individual characteristics affect response latency. As motivated reasoning requires a minimum level of political knowledge and interest, it should primarily affect more sophisticated voters, which might explain variation in the reactions of voters according to their partisanship strength and political sophistication.

Future research should therefore investigate what produces persuasion, demobilization or democratic disaffection. Such studies would also benefit from exploring variation in voters' (negative) emotional reactions to party communication. Emotions may shape political attitudes and behaviors (Marcus et al. 2011; Brader 2005; Marcus and MacKuen 1993), but effects are not uniform for all emotions. Anger encourages partisan evaluations, while anxiety is more likely to unhinge partisan information processing (Weeks 2015). Similarly, differences in the content or tonality of negative messages produce variation in emotional reactions (Mattes and Redlawsk 2014; Brooks and Geer 2007; Mutz and Reeves 2005). This suggests that partisanship, message characteristics and emotional reactions could all impact on the effects of negative campaigning.

To provide an example, virulent attacks could evoke anger among partisans and anxiety among voters with lower levels of political knowledge and involvement. This could explain polarization of partisans (Meffert et al. 2006; Redlawsk 2002) and demobilization or disaffection among unsophisticated voters (Weeks 2015).

Text analysis

Many of the most promising avenues for future research identified so far require a cross-country research design or a temporal extension (inter-election periods). These studies may benefit from crowdcoding and (semi)-automated sentiment analysis. Both approaches facilitate and accelerate large scale analyses of text data. Crowdsourcing lends itself to cross-country applications as coders are available for numerous countries and languages. In addition, recent attempts to multi-lingual sentiment analysis indicate promising results (Proksch et al. n.d.; Courtney et al. 2017). Using machine-translation and/or expert translators, this could prepare cross-country and cross-language sentiment analyses in the future.

Combining such approaches with automated clause analysis which automatically detects syntactic relations in texts (Van Atteveldt et al. 2017) would enable entirely automated analyses of negative campaigning or party interaction. Likewise, this could improve or extend the scope of studies of public opinion, polarization or media tone (Lauderdale and Herzog 2017; Burscher et al. 2015; Ceron et al. 2014, 2015; González-Bailón and Paltoglou 2015; Soroka, Young, et al. 2015; Young and Soroka 2012; Hopkins and King 2010b; Van Atteveldt et al. 2008).

I envisage to contribute towards closing some of these research gaps in future projects. This includes studying the tonality of party communication in the inter-election period. Combing hand coding, machine learning and sentiment analysis, I am currently preparing a study on communication strategies of MPs during the legislative period. I also plan to extend

the understanding of negative campaigning effects in the European multi-party context. In an experimental study, I am examining perceptions of positive and negative party messages across different issues. Future research will also investigate perceptual differences of personal and issue-based attacks in a comparative, cross-country perspective. Finally, in joint work with an interdisciplinary group of scholars, I have used word embeddings for sentiment analysis of parliamentary speeches (Rudkowsky et al. 2018). I am preparing substantial applications of this method to studies of parliamentary behavior.

8 References

Abramowitz, A. I., and Saunders, K. L. (1998). Ideological Realignment in the Us Electorate. *Journal of Politics, 60*(3), 634-652.

Adams, J. (2001). *Party Competition and Responsible Party Government: A Theory of Spatial Competition Based Upon Insights from Behavioral Voting Research*. Ann Arbor, MI: University of Michigan Press.

Aichholzer, J., Kritzinger, S., Jenny, M., Müller, W. C., Schönbach, K., and Vonbun, R. (2014). Die Ausgangslage. In S. Kritzinger, W. C. Müller, and K. Schönbach (Eds.), *Die Nationalratswahl 2013. Wie Parteien, Medien und Wählerschaft Zusammenwirken* (pp. 9-38). Vienna, Austria: Böhlau.

Alonso, O., and Baeza-Yates, R. (2011). Design and Implementation of Relevance Assessments Using Crowdsourcing. In P. Clough, C. Foley, C. Gurrin, G. Jones, W. Kraaj, H. Lee, and V. Mudoch (Eds.), *Advances in Information Retrieval* (pp. 153-164). Berlin, Germany: Springer.

Anduiza, E., Gallego, A., and Munoz, J. (2013). Turning a Blind Eye: Experimental Evidence of Partisan Bias in Attitudes toward Corruption. *Comparative Political Studies, 46*(12), 1664-1692.

Ansolabehere, S., and Iyengar, S. (1995). *Going Negative: How Attack Ads Shrink and Polarize the Electorate*. New York, NY: Free Press.

Ansolabehere, S., Iyengar, S., Simon, A., and Valentino, N. (1994). Does Attack Advertising Demobilize the Electorate. *American Political Science Review, 88*(4), 829-838.

Ansolabehere, S., and Iyengar, S. (1994). Riding the Wave and Claiming Ownership over Issues - the Joint Effects of Advertising and News Coverage in Campaigns. *Public Opinion Quarterly, 58*(3), 335-357.

Auspurg, K., and Hinz, T. (2015). *Factorial Survey Experiments*. Los Angeles, CA: Sage.

Auter, Z. J., and Fine, J. A. (2016). Negative Campaigning in the Social Media Age: Attack Advertising on Facebook. *Political Behavior, 38*(4), 999-1020.

Bakker, R., de Vries, C., Edwards, E., Hooghe, L., Jolly, S., Marks, G., Polk, J., Rovny, J., Steenbergen, M., and Vachudova, M. A. (2015). Measuring Party Positions in Europe: The Chapel Hill Expert Survey Trend File, 1999-2010. *Party Politics, 21*(1), 143-152.

Bakshy, E., Messing, S., and Adamic, L. A. (2015). Exposure to Ideologically Diverse News and Opinion on Facebook. *Science, 348*(6239), 1130-1132.

Balmas, M., Rahat, G., Sheafer, T., and Shenhav, S. R. (2014). Two Routes to Personalized Politics: Centralized and Decentralized Personalization. *Party Politics, 20*(1), 37-51.

Bargsted, M. A., and Kedar, O. (2009). Coalition-Targeted Duvergerian Voting: How Expectations Affect Voter Choice under Proportional Representation. *American Journal of Political Science, 53*(2), 307-323.

Bartels, L. M. (2002). Beyond the Running Tally: Partisan Bias in Political Perceptions. *Political Behavior, 24*(2), 117-150.

Bartels, L. M. (2000). Partisanship and Voting Behavior, 1952-1996. *American Journal of Political Science, 44*(1), 35-50.

Baumeister, R. A., Bratlavsky, E., and Finkenauer, C. (2001). Bad Is Stronger Than Good. *Review of General Psychology, 5*(4), 323-370.

Baumgartner, F. R., and Jones, B. D. (1993). *Agendas and Instability in American Politics*. Chicago, MA: University of Chicago Press.

Bechtel, M. M. (2009). The Political Sources of Systematic Investment Risk: Lessons from a Consensus Democracy. *The Journal of Politics, 71*(2), 661-677.

Behrend, T. S., Sharek, D. J., Meade, A. W., and Wiebe, E. W. (2011). The Viability of Crowdsourcing for Survey Research. *Behavioral Research, 43*(3), 800-813.

Bélanger, É., and Meguid, B. A. (2008). Issue Salience, Issue Ownership, and Issue-Based Vote Choice. *Electoral Studies, 27*(3), 477-491.

Bellucci, P. (2006). Tracing the Cognitive and Affective Roots of 'Party Competence': Italy and Britain, 2001. *Electoral Studies, 25*(3), 548-569.

Benikova, D., Biemann, C., and Reznicek, M. (2014). *Nosta-D Named Entity Annotation for German: Guidelines and Dataset*. Proceedings of Language Resources and Evaluation Conference (LREC), May 26-31, Reykjavik, Iceland.

Bennett, S. E., Rhine, S. L., Flickinger, R. S., and Bennett, L. L. (1999). 'Video Malaise' Revisited: Public Trust in the Media and Government. *The Harvard International Journal of Press/Politics, 4*(4), 8-23.

Bennett, W. L. (1990). Toward a Theory of Press-State Relations in the United-States. *Journal of Communication, 40*(2), 103-125.

Benoit, K., Conway, D., Lauderdale, B., Laver, M., and Mikhaylov, S. (2016). Crowd-Sourced Text Analysis: Reproducible and Agile Production of Political Data. *American Political Science Review, 110*(2), 278-295.

Benoit, K., and Laver, M. (2006). *Party Policy in Modern Democracies*. Abingdon, UK;

New York, NY: Routledge.

Benoit, W. L., Blaney, J. R., and Pier, P. M. (2000). Acclaiming, Attacking, and Defending: A Functional Analysis of Us Nominating Convention Keynote Speeches. *Political Communication, 17*(1), 61-84.

Benoit, W. L. (1999). *Seeing Spots: A Functional Analysis of Presidential Television Advertisements, 1952-1996*. Westport, CT: Praeger.

Berglund, F., Holmberg, S., Schmitt, H., and Thomassen, J. (2005). Party Identification and Party Choice. In J. Thomassen (Ed.), *The European Voter. A Comparative Study of Modern Democracies* (pp. 106-124). Oxford, UK; New York, NY: Oxford University Press.

Berinsky, A. J., Margolis, M., and Sances, M. W. (2014). Separating the Shirkers from the Workers? Making Sure Respondents Pay Attention on Internet Surveys. *American Journal of Political Science, 58*(3), 739-753.

Berinsky, A. J., Huber, G. A., and Lenz, G. S. (2012). Evaluating Online Labor Markets for Experimental Research: Amazon.Com's Mechanical Turk. *Political Analysis, 20*(3), 351-368.

Bernhard, W., and Leblang, D. (2002). Democratic Processes, Political Risk, and Foreign Exchange Markets. *American Journal of Political Science, 46*(2), 316-333.

Berry, W. D., DeMeritt, J. H. R., and Esarey, J. (2010). Testing for Interaction in Binary Logit and Probit Models: Is a Product Term Essential? *American Journal of Political Science, 54*(1), 248-266.

Blais, A., Aldrich, J. H., Indridason, I. H., and Levine, R. (2006). Do Voters Vote for Government Coalitions?: Testing Downs' Pessimistic Conclusion. *Party Politics, 12*(6), 691-705.

Blais, A., Gidengil, E., and Nevitte, N. (2004). Where Does Turnout Decline Come From? *European Journal of Political Research, 43*(2), 221-236.

Bodlos, A. (2015). *Differences in Negative Campaigning across Party Communication Channels. How Communication Channel Characteristics Influences What Parties Campaign On*. Paper presented at the Workshop on 'Dynamics in party communication', December 4-5, Vienna.

Bolsen, T., Druckman, J. N., and Cook, F. L. (2014). The Influence of Partisan Motivated Reasoning on Public Opinion. *Political Behavior, 36*(2), 235-262.

Brader, T. (2005). Striking a Responsive Chord: How Political Ads Motivate and Persuade Voters by Appealing to Emotions. *American Journal of Political Science, 49*(2),

388-405.

Brambor, T., Clark, W. R., and Golder, M. (2006). Understanding Interaction Models: Improving Empirical Analyses. *Political Analysis, 14*(1), 63-82.

Brandenburg, H. (2006). Party Strategy and Media Bias: A Quantitative Analysis of the 2005 Uk Election Campaign. *Journal of Elections, Public Opinion & Parties, 16*(2), 157-178.

Brants, K., and de Haan, Y. (2010). Taking the Public Seriously: Three Models of Responsiveness in Media and Journalism. *Media, Culture & Society, 32*(3), 411-428.

Bro, P., and Wallberg, F. (2014). Digital Gatekeeping. *Digital Journalism, 2*(3), 446-454.

Brooks, D. J., and Geer, J. G. (2007). Beyond Negativity: The Effects of Incivility on the Electorate. *American Journal of Political Science, 51*(1), 1-16.

Budge, I., and Farlie, D. (1983). *Explaining and Predicting Elections: Issue Effects and Party Strategies in Twenty-Three Democracies*. London, UK; Boston, MA: Allen & Unwin.

Burscher, B., Vliegenthart, R., and de Vreese, C. H. (2015). Frames beyond Words: Applying Cluster and Sentiment Analysis to News Coverage of the Nuclear Power Issue. *Social Science Computer Review, 34*(5), 530-545.

Cacioppo, J. T., and Berntson, G. G. (1994). Relationship between Attitudes and Evaluative Space: A Critical Review, with Emphasis on the Separability of Positive and Negative Substrates. *Psychological Bulletin, 115*(3), 401-423.

Callender, J. T. (1800). *The Prospect before Us*. Richmond, Virginia: Printed for the author and sold by M. Jones, S. Pleasants, Jun., and J. Lyon.

Capella, J. N., and Jamieson, K. H. (1997). *Spiral of Cynicism: The Press and the Public Good*. Oxford, UK; New York; NY: Oxford University Press.

Carlson, D., and Montgomery, J. M. (2017). A Pairwise Comparison Framework for Fast, Flexible, and Reliable Human Coding of Political Texts. *American Political Science Review, 111*(4), 835-843.

Carmines, E. G., and Stimson, J. A. (1989). *Issue Evolution: Race and the Transformation of American Politics*. Princeton, N.J.: Princeton University Press.

Ceron, A., Curini, L., and Iacus, S. M. (2015). Using Sentiment Analysis to Monitor Electoral Campaigns: Method Matters - Evidence from the United States and Italy. *Social Science Computer Review, 33*(1), 3-20.

Ceron, A., and d'Adda, G. (2015). E-Campaigning on Twitter: The Effectiveness of

Distributive Promises and Negative Campaign in the 2013 Italian Election. *New Media & Society, 18*(9), 1935-1955.

Ceron, A., Curini, L., and Iacus, S. M. (2014). Every Tweet Counts? How Sentiment Analysis of Social Media Can Improve Our Knowledge of Citizens' Political Preferences with an Application to Italy and France. *New Media & Society, 16*(2), 340-358.

Cicero, Q. T. (2012). *How to Win an Election: An Ancient Guide for Modern Politicians (Translated by Philip Freeman)*. Princeton, NJ: Princeton University Press.

Clifford, S., Jewell, R. M., and Waggoner, P. D. (2015). Are Samples Drawn from Mechanical Turk Valid for Research on Political Ideology? *Research & Politics, 2*(4).

Coan, T. G., Merolla, J. L., Stephenson, L. B., and Zechmeister, E. J. (2008). It's Not Easy Being Green: Minor Party Labels as Heuristic Aids. *Political Psychology, 29*(3), 389-405.

Cohen, G. L. (2003). Party over Policy: The Dominating Impact of Group Influence on Political Beliefs. *Journal of Personality and Social Psychology, 85*(5), 808-822.

Conrad, C. R., and Golder, S. N. (2010). Measuring Government Duration and Stability in Central Eastern European Democracies. *European Journal of Political Research, 49*(1), 119-150.

Cook, T. E. (2005). *Governing with the News: News Media as a Political Institution* (2nd ed.). Chicago, IL: University of Chicago Press.

Courtney, M., Breen, M., McMenamin, I., and McNulty, G. (2017). *Multi-Lingual Text Classification and Inter-Coder Reliability*. Paper presented at the 7th Annual Conference of the European Political Science Association (EPSA), June 22-24, Milan, Italy.

Crump, M. J. C., McDonnell, J. V., and Gureckis, T. M. (2013). Evaluating Amazon's Mechanical Turk as a Tool for Experimental Behavioral Research. *Plos One, 8*(3).

Curini, L., and Martelli, P. (2010). Ideological Proximity and Valence Competition. Negative Campaigning through Allegation of Corruption in the Italian Legislative Arena from 1946 to 1994. *Electoral Studies, 29*(4), 636-647.

Dachs, H. (1998). Wahlkampfkommunikation in der zweiten Republik. Kontinuitäten und Brüche. In O. Panagl (Ed.), *Fahnenwörter der Politik. Kontinuitäten und Brüche* (pp. 169-182). Vienna, Austria: Böhlau Verlag.

Dalton, R. J. (2014). Interpreting Partisan Dealignment in Germany. *German Politics,*

23(1-2), 134-144.

Dalton, R. J. (2013). *Citizen Politics: Public Opinion and Political Parties in Advanced Industrial Democracies*. Washington DC: CQ Press.

Dalton, R. J., Farrell, D. M., and McAllister, I. (2011). *Political Parties and Democratic Linkage: How Parties Organize Democracy*. Oxford, UK; New York, NY: Oxford University Press.

Dalton, R. J. (2002). Political Cleavages, Issues and Electoral Change. In L. LeDuc, R. G. Niemi, and P. Norris (Eds.), *Comparing Democracies 2: New Challenges in the Study of Elections and Voting* (pp. 189-209). London, UK: Sage.

Dalton, R. J., and Wattenberg, M. P. (2000). *Parties without Partisans: Political Change in Advanced Industrial Democracies*. Oxford, UK; New York, NY: Oxford University Press.

Damore, D. F. (2005). Issue Convergence in Presidential Campaigns. *Political Behavior, 27*(1), 71-97.

Damore, D. F. (2002). Candidate Strategy and the Decision to Go Negative. *Political Research Quarterly, 55*(3), 669-685.

Dassonneville, R., Hooghe, M., and Vanhoutte, B. (2014). Partisan Dealignment in Germany: A Rejoinder to Russell Dalton. *German Politics, 23*(1-2), 145-155.

Dassonneville, R., Hooghe, M., and Vanhoutte, B. (2012). Age, Period and Cohort Effects in the Decline of Party Identification in Germany: An Analysis of a Two Decade Panel Study in Germany (1992-2009). *German Politics, 21*(2), 209-227.

