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How to Represent: The Role of Perceptions, Cognitive Biases, and Information on Elite Responsiveness

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by

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Table of Contents

List of Figures

List of Tables

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ABSTRACT OF THE DISSERTATION

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This dissertation studies the links between voters and their representatives in Western Europe. Each chapter explores specific mechanisms through which politicians build their image of the electorate and translate this image into policy. In the first main chapter, I study why politicians misperceive voter preferences and how to overcome distorted beliefs about the electorate. I argue that elite misperceptions result from inequalities in exposure to voters and egocentric biases of politicians. I find support for these arguments in a panel of Swedish MPs covering two decades. In turn, a novel experiment leveraging real political events in Switzerland shows how encouraging Swiss legislators to have a more balanced exposure to voters can reduce misperceptions. In the next chapter, I explore the ability of politicians to channel voter preferences. I advance that policy expertise – by inducing overconfidence – leads representatives to dismiss opinions they disagree with. Consistent with this argument, I provide experimental evidence that Swedish representatives with more expertise in a given policy area are paradoxically less capable of voicing public preferences in that field. The two subsequent chapters study how political elites respond to voter signals on the campaign trail, leveraging a dataset of campaign statements by 68 European parties. The first study shows how party leaders update their rhetoric in response to opinion polls. The results reveal that mainstream parties deviate from their manifestos and emphasize more extreme positions when underperforming in the polls. The second study shows how pre-election polls

are also used as mobilization devices, with politicians raising attention to promising polls while downplaying studies with disappointing results. Overall, the dissertation highlights the constraints faced by elected officials to act as representatives, and the role of public opinion information on policy responsiveness.

Chapter 1

Introduction

Representative democracies rest on the idea that elected officials channel the interests of the polity. A central question in the process of representation is how politicians gauge and respond to signals emerging from the electorate. A perfect correspondence between public preferences and policy outcomes is neither expected nor always desired (Mansbridge 2003; Pitkin 1967). Still, understanding the links between citizens and their representatives is key to evaluate the quality of democratic governance.

A common assumption in the literature is that political elites have nearly complete information about their constituency (e.g., Downs 1957; Geer 1996; Jacobs and Shapiro 2000). As strategic office-seekers, politicians have incentives to be informed. However, there is a growing recognition that the task of assessing voter preferences is more demanding than originally suggested (Druckman and Jacobs 2015; Gilens and Page 2014). Representatives often have distorted images of their constituency (Broockman and Skovron 2018; Converse and Pierce 1986), and only partially update their beliefs when provided with information on voter preferences (Butler and Nickerson 2011; Kalla and Porter 2020). The main goal of this dissertation is to advance our knowledge on the challenges elected officials face to "act on behalf" (Pitkin 1967) of those who elected them, and the strategies used to overcome these constraints.

More specifically, I investigate two specific steps in the chain of responsiveness (Powell 2004). Chapters 2 and 3 explore how elected officials develop their image of the electorate, and how these beliefs may be affected by incomplete information and cognitive biases of legislators. In chapters 4 and 5, in turn, I investigate how political elites use public opinion information to guide their short-term decisions.

Prior work explored how different political and electoral institutions influence the links between voters and their representatives (Powell 2004; Przeworski et al. 1999; Soroka and Wlezien 2010). The studies that compose this dissertation contribute to this vast scholarship by focusing on the individual decision-making processes of elected officials. An interdisciplinary understanding of elite behavior is the starting point for the arguments advanced and tested in each chapter. More specifically, I build upon established theories in behavioral economics and cognitive psychology with the goal of providing a more nuanced understanding of the behavior of elected officials in their role as representatives. The patterns uncovered in the following chapters speak to different questions left open in prior work on political representation. That said, the behavioral arguments advanced here complement rather than replace institutional explanations for the type of relationship elected officials develop with their constituency.

The first two empirical chapters also contribute to our understanding of inequalities in responsiveness. Prior work established that affluent voters are more likely to convert their preferences into policy (Adams and Ezrow 2009; Giger et al. 2012; Persson 2020; Schakel 2019). The results reported in chapters 2 and 3 suggest this may happen, in part, because politicians have a distorted image of the electorate: giving disproportionate weight to the preferences of more visible subconstituencies, and disregarding contrasting views in their areas of expertise. These arguments imply that unequal responsiveness may happen even when legislators are not trying to favor any particular subconstituency. If politicians' beliefs about the position of the median voter (or the median party voter) are skewed,

efforts to pursue policies in line with this perceived majority can reproduce inequalities in representation.

Chapters 4 and 5, in turn, contribute to comparative research on policy updating. Existing scholarship has mainly focused on explaining how parties update their programs from one election to the next (e.g., Adams et al. 2004; Somer-Topcu 2009). The two studies presented here complement this work by exploring how public opinion shapes the decisions of part leaders in the short-run, and specifically in the context of political campaigns. The analyses reveal the fluidity of elite rhetoric. Rather than sticking with their pre-established plans throughout the campaign, party leaders use opinion polls to continuously refine their strategies and update positions in predictable ways.

More broadly, the dissertation hopes to inspire new behavioral research on political elites. This growing field of work has so far focused on uncovering biases in elite behavior: instances where the decisions of elected officials deviate from rational choice predictions (Esaiasson and Öhberg 2019; Sheffer et al. 2018), or from normative understandings of the democratic process (Butler 2014; Kalla and Broockman 2016). Moving forward, researchers can use this information to provide tools for elected officials to overcome those biases. The experiment with Swiss elected officials in chapter 2 represents a first step in this direction and demonstrates how theory-driven interventions can bolster the relationship between politicians and voters.

All four studies presented in the following chapters focus on Europe and combine a variety of empirical methods and data sources. In chapter 2, I combined existing data from a panel of Swedish MPs with an original experiment with Swiss representatives to explore why reelection-seeking officials misperceive voter preferences. For chapter 3, in turn, I conducted an original survey experiment with Swedish representatives to study how policy expertise can constrain the ability of legislators to channel voter preferences. Finally, chapters 4 and 5 build upon a dataset of campaign statements by party leaders in 10 European countries to

explore how elite rhetoric responds to voter signals.

In the following sections, I describe each of the four main chapters in more detail.

1.1 Understanding and Reducing Biases in Elite Beliefs About the Electorate

Chapter 2 investigates why reelection-seeking officials misperceive constituency preferences, and how these misperceptions can be mitigated. I argue that elite misperceptions result from a combination of differential exposure and personal biases of legislators. On the one hand, representatives do not interact with all segments of the electorate in the same way. More affluent and organized groups are more likely to make their voices heard in the policymaking process (Bouwen 2004; Giger et al. 2012; Gilens 2009; Persson 2020; Schlozman, Verba, and Brady 2012). If legislators rely on availability heuristics to gauge public preferences, imbalances in political engagement may lead elected officials to overestimate the support for policies endorsed by these subconstituencies. Second, personal biases of elected officials may also hinder the development of accurate beliefs. Representatives may be inclined to engage in *social projection*: projecting their own policy preferences on voters (Krueger and Clement 1994). This cognitive bias may lead representatives to overestimate support for policies they endorse.

I test these expectations in two complementary surveys of elected officials. The first study is based on a panel of Swedish MPs covering two decades of elite beliefs about the electorate. This dataset was combined with mass surveys fielded concurrently to create measures of perceptual accuracy. The analyses reveal that elite beliefs disproportionately reflect the preferences of high-status voters. The probability of an MP correctly perceiving the majority opinion on a given policy issue decreases 11-12 points when white-collar voters disagree with the median voter. The analyses also show evidence of social projection: elected

officials systematically overestimate public support for policies they personally endorse.

The second study was designed to provide causal evidence for the key predictions derived from the theory and to assess the degree to which misperceptions can be mitigated. In an original survey that leveraged real political events, nearly 3,000 Swiss local representatives were asked to estimate support for two upcoming referendums in their constituencies. Together with the disaggregated results from the popular votes, these data allowed me to produce precise measures of perceptual accuracy at the local level. Officials were randomly assigned to informational cues designed to overcome inequalities in exposure and social projection. The results reveal that representatives were significantly more accurate in their predictions when encouraged to avoid availability heuristics and to consider the electorate more broadly.

Together, the findings have several implications for the study of political representation and responsiveness. On the one hand, they provide a rather pessimistic view of the ability for constituents to control public policy. The study joins recent scholarship in the United States uncovering relevant distortions in elite perceptions of public opinion (Broockman and Skovron 2018; Hertel-Fernandez et al. 2019). However, Sweden and Switzerland are two of the most socially inclusive societies in the world. The fact that in both countries inequalities in political voice seem to have meaningful effects on elite perceptions of public opinion is concerning. More broadly, the results shed light on the path yet to cover until societies are able to sustain fully inclusive political institutions. On the other hand, the Swiss study suggests that misperceptions are not inevitable. The informational nudges designed to help legislators avoid availability heuristics induced more accurate beliefs about the electorate. These results suggest that improving perceptions of public opinion is possible even with low impact interventions.

1.2 The Expertise Curse[1]

In chapter 3, I explore how policy expertise may constrain the ability of politicians to channel voter preferences. Through their time in office or from prior professional experience, elected officials often develop expertise in specific policy areas. Parliamentary committees encourage this form of specialization (Strøm 1998). Individuals with more expertise in a given domain tend to have more confidence in their own beliefs within that field (Dunning 2005; Fisher and Keil 2016; Tetlock 2005), to be more dogmatic and close-minded (Ottati et al. 2015). For legislators with expertise in a specific domain, overconfidence may lead them to disregard opposing views. This is relevant because accurate beliefs about the electorate are a pre-condition for responsiveness (Broockman and Skovron 2018). The implication of this process is that legislators may paradoxically be less capable of channeling voter preferences in areas where they have more knowledge. I refer to this argument as *the expertise curse*.

I provide empirical support for the expertise curse in a survey experiment with Swedish political elites. Legislators were asked to evaluate a hypothetical message from a group of voters asking them to support a specific policy. The policy was always at odds with the elicited preferences of the public official. Additionally, I experimentally manipulated whether the initiative was within a policy area where the legislator had high or low levels of expertise. The results confirm that politicians are more likely to disregard contrasting views in areas where they have more expertise. Public officials in the high expertise condition were more likely to consider that the group of voters contacting them did not understand the complexity of the issue, did not base their opinion on facts, and did not represent the majority opinion. These findings are not explained by heterogeneity across the policy issues considered.

The findings have important implications to research on political representation and

[1]This chapter results from a collaboration with Patrik Öhberg, from the University of Gothenburg.

legislative politics. The expertise curse provides a novel explanation for distortions in policy responsiveness. If legislators with specialized knowledge in a given domain play a central role in drafting new legislation in their areas of expertise (Makse 2020), the ability of citizens to control public policy is constrained. At the same time, the study reveals a trade-off between expertise and the representational roles adopted by legislators. Although voters consistently prefer their representatives to follow public preferences (Carman 2007; Converse and Pierce 1979; Dassonneville et al. 2020), the expertise required for an efficient policymaking process limits the ability of legislators to act as delegates.

1.3 Responsive Campaigning[2]

Chapter 4 explores how party leaders respond to public opinion shifts on the campaign trail. Previous research based on party manifestos established that political elites are responsive to different signals emerging from the electorate (e.g., Abou-Chadi 2014; Adams et al. 2004; Adams and Somer-Topcu 2009; Budge 1994; Tavits 2007). However, due to data limitations most existing research relies on election manifestos produced every four or five years. What happens between elections – and specifically on the campaign trail – is still largely an open question.

I argue that the dominant collective goals of parties drive how their leaders respond to shifts in voter preferences on the campaign trail. Parties have both office and policy goals (e.g., Downs 1957; Riker 1982; De Swaan 1973), but the weight assigned to these goals varies (Harmel and Janda 1994; Spoon 2011). The competing goals argument suggests that the salience of different party goals is conditional on the signals received from the electorate. When performing well in the polls, parties will behave in line with their dominant goals. For mainstream parties, this means emphasizing moderate policy statements that maximize their

[2]A modified version of this chapter was published in *The Journal of Politics* (Pereira 2020).

electoral prospects (e.g., Calvo and Hellwig 2011; Ezrow 2005). In turn, niche parties will pursue their policy goals through non-centrist statements that appeal to their base (Ezrow 2008; Ezrow et al. 2011). However, *when voters shift away from the party*, secondary goals become more salient and lead to changes in campaign strategies. Mainstream parties will adopt a less centrist rhetoric to avoid alienating their core constituents. For niche parties, in turn, office goals become more salient, raising incentives for party leaders to moderate their rhetoric. In short, campaign responsiveness reflects the struggle parties face to balance different collective goals.

An analysis of campaign statements by representatives from 68 European parties provides empirical support for the competing goals argument. The data come from two main sources: a recent dataset of policy statements reported in the media (Debus et al. 2016); and an original compilation of pre-election polling studies conducted in the same period. The analyses show that mainstream parties tend to adopt a moderate rhetoric when performing well in the polls, while niche parties make significantly more extreme statements. However, as voting intentions decline, mainstream parties are progressively more likely to deviate from the center, while niche parties move in the opposite direction, converging on a more moderate rhetoric. Additional analyses reveal that these changes correspond to a movement away from the main policy agenda conveyed in the election manifestos.

This study represents a first effort to explain how European parties update their policy rhetoric on the campaign trail. From a normative standpoint, the dynamics uncovered can be seen in a positive light. Elections are one of the rare times when a large segment of the electorate tunes into politics (Gelman and King 1993). If parties would simply stick with their pre-established plan for the campaign – often decided by a small group of members months before the election –, the opportunities for policy responsiveness would be limited. Continuous ideological updating is demanding and may divert party resources from other important areas of activity. Still, at least close to elections it provides a trial-and-error

process that may produce policies closer to the interests of the public.

1.4 Opinion Polls as Mobilization and Fine-Tuning Devices[3]

Finally, chapter 5 investigates more broadly how party leaders use information from public opinon polls to inform their decisions close to elections. Opinion polls play a central role in contemporary political campaigns. Updates on the performance of parties often serve as the baseline for political commentary on the weeks leading to Election day. We know that learning about the positions of the electorate can shape the behavior of voters (Duffy and Tavits 2008; Forsythe et al 1993; Meffert and Gschwend 2011). However, how party leaders use this information on the campaign trail remains an open question.

I argue that party leaders use polls on the campaign trail (1) to mobilize voters and (2) to fine-tune their campaign strategies. The success of a campaign is largely contingent on its capacity to 'spin' new information in its favor (Hickman 1991). How party leaders respond to polls is an element of this process. By strategically communicating polling results, parties can shape voters' view of the race, promote grassroots mobilization through bandwagon effects (Morton et al. 2015), and encourage donors. Hence, I expect campaign contenders to react selectively to opinion studies: offering disproportional attention to results conveying a positive image of party, while dismissing or criticizing studies with disappointing predictions. Polling results also offer the opportunity for parties to refine their campaign strategies. Recent scholarship suggests that when a party has a quasi-monopoly on a given policy, the potential gains from further communicating on that issue are limited (Tresch et al. 2013). Building upon this argument, I advance that leaders from underperforming parties should be more likely to discuss policy issues when talking about their own party, relative to

[3]An extended version of this chapter was published in *Electoral Studies* (Pereira 2019).

valence issues. Finally, campaign negativity may also be driven by poll results (Elmelund-Præstekær 2008; Walter et al. 2014). There is a cost to negativity that may be outweighed by the potential of harming opponents, and this cost is a function of the party's current performance on the campaign trail. Hence, the incentives to go negative should increase among underperforming parties.

I test these arguments with a database of over 2,000 statements made by Portuguese party leaders on the campaign trail (Debus et al. 2016) combined with opinion polling published concurrently. The results show that political elites tailor their depictions of the electorate instrumentally. Party leaders are more likely to mention their performance in the polls in response to promising results, and less likely to question the credibility of pollsters. Moreover, in response to disappointing polls, parties tend to refocus their campaign rhetoric on policy issues, rather than valence issues. Finally, the propensity for campaign negativity also increases when parties are underperforming.

These findings have implications to the study of political campaigns, and political representation. First, they provide an explanation for why campaigns may not 'enlighten' the preferences of voters (Gelman and King 1993). Party leaders tailor their depictions of the public to their own benefit. Hence, unless voters are exposed to the messages of multiple parties, this process may lead to distorted perceptions of the campaign trail. This concern is particularly relevant in a world of political echo chambers (e.g., Boutyline and Willer 2017). Second, the results reveal that a thorough understanding of campaign effects requires treating party strategies dynamically. Party leaders are constantly refining their rhetoric in the weeks leading to an election. This process provides an explanation for the disconnect between manifestos and voter perceptions of parties' positions after the election (Fernandez-Vazquez 2014, 2018).

Chapter 2

Understanding and Reducing Biases in Elite Beliefs About the Electorate

How do elected officials learn about voter preferences? Office-seeking politicians have strong incentives to be informed (Downs 1957, Geer 1996, Jacobs and Shapiro 2000, Powell 2004). However, a growing literature suggests that learning about what voters want is more demanding than originally suggested (Butler and Nickerson 2011; Druckman and Jacobs 2015; Gilens and Page 2014). Representatives often have a distorted image of their constituents (Broockman and Skovron 2018; Converse and Pierce 1986; Erikson, Luttbeg, and Holloway 1975; Holmberg 1989; Kertzer et al. 2020; Miller and Stokes 1963). Hence, a key ingredient for policy responsiveness is often missing. This leads to two crucial questions that I explore in this chapter: (1) why do politicians misperceive voter preferences; and (2) how can misperceptions be mitigated.

I develop and test an argument about two related factors that may lead political elites to misperceive public preferences: inequalities in exposure and personal biases of legislators. First, representatives do not interact with all segments of the electorate in the same way. More affluent and organized groups are more likely to make their voices heard in the policymaking process (Bouwen 2004; Giger et al. 2012; Gilens 2009; Persson 2020; Schlozman, Verba, and Brady 2012), and consequently, representatives are more likely rely on these

voices when forming opinions about public preferences.[1] This"differential exposure" to more affluent and organized constituents can lead officials to overestimate support for policies endorsed by these subconstituencies. In short, inequalities in political resources across voters can generate distorted images of the electorate. Furthermore, legislators' own personal background can also influence exposure. Policymakers are drawn disproportionately from more affluent segments of the electorate (Carnes and Lupu 2015), and the social networks of public officials can tint their view of the world (Campbell 2013). Taken together, these arguments suggest that misperceptions are due to the type of information that is more visible to elected officials.

However, unequal exposure only tells part of the story. Personal biases of elected officials may also hinder the development of accurate perceptions of the electorate. Representatives may be inclined to engage in *social projection*: projecting their own policy preferences on voters (Krueger and Clement 1994). This cognitive bias may lead representatives to overestimate support for policies they themselves endorse. Social projection may result from a systematic tendency of officials to deem opposing views as uninformed or non-salient (Butler and Dynes 2016). Hence, even without inequalities in political voice, political elites may generate images of the electorate that are tinted by their own views.

I test these expectations with surveys of elected officials in Sweden and Switzerland. Study 1 explores a six-wave panel of Swedish MPs covering two decades of elite beliefs about the electorate. This dataset was combined with mass surveys fielded concurrently to create measures of perceptual accuracy for 24 policy issues. The analyses reveal that elite beliefs disproportionately reflect the preferences of high-status voters. On average, the probability of an MP correctly perceiving the majority opinion on a given policy issue decreases 11-12 points when white-collar voters disagree with the median voter. Consistent with the

[1]Throughout the chapter I use the terms 'high-status' and 'affluent' interchangeably to refer to more privileged segments of the electorate, with more political resources. Given the multidimensional nature of this concept, high-status/affluence is operationalized in a variety of complementary measures: white collar, high income, high education, or urban voters.

mechanisms proposed, these effects are moderated by the types of groups MPs interact with – unions or business organizations –, and by the personal background of legislators. The analyses also show evidence of social projection: elected officials systematically overestimate public support for policies they personally endorse.

Study 2 was designed to explore whether the biases uncovered in the first study can be mitigated. In an original experiment that leveraged real political events, 2,917 Swiss local elected officials were asked to estimate support for two upcoming referendums in their constituencies. Together with the disaggregated results from the popular votes, these data allowed me to produce *precise* measures of perceptual accuracy at the local level. Officials were randomly assigned to informational cues designed to overcome inequalities in exposure and social projection. The probability of representatives correctly predicting majority preferences in their constituency increased 4 to 9 percentage points when encouraged to avoid availability heuristics and consider the electorate more broadly. Encouraging officials to avoid social projection, in turn, reduced the link between their own preferences and perceptions of public support, as expected, but this effect did not translate into perceptual accuracy.

The patterns uncovered here are consistent with recent scholarship in the United States showing that political elites systematically perceive their own constituents as more conservative than they actually are (Broockman and Skovron 2018; Hertel-Fernandez et al. 2019). This conservative bias in perceptions of public opinion can be partially explained by inequalities in political voice, since more afffluent voters in the U.S. tend to be more conservative (Mendelberg et al. 2017; Page et al. 2013; Suhay et al. forth.).

The study sheds light on the constraints faced by elected officials when acting on behalf of those who elected them (Butler and Nickerson 2011; Pitkin 1967). Hence, it contributes to research on political representation and elite behavior. The findings provide an explanation for inequalities in responsiveness. Prior work established that affluent voters have an easier time converting preferences into policy in Sweden (Persson and Branham 2020), Switzerland

(Lloren et al. 2015), and elsewhere in Europe (Adams and Ezrow 2009; Giger et al. 2012; Schakel 2019). If inequalities in political voice bias elite perceptions of voter preferences, as suggested here, policy outcomes may disproportionately reflect the interests of high-status voters *even when legislators are not trying to favor any particular subconstituency.*

In turn, the Swiss experiment has the potential to pave the ground for new behavioral research with political elites. So far, this nascent area of research has focused on uncovering biases in elite behavior: instances where the decisions of legislators deviate from rational choice predictions (e.g., Esaiasson and Öhberg 2019; Sheffer et al. 2018; Sheffer and Loewen 2019), or from normative understandings of the democratic process (Butler 2014; Kalla and Broockman 2016). However, a natural next step is to use this information to provide tools for elected officials to overcome those biases. The experiment with Swiss representatives provides a step in this direction. The results reveal how theory-driven interventions can encourage elected officials to develop more accurate beliefs about their constituents.

2.1 The nature of elite perceptions of public opinion

Aggregating preferences is intrinsically complex. Time-constrained politicians are exposed to a vast array of cues available through different channels: direct contacts from constituents, lobbyists, the media, social networks, and peers. To condense these overlapping demands is a daunting task, and the information available to legislators is often incomplete (Butler and Nickerson 2011). This context offers fertile ground for the adoption of cognitive shortcuts. Individuals rarely conduct extensive information searches before making judgments, particularly for complex decision-making tasks (Tversky and Kahneman 1974). Instead, they rely on a subset of *available information.* More accessible information is more easily retrieved from memory and therefore tends to play a dominant role in individual judgments (Ajzen 1996; Carlston and Smith 1996). However, heuristics have limits. The subset of information

on which individuals rely may not be representative of all the information available (e.g., Fiedler and Schmid 1995; Lodge, Stroh, and Wahlke 1990).

In the context of elite perceptions of public opinion, I argue that (1) inequalities in exposure to voters, and (2) the policy preferences of legislators shape the *type of information that becomes available (more visible) to public officials*. When this subset of available information is biased, it may translate into misperceptions.*Information availability*, in this context, refers not simply to whether the legislator has access to the information but to the "ease with which instances and occurences could be brought to mind" (Tversky and Kahneman 1974; 15).

The two arguments articulated below are expected to play a central but not exclusive role in explaining misperceptions. Complementary explanations are discussed in the concluding section. Additionally, I do not expect exposure and policy preferences to be independent from each other. Exposure can either influence or be influenced by legislators' issue positions. That said, the arguments advanced here suggest that each mechanism should have an independent effect on perceptions, and the empirical strategy adopted allows me to isolate these different dynamics.

2.1.1 Exposure and beliefs

Elected officials do not interact with all segments of the electorate in the same way. Systemic inequalities in political resources among voters, as well as legislators' own personal networks, shape the type of information that is more readily available.

A cross-cutting pattern in contemporary democracies is that more affluent (Bartels 2008; Giger et al. 2012; Gilens 2012; Gilens and Page 2014; Persson 2020), organized (Olson 1965), politically engaged (Adams and Ezrow 2009, Griffin and Newman 2005), and well connected (Campbell 2013) segments of society are more likely to make their voices heard in the policymaking process. Hence, the preferences of these subconstituencies are often more salient

in the public discourse. If officials rely on availability heuristics to gauge public preferences – as suggested above – the positions of high-status groups may be given disproportionate consideration. There is some evidence for this argument in the American context. When Congressional staffers think about subconstituencies relevant for a given policy initiative, they are more likely to recall groups that often contact and contribute to the legislator (Miler 2007, 2009). Additionally, in recent years scholars have uncovered a conservative bias in elite perceptions of public opinion that may result from similar inequalities in exposure to voters (Broockman and Skovron 2018; Hertel-Fernandez et al. 2019).[2]

Information gathered through legislators' personal experience is also more accessible. Familiar information is easier to recall (Tversky and Kahneman 1974). For instance, individuals who know someone who experienced a heart attack systematically overestimate the likelihood of heart attacks (Wyer and Srull 1989). More broadly, social scientists have noticed for decades that our social networks tint our image of the world: our political attitudes, and behavior (Campbell 2013). At the same time, in most countries policymakers are drawn disproportionately from more privileged segments of society (e.g., Carnes and Lupu 2015). Hence, if representatives use availability heuristics to develop their images of the electorate, they may rely disproportionately on the positions of these same privileged subconstituencies.

Together, both mechanisms suggest that the preferences of high-status voters are more visible to legislators. When the policy positions of affluent constituents are aligned with the majority of voters, inequalities in exposure are not expected to distort perceptions of public opinion. However, when in disagreement, unequal exposure combined with availability heuristics can lead to misperceptions. Importantly, this process may take place unconsciously. It does not require any active discrimination from legislators (Butler 2014). The following prediction derives from these arguments:

[2]However, the specific biases uncovered in the U.S. context are not expected to replicate elsewhere, since they result from the specific strategies adopted by conservative groups in the country (such as the Tea Party). The argument advanced here speaks more broadly about systemic inequalities in political voice.

Exposure Hypothesis: Elected officials are more likely to misperceive public preferences when the position of high-status voters deviates from the majority.

2.1.2 Personal preferences and beliefs

Differential exposure is not the only source of misperceptions. Personal biases of elected officials may also distort how constituency signals are processed and incorporated, even when the information available is not skewed.

Gauging voter preferences is a social inference task. A potential bias associated with this type of cognitive process is known as *social projection* (or false consensus bias): the propensity to overestimate the degree to which others share our attitudes and beliefs (Ross et al. 1977). Social projection is one of the most robust and well-documented social judgment biases (e.g., Mullen et al. 1985), since Katz and Allport (1931) found that students who cheated in tests systematically overestimated the share of peers who had also cheated. The tendency to project our preferences on others is moderated by perceptions of similarity (Ames 2004) and is understood as an irrational and unavoidable behavior, rather than a result of statistical (i.e., Bayesian) reasoning (Krueger and Clement 1994). However, recent scholarship suggests that social projection can be mitigated through incentives (Epley et al. 2004) or personalized feedback (Morewedge et al. 2015).