Dawid, A. P., and Skene, A. M. (1979). Maximum Likelihood Estimation of Observer Error-Rates Using the Em Algorithm. *Journal of the Royal Statistical Society, 28*(1), 20-28.

De Nooy, W., and Kleinnijenhuis, J. (2015). Attack, Support, and Coalitions in a Multiparty System: Understanding Negative Campaigning in a Country with a Coalition Government. In A. Nai and A. S. Walter (Eds.), *New Perspectives on Negative Campaigning. Why Attack Politics Matter* (pp. 77-93). Colchester, UK: ECPR Press.

De Nooy, W., and Kleinnijenhuis, J. (2013). Polarization in the Media During an Election Campaign: A Dynamic Network Model Predicting Support and Attack among Political Actors. *Political Communication, 30*(1), 117-138.

De Vreese, C. H., and Semetko, H. A. (2002). Cynical and Engaged: Strategic Campaign Coverage, Public Opinion, and Mobilization in a Referendum. *Communication*

Research, 29(6), 615-641.

Diwisch, K., and Siegel, M. (2014). *Multi-Domain Sentiment Lexicon for German*. Retrieved from: https://sites.google.com/site/iggsahome/downloads

Dolezal, M., Ennser-Jedenastik, L., and Müller, W. C. (2017). Who Will Attack the Competitors? How Political Parties Resolve Strategic and Collective Action Dilemmas in Negative Campaigning. *Party Politics, 23*(6), 666-679.

Dolezal, M., Ennser-Jedenastik, L., and Müller, W. C. (2016). Negative Campaigning and the Logic of Retaliation in Multi-Party Competition. *International Journal of Press/Politics, 21*(2), 253-272.

Dolezal, M., Ennser-Jedenastik, L., and Müller, W. C. (2015). When Do Parties Attack Their Competitors? Negative Campaigning in Austria, 2002-2008. In A. Nai and A. S. Walter (Eds.), *New Perspectives on Negative Campaigning: Measures, Causes and Effects* (pp. 165-181). Colchester, UK: ECPR Press.

Dolezal, M. (2015). Online Campaigning by Austrian Political Candidates: Determinants of Using Personal Websites, Facebook, and Twitter. *Policy & Internet, 7*(1), 103-119.

Dolezal, M., Haselmayer, M., Johann, D., Thomas, K., and Ennser-Jedenastik, L. (2014). Negative Campaigning. In S. Kritzinger, W. C. Müller, and K. Schönbach (Eds.), *Die Nationalratswahl 2013. Wie Parteien, Medien und Wähler zusammenwirken* (pp. 99-112). Vienna, Austria: Böhlau.

Dolezal, M., Ennser-Jedenastik, L., Müller, W. C., and Winkler, A. K. (2014). How Parties Compete for Votes: A Test of Saliency Theory. *European Journal of Political Research, 53*(1), 57-76.

Dolezal, M., Eberl, J.-M., Jacobi, C., and Zeglovits, E. (2014). Die Rolle der Spitzenkandidatinnen und -Kandidaten. In S. Kritzinger, W. C. Müller, and K. Schönbach (Eds.), *Die Nationalratswahl 2013. Wie Parteien, Medien und Wähler zusammenwirken* (pp. 99-112). Vienna, Austria: Böhlau.

Doron, G., and On, U. (1983). A Rational Choice Model of Campaign Strategy. In A. Arian (Ed.), *The Elections in Israel 1981* (pp. 213-231). Tel Aviv, Israel: Ramot Publishing.

Druckman, J. N., Kifer, M. J., and Parkin, M. (2009). Campaign Communications in Us Congressional Elections. *American Political Science Review, 103*(3), 343-366.

Eberl, J.-M., Vonbun, R., Haselmayer, M., Jacobi, C., Kleinen-von Königslöw, K., Schönbach, K., and Boomgarden, H. G. (2015). *Autnes Manual Content Analysis of*

the 2013 Austrian National Election Coverage. Vienna, Austria. University of Vienna.

Ecker, A., and Meyer, T. M. (forthcoming). Coalition Bargaining Duration in Multiparty Democracies. *British Journal of Political Science*, Online first. DOI:10.1017/S0007123417000539

Egan, P. J. (2013). *Partisan Priorities. How Issue Ownership Drives and Distorts American Politics*. New York, NY: Cambridge University Press.

Eickhoff, C., and de Vries, A. P. (2013). Increasing Cheat Robustness of Crowdsourcing Tasks. *Information Retrieval, 16*(2), 121-137.

Ekman, P. (1992). An Argument for Basic Emotions. *Cognition and Emotion, 6*(3-4), 169-200.

Elmelund-Præstekær, C., and Molgaard Svenson, H. (2014b). Ebbs and Flows of Negative Campaigning: A Longitudinal Study of the Influence of Contextual Factors on Danish Campaign Rhetoric. *European Journal of Communication, 29*(2), 230-239.

Elmelund-Præstekær, C., and Molgaard Svenson, H. (2014a). Negative and Personalized Campaign Rhetoric: Party Communication and Media Coverage of Danish Parliamentary Elections 1994-2011. *World Political Science Review, 10*(2), 365-384.

Elmelund-Præstekær, C. (2011). Issue Ownership as a Determinant of Negative Campaigning. *International Political Science Review, 32*(2), 209-221.

Elmelund-Præstekær, C. (2011). Mapping Parties' Issue Agenda in Different Channels of Campaign Communication: A Wild Goose Chase? *Javnost - the Public, 18*(1), 37-51.

Elmelund-Præstekær, C. (2010). Beyond American Negativity: Toward a General Understanding of the Determinants of Negative Campaigning. *European Political Science Review, 2*(1), 137-156.

Elmelund-Præstekær, C. (2008). Negative Campaigning in a Multiparty System. *Representation, 44*(1), 27-39.

Ennser-Jedenastik, L., Dolezal, M., and Müller, W. C. (2017). Gender Differences in Negative Campaigning: The Impact of Party Environments. *Politics & Gender, 13*(1), 81-106.

Esser, F., and Strömbäck, J. (2014). *Mediatization of Politics: Understanding the Transformation of Western Democracies*. Houndmills, Basingstoke, UK; New York, NY: Palgrave Macmillan.

Farnsworth, S. J., and Lichter, R. S. (2010). *The Nightly News Nightmare: Network Television's Coverage of U.S. Presidential Elections, 1988-2000*. Lanham, MD: Rowman & Littlefield.

Faruqi, M., and Pado, S. (2010). Training and Evaluating a German Named Entity Recognizer with Semantic Generalization. *Proceedings of the 10th Conference on Natural Language Processing, September 6-8, Saarbrücken, Germany*.

Feezell, J. T. (2017). Agenda Setting through Social Media: The Importance of Incidental News Exposure and Social Filtering in the Digital Era. *Political Research Quarterly, 71*(2), 482-494.

Felt, P., Boyd-Graber, J., Ringger, E. K., and Seppi, K. (2015). Making the Most of Crowdsourced Document Annotations: Confused Supervised Lda. *Proceedings of the 19th Conference on Computational Language Learning, July 30-31, Beijing, China*.

Fiorina, M. P., Abrams, S. J., and Pope, J. (2005). *Culture War?: The Myth of a Polarized America*. New York, NY: Pearson Longman.

Flowers, J. F., Haynes, A., and Crespin, M. H. (2003). The Media, the Campaign and the Message. *American Journal of Political Science, 47*(2), 259-273.

Franklin, M. N., Lyons, P., and Marsh, M. (2004). The Generational Basis of Turnout Decline. *Acta Politica, 39*(2), 115-151.

Freedman, P., and Goldstein, K. (1999). Measuring Media Exposure and Effects of Negative Campaign Ads. *American Journal of Political Science, 43*(4), 1189-1208.

Fridkin, K. L., and Kenney, P. J. (2011). Variability in Citizens' Reactions to Different Types of Negative Campaigns. *American Journal of Political Science, 55*(2), 307-325.

Fridkin, K. L., and Kenney, P. J. (2008). The Dimensions of Negative Messages. *American Politics Research, 36*(5), 694-723.

Gaines, B. J., Kuklinski, J. H., Quirk, P. J., Peyton, B., and Verkuilen, J. (2007). Same Facts, Different Interpretations: Partisan Motivation and Opinion on Iraq. *The Journal of Politics, 69*(4), 957-974.

Galtung, J., and Holmboe Ruge, M. (1965). The Structure of Foreign News: The Presentation of the Congo, Cuba and Cyprus Crises in Four Foreign Newspapers. *Journal of Peace Research, 2*(1), 64-91.

Gans, H. J. (1979). Deciding Whats News - Story Suitability. *Society, 16*(3), 65-77.

Gardner, J. W. (1990). *On Leadership*. New York, NY: Free Press.

Garramore, G. M. (1984). Voter Response to Negative Political Ads. *Journalism Quarterly, 61*(2), 250-259.

Geer, J. G. (2012). The News Media and the Rise of Negativity in Presidential Campaigns. *PS: Political Science & Politics, 45*(3), 422-427.

Geer, J. G. (2006). *In Defence of Negativity. Attack Ads in Presidential Campaigns*. Chicago, IL: University of Chicago Press.

Geer, J. G. (1998). Campaigns, Party Competition and Political Advertising. In J. G. Geer (Ed.), *Politicians and Party Politics* (pp. 186-217). London, UK: The Johns Hopkins University Press.

Geys, B. (2012). Success and Failure in Electoral Competition: Selective Issue Emphasis under Incomplete Issue Ownership. *Electoral Studies, 31*(2), 406-412.

Golder, S. N. (2010). Bargaining Delays in the Government Formation Process. *Comparative Political Studies, 43*(1), 3-32.

González-Bailón, S., and Paltoglou, G. (2015). Signals of Public Opinion in Online Communication: A Comparison of Methods and Data Sources. *The ANNALS of the American Academy of Political and Social Science, 659*(1), 95-107.

Goren, P., Federico, C. M., and Kittilson, M. C. (2009). Source Cues, Partisan Identities, and Political Value Expression. *American Journal of Political Science, 53*(4), 805-820.

Goren, P. (2002). Character Weakness, Partisan Bias, and Presidential Evaluation. *American Journal of Political Science, 46*(3), 627-641.

Graham, T., Broersma, M., Hazelhoff, K., and van 't Haar, G. (2013). Between Broadcasting Political Messages and Interacting with Voters. *Information, Communication & Society, 16*(5), 692-716.

Green, J., and Hobolt, S. B. (2008). Owning the Issue Agenda: Party Strategies and Vote Choices in British Elections. *Electoral Studies, 27*(3), 460-476.

Green-Pedersen, C., Mortensen, P. B., and Thesen, G. (2017). The Incumbency Bonus Revisited: Causes and Consequences of Media Dominance. *British Journal of Political Science, 47*(1), 131-148.

Green-Pedersen, C., and Mortensen, P. B. (2010). Who Sets the Agenda and Who Responds to It in the Danish Parliament? A New Model of Issue Competition and Agenda-Setting. *European Journal of Political Research, 49*(2), 257-281.

Green-Pedersen, C. (2007). The Growing Importance of Issue Competition: The Changing Nature of Party Competition in Western Europe. *Political Studies, 55*(3), 607-628.

Green-Pedersen, C., and Mortensen, P. B. (2015). Avoidance and Engagement: Issue Competition in Multiparty Systems. *Political Studies, 63*(4), 747-764.

Grimmer, J. (2013). *Representational Style in Congress: What Legislators Say and Why It Matters*. New York, NY: Cambridge University Press.

Grimmer, J., and Stewart, B. M. (2013). Text as Data: The Promise and Pitfalls of Automatic Content Analysis Methods for Political Texts. *Political Analysis, 21*(3), 267-297.

Grimmer, J. (2010). A Bayesian Hierarchical Topic Model for Political Texts: Measuring Expressed Agendas in Senate Press Releases. *Political Analysis, 18*(1), 1-35.

Gross, J. H., and Johnson, K. T. (2016). Twitter Taunts and Tirades: Negative Campaigning in the Age of Trump. *PS: Political Science & Politics, 49*(4), 748-754.

Hallin, D. C., and Mancini, P. (2004). *Comparing Media Systems. Three Models of Media and Politics*. New York, NY: Cambridge University Press.

Hänggli, R. (2012). Key Factors in Frame Building: How Strategic Political Actors Shape News Media Coverage. *American Behavioral Scientist, 56*(3), 300-317.

Hansen, K. M., and Pedersen, R. (2008). Negative Campaigning in a Multiparty System. *Scandinavian Political Studies, 31*(4), 408-427.

Harcup, T., and O'Neill, D. (2001). What Is News? Galtung and Ruge Revisited. *Journalism Studies, 2*(2), 261-280.

Harder, R. A., Sevenans, J., and Van Aelst, P. (2017). Intermedia Agenda Setting in the Social Media Age: How Traditional Players Dominate the News Agenda in Election Times. *The International Journal of Press/Politics, 22*(3), 275-293.

Harrington, J. J. E., and Hess, G. D. (1996). A Spatial Theory of Positive and Negative Campaigning. *Games and Economic Behavior, 17*(2), 209-229.

Haselmayer, M. and Jenny, M. (forthcoming). Friendly fire? Negative campaigning among coalition partners. *Reasearch and Politics*. DOI: 10.1177/2053168018796911

Haselmayer, M., Meyer, T. M., and Wagner, M. (forthcoming). Fighting for Attention. Media Coverage of Negative Campaign Messages. *Party Politics*, Online first. DOI:10.1177/1354068817724174

Haselmayer, M., and Jenny, M. (2017). Sentiment Analysis of Political Communication: Combining a Dictionary Approach with Crowdcoding. *Quality & Quantity, 51*(6), 2623-2646.

Haselmayer, M., Wagner, M., and Meyer, T. M. (2017). Partisan Bias in Message

Selection: Media Gatekeeping of Party Press Releases. *Political Communication, 34*(3), 367-384.

Haselmayer, M., Jacobi, C., Eberl, J.-M., Vonbun, R., Kleinen-von Königslöw, K., Schönbach, K., and Boomgaarden, H. (2015). *Autnes Mediaautomatic 2013: Documentation*. Vienna, Austria. Universität Wien.

Hayes, D. (2005). Candidate Qualities through a Partisan Lens: A Theory of Trait Ownership. *American Journal of Political Science, 49*(4), 908-923.

Haynes, A. A., and Rhine, S. L. (1998). Attack Politics in Presidential Nomination Campaigns: An Examination of the Frequency and Determinants of Intermediated Negative Messages against Opponents. *Political Research Quarterly, 51*(3), 691-721.

Helfer, L., and Van Aelst, P. (2016). What Makes Party Messages Fit for Reporting? An Experimental Study of Journalistic News Selection. *Political Communication, 33*(1), 59-77.

Helfer, L. (2016). Media Effects on Politicians: An Individual-Level Political Agenda-Setting Experiment. *International Journal of Press-Politics, 21*(2), 233-252.

Henderson, J. A., and Theodoridis, A. G. (forthcoming). Seeing Spots: Partisanship, Negativity and the Conditional Receipt of Campaign Advertisements. *Political Behavior*, Online first. DOI:10.1007/s11109-017-9432-6)

Hetherington, M. J. (2009). Putting Polarization in Perspective. *British Journal of Political Science, 39*(2), 413-448.

Hill, C. A., Dean, E., and Murphy, J. (2013). *Social Media, Sociality, and Survey Research*. Hoboken, NJ: Wiley.

Hofer, T. (2006). Der Triumph des Negative Campaigning. In T. Hofer and B. Tóth (Eds.), *Wahl 2006. Kanzler, Kampagnen, Kapriolen. Analysen zur Nationalratswahl*. Vienna, Austria; Berlin, Germany: LIT Verlag.

Hölzl, N. (1974). *Propagandaschlachten. Die Österreichischen Wahlkämpfe 1945 bis 1971*. Vienna, Austria: Verlag für Geschichte und Politik.

Hopkins, D. J., and King, G. (2010). A Method of Automated Nonparametric Content Analysis for Social Science. *American Journal of Political Science, 54*(1), 229-247.

Hopkins, D. J., and King, G. (2010). Improving Anchoring Vignettes Designing Surveys to Correct Interpersonal Incomparability. *Public Opinion Quarterly, 74*(2), 201-222.

Hopmann, D. N., Elmelund-Præstekær, C., Albaek, E., Vliegenthart, R., and de Vreese, C. H. (2012). Party Media Agenda-Setting: How Parties Influence Election News

Coverage. *Party Politics, 18*(2), 173-191.

Horn, A. (forthcoming). Can the Online-Crowd Match Real Expert Judgments? How Task Complexity and Coder Location Affect the Validity of Crowd-Coded Data. *European Journal of Political Research,* Online first. DOI:10.1111/1475-6765.12278

Howe, J. (2006). The Rise of Crowdsourcing. *Wired Magazine, 14*(6), 1-4.

Hsue, P.-Y., Melville, P., and Sindhwei, V. (2009). *Data Quality from Crowdsourcing: A Study of Annotation Selection Criteria.* Proceedings of the NAACL HLT Workshop on Active Learning for Natural Language Processing (ALLNP), June 5, Boulder, CL.

Jamieson, K. H., Waldman, P., and Sherr, S. (2000). Eliminate the Negative? Categories of Analysis for Political Advertisement. In J. A. Thurber, C. J. Nelson, and D. A. Dulio (Eds.), *Crowded Airwaves: Campaign Advertising in Elections* (pp. 44-64). Washington DC: Brookings Institution Press.