Among political elites, there is a large amount of anecdotal evidence suggesting that representatives engage in this type of bias. In recent years, David Cameron's decision to call a referendum on the United Kingdom's membership in the European Union is one of the most consequential episodes resulting, in part, from false consensus bias. The British prime minister campaigned against Brexit. However, as analysts described at the time, "David Cameron underestimated the strength of Eurosceptic feeling and probably also the discredit of which his government [was] the focus" (The Robert Schuman Foundation 2016). Early scholarship on elite beliefs provides suggestive evidence in line with this view (Converse and

Pierce 1986; Holmberg 1974). Based on a survey of members of the European Parliament, Holmberg concluded that "[t]he unpleasant truth is that a largely irrational tendency toward wishful thinking is more significant for members' knowledge of voter opinion than other more rational processes of knowledge acquisition" (1999, 249). These behavioral patterns may be due to a tendency of public officials to discount opinions they disagree with (Butler and Dynes 2016). Constrasting views are systematically seen as less informed, and less likely to represent the majority opinion. Hence, social projection can translate into misperceptions by altering the type of information that is most visible (or available) to legislators.

Taken together, these arguments suggest the following prediction:

Social Projection Hypothesis: Elected officials are more likely to misperceive public preferences when disagreeing with the position of the majority on a given policy issue.

2.2 Empirical Strategy

I test the main predictions derived from the theory in two complementary studies. Both studies conceptualize perceptual accuracy as the capacity of political elites to correctly identify the position of the majority on a given issue, following established principles of political representation (Pitkin 1967). Study 1 is based on a long-running panel of Swedish MPs matched with two mass surveys conducted concurrently for over two decades. To my knowledge, these data sources represent the most comprehensive effort to measure elite beliefs about the electorate. The analyses are designed to investigate the two main predictions derived from the theory and the mechanism underlying the exposure hypothesis.

Study 2 complements the first study through an original survey with Swiss local elected officials. I designed this study to explore the extent to which inequalities in exposure and social projection can be experimentally manipulated. Days before two federal referendums, politicians were asked to estimate the share of voters *in their municipality* supporting each

initiative on the ballot. Prior to this task, politicians were randomly assigned to informational "nudges" designed to induce perceptual accuracy by avoiding unequal exposure and social projection. This empirical strategy allows me to assess the degree to which biases in elite beliefs about the electorate can be minimize.

Relying on two of the wealthiest countries in the world restricts the scope of the findings. Relative to the average elected official in Europe, Swedish and Swiss legislators may have more resources to gauge constituent preferences. However, both countries are also among the most socially inclusive societies in the world, making them hard cases to uncover the political consequences of inequalities in political voice.[3] The gaps in preferences between privileged subconstituencies and the majority tend to be starker in contexts with more income inequality (Rueda and Stegmueller 2016; Voorheis et al. 2015). Additionally, the prevalence of referendums in Switzerland provides exceptional amounts of information on voter preferences. Hence, the consequences of informational asymmetries should be harder to discern in Sweden and Switzerland, relative to other countries.[4] Appendices A and D provide more contextual information about Sweden and Switzerland, respectively.

Sweden and Switzerland have relatively influential political parties, and the decisions of individual legislators in both countries may be constrained by intraparty dynamics (e.g., Giger and Klüver 2016; Öhberg and Naurin 2016).[5] However, distorted beliefs about the electorate are consequential regardless of how party-centric a system is. Political parties are groups of individuals. If these individuals express similar types of biases when gauging public opinion, these biases should carry on to the collective decisions of parties. Appendices A and D provide more contextual information about Sweden and Switzerland, respectively.

[3]According to the https://www.socialprogress.org/Social Progress Index, Sweden and Switzerland are globally ranked 11th and 3rd, respectively, regarding basic human needs, foundations of wellbeing, and individual opportunity.

[4]Recent evidence from Pakistan is consistent with this perspective. In a survey of Pakistani local officials, only 59% of representatives correctly perceived the majority opinion in their constituency (Liaqat n.d.). The equivalent figures for Sweden and Switzerland, as described below, are above 70%.

[5]This is less of an issue in the Swiss context, where candidates for local office often run without a party label (Ladner 2005).

2.3 Study 1: Panel of Swedish MPs

To capture politicians' beliefs about public opinion, I first rely on a constellation of survey data from Sweden. Since 1985, the Swedish Parliamentary Survey (RDU) has surveyed MPs once every term. For each wave of RDU, response rates have been consistently above 90%.[6] The panel asks elected officials their own opinions on a large set of policy issues, along with perceptions of voter preferences on those same issues. For six waves of the parliamentary survey – 1985, 1988, 1994, 1998, 2002, and 2006 –, the Swedish National Election Studies (SNES) and the SOM Institute Surveys (SOM) asked identical policy questions to representative samples of voters in the same period.[7]

In order to compare elite perceptions of public opinion with voters' expressed policy preferences, I combined all three datasets. Whenever the SNES and SOM conducted mass surveys concurrently, I merged both samples. On average, the combined dataset includes 4,865 respondents per wave.[8] With these data, I calculated different measures of policy support, as detailed below. Overall, 24 distinct policy issues were asked simultaneously in the MP and mass surveys. Additionally, on average each of the policy items was asked in three of the six matched waves. Table A2.1 (Appendix B) lists all policy issues, waves, and sources, used in the analysis. Since the key goal of Study 1 is to explain individual variation in misperceptions of public opinion, the unit of analysis is MP-year-policy.

[6] In the six waves used in the current study, response rates were the following: 97% in 1985 and 1994; 96% in 1988; and 94% in 1998, 2002, and 2006 (Karlsson and Nordin 2015). Given the nearly complete coverage of the survey, full access to the datasets is restricted to the precincts of the University of Gothenburg, where the survey is hosted.

[7] All surveys were fielded around general elections. Still, the analyses reported below include fixed effects by wave to account, among other things, for any systematic differences in the timing of surveys.

[8] Combined sample sizes by wave: 4,365 respondents in 1985, 4,135 in 1988, 3,996 in 1994, 5,340 in 1998, 6,184 in 2002, and 5,170 in 2006.

2.3.1 Measuring perceptual accuracy

The main outcome of interest in the analyses reported below is a measure of perceptual accuracy. Respondents in the mass surveys were given a five-point Likert scale to answer each policy support question. In turn, MPs were asked whether a majority of their "own party's voters" supported a given policy. In the Swedish context, the party base is considered the most relevant constituency for representatives (Esaiasson and Holmberg 1996).[9] In order to combine the two measures, public support was dichotomized.[10] *Perceptual Accuracy* takes the value of 1 if an individual MP correctly identifies the majority opinion among party supporters, and 0 otherwise.[11]

The average value of *Perceptual Accuracy* is 0.73. From 1985 to 2006, Swedish MPs correctly perceived the majority opinion among co-partisan voters 73% of the time. To provide a more detailed description of the variable, Figure 2.1 plots average values of perceptual accuracy by issue (gray lines) and for all issues asked in a given year (green line).

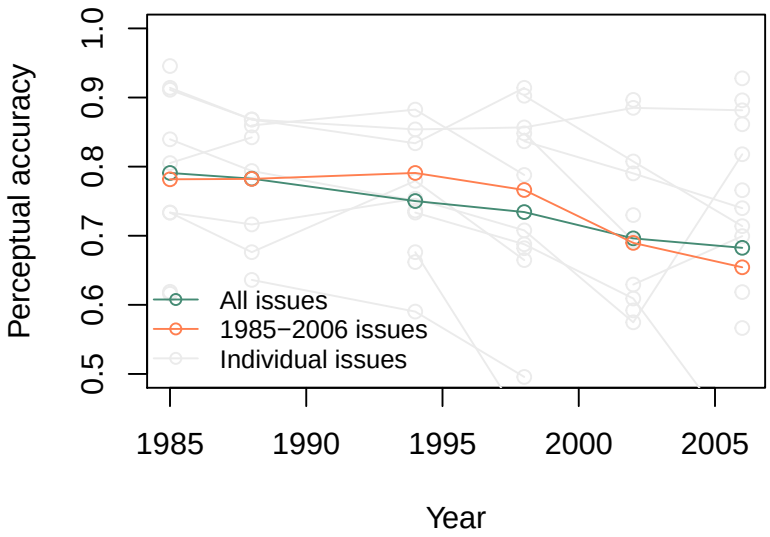
Two patterns are worth noting. First, although perceptual accuracy of majority opinion is generally high, there is considerable variation across issues and time. While 92% of MPs

[9]This pattern does not seem to be specific to party-centric systems. Lax, Phillips and Zelizer (2019) recently found similar dynamics in the American context. Republican and Democrat MPs largely respond to the preferences of their own party members. Still, to assess the robustness of findings to this conceptualization of constituency, I replicated the main analyses with perceptions of the electorate as a whole (and not just party voters). These items are only available in the 1985 wave of the parliamentary survey. Besides the loss in scope, the same results are obtained (see Table A3.3). This result suggests that the theoretical arguments tested here are not contingent on the definition of constituency adopted.

[10]Majority support takes the value of 1 if over 50% of party respondents stated that a policy proposal was "very good" or "fairly good", and 0 otherwise. Voters without an opinion on a given policy are proportionately distributed among supporters and opponents. However, the same results are obtained when the share of supporters is calculated with undecided respondents in the denominator (see Table A3.4, in Appendix A3).

[11]A potential concern with this empirical approach is that once the mass public samples are split into partisan groups, we can no longer ensure that the average levels of support for each party are representative. Given the large sample sizes (see fn. 8) and the relatively small number of sub-groups (7 parties), the magnitude of the biases resulting from disaggregating the sample are potentially limited. Still, to assess the robustness of this approach, I re-estimated the main models with bootstrapped standard errors to incorporate uncertainty from the public opinion estimates. The same patterns are uncovered (see Table A3.5). The results are also robust to analyses considering *only* MPs from smaller parties, for whom the measures of partisan policy support may be more prone to measurement error due to smaller sample sizes (see Table A3.6).

Figure 2.1: Average perceptual accuracy by wave of parliamentary survey.



Note: "All issues" includes data from all 24 policy issues asked in the different waves. "1985-2006 issues" only includes issues asked in at least five of the six waves, including 1985 and 2006: reduce public sector, reduce defense spending, more private health care, prohibit all kinds of pornography, and the introduction of 6-hour working days.

correctly perceived the majority opinion on the expansion of privately-run health care in 2006, over 60% of representatives *misperceived* voters' opinion on whether to decrease defense spending in the same year. Second, over the two decades covered there is a gradual decline in perceptual accuracy. Since this pattern may be simply due to the type of issues asked in each wave, the figure also plots averages for the five issues that were asked consistently from 1985 to 2006 (orange line). The same general pattern is observed for this constant set of issues. Overall, average perceptual accuracy went from 78.2% in 1985 to 65.4% in 2006. It is beyond the scope of this project to explain this pattern. Still, it suggests that the ability of elected officials to gauge public preferences is dynamic.

2.3.2 Research Design

If exposure shapes perceptions of public opinion, as articulated above, elected officials should give disproportionate weight to the preferences of high-status voters. More privileged segments of the electorate are more likely to make their voices heard in the policymaking process (e.g., Schlozman, Verba, and Brady 2012). Therefore, we should expect perceptual accuracy to be lower when the preferences of these subconstituencies deviate from the majority. To capture high-status voters, I use four complementary variables: occupational social class, education, income, and place of residency. Social class is simultaneously a strong indicator of political resources and a meaningful political cleavage for both voters and politicians (Evans 2000; Carnes and Lupu 2015). Income and education, on the other hand, capture more directly individual resources and political influence. Place of residence, in turn, captures connectedness and access to the political sphere more broadly (Busch and Reinhardt 2005; Tavits 2005). The question wordings and descriptive statistics for all variables included in the analysis are described in Appendix A2.

In order to produce measures of policy support for different segments of the electorate, each variable was recoded as follows. Occupational social class was split into three categories: blue collar (40.6%), white-collar (42.3%), or other. Educational attainment was classified as low (1-9 grades or less; 31.4%), medium (above comprehensive school but no college; 39.6%) or high (college degree; 30.0%). The measure of income, in turn, is based on a distributional scale of household income validated by the Swedish register. From the original variable, I created three categories: low income, corresponding to respondents in the 15th income percentile or lower; high income, corresponding to respondents in the 85th percentile or higher; and medium income, for the remaining subjects. Finally, place of residence is divided in two categories: respondents from rural areas and villages (42.4%), and respondents from cities (57.6%).[12]

[12]Table A2.2 describes the bivariate correlations between the different variables. Although all four variables

Based on these typologies, I re-calculated policy support *exclusively among high-status partisans*: (1) white collar, (2) high education, (3) high income, or (4) urban voters. Finally, for each policy item assessed by an MP I created a binary variable capturing opinion disagreement between high-status party voters and the majority of copartisans.[13] As an example, consider the case where high-status is captured through social class. The variable takes the value of 1 for a given MP from party X if white-collar copartisans disagree with the majority of party X supporters on a given policy issue, and 0 otherwise. This process leads to four complementary predictors: one per measure of affluence. According to the exposure hypothesis articulated above, the expectation is that when the preferences of more privileged subconstituencies deviate from the majority, representatives are less likely to correctly perceive public opinion.

To capture the propensity for social projection, in turn, I contrast the self-reported preferences of MPs with voter preferences on the same policy. *MP and Voters dealigned* is a binary variable that takes the value of 1 if an MP disagrees with the majority of co-partisan voters (either supporting or opposing the policy), and 0 otherwise.

The distribution of voter preferences is likely to affect both the key predictors of interest in the analysis and perceptual accuracy. Hence, all models account for *preference imbalance*: the absolute difference between the share of partisan supporters and opponents for a given policy. Smaller values suggest a more balanced distribution of preferences, which should be associated with less perceptual accuracy. Additionally, the models account for two individual features of the MPs that may shape their capacity to gauge public preferences: policy expertise, and experience in office. Expertise is based on committee membership. To create this measure, I matched each policy issue available in the dataset to one of the Riksdag committees in place during the respective term. *Expertise* then takes the value of 1 if the

are positively correlated, correlations are moderate to small (Pearson's r between 0.08 and 0.35). This suggests that the variables capture different types of affluence.

[13]The majority includes all party supporters, regardless of levels of affluence.

MP belongs to the committee associated with a given policy, and 0 otherwise. *Experience in office* is measured in log-transformed terms.[14]

The final dataset includes several sources of variation: across years, parties, policies, and individual MPs. I am interested in capturing individual-level variation in the capacity of MPs to gauge public preferences. Hence, the models include fixed effects to account for any systematic differences across time, party, and policy. Finally, because each individual MP enters the dataset multiple times (once per policy issue in a given wave, and eventually across waves), all models include cluster-robust standard errors by individual MP.[15]

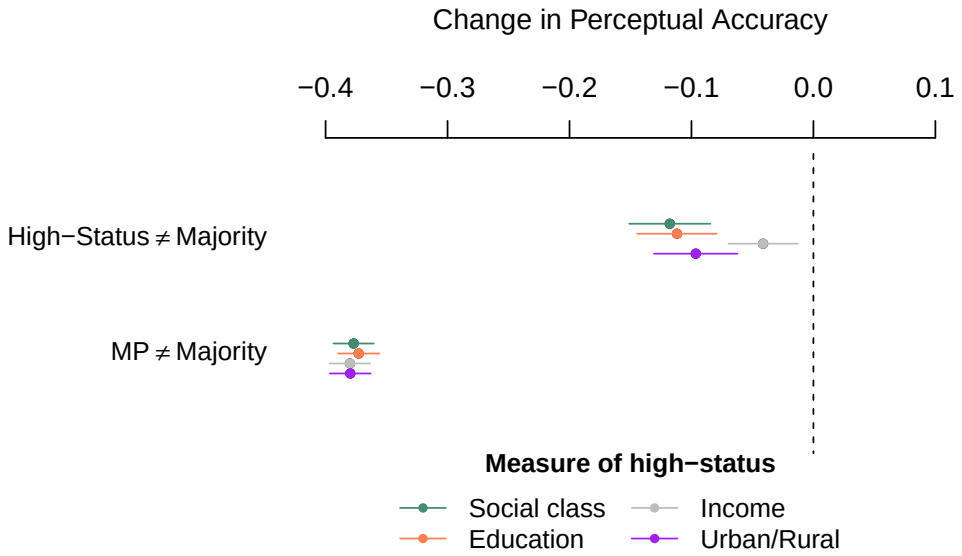
2.3.3 Results

Figure 2.2 reports the main results from Study 1. The estimates for each of the key predictors (listed on the y-axis) were derived from linear probability models with *Perceptual Accuracy* as the outcome variable.[16] The predictor *High-Status* $\neq$ *Majority* captures instances where high-status voters deviate from the majority opinion on a given policy issue. Each color represents a pair of estimates from a different model, based on the measure of high-status voters adopted. The results provide support for the two main predictions derived from the theory and are robust across measures of affluence.

As predicted, disagreement between high-status voters and the majority of voters in a given party is associated with *lower* perceptual accuracy. The effects are substantively meaningful. As an example, when white-collar voters disagree with the majority on a given issue (green estimates), the probability that MPs correctly perceive majority preferences is 12 percentage points lower. Importantly, since both the predictor and the outcome variable are binary, this decrease implies that elite perceptions of public opinion are swayed by the positions of high-status voters.

[14]Table A2.3 presents descriptive statistics of all key variables in the analyses.
[15]The same results are obtained when the models include fixed effects by individual MP (Table A3.2).
[16]Logit models produce the same substantive patterns (see Table A3.7).

Figure 2.2: The role of high-status voters and MP personal preferences on perceptual accuracy.



Note: Dots are estimates from linear probability models with perceptual accuracy as the outcome variable. Horizontal lines represent 95% confidence intervals. The main predictors are listed on the y-axis. Exact color represents a distinct model based on the operationalization of high-status voters. Full model results in Table A3.1.

A similar pattern is observed when *highly educated* voters disagree with the majority (point estimate $= -0.11$; s.e. $= 0.01$). While occupational social class and educational attainment are positively correlated (Pearson's $r = 0.28$), only 47.2% of self-identified white-collar respondents were also classified as highly educated. Hence, the two constructs are not capturing the same electorate. Finally, the effects of policy disagreement for high-income voters are also statistically significant and in the expected direction, but smaller in magnitude (point estimate $= -0.04$; s.e. $= 0.01$).

The models also provide support for the social projection hypothesis. Returning to the social class model, the coefficient for $MP \neq Majority$ suggests that when MPs support/oppose a policy that is opposed/supported by the majority of their own party voters, the probability of correctly perceiving partisan opinion decreases 38 points. The estimated effects of social

projection are sizeable. Holding the remaining variables at their medians, the predicted probability of correctly identifying the majority opinion on a given issue goes from 0.90 when MPs agree with co-partisans, to 0.52 when MPs disagree. According to the model, the chances of dealigned MPs correctly perceiving co-partisan preferences are close to a coin toss.

Importantly, these results are obtained accounting for preference imbalance among party voters. Opinion dealignment between voters and MPs is more common when public opinion is evenly split on a given issue. However, all models account for the absolute difference between copartisan supporters and opponents in a given policy. The results are also not explained by time-invariant differences across legislators. As reported in Table A3.2, the same patterns are uncovered when the analyses include fixed effects by individual MP (N = 1,069).

A question that remains open is whether the effects of high-status voters disagreeing with the majority are something specific to more privileged subconstituencies. It is possible that the patterns observed mainly capture instances where the distribution of voter preferences is wider, or less crystallized. In that context, it is both more likely that (1) some segments of the electorate have a distinct opinion from the majority, and (2) that perceptual accuracy is lower, since gauging public preferences can be more challenging. To assess this alternative explanation, I reestimated the main models replacing *High-Status ≠ Majority* with measures of opinion disagreement between low-status voters and the majority.[17] If the patterns observed above result from the lack of opinion crystallization, we should observe similar effects for privileged and less-privileged voters. The results reported in Figure A3.1 do not support this argument. Across model specifications, the coefficient for disagreement between low-status voters and the majority is either indistinguishable from zero or in the opposite direction of what we would expect.

[17]Low-status voters are identified as (1) blue collar workers, (2) respondents with the ninth grade or less, (3) respondents in the 15th income percentile or lower, or (4) respondents living in villages or rural areas.

In sum, the analyses suggest that differential exposure and social projection are relevant drivers of elite misperceptions. When high-status voters (and *not* low-status voters) disagree with the majority, legislators are systematically less likely to correctly gauge public preferences. In turn, when legislators themselves disagree with voters on a given issue, their ability to identify the majority opinion is meaningfully curtailed.

2.3.4 Mechanism test: MP behavior and personal background

So far, the analysis suggests that, when gauging public preferences, MPs tend to give disproportionate weight to the preferences of high-status voters. This may be happening for a number of reasons. The argument articulated above is that this pattern results from biases in exposure to different subconstituencies.[18] If this mechanism is correct, we should expect the weight attached to the opinions of affluent voters to vary according to (1) the active decisions of MPs to engage with different groups, and (2) the individual background of legislators.

To test the plausibility of this mechanism, I conducted two additional analyses. First, I reestimated the main model reported above, but conditioning *White-Collar* $\neq$ *Majority* on how often MPs report meeting with (1) blue collar unions (members of the *Landsorganisationen i Sverige*), and (2) private businesses and business organizations.[19] If the exposure hypothesis is correct, we should expect the capacity of white-collar preferences to sway elite perceptions of public opinion to *decrease* with the regularity of contacts with blue collar unions. The opposite pattern would be expected for contacts with business organizations.

[18] An alternative mechanism is that legislators are actively giving more weight to the preferences of high-status voters with the expectation that this may help them in their reelection efforts (e.g., through donations), or in their post-legislative careers. The analyses conducted in this section only partially rule out this mechanism. However, the results in Study 2 are not consistent with this alternative story. If legislators were strategically misperceiving public opinion, encouraging them to develop more accurate perceptions of voter preferences should not lead to a decrease in misperceptions. This issue is further discussed in the concluding section.

[19] These variables are based on two items from the RDU surveys asking MPs how regularly they interacted personally, or by letter, with a variety of different organizations. Responses are recorded on a five-point labeled scale from 'Never' to 'At least once a week'.

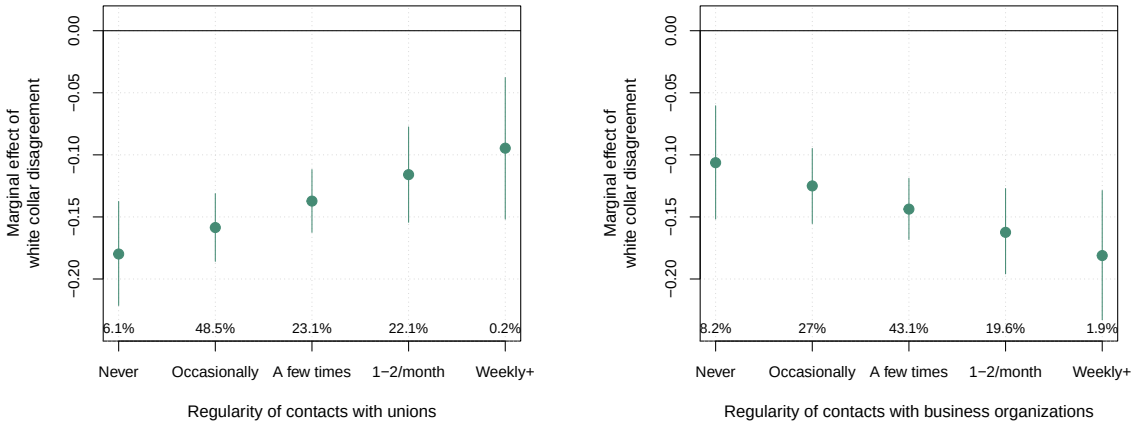
Figure 2.3 provides evidence in line with this argument. Panel (a) reports the marginal effects of white-collar voters disagreeing with the majority on a given issue, conditional on MPs' self-reported contacts with blue collar unions. The distribution of the conditioning variable is described along the x-axis and reveals appropriate common support for the majority of the data (Hainmueller et al. 2018). As expected, the weight of white-collar voter preferences is significantly *smaller* among legislators with more exposure to blue collar unions. According to the model, when white-collar voters disagree with the majority, the probability that an individual MP *who never contacts blue collar unions* correctly identifies the majority position decreases, on average, 18.1 percentage points. In turn, for MPs *who interact with unions once or twice a month*, the same effect decreases to 11.6 points. The opposite pattern is observed for interactions with business organizations (Panel (b) in Figure 2.3). Regular contacts with businesses are associated with a heightened weight of white-collar voter preferences.

Next, I explore how the personal background of MPs can moderate exposure to different subconstituencies. I consider the role of MPs' (1) occupational class prior to joining parliament, (2) educational background, and (3) place of residence growing up.[20] The expectation is that the preferences of *high-status* voters carry less weight among legislators with less privileged backgrounds: non-white-collar MPs (53.1% of the sample), MPs without a college degree (43.1%), and MPs with a rural background (51.4%).

The analyses reported in Figure 2.4 provide partial support for this prediction. Each panel reports the marginal effects of high-status voters disagreeing with the majority, conditional on MPs (a) social class, (b) educational background, and (c) geographical background. The operationalization of high-status voters in each model matches the specific background feature of the MPs and is described on the y-axes. Across specifications, the results suggest that legislators with less privileged backgrounds are *less likely* to misperceive public opinion

[20]The income levels of MPs are not available in the RDU surveys. However, I believe that the remaining measures properly capture the background of MPs.

Figure 2.3: The marginal effects of white-collar voters disaagreeing with the majority on perceptual accuracy, conditional on MP contacts with (a) blue collar unions, and (b) businesses.

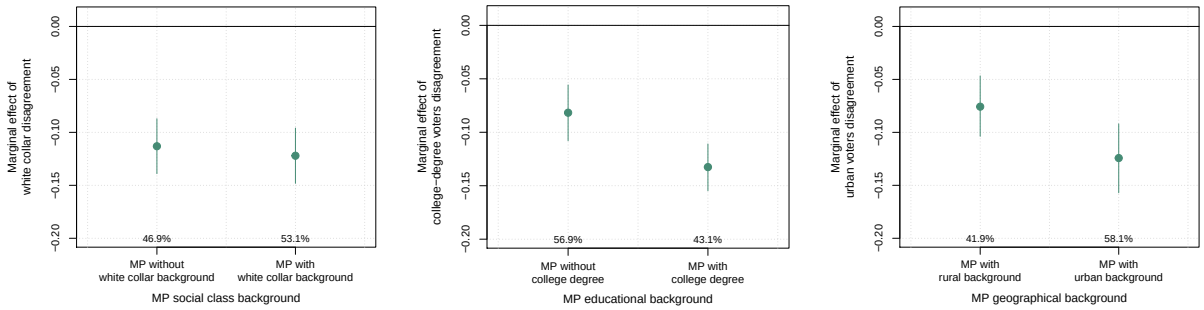


(a) White-collar weight by union contacts

(b) White-collar weight by business contacts

Note: Dots are marginal effects of white-collar voters disagreeing with majority on perceptual accuracy, conditional on the regularity of contacts with blue collar unions (panel a), and businesses (panel b). Vertical bars are 95% confidence intervals. Numbers along x-axis describe the distribution of the conditioning variable. See Table A3.8 for full results.

Figure 2.4: The marginal effects of high-status voters disagreement on perceptual accuracy, conditional on MPs (a) class background, (b) educational background, and (c) geographical background.