Jamieson, K. H. (1992). *Dirty Politics. Deception, Distraction, and Democracy*. Oxford, UK; New York, NY: Oxford University Press.

Jenny, M., and Haselmayer, M. (2015). Negative Campaigning in Austria: Abundant, Colorful and Ingenious. Retrieved from http://nottspolitics.org/2015/11/04/negative-campaigning-in-austria-abundant-colorful-and-ingenious/

Kahn , K. F., and Kenney, P. J. (2004). When Do Candidates Go Negative? In K. F. Kahn and P. J. Kenney (Eds.), *No Holds Barred: Negative Campaigning in U.S. Senate Campaigns* (pp. 19-37). Upper Saddle River, NJ: Pearson.

Kahn, K. F., and Kenney, P. J. (2000). How Negative Campaigning Enhances Knowledge of Senate Elections. In J. A. Thurber, C. J. Nelson, and D. A. Dulio (Eds.), *Crowded Airwaves: Campaign Advertising in Elections* (pp. 65-95). Washington DC: Brookings Institution Press.

Kahn, K. F., and Kenney, P. J. (1999). Do Negative Campaigns Mobilize or Suppress Turnout? Clarifying the Relationship between Negativity and Participation. *The American Political Science Review, 93*(4), 877-889.

Kahn, K. F. (1993). Gender Differences in Campaign Messages: The Political Advertisements of Men and Women Candidates for Us Senate. *Political Research Quarterly, 46*(3), 481-502.

Kam, C. D. (2005). Who Toes the Party Line? Cues, Values, and Individual Differences.

Political Behavior, 27(2), 163-182.

Kamber, V. (1997). *Poison Politics: Are Negative Campaigns Destroying Democracy?* Cambridge, MA: Perseus.

Kaplan, N., Park, D. K., and Ridout, T. N. (2006). Dialogue in American Political Campaigns? An Examination of Issue Convergence in Candidate Television Advertising. *American Journal of Political Science, 50*(3), 724-736.

Karvonen, L. (2010). *The Personalisation of Politics: A Study of Parliamentary Democracies*. Colchester, UK: ECPR Press.

Keating, M., Rhodes, B., and Richards, A. (2013). Crowdsourcing: A Flexible Method for Innovation, Data Collection, and Analysis in Social Science Research. In C. A. Hill, E. Dean, and J. Murphy (Eds.), *Social Media, Sociality, and Survey Research* (pp. 179-202). Hoboken, NJ: Wiley.

Klein, J. G. (1996). Negativity in Impressions of Presidential Candidates Revisited: The 1992 Election. *Personality and Social Psychology Bulletin, 22*(3), 288-295.

Klein, J. G. (1991). Negativity Effects in Impression Formation: A Test in the Political Arena. *Personality and Social Psychology Bulletin, 17*(4), 412-418.

Kleinen-von Königslöw, K., Jacobi, C., Haselmayer, M., Eberl, J.-M., Vonbun, R., Schönbach, K., and Boomgaarden, H. (2015). *Autnes Mediaautomatic 2013: Data*. Vienna, Austria. Universität Wien.

Kleinnijenhuis, J., Van Hoof, A. M., and Oegema, D. (2006). Negative News and the Sleeper Effect of Distrust. *Harvard International Journal of Press/Politics, 11*(2), 86-104.

Kleinnijenhuis, J., and Pennings, P. (2001). Measurement of Party Positions on the Basis of Party Programmes, Media Coverage and Voter Perceptions. In M. Laver (Ed.), *Estimating the Policy Positions of Political Actors* (pp. 162-182). London, UK: Routledge.

Klenner, M., Clematide, S., Wiegand, M., and Peters, R. (2010). *Polarity Lexicon: Nouns, Adjectives, Verbs, Adverbs*. Retrieved from: http://sentimental.li/german.lex

Klüver, H., and Sagarzazu, I. (2016). Setting the Agenda or Responding to Voters? Political Parties, Voters and Issue Attention. *British Journal of Political Science, 39*(2), 380-398.

Kohl, A. (2009). Die Regierung Gusenbauer - Molterer. Licht und Schatten. In A. Kohl, G. Ofner, S. Karner, and D. Halper (Eds.), *Österreichisches Jahrbuch für Politik 2008* (pp. 111-124). Böhlau: Vienna, Austria.

Krippendorff, K. (2013). *Content Analysis. An Introduction to Its Methodology*. Thousand Oaks et al.: Sage.

Kritzinger, S., Johann, D., and Aichholzer, J. (2014). *Autnes Rolling-Cross-Section Panel Study 2013. Gesis Data Archive, Cologne. Za5857 Data File Version 1.0.0.*

Kritzinger, S., Zeglovits, E., Aichholzer, J., Glantschnigg, C., Glinitzer, K., Johann, D., Thomas, K., and Wagner, M. (2014). *Autnes Pre- and Post Panel Study 2013. Gesis Datenarchiv, Köln. Za5859 Datenfile Version 1.0.0.*

Kuechler, M. (1991). Issues and Voting in the European Elections 1989. *European Journal of Political Research, 19*(1), 81-103.

Kunda, Z. (1990). The Case for Motivated Reasoning. *Psychological Bulletin, 108*(3), 480-498.

Kunda, Z. (1987). Motivated Inference - Self-Serving Generation and Evaluation of Causal Theories. *Journal of Personality and Social Psychology, 53*(4), 636-647.

Laakso, M., and Taagepera, R. (1979). 'Effective' Number of Parties: A Measure with Application to West Europe. *Comparative Political Studies, 12*(1), 3-27.

Lachat, R. (2014). Issue Ownership and the Vote: The Effects of Associative and Competence Ownership on Issue Voting. *Swiss Political Science Review, 20*(4), 727-740.

Lachat, R. (2011). Electoral Competitiveness and Issue Voting. *Political Behavior, 33*(4), 645-663.

Lachat, R. (2008). The Impact of Party Polarization on Ideological Voting. *Electoral Studies, 27*(4), 687-698.

Lau, R. R., Patel, P., Fahmy, D. F., and Kaufman, R. R. (2014). Correct Voting across Thirty-Three Democracies: A Preliminary Analysis. *British Journal of Political Science, 44*(2), 239-259.

Lau, R. R., and Brown Rovner, I. (2009). Negative Campaigning. *Annual Review of Political Science, 12*(1), 285-306.

Lau, R. R., Andersen, D. J., and Redlawsk, D. P. (2008). An Exploration of Correct Voting in Recent Us Presidential Elections. *American Journal of Political Science, 52*(2), 395-411.

Lau, R. R., Sigelman, L., and Rovner, I. B. (2007). The Effects of Negative Political Campaigns: A Meta-Analytic Assesment. *American Political Science Review, 93*(4), 851-876.

Lau, R. R., and Pomper, G. M. (2004). *Negative Campaigning: An Analysis of Us Senate*

Elections. Lanahan, MD: Rowman & Littlefield.

Lau, R. R., and Pomper, G. M. (2001). Negative Campaigning by Us Senate Candidates. *Party Politics, 7*(1), 69-87.

Lau, R. R., Sigelman, L., Heldman, C., and Babbitt, P. (1999). The Effects of Negative Political Advertisements: A Meta-Analytic Assessment. *American Political Science Review, 93*(4), 851-875.

Lau, R. R., and Redlawsk, D. P. (1997). Voting Correctly. *American Political Science Review, 91*(3), 585-598.

Lau, R. R. (1985). Two Explanations for Negativity Effects in Political Behavior. *American Journal of Political Science, 29*(1), 119-138.

Lauderdale, B. E., and Herzog, A. (2017). Measuring Political Positions from Legislative Speech. *Political Analysis, 24*(3), 374-394.

Laver, M., Benoit, K., and Garry, J. (2003). Extracting Policy Positions from Political Texts Using Words as Data. *American Political Science Review, 97*(2), 311-331.

Laver, M. (2003). Government Termination. *Annual Review of Political Science, 6*, 23-40.

Lehmann, P., and Zobel, M. (forthcoming). Positions and Saliency of Immigration in Party Manifestos: A Novel Dataset Using Crowd Coding. *European Journal of Political Research*, Online first. DOI:10.1111/1475-6765.12266

Lengauer, G. (2012). Pr-Input und Medien-Output: Kommunikationslogiken von Parteien und Massenmedien. In F. Plasser (Ed.), *Erfolgreich Wahlkämpfen. Massenmedien und Wahlkampagnen in Österreich* (pp. 113-140). Vienna, Austria: Facultas (WUV).

Lijphart, A. (1999). *Patterns of Democracy: Government Forms and Performance in Thirty-Six Countries*. New Haven, CT: Yale University Press.

Lind, F., Gruber, M., and Boomgaarden, H. G. (2017). Content Analysis by the Crowd: Assessing the Usability of Crowdsourcing for Coding Latent Constructs. *Communication Methods and Measures*, 11(3): 191-209.

Linhart, E., and Shikano, S. (2007). Die Große Koalition in Österreich: Schwierigkeiten bei der Bildung, Stabilität und Alternativenlosigkeit. *Österreichische Zeitschrift für Politikwissenschaft, 36*(2), 185-200.

Lippmann, W. (1922). *Public Opinion*. New York, NY: Harcourt.

Lipsitz, K., and Geer, J. G. (2017). Rethinking the Concept of Negativity: An Empirical Approach. *Political Research Quarterly, 70*(3), 577-589.

Liu, B. (2012). *Sentiment Analysis and Opinion Mining*. San Rafael (CA): Morgan &

Claypool.

Lodge, M., and Taber, C. S. (2000). Three Steps toward a Theory of Motivated Reasoning. In A. Lupia, M. D. McCubbins, and S. L. Popkin (Eds.), *Elements of Reason. Cognition, Choice, and the Bounds of Rationality* (pp. 183-213). New York, NY: Cambridge University Press.

Lowe, W., and Benoit, K. (2013). Validating Estimates of Latent Traits from Textual Data Using Human Judgment as a Benchmark. *Political Analysis, 21*(3), 298-313.

Lupia, A., and Strøm, K. (1995). Coalition Termination and the Strategic Timing of Parliamentary Elections. *American Political Science Review, 89*(3), 648-665.

Luther, K. R. (2011). Of Goals and Own Goals: A Case Study of Right-Wing Populist Party Strategy for and During Incumbency. *Party Politics, 17*(4), 453-470.

Macagno, F., and Walton, D. N. (2014). *Emotive Language in Argumentation*. New York, NY: Cambridge University Press.

Maier, J., and Jansen, C. (2017). When Do Candidates Attack in Election Campaigns? Exploring the Determinants of Negative Candidate Messages in German Televised Debates. *Party Politics, 23*(5), 549-559.

Malhotra, N., and Kuo, A. G. (2008). Attributing Blame: The Public's Response to Hurricane Katrina. *Journal of Politics, 70*(1), 120-135.

Marcus, G. E., MacKuen, M., and Neuman, W. R. (2011). Parsimony and Complexity: Developing and Testing Theories of Affective Intelligence. *Political Psychology, 32*(2), 323-336.

Marcus, G. E., and MacKuen, M. B. (1993). Anxiety, Enthusiasm, and the Vote: The Emotional Underpinnings of Learning and Involvement During Presidential Campaigns. *American Political Science Review, 87*(3), 672-685.

Marquardt, K. L., Pemstein, D., Sanhueza, C., Seim, B., Wilson, S. L., Bernhard, M., Coppedge, M., and Lindberg, S. I. (2017). Experts, Coders, and Crowds: An Analysis of Substitutability. *V-Dem Working Paper 2017:53*.

Martin, L. W., and Stevenson, R. T. (2010). The Conditional Impact of Incumbency on Government Formation. *American Political Science Review, 104*(3), 503-518.

Martin, L. W., and Vanberg, G. (2003). Wasting Time? The Impact of Ideology and Size on Delay in Coalition Formation. *British Journal of Political Science, 33*(2), 323-332.

Martin, L. W., and Stevenson, R. T. (2001). Government Formation in Parliamentary Democracies. *American Journal of Political Science, 45*(1), 33-50.

Mattes, K., and Redlawsk, D. P. (2014). *The Positive Case for Negative Campaigning.* Chicago, IL; London, UK: The University of Chicago Press.

Mayer, W. G. (1996). In Defense of Negative Campaigning. *Political Science Quarterly, 111*(3), 437-455.

Mazzoleni, G., and Schulz, W. (1999). 'Mediatization' of Politics: A Challenge for Democracy? *Political Communication, 16*(3), 247-261.

McCarty, N. M., Poole, K. T., and Rosenthal, H. (2016). *Polarized America: The Dance of Ideology and Unequal Riches* (Second edition. ed.). Cambridge, MA: MIT Press.

Meffert, M. F., and Gschwend, T. (2011). Polls, Coalition Signals and Strategic Voting: An Experimental Investigation of Perceptions and Effects. *European Journal of Political Research, 50*(5), 636-667.

Meffert, M. F., Chung, S., Joiner, A. J., Waks, L., and Garst, J. (2006). The Effects of Negativity and Motivated Information Processing During a Political Campaign. *Journal of Communication, 56*(1), 27-51.

Meguid, B. M. (2008). *Party Competition between Unequals: Strategies and Electoral Fortunes in Western Europe*. New York, NY: Cambridge University Press.

Melischek, G., Rußmann, U., and Seethaler, J. (2010). Agenda Building in Österreichischen Nationalratswahlkämpfen, 1970-2008. In F. Plasser (Ed.), *Politik in der Medienarena. Praxis politischer Kommunikation in Österreich* (pp. 101-144). Vienna: Facultas (WUV).

Meyer, T. M., Haselmayer, M., and Wagner, M. (forthcoming). Who Gets into the Papers? Party Campaign Messages and the Media. *British Journal of Political Science*, Online first. DOI:10.1017/S0007123417000400

Meyer, T. M., and Müller, W. C. (2014). Testing Theories of Party Competition: The Austrian Case. *Party Politics, 20*(5), 802-813.

Meyer, T. M., and Müller, W. C. (2013). The Issue Agenda, Party Competence and Popularity: An Empirical Analysis of Austria 1989-2004. *Journal of Elections, Public Opinion and Parties, 23*(4), 484-500.

Miller, W. E., and Shanks, J. M. (1996). *The New American Voter*. Cambridge, MA: Harvard University Press.

Mohammad, S. M. (2016). Sentiment Analysis: Detecting Valence, Emotions, and Other Affectual States from Text. In H. Meiselman (Ed.), *Emotion Measurement* (pp. 201-238). Amsterdam, Netherlands: Elsevier.

Momtazi, S. (2012). *Fine-Grained German Sentiment Analysis on Social Media.*

Proceedings of the 8th International Conference on Language Resources and Evaluation, May 23-25, Istanbul, Turkey,.

Monroe, B. L., Colaresi, M. P., and Quinn, K. M. (2008). Fightin' Words: Lexical Feature Selection and Evaluation for Identifying the Content of Political Conflict. *Political Analysis, 16*(4), 372-403.

Mudde, C. (2013). Three Decades of Populist Radical Right Parties in Western Europe: So What? *European Journal of Political Research, 52*(1), 1-19.

Müller, W. C., Eder, N., and Jenny, M. (2015). *Autnes Candidate Survey 2013*. Vienna, Austria: University of Vienna.

Müller, W. C., Dolezal, M., Ennser-Jedenastik, L., Winkler, A. K., Eder, N., Jenny, M., Meyer, T. M., and Schermann, K. (2014). *Autnes Inhaltsanalyse der Presseaussendungen (Ots) von Parteien bei der österreichischen Nationalratswahl 2013 – Dokumentation*. Vienna, Austria: University of Vienna.

Müller, W. C., Bergman, T., and Strøm, K. (2008). Coalition Theory and Cabinet Governance: An Introduction. In K. Strøm, W. C. Müller, and T. Bergman (Eds.), *Cabinets and Coalition Bargaining: The Democratic Life Cycle in Western Europe* (pp. 1-50). Oxford, UK; New York, NY: Oxford University Press.

Müller, W. C. (2000). Tight Coalitions and Stable Governments. In W. C. Müller and K. Strøm (Eds.), *Coalition Governments in Western Europe* (pp. 86-125). Oxford, UK; New York, NY: Oxford University Press.

Müller, W. C. (2000). Wahlen und Dynamik des Österreichischen Parteiensystems seit 1986. In F. Plasser, P. A. Ulram, and F. Sommer (Eds.), *Das österreichische Wahlverhalten* (pp. 13-54). Vienna, Austria: Signum.

Müller, W. C., and Plasser, F. (1992). Austria: The 1990 Campaign. In S. Bowler and D. M. Farrell (Eds.), *Electoral Strategies and Political Marketing* (pp. 24-42). New York, NY: St. Martin's Press.

Mutz, D. C., and Reeves, B. (2005). The New Videomalaise: Effects of Televised Incivility on Political Trust. *American Political Science Review, 99*(1), 1-15.

Nai, A., and Walter, A. S. (2015). *New Perspectives on Negative Campaigning. Why Attack Politics Matter*. Colchester, UK: ECPR Press.

Nai, A., and Walter, A. S. (2015). The War of Words: The Art of Negative Campaigning. Why Attack Politics Matter. In A. Nai and A. S. Walter (Eds.), *New Perspectives on Negative Campaigning* (pp. 3-33). Colchester, UK: ECPR Press.

Nai, A. (2013). What Really Matters Is Which Camp Goes Dirty: Differential Effects of

Negative Campaigning on Turnout During Swiss Federal Ballots. *European Journal of Political Research, 52*(1), 44-70.

Nicholson, S. P. (2012). Polarizing Cues. *American Journal of Political Science, 56*(1), 52-66.

Nowak, S., and Rüger, S. (2010). *How Reliable Are Annotations Via Crowdsourcing? A Study About Inter-Annotator Agreement for Multi-Label Image Annotation*. Paper presented at the 11th ACM International Conference on Multimedia Information Retrieval, March 29-31, Philadelphia, PA.

Østgaard, E. (1965). Factors Influencing the Flow of News. *Journal of Peace Research, 2*(1), 39-63.

Pang, B., and Lee, L. (2008). Opinion Mining and Sentiment Analysis. *Foundations and Trends in Information Retrieval, 2*(1), 1-90.

Pang, B., Lee, L., and Vaithyanathan, S. (2002). *Thumbs Up? Sentiment Classification Using Machine Learning Techniques*. Proceedings of the Conference on Empirical Methods in Natural Language Processing (EMNLP), July 6-7, Philadelphia, PA.

Paolacci, G., Chandler, J., and Ipeirotis, P. G. (2010). Running Experiments on Amazon Mechanical Turk. *Judgment and Decision Making, 5*(5), 411-419.

Patterson, T. E. (2016). *News Coverage of the 2016 General Election: How the Press Failed the Voters*. Shorenstein Center on Media, Politics and Public Policy. Available online: https://shorensteincenter.org/wp-content/uploads/2016/12/2016-General-Election-News-Coverage-1.pdf?x78124.

Patterson, T. E. (2002). *The Vanishing Voter. Public Involvement in an Age of Uncertaintiy*. New York: Alfred A. Knopf.

Patterson, T. E. (1993). *Out of Order*. New York, NY: Alfred A. Knopf.

Peeters, G., and Czapinski, J. (1990). Positive-Negative Asymmetry in Evaluations: The Distinction between Affective and Informational Negativity Effects. *European Review of Social Psychology, 1*(1), 33-60.

Peeters, G. (1971). The Positive-Negative Asymmetry: On Cognitive Consistency and Positivity Bias. *European Journal of Social Psychology, 1*(4), 455-474.

Petersen, M. B., Skov, M., Serritzlew, S., and Ramsoy, T. (2013). Motivated Reasoning and Political Parties: Evidence for Increased Processing in the Face of Party Cues. *Political Behavior, 35*(4), 831-854.

Petersen, D. A. M., and Djupe, P. A. (2005). When Primary Campaigns Go Negative. The Determinants of Campaign Negativity. *Political Research Quarterly, 58*(1), 45-54.

Petrocik, J. R., Benoit, W. L., and Hansen, G. J. (2003). Issue Ownership and Presidential Campaigning, 1952-2000. *Political Science Quarterly, 118*(4), 599-626.

Petrocik, J. R. (1996). Issue Ownership in Presidential Elections, with a 1980 Case Study. *American Journal of Political Science, 40*(3), 825-850.

Plasser, F., and Plasser, G. (2002). *A Worldwide Analysis of Campaign Professionals and Their Practices*. Westport, CT: Praeger.

Plasser, F. (2000). Medienzentrierte Demokratie: Die 'Amerikanisierung' des politischen Wettbewerbs in Österreich. In A. Pelinka, F. Plasser, and W. Meixner (Eds.), *Die Zukunft der österreichischen Demokratie* (pp. 203-230). Vienna, Austria: Signum Verlag.

Plasser, F., Scheucher, C., and Sommer, F. (1995). Massenmedien und Wahlkampf in Österreich: Personalisierung, Dethematisierung und Videopolitik. In W. C. Müller, F. Plasser, and P. A. Ulram (Eds.), *Wählerverhalten und Parteienwettbewerb. Analysen zur Nationalratswahl 1994* (pp. 227-264). Vienna, Austria: Signum.

Poguntke, T., and Webb, P. (2005). *The Presidentialization of Politics: A Comparative Study of Modern Democracies*. Oxford, UK; New York, NY: Oxford University Press.

Poole, K. T., and Rosenthal, H. (1997). *Congress: A Political-Economic History of Roll Call Voting*. New York, NY: Oxford University Press.

Porter, M. F. (1980). An Algorithm for Suffix Stripping. *Program, 14*(3), 130-137.

Proksch, S.-O., Lowe, W., and Soroka, S. N. (n.d.). Multilingual Sentiment Analysis: A New Approach to Measuring Conflict in Parliamentary Speeches. *(unpublished manuscript)*.

Proksch, S.-O., and Slapin, J. B. (2010). Position Taking in European Parliament Speeches. *British Journal of Political Science, 40*, 587-611.

Proksch, S.-O., and Slapin, J. B. (2009). How to Avoid Pitfalls in Statistical Analysis of Political Texts: The Case of Germany. *German Politics, 18*(3), 323-344.

Quasthoff, U., Richter, M., and Biemann, C. (2006). *Corpus Portal for Search in Monolingual Corpora*. Proceedings of the 5th international conference on Language Resources and Evaluation, May 24-26, Genova, Italy.

Rauh, C. (forthcoming). Validating a Sentiment Dictionary for German Political Language - a Workbench Note. *Journal of Information Technology & Politics*, Online first. DOI:10.1080/19331681.2018.1485608

Redlawsk, D. P. (2002). Hot Cognition or Cool Consideration? Testing the Effects of

Motivated Reasoning on Political Decision Making. *Journal of Politics, 64*(4), 1021-1044.

Remus, R., Quasthoff, U., and Heyer, G. (2010). *SentiWs - a Publicly Available German-Language Resource for Sentiment Analysis.* Proceedings of the 7th International Language Ressources and Evaluation (LREC), May 19-21, Valletta, Malta.

Richardson, G. (2002). *Pulp Politics: How Political Advertising Tells the Stories of American Politics*. New York, NY: Rowman and Littlefield.

Ridout, T. N., and Walter, A. S. (2015). Party System Change and Negative Campaigning in New Zealand. *Party Politics, 21*(6), 982-992.

Ridout, T. N., and Walter, A. S. (2015). How the News Media Amplify Negative Messages. In A. Nai and A. S. Walter (Eds.), *New Perspectives on Negative Campaigning. Why Attack Politics Matter* (pp. 265-283). Colchester, UK: ECPR Press.

Ridout, T. N., and Franklin Fowler, E. (2012). Explaining Perceptions of Advertising Tone. *Political Research Quarterly, 65*(1), 62-75.

Ridout, T. N., and Franz, M. (2008). Evaluating Measures of Campaign Tone. *Political Communication, 25*, 158-179.

Riker, W. H. (1996). *The Strategy of Rhetoric: Campaigning for the American Constitution*. New Haven, CT: Yale University Press.

Riker, W. H. (1991). Why Negative Campaigning Is Rational: The Rhetoric of the Ratification Campaign of 1787–1788. *Studies in American Political Development, 5*(2), 224-283.

Rohrschneider, R. (2002). Mobilizing Versus Chasing: How Do Parties Target Voters in Election Campaigns? *Electoral Studies, 21*(3), 367-382.

Rossi, P. H., Waite, E., Bose, C. E., and Berk, R. E. (1974). The Seriousness of Crimes: Normative Structure and Individual Differences. *American Sociological Review*, 224-237.

Rozin, P., and Royzman, E. B. (2001). Negativity Bias, Negativity Dominance, and Contagion. *Personality and Social Psychology Review, 5*(4), 296-320.

Rudkowsky, E., Haselmayer, M., Wastian, M., Jenny, M., Emrich, Š., and Sedlmair, M. (2018). More Than Bags of Words: Sentiment Analysis with Word Embeddings. *Communication Methods and Measures, 12*(2-3), 140-157.

Saal, F. E., Downey, R. G., and Lahey, M. A. (1980). Rating the Ratings: Assessing the Psychometric Quality of Rating Data. *Psychological Bulletin, 88*(2), 413-428.

Sagarzazu, I., and Klüver, H. (2017). Coalition Governments and Party Competition: Political Communication Strategies of Coalition Parties. *Political Science Research and Methods, 5*(2), 333-349.

Sande, O. (1971). Perception of Foreign News. *Journal of Peace Research, 8*(3-4), 221-237.

Sartori, G. (1976). *Parties and Party Systems. A Framework for Analysis*. New York, NY: Cambridge University Press.

Schmidt, H. (1994). *Probabilistic Part-of-Speech Tagging Using Decision Trees.* International Conference on New Methods in Language Processing, September 14-16, Manchester, UK.

Sheng, V. S., Provost, F., and Ipeirotis, P. (2008). *Get Another Label? Improving Data Quality and Data Mining Using Multiple, Noisy Labelers.* 14th ACM SIGKDD International Conference on Knowledge Discovery and Data Mining, August 24-27, Las Vegas, NV.

Shoemaker, P. J. (1996). Hardwired for News: Using Biological and Cultural Evolution to Explain the Surveillance Function. *Journal of Communication, 46*(3), 32-47.

Sigelman, L., and Buell, E. H. (2004). Avoidance or Engagement? Issue Convergence in Us Presidential Campaigns, 1960-2000. *American Journal of Political Science, 48*(4), 650-661.

Sigelman, L., and Kugler, M. (2003). Why Is Research on the Effects of Negative Campaigning So Inconclusive? Understanding Citizens' Perceptions of Negativity. *Journal of Politics, 65*(1), 142-160.

Skaperdas, S., and Grofman, B. (1995). Modeling Negative Campaigning. *American Political Science Review, 89*(1), 49-61.

Skovsgaard, M., and Van Dalen, A. (2013). Dodging the Gatekeepers? *Information, Communication & Society, 16*(5), 737-756.

Slapin, J. B., and Proksch, S.-O. (2008). A Scaling Model for Estimating Time-Series Party Positions from Texts. *American Journal of Political Science, 52*(3), 705-722.

Slothuus, R., and de Vreese, C. H. (2010). Political Parties, Motivated Reasoning, and Issue Framing Effects. *The Journal of Politics, 72*(3), 630-645.

Snow, R., O'Connor, B., Jurafsky, D., and Ng, A. Y. (2008). *Cheap and Fast - but Is It Good? Evaluating Non-Expert Annotations for Natural Language Tasks.* Proceedings of the Conference on Empirical Methods in Natural Language Processing (EMNLP), October 25-27, Honolulu, HI.

Socher, R., Perelygin, A., Wu, J., Manning, C., Ng, A., and Chung, J. (2013). *Recursive Deep Models for Sentiment Compositionality over a Sentiment Treebank.* Proceedings of the conference on empirical methods in natural language processing, October 18-21, Seattle, WN.

Soroka, S. N., Young, L., and Balmas, M. (2015). Bad News or Mad News? Sentiment Scoring of Negativity, Fear, and Anger in News Content. *The ANNALS of the American Academy of Political and Social Science, 659*(1), 108-121.

Soroka, S. N., Stecula, D. A., and Wlezien, C. (2015). It's (Change in) the (Future) Economy, Stupid: Economic Indicators, the Media, and Public Opinion. *American Journal of Political Science, 59*(2), 457-474.

Soroka, S. N. (2014). *Negativity in Democratic Politics: Causes and Consequences*. New York, NY: Cambridge University Press.

Soroka, S. N. (2012). The Gatekeeping Function: Distributions of Information in Media and the Real World. *The Journal of Politics, 74*(02), 514-528.

Steinberger Ralf, Pouliquen, B., Kabadjov, M., Belyaeva, J., and van der Goot, E. (2011). *Jrc-Names: A Freely Available, Highly Multilingual Named Entity Resource.* Proceedings of the 8th International Conference Recent Advances in Natural Language Processing (RANLP), September 12-14, Hissar, Bulgaria.

Stone, P. J., Kirsch, J., and Cambridge Computer Associates. (1966). *The General Inquirer. A Computer Approach to Content Analysis*. Cambridge: M.I.T. Press.

Strapparava, C., and Mihalcea, R. (2008). *Learning to Identify Emotions in Text.* Proceedings of the 23rd Annual ACM Symposium on Applied Computing, March 16 - 20, Fortaleza, Brazil.

Strøm, K., and Müller, W. C. (1999). Political Parties and Hard Choices. In W. C. Müller and K. Strøm (Eds.), *Policy, Office or Votes? How Political Parties in Western Europe Make Hard Decisions.* (pp. 1-35). New York, NY: Cambridge University Press.

Strøm, K. (1990). A Behavioral Theory of Competitive Political-Parties. *American Journal of Political Science, 34*(2), 565-598.

Strömbäck, J., and Van Aelst, P. (2013). Why Political Parties Adapt to the Media: Exploring the Fourth Dimension of Mediatization. *International Communication Gazette, 75*(4), 341-358.

Strömbäck, J., and Kaid, L. L. (2008). A Framework for Comparing Election News Coverage around the World. In J. Strömbäck and L. L. Kaid (Eds.), *The Handbook*

of Election Coverage around the World (pp. 1-18). New York, NY; London, UK: Routledge.

Strömbäck, J. (2008). Four Phases of Mediatization: An Analysis of the Mediatization of Politics. *The International Journal of Press/Politics, 13*(3), 228-246.

Taber, C. S., and Lodge, M. (2006). Motivated Skepticism in the Evaluation of Political Beliefs. *American Journal of Political Science, 50*(3), 755-769.

Taboada, M. (2016). Sentiment Analysis: An Overview from Linguistics. *Annual Review of Linguistics, 2*(1), 325-347.

Taboada, M., Brooke, J., Tofiloski, M., Voll, K., and Stede, M. (2011). Lexicon Based Methods for Sentiment Analysis. *Computational Linguistics, 37*(2), 267-307.

Tavits, M. (2008). The Role of Parties' Past Behavior in Coalition Formation. *American Political Science Review, 102*(4), 495-507.

Thelwall, M., and Buckley, K. (2013). Topic Based Sentiment Analysis for the Social Web: The Role of Mood and Issue-Related Words. *Journal of the American Society for Information Science and Technology, 64*(8), 1608-1617.

Thelwall, M., Buckley, K., and Paltoglou, G. (2012). Sentiment Strength Detection for the Social Web. *Journal of the American Society for Information Science and Technology, 63*(1), 163-173.

Thelwall, M., Buckley, K., Paltoglou, G., Cai, D., and Kappas, A. (2010). Sentiment Strength Detection in Short Informal Text. *Journal of the American Society for Information Science and Technology, 61*(12), 2544-2558.

Thomassen, J. (2005). *The European Voter*. *A Comparative Study Of Modern Democracies*. Oxford, UK; New York, NY: Oxford University Press.

Tresch, A., Lefevere, J., and Walgrave, S. (2018). How Parties' Issue Emphasis Strategies Vary across Communication Channels: The 2009 Regional Election Campaign in Belgium. *Acta Politica, 53*(1), 25-47.

Tresch, A., Lefevere, J., and Walgrave, S. (2015). 'Steal Me If You Can!': The Impact of Campaign Messages on Associative Issue Ownership. *Party Politics, 21*(2), 198-208.

Tresch, A. (2009). Politicians in the Media: Determinants of Legislators' Presence and Prominence in Swiss Newspapers. *International Journal of Press-Politics, 14*(1), 67-90.

Trilling, D., Tolochko, P., and Burscher, B. (2016). From Newsworthiness to Shareworthiness: How to Predict News Sharing Based on Article Characteristics.

Journalism & Mass Communication Quarterly, 94(1), 38-60.

Trussler, M., and Soroka, S. N. (2014). Consumer Demand for Cynical and Negative News Frames. *The International Journal of Press/Politics, 19*(3), 360-379.

Valenzuela, S., Piña, M., and Ramírez, J. (2017). Behavioral Effects of Framing on Social Media Users: How Conflict, Economic, Human Interest, and Morality Frames Drive News Sharing. *Journal of Communication, 67*(5), 803-826.

Van Aelst, P., and De Swert, K. (2009). Politics in the News: Do Campaigns Matter? A Comparison of Political News During Election Periods and Routine Periods in Flanders (Belgium). *Communications, 34*(2), 149-168.

Van Atteveldt, W., Sheafer, T., Shenhav, S. R., and Fogel-Dror, Y. (2017). Clause Analysis: Using Syntactic Information to Automatically Extract Source, Subject, and Predicate from Texts with an Application to the 2008-2009 Gaza War. *Political Analysis, 25*(2), 207-222.

Van Atteveldt, W., Kleinnijenhuis, J., Ruigrok, N., and Schlobach, S. (2008). Good News or Bad News? Conducting Sentiment Analysis on Dutch Text to Distinguish between Positive and Negative Relations. *Journal of Information Technology & Politics, 5*(1), 73-94.

Van der Brug, W. (2004). Issue Ownership and Party Choice. *Electoral Studies, 23*(2), 209-233.

Van der Velden, M. (2017). *Political 'Frenemies'. Party Strategies, Electoral Competition & Coalition Cooperation.* Amsterdam, Netherlands: Vrije Universiteit Amsterdam.

Vliegenthart, R., Boomgarden, H. G., and Boumans, J. W. (2011). Changes in Political News Coverage: Personalization, Conflict and Negativity in British and Dutch Newspapers. In K. Brants and K. Vollmer (Eds.), *Political Communication in Postmodern Democracy Challenging the Primacy of Politics* (pp. 92-110). Houndmills, Basingstoke, UK; New York, NY: Palgrave Macmillan.