(a) Class background **(b)** Educational background **(c)** Geographical background

Note: Dots are estimates of the effect of policy support among different segments of the electorate (described on the y-axis) on perceived policy support, conditional on MPs individual background (described in each panel's legend). Horizontal bars are 95% confidence intervals. See Table A3.9 for full results.

when high-status voters disagree with the majority. The effects are reliable for educational and geographical background. As an example, the estimates in panel (c) suggest that, when urban voters disagree with the majority, perceptual accuracy decreases on average 12.4 points *among MP with an urban background*, but only 7.5 points among MPs with a rural background (p-value of interaction term = 0.02). The results are consistent with research on the substantive impacts of descriptive representation (e.g., Carnes and Lupu 2015).

Together, the analyses reported here provide evidence for the mechanism underlying the exposure hypothesis. Both the behavior of MPs in office (Figure 2.3) and their idiosyncratic background (Figure 2.4) shape the type of information taken into account when gauging voter preferences. The following section attempts to provide causal evidence for the key patterns observed in this study.

2.4 Study 2: Experiment with Swiss local officials

The previous study revealed two sources of bias in elite perceptions of public opinion: inequalities in exposure, and social projection. I conducted Study 2 to assess whether these biases can be minimized. Can public officials develop more accurate beliefs about their constituencies?

The study is based on an original survey of Swiss local elected officials leveraging real political events. Switzerland offers a unique opportunity to study elite perceptions of public opinion due to the large number of popular votes held every year. By conducting a survey of local representatives prior to a set of referendums, I was able to compare elite perceptions of public support for different issues with *accurate* behavioral measures of policy support at the municipal level.[21] This is important because it allows me to go around measurement issues associated with calculating preferences for subnational constituencies.[22]

I recruited public officials as part of the 2017 National Survey of Local Executive Members (NSLEM), a large survey covering roughly 60% of the population of Swiss local elected officials (Steiner et al. 2019).[23] A total of 5,240 participants provided their contact information to take part in a follow-up study. From this pool, 2,917 officials completed the online survey administered through Qualtrics (56.7% response rate).[24]

[21]Throughout the chapter I use the terms 'referendum' and 'initiative' interchangeably. However, in Switzerland there is distinction between initiatives (new proposals initiated by citizens), and referendums (mandatory or optional). The two specific issues included in this study are popular initiatives.

[22]See fn. 11 above. Additionally, since voter preferences are measured through referendum outcomes, the results cannot be explained by legislators *strategically* giving more weight to the preferences of affluent voters because they are more likely to turnout. When asked about the opinion of the constituency as a whole, legislators may be inclined to discount the preferences of those that are less likely to participate in politics. This is problematic because it would lead to predictions that are observationally equivalent to the exposure hypothesis. However, when the goal is to predict referendum outcomes, these considerations about who turns out are part of the task. Evidence for the exposure hypothesis in this context cannot be explained by officials discounting the preferences of less privileged subconstituencies because they are less likely to turnout.

[23]More information available at: `https://www.ipm.swiss/gemeinde/`.

[24]Table A5.1 summarizes the demographic characteristics of the sample, and compares it with the 2017 NSLEM. There are no meaningful differences across the two samples in terms of individual characteristics of the subjects, or sociopolitical features of the municipalities represented in each sample.

The survey was fielded in November 2018, two weeks before a set of federal referendums.[25] The questionnaire and all communication materials were translated to Swiss German, Swiss French, and Swiss Italian.[26] The key goal of the survey was to capture elite perceptions of *local public support* for a series of popular initiatives voted on that occasion. Respondents were asked to predict the share of voters in their constituency who would support two distinct referendums: the self-determination initiative and the horned-cow initiative.[27] The first initiative, initiated by the nationalist Swiss People's Party (SVP), proposed an amendment to the constitution that would give primacy to the Swiss constitution and popular votes over international treaties. The issue attracted substantial public attention and reached record levels in campaign spending (up to CHF 8 million, or $8M).[28] The Horned-Cow initiative, on the other hand, was a low salience issue. The proposal sought to prevent farmers, through federal subsidies, from opting to keep hornless animals (VOTO 2019).

2.4.1 Experimental Design

Respondents were asked to predict the share of voters *in their constituency* who would support either referendum.[29] Prior to the prediction tasks, officials were randomly assigned to one of three groups.[30] A control group received no additional information. After reading a description of each referendum, subjects in this group were directly asked to anticipate the outcome of the popular vote in their municipality. Two other groups were presented with

[25]The median local official completed the survey in the first two days, and 75% by the fifth day since the invitations were sent. Still, there is some variation in the timing of survey completion that could affect their capacity to gauge public preferences. Table A6.5 shows that the timing between survey completion and the referendums did not affect the study results in a meaningful way.

[26]An English translation of the questionnaire is provided in Appendix A7, along with the informed consent.

[27]A third initiative was voted on the same day, but it was not included in the present study.

[28]`https://www.swissinfo.ch/eng/vote-november-25--2018_hotly-debated--swiss-law-first--i\\nitiative-awaits-public-verdict/44559238`.

[29]It should be noted that although nationally representative polls are often published in the weeks leading to referendums in Switzerland none of the existing studies provides estimates at the municipal level. Hence, local officials could not simply rely on existing survey data.

[30]The experimental design was pre-registered in EGAP (`http://egap.org/registration/5322`).

vignettes designed to *increase perceptual accuracy*, based on my theoretical predictions.

Exposure condition: This group received information about the composition of the electorate in their municipality. The goal of this intervention was to encourage local officials to avoid potentially skewed availability heuristics resulting from inequalities in exposure. To do so, respondents took part in a three-stage task. First, they were asked to guess the prevalence of different segments of the electorate in their constituency (e.g., foreign-born citizens, supporters of the Green party). This information was recorded and reported on the following page of the survey along with the official data from the Federal Statistical Office for their municipality, and for Switzerland as a whole. Finally, officials were asked to take this information into account when making their predictions of local support for the referendum. Figure A5.2 provides a specific example of the vignettes.

The type of information provided varied according to the referendum. To ensure that this information was informative, pre-tests assessed the predictive power of different indicators on support for similar referendums voted in the recent past.[31] For the self-determination initiative, officials were presented with data on the share of foreign-born citizens and SVP supporters in their municipality. For the horned-cow initiative, the information provided was the combined share of SP and Green party supporters in the constituency, and the share of workers in the primary sector.

Exposure & Self-Awareness condition: The third group received the same informational treatment provided to the second group plus a recommendation to avoid projecting their own preferences on the electorate. Box 2.1 provides the exact wording of the vignette. Recent scholarship suggests this type of feedback is the most effective way to mitigate social projection (Morewedge et al. 2015).[32]

[31] Interviews with Swiss direct democracy scholars and pre-analyses of VOTO, the post-referendum surveys (VOTO 2019), informed the selection of past referendums used for the pre-tests.

[32] I favored a cumulative treatments design over a full factorial design to maximize statistical power. To my knowledge, Swiss local officials had never been invited to an academic online survey before. Hence, it was impossible to anticipate the sample size that would be obtained.

Box 2.1: Self-awareness vignette.

> Decades of research show that people tend to project their own preferences to others. **Without noticing, we often overestimate approval for issues we support, while underestimating approval for issues we oppose**. Try to take this into account when making your prediction.

The expectation is that officials in the exposure condition should be more likely to correctly perceive the majority opinion in their constituency, relative to officials in the control condition. In turn, subjects who received the self-awareness intervention should be less likely to project their own preferences on the electorate, and more likely to correctly perceive majority preferences (relative to the second group). To avoid contagion effects, randomization was made at the respondent level, and the order of the referendums was randomized. Finally, I used multivariate continuous blocking to maximize balance between conditions on (1) partisanship, (2) language (German, French, or Italian), (3) municipality size (population), (4) canton, and (5) local support for the SVP and the Social Democratic Party (SP) in the previous general election.

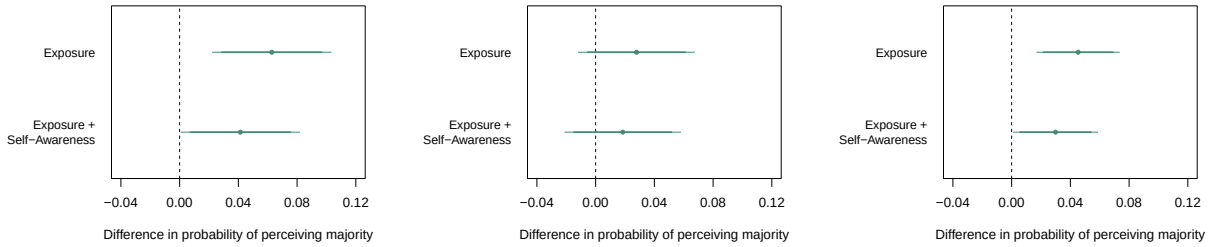
2.4.2 Results

On November 25th, 2018, Swiss voters rejected both initiatives. Nationwide, 33.8% of voters supported the self-determination initiative, while 45.3% supported the horned-cow initiative. However, there was considerable variation across municipalities. For instance, local support for the self-determination initiative ranged from 12.5 to 83.7%. Figure A5.1 describes the distributions of local-level support for each referendum.

I combined these expressed preferences with the survey results to build a measure of *Perceptual Accuracy*. The variable takes the value of 1 if a local official correctly perceived the majority position in his or her constituency, for a given initiative, and 0 otherwise.[33] On

[33]I favored this outcome over a continuous measure of misperceptions for two reasons. First, I believe it better captures the key goal of grasping public preferences. While it might be helpful for elected officials to

Figure 2.5: The effects of exposure and self-awareness to social projection on perceptual accuracy, by referendum.



(a) Self-determination initiative (b) Horned-Cow initiative (c) Pooled initiatives

Note: Points are estimates of the difference in the probability of local officials correctly perceiving the expressed preferences of the majority of voters in their constituency by treatment condition (control = baseline, and treatment groups described in the row labels). Wider/Thinner horizontal lines are 95/90% confidence intervals. See Table A6.1 for full results.

average, Swiss local officials correctly identified the majority position in their constituency 72% of the time.[34] This figure represents a relatively high baseline, potentially resulting from the small size of Swiss local constituencies, and the wealth of information provided to public officials by the regular referendums.

However, the interventions improved perceptual accuracy upon this baseline. Figure 2.5 presents the results of three linear probability models with *Perceptual Accuracy* as the outcome variable. Coefficients for each treatment condition (described along the y-axes) represent the average difference in the probability of correctly perceiving local majority support, relative to the control group.[35]

Panel *a* (from Figure 2.5) reports the treatment effects for the self-determination ini-

know the precise share of voters supporting a given policy, the democratic principles of representation mainly expect representatives to know the majority opinion (e.g., Downs 1957; Pitkin 1967) . Second, this measure better mirrors the outcome variable used in Study 1 (Figure 2.2, above). Still, the results for each individual initiative are substantively similar when an absolute measure of misperceptions is used (see Figure A6.1). Importantly, I did not register the binary measure of perceptual accuracy in the pre-analysis plan since it was submitted prior to the analysis of Study 1.

[34]The average value of *Perceptual Accuracy* for the self-determination and horned-cow initiatives is .71 and .74, respectively.

[35]Table A6.4 replicates these models with the subset of respondents who passed the manipulation check at the end of the survey (see Table A6.3). The same results are obtained, and the magnitude of the effects increases, overall.

tiative. On average, local officials who received information on electorate composition (the *exposure group*) were 6.4 percentage points more likely to correctly identify the majority position in their constituency, relative to the control group. This effect is statistically significant (p-value = .002) and substantively meaningful. It represents an 8.9% increase in perceptual accuracy, relative to the mean value of the outcome.[36] This pattern is in line with the theoretical predictions. When representatives are encouraged to avoid availability heuristics and consider a wider segment of the electorate, perceptual accuracy increases. The effect of the *Exposure & Self-Awareness* intervention on perceptual accuracy, in turn, is also positive and reliable (point estimate = .04; p-value = .04). However, the effect is indistinguishable from the *Exposure* condition (p-value = .31). The analysis provides no evidence that encouraging political elites to avoid social projection increases perceptual accuracy.

The results for the horned-cow initiative (Panel *b*) are less conclusive. The estimates for *Exposure* (.03) and *Exposure & Self-Awareness* (.02) are positive, as expected. However, these differences in the probability of correctly perceiving majority support are indistinguishable from zero at conventional levels of statistical significance. The analysis does not allow me to rule out small differences. However, it suggests that if anything the treatment effects were fairly small in magnitude.[37] Finally, Panel *c* provides the treatment effects for the pooled initiatives. This analysis includes fixed effects by initiative to account for any systematic differences between referendums, and cluster-robust standard errors by local official. The results are consistent with the patterns observed for the self-determination initiative. The average differences in perceptual accuracy for officials in the *Exposure* and *Exposure & Self-Awareness* conditions are .05 (s.e. = .01) and .03 (s.e. = .01), respectively.

Together, the results suggest that the exposure intervention effectively increased perceptual accuracy. However, the manipulation designed to encourage legislators to avoid social

[36]The average value of *Perceptual Accuracy* for the self-determination initiative was .72. Hence: (.064/.72)*100 = 8.9%.

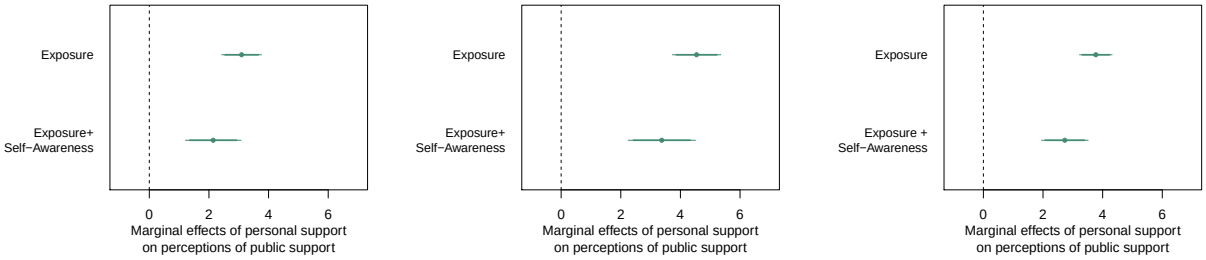
[37]Formally exploring treatment heterogeneity by issue salience is beyond the scope of this study. However, it is possible that the lower salience associated with the horned-cow initiative may explain these results.

projection did not meaningfully alter how elected officials gauged public opinion. On average, officials who received the self-awareness vignette were not more likely to correctly perceive the majority opinion. This result is consistent with previous failed efforts to mitigate social projection in different contexts, through perspective taking or feedback (Krueger and Clement 1994).