Wagner, M., and Meyer, T. M. (2014). Which Issues Do Parties Emphasise? Salience Strategies and Party Organisation in Multiparty Systems. *West European Politics, 37*(5), 1019-1045.

Wagner, M., Tarlov, J., and Vivyan, N. (2014). Partisan Bias in Opinion Formation on Episodes of Political Controversy: Evidence from Great Britain. *Political Studies, 62*(1), 136-158.

Walgrave, S., Tresch, A., and Lefevere, J. (2015). The Conceptualisation and Measurement of Issue Ownership. *West European Politics, 38*(4), 778-796.

Walgrave, S., Lefevere, J., and Tresch, A. (2012). The Associative Dimension of Issue Ownership. *Public Opinion Quarterly*, 76(4), 771-782.

Walgrave, S., Lefevere, J., and Nuytemans, M. (2009). Issue Ownership Stability and Change: How Political Parties Claim and Maintain Issues through Media Appearances. *Political Communication, 26*(2), 153-172.

Walgrave, S., and De Swert, K. (2007). Where Does Issue Ownership Come From? From the Party or from the Media? Issue-Party Identifications in Belgium, 1991-2005. *The Harvard International Journal of Press/Politics, 12*(1), 37-67.

Walgrave, S., and Van Aelst, P. (2006). The Contingency of the Mass Media's Political Agenda Setting Power: Toward a Preliminary Theory. *Journal of Communication, 56*(1), 88-109.

Walter, A. S., and Nai, A. (2015). Explaining the Use of Attack Behaviour in the Electoral Battlefield: A Literature Overview. In Nai, A. and Walter, A. (Eds.), *New Perspectives on Negative Campaigning. Why Attack Politics Matter* (pp. 95-112). Colchester, UK: ECPR Press.

Walter, A. S., Van der Brug, W., and van Praag, P. (2014). When the Stakes Are High: Party Competition and Negative Campaigning. *Comparative Political Studies, 47*(4), 550-573.

Walter, A. S. (2014). Negative Campaigning in Western Europe: Similar or Different? *Political Studies, 62*(51), 42-60.

Walter, A. S., and Van der Brug, W. (2013). When the Gloves Come Off: Inter-Party Variation in Negative Campaigning in Dutch Elections, 1981-2010. *Acta Politica, 48*, 367-388.

Walter, A. S. (2012). *Negative Campaigning in Western Europe: Beyond the Vote-Seeking Perspective.* Amsterdam, Netherlands: University of Amsterdam.

Walter, A. S., and Vliegenthart, R. (2010). Negative Campaigning across Different Communication Channels: Different Ball Games? *The International Journal of Press/Politics, 15*(4), 441-461.

Waltinger, U. (2010). *Sentiment Analysis Reloaded: A Comparative Study on Sentiment Polarity Identification Combining Machine Learning and Subjectivity Features.* Proceedings of the 6th International Conference on Web Information Systems and Technologies (WEBIST), April 7-10, Valencia, Spain.

Wang, H., Can, D., Kazemzadeh, A., Bar, F., and Narayanan, S. (2012). *A System for Real-Time Twitter Sentiment Analysis of 2012 U.S. Presidential Election Cycle*. Paper

presented at the Proceedings of the ACL 2012 System Demonstrations, July 8-14, Jeju Island, South Korea.

Warwick, P. V. (1996). Coalition Government Membership in West European Parliamentary Democracies. *British Journal of Political Science, 26*, 471-499.

Weeks, B. E. (2015). Emotions, Partisanship, and Misperceptions: How Anger and Anxiety Moderate the Effect of Partisan Bias on Susceptibility to Political Misinformation. *Journal of Communication, 65*(4), 699-719.

Weinberg, J., Freese, J., and Mcelhattan, D. (2014). Comparing Data Characteristics and Results of an Online Factorial Survey between a Population-Based and a Crowdsource-Recruited Sample. *Sociological Science, 1*(19), 292-310.

West, D. M. (2014). *Air Wars. Television Advertising and Social Media in Election Campaigns 1952-2012*. Thousand Oaks, CA: Sage.

Wilson, T., Wiebe, J., and Hoffman, P. (2005). *Recognizing Contextual Polarity in Phrase-Level Sentiment Analysis*. Proceedings of the Human Language Technology Conference and Conference on Empirical Methods in Natural Language Processing (HLT/EMNLP), October 6-8, Vancouver, Canada.

Wolf, M., Horn, A. B., Mehl, M. R., Haug, S., Pennebaker, J. W., and Kordy, H. (2008). Computergestützte Quantitative Textanalyse. *Diagnostica, 54*(2), 85-98.

Young, L., and Soroka, S. N. (2012). Affective News: The Automated Coding of Sentiment in Political Texts. *Political Communication, 29*(2), 205-231.

Zhou, D., Liu, Q., Platt, J. C., and Meek, C. (2014). *Aggregating Ordinal Labels from Crowds by Minimax Conditional Entropy*. Proceedings of the 31st International Conference on Machine Learning, June 21-24, Beijing, China.

Appendix

Appendix for Sentiment Analysis of Political Communication: Combining a Dictionary Approach with Crowdcoding

Appendix A1: Text preprocessing

Automated text analysis requires text preprocessing. We found the performance of current natural language processing tools for lemmatization and Part-of-Speech tagging of separable verbs, compounds, dialectal variations, and the frequent neologisms in German political and media texts to be rather unsatisfactory and manually cleaned incorrect lemmata. Given imperfect lemmatization, we allow for imperfect word matching to increase the number of matches when applying the dictionary to new texts. Stemming (Porter 1980) is common in English language applications as an alternative to lemmatization, but stemming worked worse in our applications and produced the lowest correlation with manual coding (see Table A1).

Table A1: Effects of text preprocessing on correlations with manual coding

	Stemming	Lemma-tizing	Stemming, Part-of-Speech tagging, stop word and named entity deletion	Lemmatizing, Part-of-Speech tagging, stop word and named entity deletion
Coverage	100%	99%	99%	84%
Pearson correlation with manual coding	0.13	0.34	0.42	0.65

Note: n=200.

A combination of lemmatization, part-of-speech-tagging and deletion of stop words and named entities gave the best result (Schmidt 1994; Quasthoff et al. 2006; Faruqi and Pado 2010; Steinberger Ralf et al. 2011; Benikova et al. 2014).

Appendix A2 Effect of different aggregation rules

Table A2 shows how different aggregation rules for word and sentence scores such as mean-of-means for word scores (see Benoit et al. 2016) and selecting the most negative word as sentence score (Thelwall et al. 2012) as well as accounting for intensifier and negation words (Taboada et al. 2011; Thelwall et al. 2012) affect the correlations with manual expert coding.

Table A2: Effect of aggregation rules on correlations with expert coding

Word score	Majority voting				Mean			
Sentence score	Mean	Max	Mean	Max	Mean	Max	Mean	Max
Booster and negation words	No	No	Yes	Yes	No	No	Yes	Yes
Pearson correlation with expert coding	0.38	0.39	0.39	0.38	0.49	0.58	0.54	0.65

Note: n=168 dictionary-based scores for 200 test sentences.

We obtained the highest correlation using means for calculating word scores, choosing the most negative word as sentence score and by accounting for intensifier and negation words.

Appendix A3 Validation with a larger sample and single expert coding

An additional validation test uses a larger sample (n=755) of negative statements in party press releases from the same election campaign which were coded by only one of the authors. The dictionary's coverage was 82 percent and the correlation between manual and dictionary based sentiment coding 0.63. We validate the results of our regression model by re-running the same models as in Table 3 with the single expert coding as dependent variable. Table A3 shows identical signs of coefficients for all effects compared with the dictionary-based sentiment scores. The automated scoring procedure tends to show weaker effect sizes due to the two-step-mean aggregation. We conclude that our dictionary-based scoring produces valid sentiment estimates at the level of analysis that are more conservative than results

based on manual coding. Rerunning the regression after assigning zero negativity to sentences that had no matching dictionary word (n=136) did not change these results (not reported).

Table A3: OLS regression of the tonality of party press releases using dictionary-based and manually coded score

	Model 1 (Dictionary)	Model 1 (Expert)	Model 2 (Dictionary)	Model 2 (Expert)
Sender: Gov. party	-0.10*	-0.18[+]	-	-
	(0.06)	(0.10)		
Target: Gov. party	-0.08	-0.22*	-	-
	(0.05)	(0.09)		
Pair: Gov. party			-0.13***	-0.40***
			(0.03)	(0.05)
Electoral losses	0.12***	0.23***	0.10	0.04
	(0.03)	(0.06)	(0.06)	(0.05)
Closeness to the election	-0.01	0.01	-0.01	0.01
	(0.03)	(0.06)	(0.03)	(0.06)
Constant	2.28***	2.57***	2.22***	2.53***
	(0.03)	(0.11)	(0.04)	(0.06)
Party Fixed Effects	*Yes*	*Yes*	*Yes*	*Yes*
Observations	619	755	619	755
Adjusted R^2	0.03	0.04	0.03	0.04
Log likelihood	-446.16	-954.03	-445.81	-952.06

Note: Standard errors clustered across party pairs in parentheses. Differences in the number of observations are due to sentence with no matching dictionary words. [+] $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Appendix A4: Coding instructions (translation)

The following coding instructions were pretested by colleagues, student assistants and a few online coders.

How negative are these statements?

What is this about?
We present you sentences from political and media texts. Many, though not all, of these sentences include direct or indirect criticism, allegations or attacks.

Task
Please read each sentence carefully and decide, whether it includes a positive, neutral or negative statement. In a second step, we ask you to rate the intensity of the statement using the following scale:
- Not negative (neutral or positive)
- Very weakly negative
- Weakly negative
- Strongly negative
- Very strongly negative
- Not codable

What should you consider?
Only rate the actual content of the text! Stay impartial, your personal preferences towards persons or organizations should not influence your coding decisions.

Not negative
A sentence should be coded as 'not negative' if it contains a neutral or positive statement.
Example 'not negative':
  'I serve the Austrian citizens with passion and commitment.'

Not codable
A sentence is 'not codable' if it is incomprehensible or if it does not make any sense to you.

Some sentences may be incomplete, as they have been processed automatically. As long as you are able to purposefully decide, whether they are positive, neutral or negative, we ask you to rate them anyhow.
Example 'not codable':

  'Ic$%$# we retain%, that &%§'*

Negative
Negative sentences contain direct or indirect criticism, allegations or attacks in varying intensity.
Examples with increasing negativity:
  'We demand that the government finally delivers a better job!'
  'These are bad actions, which come at the expense of the population.'
  'This minister promotes corruption and consciously dupes the people.'
  'This is a scam on all of us: the dishonesty of these politicians stinks to high heavens.'

Special case: sentences containing specific coding instructions
Some sentences may contain instructions, asking you to choose a specific category. In such cases, you should ignore all other textual information and directly follow the instructions.
<u>Example:</u>
    'The government has failed to address these issues in the past legislative term. ***Please ignore the previous part of the text and code this unit as 'not codable'****.*

In case of any question regarding the coding process or if you would like to provide us with feedback, please send us an E-Mail: <u>crowdsourcing@autnes.at</u>

Thank you for your contribution!

Appendix for Friendly Fire? Negative campaigning among coalition parties

Appendix A: *Coding of intensity of electoral competition*

To construct a measure of *intensity of electoral competition* we identify each party's relative position at the beginning of an electoral campaign. A *frontrunner party* leads in the polls. A *challenger party* has less support, but is close enough to the frontrunner to overtake it. We accord challenger status to a party ranked less than ten percentage points behind the frontrunner party in polls. Winning or losing five percentage points of support in an election campaign appears realistic. Any party further behind is a *trailing party*. Given these coding rules more than one challenger or trailing party may exist.

Skaperdas and Grofman's (1995) model lets us expect that the largest potential gain from negative campaigning goes to a challenger party (2), a frontrunner party has somewhat less (1) and a trailing party least to gain from negative campaigning (0). With regard to targeting we expect that challenger and trailing parties concentrate rhetorical fire on the frontrunner (2), which in turn should primarily target challengers (1). No party benefits a lot from attacking a trailing party (0). Our *intensity of electoral competition* measure combines these rankings for the sender and target party. By adding scores up we obtain a variable ranging from 0 for 'low electoral competition' to 4 for 'high electoral competition'.

Table A1 counts the number of party pairs with low to high intensity competition over the four election campaigns studied, Table A2 provides information on polls used to determine the status and Table A3 identifies the status for each party in all election campaigns.

Table A1: Coding the competitive status of sender and target party

Intensity of electoral competition	Sender		Target	Party dyads (n)	Group total (n)
0	Trailing party	→	Trailing party	13	13
1	Trailing party	→	Challenger party	15	24
	Frontrunner party	→	Trailing party	9	
2	Trailing party	→	Frontrunner party	10	
	Challenger party	→	Trailing party	13	29
	Frontrunner party	→	Challenger party	6	
3	Challenger party	→	Challenger party	4	4
4	Challenger party	→	Frontrunner party	6	6

Note: Status of sender and target party of negative statements coded based on their standing in polls taken six weeks before the election.

Table A2: Party vote shares in representative public-opinion polls, 6 weeks before the election

Election	Date	SPÖ	ÖVP	FPÖ	Greens	BZÖ	Stronach	Pollster
2002	29.08.2002	37	29	19	14	-	-	*Gallup*
2006	13.07.2006	36	41	5	11	3	-	*Market*
2008	03.07.2008	27	33	21	14	3	-	*Market*
2013	15.08.2013	26	24	18	15	3	9	*Market*

Note: Election surveys were published in national newspapers six weeks ahead of the election.

Table A3: Competitive status of parties in each election campaign, 2002-2013

	2002			2006			2008			2013		
	Frontrunner party	Challenger party	Trailing party	Frontrunner party	Challenger party.	Trailing party	Frontrunner party	Challenger party.	Trailing party	Frontrunner party	Challenger party.	Trailing party
SPÖ	✓	-	-	-	✓	-	-	✓	-	✓	-	-
ÖVP	-	✓	-	✓	-	-	✓	-	-	-	✓	-
FPÖ	-	-	✓	-	-	✓	-	✓	✓	-	✓	-
Greens	-	-	✓	-	-	✓	-	-	✓	-	-	✓
BZÖ				-	-	✓	-	-	✓	-	-	✓
Stronach										-	✓	

Note: Coding of party status follows the operationalization specified in Table 1 and pre-election polls published six weeks before the election (Table A1).

Appendix B: Coding procedure

1. Green MEP Ulrike Lunacek on ÖVP Minister of Foreign Affairs Ursula Plassnik:

Original text	Translation	Predicate	Tonality
'Lunacek: Plassnik muss Druck der Atom-Lobby standhalten!'	'Lunacek: Plassnik has to stand up to pressure by nuclear power lobby!'	Neutral	Not negative (0)

Hyperlink: http://www.ots.at/presseaussendung/OTS_20021024_OTS0160/bures-zu-haupts-bilanz-zwei-klassen-medizin-und-zerstoerung-des-sozialen-zusammenhalts

2. FPÖ party vice-chairman Norber Hofer on ÖVP Minister of Interior Affairs:

Original text	Translation	Predicate	Tonality
'FPÖ-Hofer weist Aussagen der Innenministerin entschieden zurück!'	'FPÖ Hofer emphatically rejects statements by Minister of the Interior!'	Negative	Very weakly negative (1)

Hyperlink: http://www.ots.at/presseaussendung/OTS_20080902_OTS0118/fpoe-hofer-weist-aussagen-der-innenministerin-entschieden-zurueck

3. ÖVP party general secretary Maria Rauch-Kallat on the Greens:

Original text	Translation	Predicate	Tonality
'Rauch-Kallat: Zick-Zack-Kurs einzig klare Linie der Grünen.'	'Rauch-Kallat': 'Greens' only clear line is flip-flopping.'	Negative	Weakly negative (2)

Hyperlink: http://www.ots.at/presseaussendung/OTS_20021024_OTS0160/bures-zu-haupts-bilanz-zwei-klassen-medizin-und-zerstoerung-des-sozialen-zusammenhalts

4. SPÖ MP Doris Bures on FPÖ minister of Health Herbert Haupt:

Original text	Translation	Predicate	Tonality
'Bures zu Haupts Bilanz: Zwei-Klassen-Medizin und Zerstörung des sozialen Zusammenhalts.'	'Bures on Haupt's record in office: two-tier medical system and destruction of social cohesion.'	Negative	Very strongly negative (4)

Hyperlink: http://www.ots.at/presseaussendung/OTS_20021024_OTS0160/bures-zu-haupts-bilanz-zwei-klassen-medizin-und-zerstoerung-des-sozialen-zusammenhalts

Appendix C: Mean tonality and frequency of negative statements in party press releases, 2002-2013

2002

Target / Sponsor	SP	VP	FP	GR
SP	-	2.38 (289)	2.39 (116)	1.50 (6)
VP	2.31 (183)	-	2.22 (18)	2.29 (52)
FP	2.14 (29)	1.50 (12)	-	2.80 (5)
GR	1.78 (9)	2.11 (65)	2.18 (22)	-

Note: Frequency of negative campaign messages in parentheses.

2008

Target / Sponsor	SP	VP	FP	GR	BZ
SP	-	2.25 (200)	2.56 (18)	1.90 (21)	2.44 (16)
VP	2.50 (294)	-	2.03 (30)	2.45 (22)	3.0 (3)
FP	2.49 (82)	2.57 (60)	-	2.67 (9)	1.88 (8)
GR	2.02 (41)	2.37 (54)	1.93 (15)	-	2.2 (5)
BZ	2.54 (85)	2.39 (44)	1.95 (19)	2.36 (11)	-

Note: Frequency of negative campaign messages in parentheses.

2006

Target / Sponsor	SP	VP	FP	GR	BZ
SP	-	2.43 (280)	2.33 (9)	2.27 (11)	2.33 (55)
VP	2.32 (199)	-	2.25 (4)	1.67 (21)	1 (1)
FP	2.42 (33)	2.48 (39)	-	2.20 (10)	2.14 (43)
GR	1.78 (13)	2.34 (50)	1.5 (6)	-	1.5 (8)
BZ	2.41 (66)	2.41 (37)	2.95 (19)	1.78 (9)	-

Note: Frequency of negative campaign messages in parentheses.

2013

Target / Sponsor	SP	VP	FP	GR	BZ	TS
SP	-	2.06 (99)	2.46 (39)	2.0 (1)	-	2.33 (6)
VP	2.50 (161)	-	2.88 (8)	2.61 (13)	4 (1)	(0)
FP	2.60 (125)	2.50 (40)	-	2.50 (42)	(0)	2.60 (5)
GR	1.94 (18)	2.19 (31)	2.43 (7)	-	-	0 (1)
BZ	1.89 (27)	1.92 (25)	2.5 (4)	1 (1)	-	2.4 (10)
TS	3.11 (18)	2.36 (14)	2 (1)	-	-	-

Note: Frequency of negative campaign messages in parentheses

Appendix D: Robustness tests

Table D1: Explaining negative campaigning: Negative Binomial Regression (frequency) and Ordinal Least Squares Regression (tonality)

	Frequency of campaign messages (Model 1)	Tonality of campaign messages (Model 2)	Tonality of campaign messages: controlling for frequency (Model 3)
Gov-Gov	0.65[#]	-0.38[*]	-0.38[#]
	(0.34)	(0.19)	(0.19)
Opp-Opp	-0.92[***]	-0.27[*]	-0.27[*]
	(0.25)	(0.13)	(0.13)
Intensity of party competition	0.46[***]	0.14[*]	0.14[*]
	(0.11)	(0.06)	(0.06)
L-R Distance	0.01	0.002	0.002
	(0.05)	(0.03)	(0.03)
Frequency of negative campaigning	0.51	-	0.01
	(0.31)		(0.14)
Constant	1.93[***]	2.02[***]	2.02[***]
	(0.72)	(0.20)	(0.20)
Ln alpha	-0.39[*]	-	-
	(0.16)		
Election fixed effects	*Included*	*Included*	*Included*
Adjusted R^2 / pseudo R^2	0.09	0.15	0.13
BIC	706.0	128.2	132.6
N	76	76	76

Note: Standard errors in parentheses, [#] $p < 0.1$, [*] $p < 0.05$, [**] $p < 0.01$, [***] $p < 0.001$. The reference category is statements from a government party (Gov) to opposition party (Opp) or vice versa.

Table D2: Explaining negative campaigning: Negative Binomial Regression (frequency) and Ordinal Least Squares Regression (tonality), without Team Stronach

	Frequency of campaign messages Model 1	Tonality of campaign messages (Model 2)	Tonality of campaign messages: controlling for frequency (Model 3)
Gov-Gov	0.56	-0.33*	-0.34*
	(0.57)	(0.17)	(0.17)
Opp-Opp	-1.05***	-0.23$^\#$	-0.22$^\#$
	(0.24)	(0.12)	(0.12)
Intensity of party competition	0.52***	0.12*	0.10$^\#$
	(0.12)	(0.05)	(0.05)
L-R Distance	0.10$^\#$	0.02	0.02
	(0.06)	(0.03)	(0.03)
Frequency of negative campaigning	-	-	0.0004
			(0.00)
Constant	2.89***	1.99***	1.99***
	(0.46)	(0.16)	(0.17)
Ln alpha	-0.37*	-	-
	(0.16)		
Election fixed effects	*Included*	*Included*	*Included*
Adjusted R^2 / pseudo R^2	0.08	0.14	0.13
BIC	659.8	100.4	104.4
N	69	69	69

Note: Bootstrapped standard errors in parentheses (200 replications), $^\#$ $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$. The reference category is statements from government party (Gov) to opposition party (Opp) or vice versa. Without statements from/to new party Team Stronach, which ran in 2013 only.

Table D3: Explaining negative campaigning: Ordinal Least Squares Regression (share of negative messages, tonality)

	Share of negative campaign messages Model 1	Tonality of campaign messages (Model 2)	Tonality of campaign messages: controlling for share of attacks (Model 3)
Gov-Gov	4.16	-0.38*	-0.37*
	(6.44)	(0.18)	(0.18)
Opp-Opp	-7.93***	-0.27*	-0.28$^{\#}$
	(2.13)	(0.13)	(0.14)
Intensity of party competition	3.66***	0.14*	0.15*
	(1.11)	(0.05)	(0.06)
L-R Distance	0.78	0.002	0.003
	(0.50)	(0.0)	(0.03)
Share of negative campaigning	-	-	-0.001
			(0.00)
Constant	7.76	2.02***	2.03***
	(4.84)	(0.15)	(0.19)
Election fixed effects	*Included*	*Included*	*Included*
BIC	659.8	128.2	132.5
N	76	76	76

Note: Bootstrapped standard errors in parentheses (200 replications), $^{\#}$ $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$. The reference category is statements from government party (Gov) to opposition party (Opp) or vice versa.
Model 1 uses the share of negative messages a party A addressed at another party B in election X as dependent variable. The same variable enters as control variable in Model 3.

Table D4: Explaining negative campaigning: Ordinal Least Squares Regression (tonality) at the level of statements

	Tonality of campaign messages (Model 4)	Tonality of campaign messages (Model 5)
Gov-Gov	-0.10$^{\#}$	-0.19**
	(0.06)	(0.07)
Opp-Opp	-0.14	-0.14$^{\#}$
	(0.09)	(0.08)
Intensity of party competition	0.03	-
	(0.02)	
Attack from junior coalition party	-	0.17**
		(0.06)
L-R Distance	0.03*	0.03$^{\#}$
	(0.01)	(0.02)
Dyadic attacks per day	0.07*	0.09**
	(0.03)	(0.03)
Closeness to the election	-0.001	-0.001
	(0.00)	(0.00)
Constant	2.05***	2.08***
	(0.09)	(0.09)
Election fixed effects	*Included*	*Included*
BIC	10831.3	10825.6
N	3453	3453

Note: Bootstrapped standard errors (200 replications) in parentheses, $^{\#}$ $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$. The reference category is statements from a government party (Gov) to opposition party (Opp) or vice versa.

The models introduces three new variables: *dyadic attacks* counts the number of attacks exchanged between two parties on day t. To account for its overdispersion, we log the variable. *Closeness to the election* counts the remaining days until the election. Model 5 also controls for attacks from junior coalition parties (*attack from junior coalition party*).

Appendix for Defending the Home Turf or Attacking Rival Strongholds? Issue salience, issue-competence and negative campaigning strategies of parties

Table A1: Rank orders of policy areas by party based on mean negative tonality of statements

Policy area	SPÖ	ÖVP	FPÖ	Greens	BZÖ	Stronach	Index
Fighting Polit. Misconduct and Corruption	17	18	16	16	18	13	98
Government Reforms and Direct Democracy	2	13	15	17	16	14	77
Employment	13	10	9	15	8	16	71
Economy	7	12	6	12	15	18	70
Individual Rights and Societal Values	14	8	8	14	17	6	67
Education	18	16	10	10	3	10	67
Pensions	15	14	4	5	12	17	67
Law and Order	12	3	17	7	13	11	63
Infrastructure	5	17	13	11	4	12	62
Budget and Taxes	8	6	3	18	5	15	55
Immigration	11	11	18	9	1	2	52
Environment	16	15	12	6	2	1	52
Foreign Affairs and Defence	6	7	5	8	14	9	49
Social Welfare and Poverty	10	4	7	13	7	3	44
Family Affairs	4	5	14	3	11	4	41
Healthcare	1	9	11	4	10	5	40
Agriculture	9	2	1	2	9	8	31
European Integration	3	1	2	1	6	7	20

Note: The party columns show the rank order of policy areas from least (1) to most negative (18) statements in press releases on average. The index computes the sum of rank points over all parties, which is in effect a Borda count of negativity points.

Appendix for Fighting for Attention: Media Coverage of Negative Campaign Messages

Appendix A: Cheating detection software

We use the cheating detection software WCopyfind (version 4.1.4) developed by Bloomfield (2008). The software allows users to compare documents (in our case: press releases and media reports) and detect overlapping text parts. WCopyfind presents results in a tabular format and shows similarities between two texts in a side-by-side format with similarities highlighted in color.

When running the software to identify similarities in press releases and media reports, we ignore punctuation, numbers, and capitalization, and set the language to Austrian-German. We further allow that one word in each matching phrase can differ (e.g. 'in the election' vs. 'in the next election'). This accounts for minor editing by journalists. Because we aim to detect all potentially relevant press release-media report matches, we set the shortest phrase length that can match to '3'. If a phrase such as 'in the election' appears in both the press release and the media report, the software reports and stores it as a match. This results in about 20,000 detected matches by the software.

To reduce the number of matches, we use additional information from the AUTNES manual content analysis of media coverage in the 2013 general election (Eberl et al. 2015). These data tell us which politicians appear as active speakers in the headline, subtitle, or first paragraph of a media report. Using this information, we identify a number of press releases where the author meets this condition among the matches made by the cheating detection software (N=500). These matches are likely to be successful because we know from the manual content analysis that the politician sending the press release was present in the media report. This sample is coded by two coders to identify successful and unsuccessful press releases (see the definition in the manuscript).

The second, much larger sample (N=19,863) contains the remaining matches detected by the software. We sort these matches by their similarity, using the total number of perfect matches (identified by WCopyfind) as a yardstick. The total number of perfect matches represents the sum of perfect matches in a press release-media report pair (a score of '6' indicates that both documents share a phrase of six words that is perfectly identical or two phrases of three words that are identical). We decided to start the manual coding with the pairs of the highest similarity and to stop the coding process when the share of successful press releases falls below a certain threshold.

Figure A.1: Successful press releases in manual coding by similarity in cheating detection software
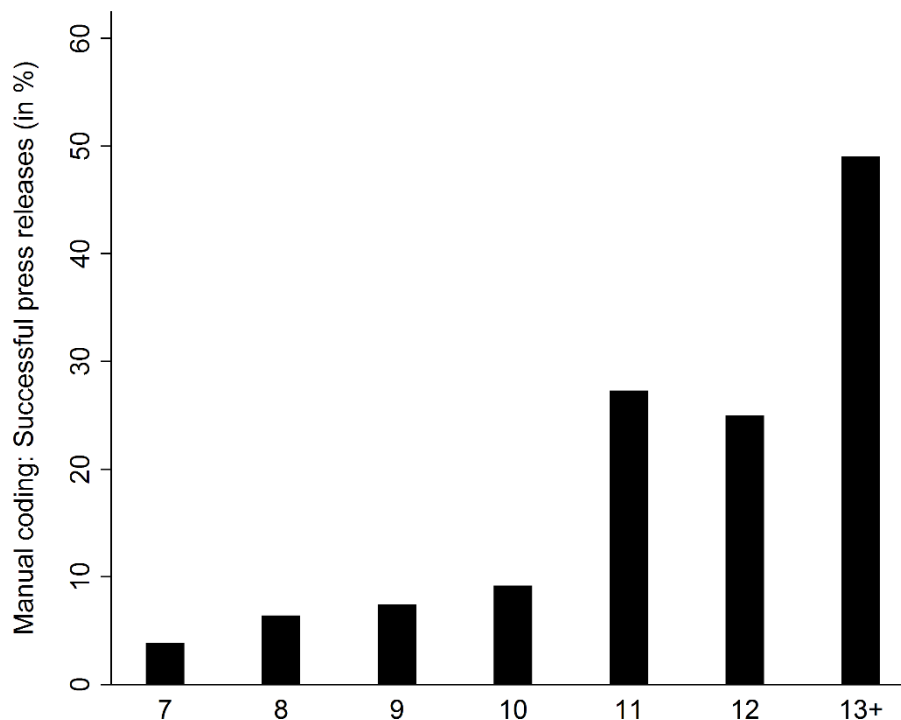
Note: Bars denote the average share of successful press releases identified in the manual coding process. The numbers below each bar denote the similarity score of each group as identified in the cheating detection software. For example, the press release-media report dyads in-group '7' share a phrase with seven words (or two matched phrases, one with three and one with four words). Note that the group with '13+' perfect matches contains dyads with 13 or more perfect matches.

Ultimately, we decided on a threshold of seven hits. To settle on this number, we started by examining the results of the coding process as shown in Figure A.1. If the software detected (sum(s) of) strings of ten or more words, human coders classified about 10 per cent of these press releases as successful. The lower the similarity between the texts (as identified in the cheating detection software), the lower the share of successful press releases identified by human coders. We stopped the manual coding process after dyads with seven perfect matches as at that point the share of successful press releases is 3.8 per cent (i.e. 19 of 492 dyads were coded as successful). Assuming that the share of positive matches in the manual coding is even lower as the similarity decreases further, we deemed it unreasonable and unnecessary to continue the manual coding process.

References:

Bloomfield, L. (2008). *WCopyFind*. http://plagiarism.bloomfieldmedia.com/z-wordpress/software/wcopyfind/ (Release 4.1.4).

Eberl, J.-M., Vonbun, R., Haselmayer, M., Jacobi, C., Kleinen-von Königslöw, K., Schönbach,K and Boomgaarden, H. (2015). *AUTNES Manual Content Analysis of the 2013 Austrian National Election Coverage*. Version 1.4. Vienna: University of Vienna.

Appendix B: Examples (extracts) of successful press releases

Table B.1: Examples (extracts) of successful press releases (English translation)

Press release	Media Report
Fekter: SPÖ endangers middle class and prosperity […] 'The SPÖ endangers the middle class and prosperity.' […] Regarding the Social Democrats' plans for wealth taxes, Fekter notes: 'Michael Spindelegger and the ÖVP want prosperity for all. In contrast, the SPÖ only aims to punish the people's diligence and performance.' […] (7.9.2013) http://www.ots.at/presseaussendung/OTS_20130907_OTS0045/fekter-spoe-gefaehrdet-akut-mittelstand-und-wohlstand	**ÖVP rails against SPÖ tax proposals** 'The SPÖ only aims to punish the people's diligence and performance', said Finance minister Maria Fekter (ÖVP) on Saturday in a comment on the SPÖ's tax proposals. Several ÖVP politicians rejected those *Faymann taxes*, the overall theme being: prosperity and the middle class are endangered by property taxes. […] (*Kurier*, 8.9.2013)
FPÖ-Kickl: Discussion on death penalty is ludicrous […] 'The discussion started by Frank Stronach to bring death penalty back into use is ludicrous and off target', Herbert Kickl stressed, reacting to statements by the party leader of Team Stronach. 'If the death penalty is one of Team Stronach's values, then good night', Kickl said. (5.9.2013) http://www.ots.at/presseaussendung/OTS_20130905_OTS0161/fpoe-kickl-todesstrafen-diskussion-ist-nur-skurril	**Death penalty: Revolt against Stronach's 'Yes'** […] All other parties clearly rejected [Stronach's] idea. For Minister of Justice Beatrix Karl (ÖVP) such a discussion was superfluous. […] The SPÖ spokesman for Justice, Hannes Jarolim, sees Stronach's proposal in opposition to values in the European society. And for the FPÖ the discussion is ludicrous. 'If the death penalty is one of Team Stronach's values, then good night', party chairman Herbert Kickl said. […] (*Die Presse*, 6.9.2013)

Table B.2: Examples (extracts) of successful press releases (German original)

Press release	Media Report
Fekter: SPÖ gefährdet akut Mittelstand und Wohlstand […] 'Die SPÖ gefährdet akut den Mittelstand und den Wohlstand. […] Zu den Besteuerungsplänen der Sozialisten unterstreicht Fekter: 'Michael Spindelegger und die ÖVP wollen Wohlstand für alle. Der SPÖ geht es nur darum, Leistung und Fleiß zu bestrafen.' […] (7.9.2013) http://www.ots.at/presseaussendung/OTS_20130907_OTS0045/fekter-spoe-gefaehrdet-akut-mittelstand-und-wohlstand	**ÖVP wettert erneut gegen SP-Steuerpläne** 'Der SPÖ geht es nur darum, Leistung und Fleiß zu bestrafen', sagte ÖVP-Finanzminister Maria Fekter am Samstag zu den Steuerplänen der SPÖ. Mehrere VP-Mandatare meldeten sich gegen die Faymann-Steuern zu Wort, der rote Faden: Wohl- und Mittelstand seien durch Vermögenssteuern gefährdet. […] (*Kurier*, 8.9.2013)
FPÖ-Kickl: Todesstrafen-Diskussion ist nur skurril […] 'Die von Frank Stronach angefangenen Diskussion um die Wiedereinführung der Todesstrafe ist skurril und geht am Thema vorbei', betonte der freiheitliche Generalsekretär NAbg. Herbert Kickl in einer Reaktion auf diesbezügliche Aussagen des Team-Stronach Chefs. 'Wenn die Todesstrafe einer der Werte des Team Stronach ist, dann Gute Nacht', so Kickl. […] (5.9.2013) http://www.ots.at/presseaussendung/OTS_20130905_OTS0161/fpoe-kickl-todesstrafen-diskussion-ist-nur-skurril	**Todesstrafe: Revolte gegen Stronachs Ja** […] Entsprechend eindeutig fiel auch die Ablehnung der anderen Parteien aus. Justizministerin Beatrix Karl (ÖVP) erklärte, darüber erübrige sich jede Diskussion. […] Für SPÖ-Justizsprecher Hannes Jarolim steht Stronach konträr zu den Werten der europäischen Gesellschaft. Und für die FPÖ ist die Diskussion skurril. 'Wenn die Todesstrafe einer der Werte des Teams Stronach ist, dann gute Nacht', so Generalsekretär Herbert Kickl. […] (*Die Presse*, 6.9.2013)