A question that remains open from the analysis so far is whether the self-awareness intervention shaped the propensity of local officials to project their own preferences on the electorate. To test this intermediate step, Figure 2.6 shows the results of linear models predicting perceived public support as a function of personal support (binary), interacted with the *Exposure & Self-Awareness* condition. The models omit respondents in the control group to isolate the effect of the self-awareness intervention, by comparing the two treatment groups directly. The estimates in each panel are the coefficients of legislator support on perceived support, for respondents in each treatment group. Representatives in both conditions engaged in some degree of social projection. Regardless of treatment condition, the point estimates are positive and reliable. Legislators who supported a given issue perceived public support for that issue to be systematically higher.

However, subjects who were encouraged to avoid social projection were significantly *less likely* to project their own preferences on the electorate. The differences in point estimates are statistically reliable in all specifications at conventional levels of statistical significance (p-values of .046, .04, and .005, in each panel, respectively). The intervention reduced the propensity of legislators to project their own preferences on the electorate, but this incentive was not enough to improve perceptual accuracy. A potential explanation for these results is that social projection only translates into misperceptions when officials disagree with voters on a given issue, and over two thirds of local officials in the study sided with the majority of their constituency in each issue.

Figure 2.6: The effects of self-awareness on the propensity of legislators to project their preferences on the electorate, by referendum.



(a) Self-Determination initiative (b) Horned-Cow initiative (c) Pooled initiatives

Note: Points are estimates of the effect of policy support on perceptions of public support, by treatment group (described in the row labels). Wider/Thinner horizontal lines are 90/95% confidence intervals. Control group omitted from the analysis to isolate the effect of the self-awareness intervention. Full model results in Table A6.2.

2.5 Discussion

This project explores how elected officials build their image of the electorate. I argue that inequalities in political voice and personal biases of elected officials play an important role in explaining why legislators have distorted beliefs about the electorate. These arguments are tested with two decades of survey data from Sweden, covering 24 distinct policy issues. The analyses suggest that Swedish MPs are more likely to misperceive voter preferences when affluent subconstituencies deviate from the majority opinion. Consistent with the exposure mechanism, additional analyses suggest that these effects are moderated by the behavior of MPs in office, and their personal background. The propensity to overestimate support for policies one supports is also a powerful predictor of misperceptions.

I designed a second study to explore the degree to which misperceptions can be reduced. In a survey experiment with nearly 3,000 Swiss local officials, respondents were asked to anticipate the outcome of two federal referendums in their constituency after being assigned to different informational nudges. The results show that misperceptions can be reduced by encouraging representatives to avoid availability heuristics when gauging public preferences.

Raising self-awareness about social projection, in turn, led to a decrease in the propensity of local officials to project their preferences on voters, but this effort did not translate into less misperceptions.

An important advantage of the Swiss study is the ability to rule out the possibility that politicians are *only* misperceiving public preferences strategicaly: either because some segments of the electorate matter more for reelection, or because politicians derive utility from appearing in line with voters (halo effects). If this was the case, the informational nudges provided in the experiment should *not* affect perceptions. More specifically, the self-awareness intervention should not have reduced the propensity of legislators to project their preferences on voters (Figure 2.6). To be clear, these alternative explanations may still play a role in explaining misperceptions. What the experimental results suggest is that they cannot fully account for the patterns observed.

The Swedish and Swiss studies were designed to complement each other. Still, there are specific limitations that are worth emphasizing. First, in Study 1 it is not possible to ensure that the measures of public opinion for different subconstituencies (e.g., party supporters) are representative. The robustness of the results among smaller parties and accounting for uncertainty in the public opinion estimates mitigate these concerns. Still, future work developing flexible measurement models to allow subsampling based on different political dimensions would represent a major contribution to the literature.

A second question that remains open is what best represents a constituency for legislators in different European countries. The panel of MPs used in Study 1, developed by experts of political representation (Esaiasson and Holmberg 1996), identified *party voters* as the key constituency for Swedish MPs. This is consistent with recent scholarship in the United States (Lax, Phillips, and Zelizer 2019). In the Swiss study, however, the reference constituency was the group of voters who turned out in the referendums. Seminal work on political representation suggests that this subset of likely voters is the core constituency for reelection-

seeking officials (Converse and Pierce 1986; Downs 1957; Powell 2004). The fact that both studies provide consistent results suggests that the sources of misperceptions identified here may operate in similar ways regardless of how a constituency is defined. Additionally, it is reassuring that at least for the first wave of the Swedish parliamentary survey the results are substantively the same when the constituency is defined as the electorate as a whole (Table A3.3). That said, future scholarship would benefit from a more careful examination of how core constituencies are conceptualized in the eyes of representatives.

Future contributions would also benefit from incorporating more directly the role of party cues into the study of elite perceptions of public opinion. Legislators do not form opinions about voters in a vacuum. Party organizations constrain the process of responsiveness (e.g., Öhberg and Naurin 2016). Above, I argued that the types of biases advanced in the theory should not cancel out as we move from the individual legislator to the party, since they result either from the broader informational environment or from cross-cutting cognitive biases. Additionally, the results from Study 1 account for any systematic differences across parties. Still, a more careful assessment of the mediating role of party organizations would represent an important contribution to the field. Novel experimental designs like those developed by Zelizer (2019) can provide the ideal setting to explore these questions.

The results from the Swiss study suggest that misperceptions are not resulting from the active effort of political elites to give more weight to some groups at the expense of others. On the other hand, Study 2 is unable to demonstrate that the decrease in misperceptions resulting from the experimental interventions is due to a shift away from the positions of high-status voters, as the exposure hypothesis would predict. To do so, I would need information on the preferences of different subconstituencies at the local level. Only Study 1 allows me to provide more direct evidence for the exposure argument. This is part of the trade-off associated with relying on real political events. Future work would benefit from exploring different experimental designs to test the exposure mechanism more directly.

Together, the findings have several implications for the study of political representation and responsiveness. On the one hand, they provide a rather pessimistic view of the prospects of democratic representation. The study joins recent scholarship in the United States uncovering relevant distortions in elite perceptions of public opinion (Broockman and Skovron 2018; Hertel-Fernandez et al. 2019). However, Sweden and Switzerland are two of the most socially inclusive societies in the world. The fact that in both countries inequalities in political voice seem to have such meaningful effects on elite perceptions of public opinion is concerning. More broadly, the findings shed some light on the path yet to cover until societies are able to sustain fully inclusive political institutions. On the other hand, the Swiss study suggests that misperceptions are not unsurmountable. The informational nudges designed to help legislators avoid availability heuristics induced more accurate beliefs about the electorate. Although more research is needed to confirm the robustness of these findings, they suggest that improving perceptions of public opinion is possible even with low impact interventions.

Finally, the tendency of MPs to give relatively more weight to the preferences of subconstituencies with shared backgrounds contributes to research on descriptive representation. Recent work shows how the social and professional backgrounds of elected officials shape their behavior in office, even in party-centric systems (Carnes and Lupu 2015; Carnes 2013). The patterns reported here provide a potential mechanism to explain this relationship. Politicians with different backgrounds may actually be trying to consider the preferences of the electorate (or party voters) as a whole, but their perceptual representations of voter preferences are skewed by their social background.

Chapter 3

The Expertise Curse[1]

Theories of political representation posit that reelection-seeking officials have incentives to be responsive to voters (e.g., Pitkin 1967, Dahl 1973). Consistent with this view, prior work in industrialized democracies shows that policy outcomes tend to reflect public preferences (Budge et al. 2012; Erikson et al. 2002; Soroka and Wlezien 2010). Politicians generally update their positions based on public opinion polls (Butler and Nickerson 2011; Pereira 2020) and election results (Adams et al. 2005). However, there is ample variation in the patterns of responsiveness. Lax and Phillips (2012) show that only half the policies adopted in American state legislatures are aligned with majority preferences. In Europe, in turn, there is growing evidence of inequalities in representation across different subconstituencies (Adams and Ezrow 2009; Homola 2019; Persson 2020).

Variations in responsiveness may partially result from different institutional incentives (Hobolt and Klemmensen 2008; Soroka and Wlezien 2010) or broader contextual dynamics, such as economic conditions (Ezrow et al. 2019; Ezrow and Hellwig 2014). But system-level explanations only provide a partial response. Responsiveness varies by policy issue. For instance, Miller and Stokes (1963) demonstrated that public opinion in the United States played a central role in shaping policy outcomes on civil rights issues, but a negligible role on foreign affairs. Why do reelection-seeking officials dismiss the opinion of voters on certain

[1]This chapter results from a collaboration with Patrik Öhberg, from the University of Gothenburg.

policy issues?

Part of the answer to this puzzle may rest in the process through which politicians build their image of the electorate. In this chapter, I argue that *policy expertise may constrain the ability of legislators to channel public preferences*. Through their time in office – or from prior professional experience – elected officials often develop expertise in specific policy areas. Parliamentary committees encourage this form of specialization (Strøm 1998). Individuals with more expertise in a given domain tend to have more confidence in their own beliefs within that domain (Dunning 2005; Fisher and Keil 2016; Tetlock 2005), and to express more dogmatism (Ottati et al. 2015). For legislators with expertise in a specific domain, overconfidence may lead them to disregard opposing views on that same issue. As representatives, this is relevant because accurate beliefs about the electorate are a pre-condition for responsiveness (Broockman and Skovron 2018). The implication of this process is that legislators may paradoxically be less capable of channeling voter preferences in areas where they have more knowledge. I refer to this argument as *the expertise curse*.

I provide empirical support for the expertise curse in a survey experiment with Swedish political elites. Legislators were asked to evaluate a hypothetical message from a group of voters asking them to support a specific policy. The policy was always at odds with the elicited preferences of the public official. Additionally, I experimentally manipulated whether the initiative was within a policy area where the legislator had high or low levels of expertise. The results confirm that politicians are more likely to disregard contrasting views in areas where they are more knowledgeable. Public officials in the high expertise condition were more likely to consider that the voters did not understand the complexity of the issue, did not base their opinion on facts, and did not represent the majority opinion. These findings are not explained by whether the constituents support or oppose a given policy initiative, or by heterogeneity across issue areas.

The findings have important implications to research on political representation and

legislative politics. The expertise curse provides a novel explanation for distortions in policy responsiveness. If legislators with specialized knowledge in a given domain play a central role in drafting new legislation in their areas of expertise (Makse 2020), the ability of citizens to control public policy is constrained. At the same time, the study reveals a trade-off between expertise and the representational roles adopted by legislators. Although voters consistently prefer their representatives to follow public preferences (Carman 2007; Converse and Pierce 1979; Dassonneville et al. 2020), the expertise required for an efficient policymaking process limits the ability of legislators to act as delegates.

3.1 Expertise and disagreement discounting

Efficient policymaking requires policy expertise. In some contexts, legislators can partially outsource this skill (e.g., Hertel-Fernandez 2019). However, only elected officials can introduce bills and shape the legislative process directly. Recent scholarship reveals specific ways through which the individual expertise of legislators can shape the policymaking process. Policy innovations tend to be introduced by representatives with more specialized knowledge (Makse 2020; Miler 2017). Seminal theories of legislative organization also recognize the value of expertise in policymaking. According to Krehbiel (1991), the committee system developed in the U.S. Congress is meant to provide the chamber with information and expertise necessary for legislating. Similar institutions designed to promote a division of labor in the legislative branch are common in Europe (e.g., Mattson and Strøm 1995; Strøm 1998). Committees promote specialization within relevant policy jurisdictions and provide valuable information to parliaments (Shepsle and Weingast 1994). Committee members act as 'low cost' specialists that make the legislative activity more efficient (Gilligan and Krehbiel 1989). Hence, the institutional framework of most contemporary parliaments encourage legislators to develop specific policy expertise (Mattson and Strøm 1995).

However, expertise can simultaneously shape how legislators evaluate information and make decisions. Expertise produces self-assurance (Fisher and Keil 2016; Tetlock 2005). Individuals with more knowledge and experience in a given domain tend to have more confidence in their own beliefs within that field. However, this confidence is often unwarranted (Dunning 2005). Individuals induced to believe they are experts tend to overestimate the accuracy of their beliefs (Arkes et al., 1987; Trafimow and Sniezek 1994). Specialized knowledge can produce illusions of understanding in part because experts are less willing to admit they do not know (Bradley 1981). Individuals tend to be more accurate at assessing their own knowledge in an unfamiliar domain, relative to a familiar field such as the college major (Fisher and Keil 2016). At the same time, recent scholarship suggests that expertise stimulates close-minded cognition and dogmatism (Ottati et al. 2015). According to the authors, this relationship results in part from social norms entitling experts to adopt more dogmatic and forceful positions, while simultaneously encouraging individuals with little knowledge to be more open-minded and accepting of criticism.