Appendix C: Share of negative press releases by party
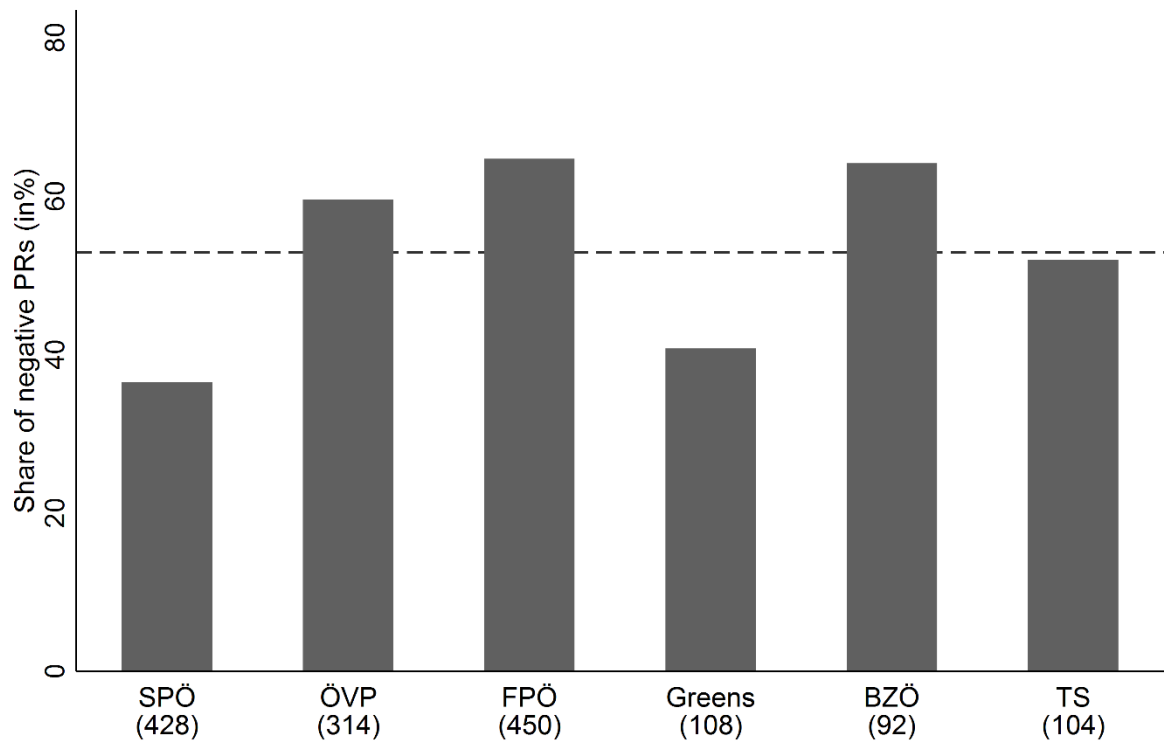
Note: The bars indicate the proportion of negative press releases by party (numbers in parentheses denote the total number of press releases per party). The dashed line indicates the overall mean of negative press releases (N=1,496).

Appendix D: Multilevel (ML) vs. clustered standard errors (CL) (logistic regression)

Table D: Explaining success of negative campaigning in press releases (logistic regression)

	Model 1 (CL)	Model 1 (ML)	Model 2 (CL)	Model 2 (ML)	Model 3 (CL)	Model 3 (ML)
Negative	0.358[+]	0.222	0.867[***]	0.675[**]	1.094[***]	0.886[**]
	(0.20)	(0.17)	(0.25)	(0.26)	(0.30)	(0.30)
Negative # Party elite	-	-	-0.897[**]	-0.852[**]	-	-
			(0.31)	(0.33)		
Negative # Owned issue	-	-	-0.225	-0.104	-1.137[*]	-0.987[+]
			(0.34)	(0.36)	(0.48)	(0.56)
Government	-0.0616	0.0496	-0.0219	0.0895	-0.00180	0.133
	(0.18)	(0.18)	(0.18)	(0.18)	(0.21)	(0.24)
Party elite	1.477[***]	1.464[***]	1.993[***]	1.954[***]	-	-
	(0.20)	(0.16)	(0.28)	(0.25)		
Owned issue	0.0125	0.0844	0.0946	0.103	0.370	0.396
	(0.25)	(0.19)	(0.26)	(0.26)	(0.39)	(0.40)
PR based on campaign event	-0.224	-0.223	-0.203	-0.207	-0.105	-0.0393
	(0.16)	(0.19)	(0.17)	(0.19)	(0.17)	(0.26)
Press conference	1.183[***]	1.236[***]	1.198[***]	1.241[***]	1.326[*]	1.386[***]
	(0.32)	(0.27)	(0.33)	(0.28)	(0.53)	(0.39)
Text length	0.00228[***]	0.00246[***]	0.00231[***]	0.00248[***]	0.00193[*]	0.00215[*]
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Time PR sent	-0.00103	-0.00121[*]	-0.00116[+]	-0.00131[*]	-0.00241[*]	-0.00255[*]
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Constant	-2.194[***]	-2.235[***]	-2.445[***]	-2.454[***]	-1.583[*]	-1.717[*]
	(0.57)	(0.53)	(0.53)	(0.54)	(0.75)	(0.84)
Sigma (SD) based on 18 clusters (issues)	-	0.147[+]	-	0.133	-	0.316
		(0.09)		(0.08)		(0.20)
Observations	1496	1496	1496	1496	1109	1109
Log likelihood	-565.9	559.9	-561.4	-556.3	-324.8	-319.7

Note: Clustered standard errors (for issues) in parentheses (18 clusters). $^+ p < 0.10$, $^* p < 0.05$, $^{**} p < 0.01$, $^{***} p < 0.001$

Appendix E: Measuring issue ownership

In the manuscript, we use a dichotomous measure of issue ownership: a party owns an issue if the share of respondents naming that party as being best to handle an issue exceeds that of all other parties. This approach assumes that parties cannot share issue ownership (i.e. the difference in competence ratings between the top-ranked parties are relatively small). Moreover, it assumes that no issues are 'unowned', which would mean that no party is perceived to be particularly competent.

To avoid making these assumptions, we follow Tresch et al. (2017) and distinguish between full issue ownership, shared issue ownership, and no issue ownership. A party *owns* an issue if 1) more than 20 percent of voters name a party as being most competent handle the issue and if 2) is has a lead of at least 10 percentage points to the second-most competent party. Issue ownership is *shared* if 1) more than 20 percent of voters name the party as being most competent to handle the issue, and if 2) no party has a lead of at least 10 percentage points over other parties. Thus, if no party is mentioned by more than 20 percent of respondents as most competent party, an issue is *unowned*.

However, these cut-off points are somewhat arbitrary, and we make one adjustment to our data: for corruption, we consider the Greens to be full issue owners. They are seen as the most competent party to handle the issue (18.2 percent), and arguably more so than the second-most competent party (SPÖ, 10.1 percent). The Greens also campaigned on an anti-corruption platform. We believe that the Greens fail to pass the 20 percent threshold because the issue ownership question follows an open-ended question asking respondents to name their 'most important issue'. Respondents who sense political misconduct as a viable problem might be least likely to name any party as most competent to handle that issue. In a closed format question, 28 percent of all respondents name the Greens as the party that 'made the best proposals' to fight corruption (SPÖ, ÖVP, and FPÖ with about 10 percent, 15 percent say 'no party' 20 percent 'don't know').

Using the modified issue ownership variable does not alter our substantive findings. In Table

E.1, we show the results based on the original (dichotomous) measure of issue ownership

(i.e. Models 2 and 3 in Table 1) next to those based on the modified measure of issue

ownership (Models 3 and 4). We also show the marginal effects of negativity on success for

different levels of issue ownership in Figure E.1.

*Table E.2: Explaining success of negative campaigning in PR (logistic regression)*

	Original IO measure		Modified IO measure	
	Model 1 (All)	Model 2 (Rank-and-file)	Model 3 (All)	Model 4 (Rank-and-file)
Negative	0.867***	1.094***	0.815**	1.030***
	(0.25)	(0.30)	(0.26)	(0.30)
Negative # Party elite	-0.897**	-	-0.905**	-
	(0.31)		(0.31)	
Negative # Owned issue	-0.225	-1.137*	-	-
	(0.34)	(0.48)		
Negative # Shared IO	-	-	**-0.0576**	**-0.572**
			(0.27)	**(0.97)**
Negative # Full IO	-	-	**-0.0108**	**-0.924+**
			(0.45)	**(0.53)**
Government party	-0.0219	-0.00180	0.125	0.203
	(0.18)	(0.21)	(0.17)	(0.23)
Party elite	1.993***	-	1.997***	-
	(0.28)		(0.27)	
Owned issue	0.0946	0.370	-	-
	(0.26)	(0.39)		
Shared IO	-	-	-0.775**	-1.032+
			(0.26)	(0.60)
Full IO	-	-	0.127	0.396
			(0.29)	(0.45)
PR based on campaign event	-0.203	-0.105	-0.178	-0.0548
	(0.17)	(0.17)	(0.17)	(0.16)
Press conference	1.198***	1.326*	1.239***	1.380**
	(0.33)	(0.53)	(0.33)	(0.53)
Text length	0.00231***	0.00193*	0.00217***	0.00177+
	(0.00)	(0.00)	(0.00)	(0.00)
Time PR sent	-0.00116+	-0.00241*	-0.00132+	-0.00250*
	(0.00)	(0.00)	(0.00)	(0.00)
Constant	-2.445***	-1.583*	-2.288***	-1.465*
	(0.53)	(0.75)	(0.52)	(0.74)
Observations	1,496	1,109	1496	1109
Log likelihood	-561.4	-324.8	-556.9	-321.9

Issue-clustered standard errors in parentheses. $^+ p < 0.10$, $^* p < 0.05$, $^{**} p < 0.01$, $^{***} p < 0.001$

The general conclusions remain the same: first, we do not find a moderating effect of issue

ownership in the full sample (see Figure E.1). Second, we do find a moderating effect of

issue ownership if we limit the sample to the party rank-and-file (see Figure E.1). For those without high party or public office, the effect of negativity for attracting media attention is small and statistically insignificant for press releases that focus on issues that a party owns. In contrast, negativity does significantly increase the chances to make the news on those issues that are not owned by that party.

Figure E.1: Marginal effect of negative campaigning conditional on level of issue ownership
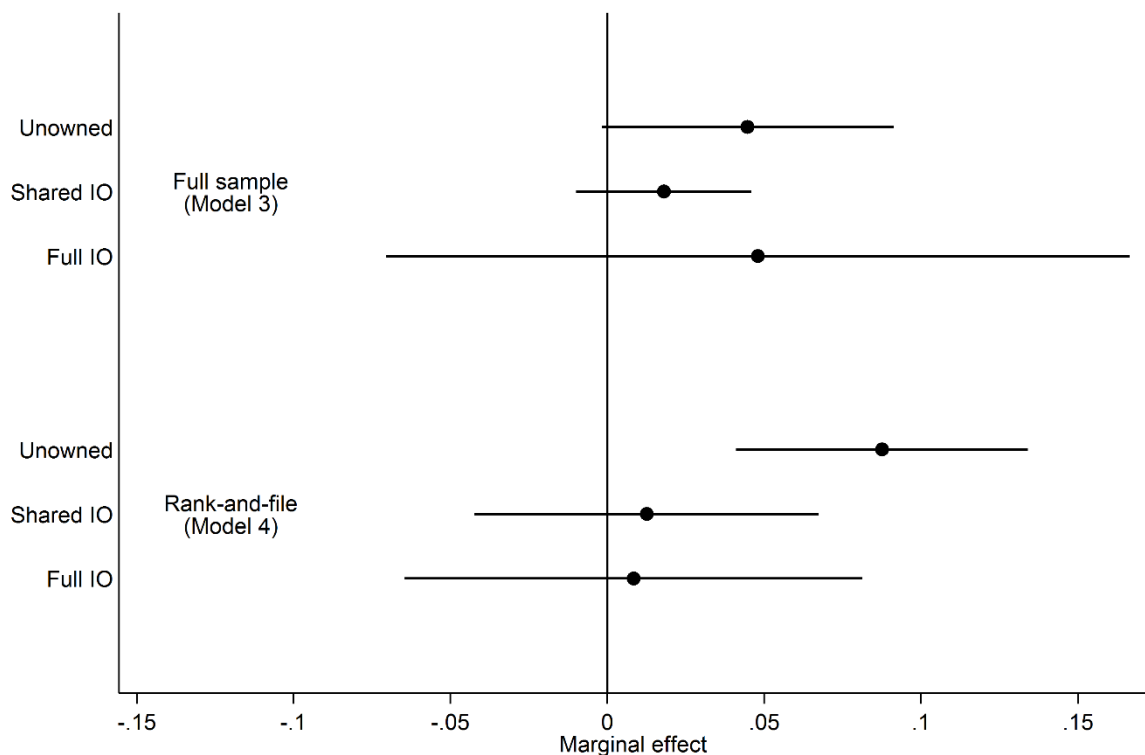
Note: Marginal effects based on changes from positive to negative campaign messages. The estimates are based on Models 3 and 4 in Table E.1. Lines denote 95% confidence intervals. All remaining variables are at their observed values.

References:

Tresch, A., J. Lefevere, and S. Walgrave (2018). How parties' issue emphasis strategies vary across communication channels: The 2009 regional election campaign in Belgium.' *Acta Politica*: 53(1), 25-47.

Appendix F: Analysis based on a reduced sample of press releases

Not everyone affiliated with a party was deeply involved in the election campaign. To test the robustness of our results, we re-ran our models excluding all actors apart from government members, MPs, party leaders, and party chairpersons. We refer to this group as 'core actors'.

Table F.1: Explaining success of negative campaigning in press releases - reduced sample

	Model 1 (All core actors)	Model 2 (All core actors)	Model 3 (MPs)
Negative	0.418^{+}	0.904^{**}	1.203^{***}
	(0.24)	(0.34)	(0.36)
Negative # Party elite	-	-0.789	-
		(0.48)	
Negative # Owned issue	-	-0.152	-1.188^{**}
		(0.46)	(0.44)
Government party	0.138	0.158	0.111
	(0.19)	(0.19)	(0.26)
Party elite	1.143^{***}	1.608^{***}	-
	(0.26)	(0.28)	
Owned issue	0.185	0.249	0.758^{+}
	(0.30)	(0.36)	(0.45)
PR based on campaign event	-0.0651	-0.0526	0.0946
	(0.15)	(0.15)	(0.15)
Press conference	1.187^{**}	1.200^{**}	1.248
	(0.43)	(0.43)	(0.76)
Text length	0.00343^{***}	0.00341^{***}	0.00331^{*}
	(0.00)	(0.00)	(0.00)
Time PR sent	-0.000937	-0.00102	-0.00227^{*}
	(0.00)	(0.00)	(0.00)
Constant	-2.592^{***}	-2.840^{***}	-2.111^{*}
	(0.57)	(0.57)	(1.05)
Observations	877	877	572
Log likelihood	-361.2	-358.9	-181.1

Issue-clustered standard errors in parentheses. $^{+} p < 0.10, ^{*} p < 0.05, ^{**} p < 0.01, ^{***} p < 0.001$

The results of this analysis (Table F.1) are very similar to the ones presented in the manuscript. As the number of observations decreases, the error margins increase (see Figure F.1). Yet, the substantial effect sizes are similar to those reported in the manuscript. Yet, in the reduced sample, the difference in marginal effects between party elites and party rank-

and-file (Hypothesis 2) is slightly above conventional levels of statistical significance (p = 0.102, Model 2).

Figure F.1: Marginal effect of negative campaigning conditional on elite status and issue type (reduced sample)
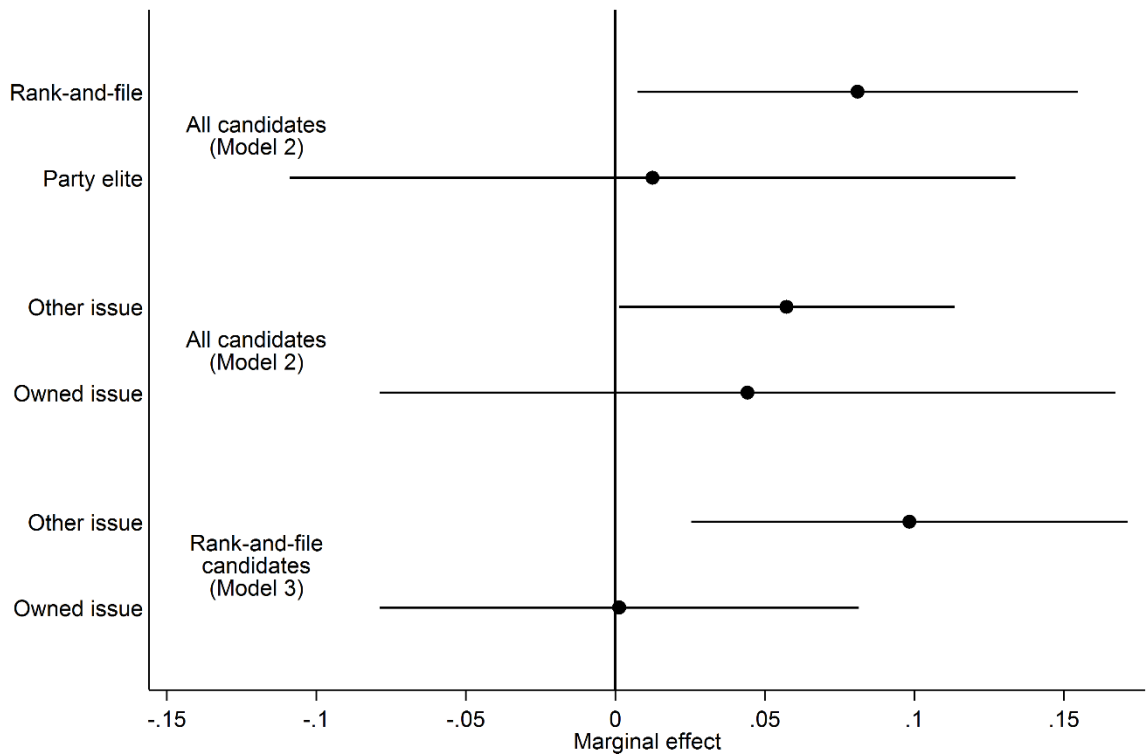
Note: Marginal effects based on changes from positive to negative campaign messages. The estimates are based on Models 2 and 3 in Table F.1. Lines denote 95% confidence intervals. All remaining variables are at their observed values.

Appendix for Love is blind. Partisan bias in perceptions of party communication

Appendix A: Examples vignette with varying tonality

Vignette	Tonality
The <u>SPD</u> <u>completely failed</u> *with* <u>its restrictive immigration policy</u>, the <u>CDU</u> *declared on its web site*.	--
The <u>SPD</u> <u>achieves little</u> *with* <u>its restrictive immigration policy</u>, the <u>CDU</u> *declared on its web site*.	-
The <u>SPD</u> <u>raised questions</u> *with* <u>its restrictive immigration policy</u>, the <u>CDU</u> *declared on its web site*.	~
The <u>SPD</u> <u>achieved something</u> *with* <u>its restrictive immigration policy</u>, the <u>CDU</u> *declared on its web site*.	+
The <u>SPD</u> <u>did excellent work</u> *with* <u>its restrictive immigration policy</u>, the <u>CDU</u> *declared on its web site*.	++

Note: Battery 1, own translation.

Vignette	Tonality
The <u>SPD</u> <u>condemns</u> <u>CDU</u> *proposals* for <u>the reduction of corruption</u>	--
The <u>SPD</u> <u>criticizes</u> <u>CDU</u> *proposals* for <u>the reduction of corruption.</u>	-
The <u>SPD</u> <u>discusses</u> <u>CDU</u> *proposals for* <u>the reduction of corruption</u>.	~
The <u>SPD</u> <u>welcomes</u> <u>CDU</u> *proposals for* <u>the reduction of corruption</u>.	+
The <u>SPD</u> <u>lauds CDU</u> *proposals for* <u>the reduction of corruption</u>	++

Note: Battery 2, own translation.

Table A2: Respondent characteristics (n=2,370)

Variable	
% Male	72.87
% Eastern German	18.52
Mean Age (Std. Dev)	37.40 (13.23)
Mean Education (0-6) (Std. Dev.)	3.43 (1.53)
Mean Knowledge (0-4) (Std. Dev.)	1.56 (1.10)

Table A3:Party ptv scores (n=2,370)

	Mean	Std. Dev.
SPD	4.88	3.23
CDU	3.87	3.20
CSU	3.32	3.41
Greens	3.84	3.26
AfD	3.01	3.69
FDP	3.23	3.04
Linke	3.87	3.32

Appendix B: Explaining perceived campaign tonality: Including all observations (potential cheaters, missing sender or target ptv)

	Model 1	Model 2	Model 4	Model 5
Sender PTV	0.034***		0.075***	
	(0.01)		(0.02)	
Target PTV		0.025**		0.050**
		(0.01)		(0.02)
Sender PTV # Vignette tonality			-0.020***	
			(0.01)	
Target PTV # Vignette tonality				-0.012#
				(0.01)
Vignette tonality	0.38***	0.38***	0.45***	0.42***
	(0.02)	(0.02)	(0.03)	(0.03)
Self-reference	0.019	0.020	0.013	0.016
	(0.06)	(0.06)	(0.06)	(0.06)
Vignette order	-0.0045	-0.0043	-0.0039	-0.0039
	(0.01)	(0.01)	(0.01)	(0.01)
Age	-0.0059**	-0.0060**	-0.0058**	-0.0060**
	(0.00)	(0.00)	(0.00)	(0.00)
Education	0.013	0.014	0.012	0.013
	(0.02)	(0.02)	(0.02)	(0.02)
Political knowledge	-0.096***	-0.090***	-0.095***	-0.090***
	(0.02)	(0.02)	(0.02)	(0.02)
Gender: Female	-0.032	-0.028	-0.034	-0.030
	(0.07)	(0.07)	(0.07)	(0.07)
Eastern Germany	-0.062	-0.078	-0.062	-0.079
	(0.06)	(0.06)	(0.06)	(0.06)
Constant	2.52***	2.34***	2.38***	2.26***
	(0.15)	(0.15)	(0.16)	(0.16)
Battery fixed effects	*Yes*	*Yes*	*Yes*	*Yes*
Issue fixed effects	*Yes*	*Yes*	*Yes*	*Yes*
Sender fixed effects	*No*	*Yes*	*No*	*Yes*
Target fixed effects	*Yes*	*No*	*Yes*	*No*
bic	8735.1	8773.9	8725.9	8775.5
N	2705	2712	2705	2712

Standard errors in parentheses; # $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Note: Different numbers of observations due to missing values in sender or target PTV scores.

Appendix C: Explaining perceived campaign tonality: Random and fixed effects

	Model 1 (RE)	Model 1 (FE)	Model 2 (RE)	Model 2 (FE)	Model 3 (RE)	Model 3 (FE)	Model 4 (RE)	Model 4 (FE)
Sender PTV	0.03***	0.01			0.07***	0.05***		
	(0.01)	(0.01)			(0.01)	(0.01)		
Target PTV			0.02**	0.02#			0.05***	0.05**
			(0.01)	(0.01)			(0.01)	(0.01)
Sum of PTV								
Sender PTV # Vignette tonality					-0.02***	-0.02***		
					(0.01)	(0.01)		
Target PTV # Vignette tonality							-0.02**	-0.02**
							(0.01)	(0.01)
Sum of PTV # Vignette tonality								
Vignette tonality	0.41***	0.43***	0.40***	0.43***	0.48***	0.50***	0.46***	0.48***
	(0.02)	(0.02)	(0.02)	(0.02)	(0.03)	(0.03)	(0.03)	(0.03)
Self-reference	0.02	0.02	-0.001	-0.003	0.01	0.02	-0.01	-0.01
	(0.07)	(0.07)	(0.07)	(0.07)	(0.07)	(0.07)	(0.07)	(0.07)
Vignette order	-0.01	-0.01	-0.005	-0.01	-0.01	-0.01	-0.004	-0.01
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Age	-0.005*		-0.005*		-0.005*		-0.005*	
	(0.00)		(0.00)		(0.00)		(0.00)	
Gender: Female	0.001		0.01		-0.0001		0.01	
	(0.06)		(0.06)		(0.06)		(0.06)	
Education	0.01		0.01		0.01		0.01	
	(0.02)		(0.02)		(0.02)		(0.02)	
Political knowledge	-0.10***		-0.10***		-0.10***		-0.10***	
	(0.03)		(0.03)		(0.03)		(0.03)	
Eastern Germany	-0.12#		-0.11#		-0.11#		-0.12#	
	(0.07)		(0.07)		(0.07)		(0.07)	
Constant	2.50***	2.08***	2.33***	1.90***	2.36***	1.89***	2.23***	1.80***
	(0.17)	(0.40)	(0.18)	(0.40)	(0.17)	(0.40)	(0.18)	(0.40)
lns1_1_1								
Constant	-1.98***		-1.78***		-1.94***		-1.77***	
	(0.43)		(0.30)		(0.40)		(0.29)	
lnsig_e								
Constant	0.17***		0.17***		0.17***		0.17***	
	(0.02)		(0.02)		(0.02)		(0.02)	
Battery fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Issue fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Sender fixed effects	No	No	Yes	Yes	No	No	Yes	Yes
Target fixed effects	Yes	Yes	No	No	Yes	Yes	No	No
bic	7770.2	9348.6	7773.5	9342.3	7763.0	9340.8	7772.7	9341.5
N	2370	2370	2370	2370	2370	2370	2370	2370

Standard errors in parentheses
# $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Abstract

English abstract

This cumulative dissertation studies three aspects of negative campaigning: party behaviour, media coverage and voter perceptions. It presents a new conceptualization that enriches the dichotomous approach to negative campaigning with a graded measure of sentiment strength. Methodologically, **Study 1** presents crowdcoding (i.e. massive online non-expert coding) and a sentiment dictionary as valid and reliable measurement strategies for obtaining fine-grained measures of negative sentiment. The subsequent chapters apply these measures to study negative campaigning and its consequences in Austrian election campaigns.

Investigating the incentives for negative campaigning among coalition parties, **Study 2** reveals that coalition parties criticize each other abundantly, but refrain from 'burning bridges' towards their partners through virulent attacks. Different patterns for the tonality and frequency of negative campaigning reflect the 'electoral dilemma' of government parties.

Study 3 links negative campaigning with research on issue-based campaign strategies. It finds that parties 'go negative' on issues with high media salience. Predominantly attacking their competitors' best issues, parties also attempt to challenge their rivals' issue advantages during election campaigns.

Study 4 shows that negative campaigning increases the chances for parties to convey their campaign messages as journalists prefer positive over negative party messages. Beyond this, political actors profit from supplementing their negative messages with additional news factors, such as surprising issue associations.

Turning to the perception of negative messages in the multi-party context, **Study 5** demonstrates that partisan preferences strongly determine how voters perceive party communication. Partisans reject negative information about their favoured party, which

points at limits and opportunities of negative campaigning as electoral effects could be limited to undecided or independent voters.

The findings of this dissertation have implications for electoral competition, coalition politics, political communication and democratic politics, more generally. They speak to political practitioners, such as campaign advisors or journalists and raise broader societal questions concerning democratic quality and citizens' trust in democratic institutions or political actors.

German abstract

Die kumulative Dissertation erforscht drei zentrale Aspekte von *Negative Campaigning*: Parteiverhalten, Medienberichterstattung und WählerInnenwahrnehmung. Die vorliegende Arbeit stellt eine neue Konzeptualisierung vor, die bestehende, dichotome Ansätze zur Analyse negative Kampagnen durch ein feingliedrigeres Maß negativer Tonalität erweitert.

Methodisch zeigt **Studie 1**, dass Crowdcoding (d. H. Online-Codierung durch eine große Anzahl von Laien) und ein Sentiment-Diktionär valide und zuverlässige Messstrategien zur feinkörnigen Erfassung von Negativität sind. Die nachfolgenden Studien wenden diese Methoden an, um *Negative Campaigning* in österreichischen Wahlkampagnen zu untersuchen.

Studie 2 erforscht die Häufigkeit und Tonalität von *Negative Campaigning* zwischen Koalitionsparteien in Mehrparteiensystemen. Die Ergebnisse spiegeln das strategische Dilemma von Regierungsparteien in Wahlkämpfen wider. Diese kritisieren einander häufig, vermeiden jedoch heftige Attacken auf ihre Koalitionspartner.

Studie 3 verknüpft *Negative Campaigning* mit themenbasierten Kampagnenstrategien. Parteien nutzen Themen mit hoher Medienpräsenz für *Negative Campaigning* und greifen verstärkt an wenn ihre GegnerInnen eine hohe thematische Sachkompetenz in der Wahrnehmung der WählerInnen aufweisen.

Studie 4 zeigt, dass JournalistInnen öfter über negative Parteikommunikation berichten. *Negative Campaigning* erhöht somit die Chancen der Parteien ihre Kampagnenbotschaften mit Hilfe der Massenmedien zu verbreiten. Darüber hinaus profitieren politische AkteurInnen wenn sie in negativen Wahlkampfmeldungen auf zusätzliche *Nachrichtenfaktoren*, etwa überraschende Themen, setzen.

Als Analyse der Effekte von *Negative Campaigning* im Mehrparteienkontext zeigt **Studie 5**, dass Parteipräferenzen die Wahrnehmung von Parteikommunikation stark beeinflussen. Da ParteianhängerInnen negative Informationen über ihre bevorzugte Partei

nicht annehmen, reduzieren sich die Effekte negativer Kampagnen auf unentschlossene oder unabhängige WählerInnen.

In ihrer Gesamtheit erweitern die fünf Studien das Verständnis von Wahlkampfstrategien, Koalitionspolitik und politischer Kommunikation. Die Dissertation erörtert mögliche Konsequenzen von *Negative Campaigning* für das Verständnis und die Qualität von Demokratie und liefert relevante Ergebnisse für politischen AkteurInnen, wie KampagnenberaterInnen oder JournalistInnen.

Curriculum Vitae

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Research Experience

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07/2012	ECPR-Summer School Lille: Quantitative Text Analysis
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Languages

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Awards and Grants

2017	Wiener Hochschuljubiläumsstiftung Grant: Do Political Scientists Oversell their Results? (with Marcelo Jenny), 7,800€
2015	Wiener Hochschuljubiläumsstiftung Grant: Sentiment Analysis of Political Communication (with Marcelo Jenny), 10,000€
2014	AUTNES Research Grant: Crowdsourcing (with Marcelo Jenny), 2,000€
2005, 2010	Achievement Fellowship, University of Vienna, 800€
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Teaching

University of Vienna (MA level)

2017	Constitutional politics in Austria (9 ECTS), with Wolfgang C. Müller

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2014-2017	Practical Exercises on Quantitative Data Collection (3 ECTS)
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2016	Quantitative Methods of Empirical Scoical Research (6 ECTS)

Invited lectures:

Crowdsourcing: Data generation and coding for the social sciences. (Prof. Regula Hänggli, Dep. of Communication) University of Fribourg, Switzerland, April 2016. (BA level)

Reviewer for:

British Journal of Political Science, Communication Methods and Measures, European Political Science Review, Political Communication, Quality and Quantity, Journal of Elections Public Opinion and Parties, West European Politics

Membership:

EPSA, ECPR Political Communication Section, CCRG

Publications

Peer reviewed journal articles

Haselmayer, M. and Jenny, M. (forthcoming). Friendly fire? Negative campaigning among coalition partners. *Reasearch and Politics*.
DOI: 10.1177/2053168018796911

Haselmayer, M., Meyer, T. M., and Wagner, M. (forthcoming). Fighting for Attention. Media Coverage of Negative Campaign Messages. *Party Politics*, Online first. DOI:10.1177/1354068817724174

Meyer, T. M., Haselmayer, M., and Wagner, M. (forthcoming). Who Gets into the Papers? Party Campaign Messages and the Media. *British Journal of Political Science*, Online first. DOI:10.1017/S0007123417000400

Rudkowsky, E., Haselmayer, M., Wastian, M., Jenny, M., Emrich, S., and Sedlmair, M. (2018). More than bags of words: Sentiment Analysis with Word Embeddings. *Communication Methods and Measures* 12(2-3): 140-157.

Haselmayer, M., Wagner, M., and Meyer, T. M. (2017). Partisan Bias in Message Selection: Media Gatekeeping of Party Press Releases. *Political Communication*, 34(3), 367-384.

Haselmayer, M., and Jenny, M. (2017). Sentiment Analysis of Political Communication: Combining a Dictionary Approach with Crowdcoding. *Quality & Quantity*, 51(6), 2623-2646.

Book chapters

Dolezal, M., Haselmayer, M., and Jenny, M. (2014). Kandidatinnen und Kandidaten im Wahlkampf. In S. Kritzinger, W. C. Müller, and K. Schönbach (Eds.), *Die Nationalratswahl 2013. Wie Parteien, Medien und Wähler zusammenwirken* (pp. 87-98). Vienna, Austria: Böhlau.

Dolezal, M., Haselmayer, M., Johann, D., Thomas, K., and Ennser-Jedenastik, L. (2014). Negative Campaigning. In S. Kritzinger, W. C. Müller, and K. Schönbach (Eds.), *Die Nationalratswahl 2013. Wie Parteien, Medien und Wähler zusammenwirken* (pp. 99-112). Vienna, Austria: Böhlau.

Research blogs

Jenny, M. and Haselmayer, M. (2015). *Negative Campaigning in Austria: Abundant, Colorful and Ingenious*, Ballots and Bullets - School of Politics and International Relations, University of Nottingham.

Meyer, T. M., Haselmayer, M., and Wagner, M. (2015). *The Media's Gatekeeping Function Means that Party Press Coverage often Reproduces and Reinforces Existing Power Structures*, Democratic Audit - London School of Economics.