If legislators with specialized knowledge express similar forms of overconfidence and dogmatism, policy expertise can impair other relevant tasks of elected officials. A central role of representatives is to voice the preferences and interests of those who elected them (Pitkin 1967).[2] However, to be responsive politicians need to channel the preferences of voters they agree with as well as voters they disagree with. I argue that *policy expertise constrains the ability of legislators to incorporate the preferences of constituents they disagree with.* The overconfidence and dogmatism induced by specialized knowledge can lead representatives to disregard opposing views in their domain of expertise. My argument implies that specialized knowledge – although an important feature in the policymaking process – can work as an obstacle for responsiveness. I refer to this process as the *expertise curse.*

The argument articulated here builds upon recent scholarship suggesting that legisla-

[2]Politicians can also be responsive by listening to the wishes of the citizens and by explaining their own position to their constituency (Esaiasson et al. 2013; Harden 2013).

tors systematically dismiss the preferences of constituents they disagree with (Butler and Dynes 2016). The tendency of public officials to discount contrasting views may result from motivated reasoning: when faced with facts or opinions that challenge pre-existing beliefs, individuals are more likely to dismiss or actively counterargue these arguments (Lodge and Taber 2013). The expertise curse hypothesis suggests that the propensity to dismiss contrasting views should be more acute in domains where legislators have more expertise.

3.2 Testing the Expertise Curse

To test the expertise curse hypothesis, I conducted an original survey experiment with Swedish elected officials. The experiment was integrated in the Panel of Politicians, a biannual panel survey with national, regional, and local elected officials, and administered by the Laboratory of Opinion Research at the University of Gothenburg.[3]

The main goal of the experiment was to understand whether policy expertise constrains the ability of legislators to incorporate contrasting views from constituents. Respondents were presented with a hypothetical message from voters asking the legislator to endorse a specific policy initiative. Elements of the request – including the specific issue area of the policy – were experimentally manipulated to isolate the effects of expertise. Finally, officials were asked to evaluate the constituents' appeal. The expectation is that legislators are more likely to disregard the opinion of voters in domains where they have more expertise.

In this section I describe the context in which the study was conducted and the extent to which the findings should carry over to other contexts. Next, I detail the experimental design and the empirical strategy adopted to test the expertise curse.

[3]More information at `https://lore.gu.se/`.

3.2.1 The Swedish context

The Panel of Politicians in an online university-based panel that has been running since 2011. The panel is composed by Swedish politicians from local, regional and national offices. All major parties are proportionally represented in the sample except for the anti-establishment party the Sweden Democrats, which are somewhat underrepresented. Participants are recruited via invitations in large surveys like the Comparative Candidates Survey and the *Kommun- och landstingsfullmäktigeundersökningen*, as well as by direct contacting efforts through the websites of elected assemblies at all levels of government. The panel represents a diverse group of active politicians from the Swedish political system. The experiment used in this chapter was fielded between October 10 and November 13, 2019. In total, 1,861 elected officials participated in the survey (47 percent response rate). Table B2.1 (Appendix B.2) summarizes the demographic characteristics of the sample of politicians that took part in the study.

Sweden has a parliamentary system with strong and cohesive parties, in a proportional setting. Politicians are first and foremost party representatives. Yet, preferential voting creates incentives for legislators to cultivate a more personalized relationship with voters. Candidates on a party list can improve their ranking if they get more than five percent of the party votes in their constituency. Previous work established that Swedish legislators, although constrained by intra-party dynamics, are committed to channel public opinion (Naurin and Öhberg 2018; Öhberg and Naurin 2016), and to act on voter signals (Butler et al. 2017; Persson 2020). Therefore, I expect the patterns uncovered here to generalize to most European countries where party-centric systems and incentives to establish a personal connection with voters coexist.

At the same time, party-centric systems can raise concerns over the substantive consequences of the expertise curse. If the policy positions adopted by each party are decided collectively, then the individual biases of representatives can cancel out. However, at least

in the Swedish context there is evidence that legislators are particularly influent within their own areas of expertise. According to the 2010 wave of the parliamentary survey, 53% of Swedish MPs reported having very good chances of influencing the position of their party group within their area of expertise, against only 9% outside their area of expertise (see Table B2.2 for full results). Hence, it is exactly in the areas where legislators may be more influential that their ability to adapt to voter preferences might be constrained.

3.2.2 Experimental design

I designed the experiment to assess whether policy expertise leads elected officials to discount positions that go against their own. The design builds upon previous efforts to study attitudes of political elites when interacting with voters (Butler and Dynes 2016; Harden 2013). As briefly introduced above, elected officials were asked to evaluate a policy appeal made by a group of constituents. I altered the content of the appeal to isolate the effect of expertise on the response of politicians to the message. Two pre-treatment items provided the information needed to build the vignette: 1) measures of policy expertise and 2) the officials' preferences on the policies included in the vignette. I describe each item in turn followed by the constituents' message and the outcome variables used to capture the response to the appeal.

Measuring policy expertise and policy preferences

Since *actual* expertise within a policy domain results from years of accumulated knowledge and experience, it cannot be credibly manipulated in a survey. Hence, I leveraged the natural variation in expertise between respondents across five salient issue areas: health care, education, immigration, social welfare, and housing.[4] To measure policy expertise, I introduced

[4]An alternative strategy would be to manipulate *self-perceptions* of expertise within a single issue: inducing respondent to believe they were particularly knowledgeable on that field. However, self-perceptions of expertise are rooted in psychological mechanisms that differ from those observed in response to *actual*

the following item early in the survey:

> Public officials have to deal with several different issues as part of their job, and it is impossible to be an expert in all of them. Below is a list of common issues that governments have to deal with.
> Please identify the areas in which you have more and less expertise on:
>
> - Health care
> - Education
> - Immigration
> - Social welfare
> - Housing

Officials were asked to identify the issue areas where they were most and least knowledgeable, among the five domains listed. The distribution of higher and lower expertise issue areas is fairly uniform across respondents. While the modal area of expertise was education (30.5% of respondents), the remaining four issue areas were selected by 11 to 24% of public officials in the study. The same is true for the areas where legislators have lower levels of expertise. Table B2.3 (Appendix B.2) reports the distribution of respondents identifying each area as a high or low expertise domain.

With this information, I were able to randomly assign respondents to a high-expertise or low-expertise condition. Later in the survey, those in the high-expertise group received a message from a group of constituents asking the legislator to endorse a specific initiative in the respondent's field of expertise. In turn, officials in the low-expertise group received a policy appeal in the area where they were least knowledgeable, among the five domains provided.

For each area of expertise, I selected a specific policy initiative. Table 3.1 lists the initiatives associated to each policy jurisdiction. I picked policies that were salient at the time of the study, based on pre-tests with data from the Riksdag parliamentary survey and

specialized knowledge (Dunning 2011; Fisher and Klein 2016), and I are ultimately interested in the effects of the latter.

Table 3.1: Issue areas and corresponding policy initiatives.

Issue Area	**Policy Initiative**	**% Supporters**
Healthcare	Prevent private companies from operating hospitals	41.8
Education	Increase funding for charter schools	37.5
Immigration	Accept fewer refugees	46.7
Social Welfare	Introduce a ban on begging	33.0
Housing	Reduce interest rate deductions on house loans	54.6

the Swedish national election surveys. Additionally, I ensured that elite and public support for each issue were sufficiently split so that any position on the issue could be seen as credible. As an example, the health care initiative concerned whether private companies should be prevented from operating hospitals. At the beginning of the survey, I collected officials' positions on each of these initiatives. To avoid contamination, additional policy questions were included in this section of the survey and the order of the items was randomized. The share of respondents supporting each initiative is also reported in Table 3.1. I used the officals' expressed preferences to ensure that the position of the group of constituents was *always at odds* with the public official. This way, the design accounts for the fact that legislators are be more likely to disregard opinions they disagree with (Butler and Dynes 2016). By holding policy disagreement constant in the vignette, I can isolate the effect of policy expertise.

Policy appeal and legislators' response

Finally, I asked respondents to evaluate a putative message sent from a group of constituents.[5] Legislators in the high-expertise condition received an appeal on the issue area where they were more knowledgeable. In turn, legislators in the low-expertise condition received a message on the domain where they felt least knowledgeable. Box 3.1 provides an example of the message presented to public officials. In this particular instance, a group of constituents

[5]Respondents were fully informed that this scenario was hypothetical.

Box 3.1: Example of constituents' appeal on one of the five issue areas: healthcare.

> Different groups of voters contact politicians with political propositions.
>
> Imagine the following: A group of voters is approaching you and wants you to [support/oppose] a proposal to ban companies from running hospitals. They believe that health care is facing major challenges. They see equality as a central issue. Their main argument is that a ban on companies for operating hospitals makes it [easier/more difficult] for vulnerable patients to choose the healthcare they need.

contacted the legislator about a healthcare policy. As described above, the position of the constituents on the policy (in favor or against) was determined by the elicited preferences of the legislator in order to keep policy disagreement constant. Appendix B.1 presents the vignettes for the remaining four policy issues.

I measured the reactions of legislators to the constituents' message by having them indicate their level of agreement with each of the following statements:

- The group likely understand the complexities of the issue
- The group likely based their opinion on facts
- The group likely hold this position strongly
- The group's opinion is the opinion of the majority of voters

The first three statements capture the extent to which respondents recognized the validity of the arguments put forward by the group of constituents. The fourth statement captures more broadly the ability of respondents to accept that opposing views may be shared by the majority of voters. The responses were recorded on seven-point Likert scales ranging from "Completely disagree" to "Completely agree". The question wording comes from Butler and Dynes (2016). I treat each item as a separate outcome variable. If the expertise curse hypothesis is correct, I should expect legislators to be more likely to disagree with each of

the statements when the message pertained to a high-expertise issue area. According to the argument advanced here, the overconfidence and dogmatism produced by specialized knowledge should make elected officials more likely to overlook and discount contrasting views in their domain of expertise.

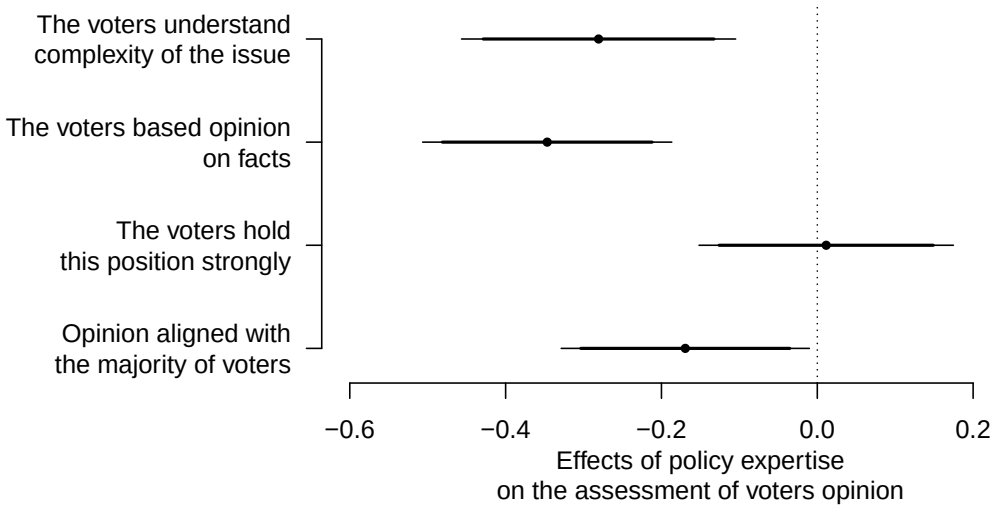
To retrieve the causal effects of policy expertise on legislators' response to the policy appeal, I use linear regressions with covariate adjustment to improve precision (Gerber and Green 2012). The models account for respondents' age, educational level, and party. However, the same substantive results are obtained from bivariate regressions without covariate adjustment (see Figure B3.1 and Table B3.1 in Appendix B.3).

3.3 Results

Figure 3.1 presents the main results from the experiment. The y-axis lists the four statements used as outcome variables to assess the legislators' response to the policy appeal received. Each estimate represents the average difference in levels of agreement with the statements, between officials who received an appeal in a high-expertise domain and officials who received an appeal in a low-expertise domain. Therefore, the estimates capture the causal effects of policy expertise on legislators' response to the policy request. Negative values mean *less* agreement with each of the statments.

The results provide support for the expertise curse hypothesis. Policy expertise increases the propensity of public officials to disregard contrasting views from constituents. On the one hand, there is no evidence that policy expertise shapes beliefs about the strength of voters' opinion. On the other, respondents in the high-expertise condition were significantly *less* likely to consider (1) that the voters understood the complexity of the issue, (2) that their opinion was based on facts, and (3) that the appeal reflected the opinion of the majority of voters. The effect sizes estimated are substantively meaningful. For instance, the top

Figure 3.1: The effects of expertise on the ability of legislators to incorporate contrasting views.



Note: Points are estimates of the causal effect of policy expertise on legislators' assessment of voters' opinion. Horizontal narrow/wide bars are 95%/90% confidence intervals. Agreement with each statement listed on the y-axis corresponds to a distinct outcome variable. Estimates and standard errors derived from linear models with covariate adjustment for party, age, and education. Full model results in Table B3.1.

estimate in Figure 3.1 is -0.28 (standard error $= 0.09$). Since the mean level of agreement with the statement "voters understand the complexity of the issue" is 2.8 (on a seven-point scale), the effect of policy expertise corresponds to a 10.0% decrease in the level of agreement with the statement ($-0.28/2.8 = 0.10$), relative to the mean value of the outcome variable. In turn, the estimated effect of expertise on agreement with the "opinion based on facts" statement (mean $= 2.78$) is -0.35, corresponding to a 12.6% decrease relative to the mean value of the outcome.

Importantly these patterns do not result from a general tendency of public officials to discount opinions they disagree with (Butler and Dynes 2016). The vignettes were designed so that policy disagreement was held constant: the position of the group of voters was always in disagreement with the preferences of the legislator. Also, since the position of the group of voters varied based on the personal position of each individual legislator, the results should also not be explained by the specific arguments advanced in favor or against a given policy

initiative.

Still, there might be meaningful differences in the effects across issue areas that could drive the patterns uncovered. To account for this source of heterogeneity, I replicated the main analyses with clustered standard errors and fixed effects by issue area (see Figure B3.2 and Figure B3.3, in Appendix B.3). The main findings are robust to these more restrictive specifications. The only exception is the coefficient for "opinion aligned with majority" which is no longer distinguishable from zero in the fixed-effects framework. Together, these analyses suggest that systematic differences across the five policy domains included in the study can only partially explain the dynamics uncovered in the main analysis.

Together, the results suggest that policy expertise systematically constrains the ability of legislators to channel voter preferences. Elected officials with more expertise on a given domain are more likely to overlook opinions opposed to their own. Probably more meaningfully for the role of legislators as representatives, experts are also more likely to consider that views opposed to their own *do not represent the majority opinion.* This pattern holds when voters are either in favor or against the policies considered in the study. In the next section I explore how formal education moderates the expertise curse.

3.3.1 Does formal education moderate the expertise curse?

Expertise in a given domain may come from the experience of legislators in office, prior professional experience, or from formal education. The process through which knowledge is acquired may shape the tendency of legislators to express overconfidence and to dismiss contrasting views in their area of expertise. For instance, when expertise comes from years of experience in a legislative committee public officials may feel more entitled to disregard contrasting views. Consistent with this view, Converse and Pierce (1986) found that French legislators with more years in office were more likely to misperceive voter preferences. On the other hand, formal education such as a college major is often acquired early in life and during

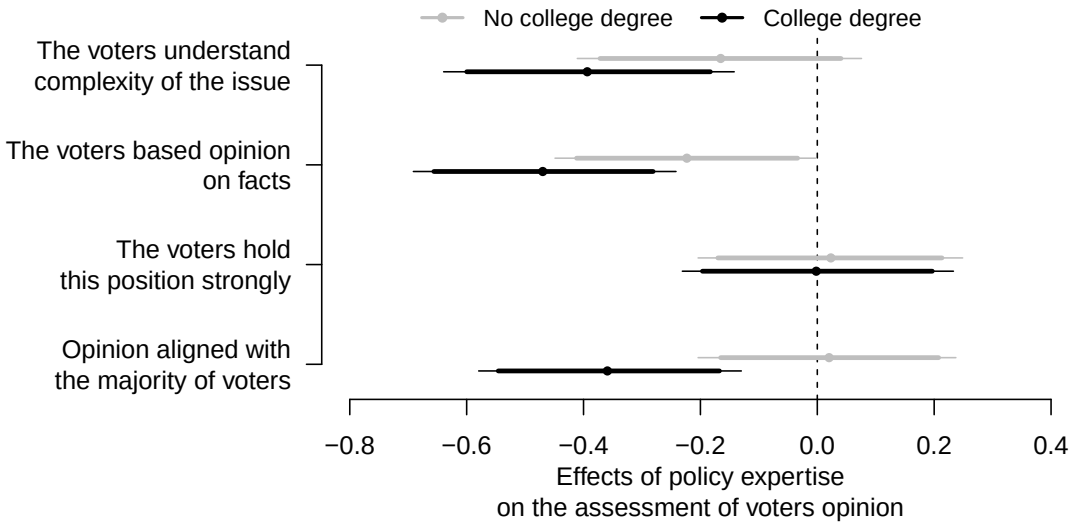
a relatively short period of time. The knowledge accumulated through a college degree can quickly be forgotten. The failure to accurately recognize the rate of forgetting can give rise to illusions of understanding (Fisher and Keil 2016).

Understanding the forms of knowledge that are more conducive to disagreement discounting is important to shed light on the processes underlying the expertise curse. In this section I give a first step in this direction by exploring how formal education moderates the tendency of legislators to discount contrasting views in their areas of expertise. To do so, I created a binary measure that takes the value of 1 if a legislator completed a college degree, and 0 otherwise (50.1% of officials in the survey had a college degree). I then replicated the main analysis presented above interacting expertise with this measure of formal education.

Figure 3.2 presents the results. The patterns suggest that legislators with a college degree were *more likely* to downplay the opinions of constituents they disagreed with in their area of expertise. For the three outcomes that provided results consistent with the expertise curse in the main analysis, the coefficient for officials with a college degree is consistently larger (more negative). For instance, the effect of policy expertise on agreement with the statement that the constituents' message reflects the majority opinion is virtually zero among officials without a college degree (estimate = 0.02; std. error = 0.11), but negative and substantively large for respondents with a college degree (estimate = -0.36; std. error = 0.12). *Officials with more formal education were significantly less likely to accept that opposing views in their area of expertise could represent the opinion of the majority* (p-value for difference in means = 0.02). The differences for agreement with "voters understanding the complexity of the issue" and "opinions being based on facts" are narrower but consistently in the same direction.

This result, although potentially counter-intuitive, is consistent with recent scholarship in cognitive psychology. Individuals with formal expertise – expertise that arises from extended study of a particular topic – are less like to exhibit overconfidence outside their fields of

Figure 3.2: The effects of expertise on the ability of legislators to incorporate contrasting views, conditional on educational background.



Note: Points are estimates of the causal effect of policy expertise on legislators' assessment of voters' opinion, among public officials with (black) and without (gray) a college degree. Horizontal narrow/wide bars are 95%/90% confidence intervals. Agreement with each statement listed on the y-axis corresponds to a distinct outcome variable. Estimates and standard errors derived from linear models with covariate adjustment for party and age. Full model results in Table B3.2.

knowledge, but more likely to overestimate their ability to explain their own areas of expertise (Fisher and Keil 2016). This overconfidence may result from "a failure to realize how much has been forgotten since they had maximum mastery of the topic" (p. 1260). This mechanism provides a path to mitigate the expertise curse. However, this is only one of several possible explanations that can be explored in future contributions.

3.4 Discussion

Good policy outcomes require legislators to have expertise on a variety of issues and policy areas. Committee systems in most legislative branches encourage this form of specialization.

At the same time, politicians are elected to represent the preferences and interests of their constituents and elections create incentives for responsiveness. In this chapter I advance that achieving the dual goal of electing policy experts and representatives who channel the preferences of those who elect them may not always be compatible.

In a novel survey experiment with Swedish elected officials, I show that policy expertise leads legislators to disregard the views of voters who disagree with them, regardless of the actual position expressed by the constituents. I argue that this process results from overconfidence and close-minded cognition induced by specialized knowledge. Experts are also less likely to consent that voters with opposing policy preferences can reflect the position of the majority. Additional analyses reveal that representatives with a college degree are actually more likely to discount contrasting views in their field of expertise. This result suggests that the expertise curse is not simply driven by politicians with *passive expertise* obtained from more practical experience acquired in office.

I find support for the expertise curse across five salient policy jurisdictions: health care, education, immigration, housing, and social welfare. The patterns uncovered do not appear to be specific to a particular issue. Still, the study is constrained in a number of ways that are worth emphasizing. First, the experimental design required legislators to rank a limited set of policy areas in terms of expertise. These five issue areas are among the most relevant for the vast majority of elected officials in the sample. Still, this design decision may have added noise to the results. I have no reasons to believe that this simplification should bias the findings in any particular direction, but future work would benefit from developing a more flexible experimental design to incorporate other domains of expertise relevant to legislators.

Additionally, to make sure the experimental design was focused and well powered to test the expertise curse, I held policy disagreement constant. Public officials were always presented with a constituent appeal to support a policy they were opposed to. This way, I ruled out the possibility that the results were due to disagreement discounting (Butler

and Dynes 2016). It is conceivable that the effects of expertise are less pronounced when politicians are asked to endorse policies they support. More research is needed to elucidate this question. That said, the expertise curse is no less relevant if it is limited to instances where officials are confronted with opposing views. Dealing with disagreement is an intrinsic element of the policymaking process. Being able to recognize the value of contrasting views is key to find solutions of compromise often required to move policy forward (Gutmann and Thompson 2014).

Finally, I speculate that the expertise curse results from a heightened sense of self-confidence and close-minded cognition, processes associated with more specialized knowledge in a given domain. The link between expertise and overconfidence is well established in the cognitive literature (Dunning 2005; Fisher and Klein 2016; Ottati et al. 2015; Tetlock 2005). Still, the current study does not provide direct evidence to substantiate this mechanism in the context of legislators interacting with constituents. Future individual-level research with political elites could test this mechanism directly.

The results contribute to scholarship on policy responsiveness, legislative politics, and elite behavior. First, the findings speak to seminal debates about constituency control over public policy. Although macro-level analyses suggest that policy outcomes tend to reflect public preferences (e.g., Soroka and Wlezien 2010), politicians only partially update their agenda in response to voter signals (Butler and Nickerson 2011). The expertise curse, by constraining the ability of legislators with specialized knowledge to incorporate public signals, provides a novel explanation for breakdowns in policy responsiveness.

Since policymaking is a collective endeavor, it is possible that the cognitive biases of each individual representative cancel out. However, legislatures tend to rely on representatives with more expertise in a given domain to advance new policy solutions (e.g., Makse 2020). This is also true in Sweden. The ability of Swedish MPs to influence the party is considerably higher in their own areas of expertise (cf. Table B2.2). Hence, I expect that the judgment

biases produced by specialized knowledge can have a meaningful impact in the degree to which public preferences are converted into policy. Future work exploring the downstream effects of the expertise curse would represent a meaningful contribution to this field of study.

The results can also provide insights to legislative politics. Parliaments around the world rely on the specialized knowledge of their members to find solutions for different policy issues. This expertise is key to make the policymaking process more efficient. However, the results uncovered here suggest the existence of a trade-off between expertise and responsiveness. Reformers interested in curbing the systemic low levels of trust in the legislative branch (Leston-Bandeira 2012) may benefit from recognizing this tension and incorporating it in their efforts to strengthen the links between voters and their representatives in parliament.

Finally, the study joins recent behavioral scholarship on elite behavior (e.g., Butler and Dynes 2016; Esaiasson and Öhberg 2019; Sheffer et al. 2018). By focusing on the cognitive processes underlying the decisions of elected officials, these studies shed light on different questions left open in long-standing debates within the discipline. In the context of this particular study, a natural next step involves exploring how elected officials can overcome the tendency to dismiss public opinion in their own areas of expertise. A field experiment in collaboration with representatives would provide a promising setting to address this question.

Chapter 4

Responsive Campaigning[1]

When Theresa May, the British Prime Minister, called a snap election in April 2017, several pollsters estimated 25% of voting intentions for the Labour party. Less than two months later, support for the center-left party rose to nearly 40%. Although this level of volatility is not the norm, it is certainly not an outlier. In 2010, the British Liberal Democrats experienced a 13 percentage point increase in voting intentions in the last month before the election, while the Dutch Socialist Party saw its popular support go from 19% in August 2012 to less than 10% one month after. Cases like these raise several questions. How do parties react to public opinion shifts on the campaign trail? Do leaders stick to their original plan, or is campaign rhetoric responsive? Finally, when underperforming in the polls, do parties moderate their positions to appeal to a broader constituency, or instead polarize to secure the support of the base?

In this chapter I develop and test a theory of short-term responsiveness that addresses these questions. Previous research established that parties are responsive to different signals emerging from the electorate. Building on Budge's seminal work (1994), Adams and co-authors have shown that parties respond to changes in the ideological preferences of voters from one election to the next (Adams et al. 2004; Adams, Haupt, and Stoll 2009; Adams and Somer-Topcu 2009), although there are meaningful differences across policy issues (Klüver

[1] A modified version of this chapter was published in *The Journal of Politics* (Pereira 2020).

and Spoon 2016; Tavits 2007), subconstituencies (Adams and Ezrow 2009; Enns and Wlezien 2011; Ezrow et al. 2011; Homola 2019), and types of parties (Adams et al. 2006; Ezrow et al. 2011; Schumacher, De Vries, and Vis 2013). Poor electoral performance is also likely to induce changes in policy positions (Abou-Chadi 2014; Budge 1994; Somer-Topcu 2009) and issue salience (Meyer and Wagner 2013).

While providing valuable insights into the nature of ideological updating, most existing research relies on data from election manifestos produced every four or five years.[2] Due to data limitations, what happens between elections – and specifically on the campaign trail – is still largely an open question. Although campaign responsiveness may share some similarities with the patterns of ideological updating observed across elections, different time horizons likely produce a distinct set of incentives to political elites.

I argue that the dominant collective goals of parties drive their responses to shifts in voter preferences on the campaign trail. Parties have both office and policy goals (e.g., Downs 1957; Riker 1982; De Swaan 1973), but the weight assigned to these goals varies (Harmel and Janda 1994; Spoon 2011). A common distinction in the literature is made between mainstream parties – largely office-seekers – and niche parties, who place greater emphasis on policy objectives (Adams et al. 2006; Meguid 2005).

The competing goals argument suggests that the salience of different party goals is conditional on the signals received from the electorate. When performing well in the polls, parties will behave in line with their dominant goals. For mainstream parties, this means emphasizing moderate policy statements that maximize their electoral prospects (e.g., Calvo and Hellwig 2011; Ezrow 2005). In turn, niche parties in a promising campaign environment will pursue their policy goals through non-centrist statements that appeal to their base (Ezrow 2008; Ezrow et al. 2011). However, *when voters shift away from the party*, secondary goals become more salient and lead to changes in campaign strategies. Mainstream parties will

[2]See Damore (2004; 2005) for an exception in the American context.

adopt a less centrist rhetoric to avoid alienating their core constituents. For niche parties, in turn, office goals become more salient. Most niche parties in Europe have a small voter base. Even modest decreases in voting intentions bring the threat of being left out of parliament, in which case their policy goals – although dominant – are harder to achieve. Hence, underperforming niche parties have incentives to moderate their rhetoric. In a nutshell, campaign responsiveness reflects the struggle parties face to balance different collective goals.

A pooled time-series analysis of 68 parties in ten European democracies provides empirical support for the competing goals argument. The data come from two main sources: a new dataset of policy statements made by European parties in recent campaigns (Debus, Somer-Topcu, and Tavits 2016); and an original compilation of pre-election polling data published in the same period. The analyses show that, when performing well in the polls, mainstream parties tend to adopt a moderate rhetoric, while niche parties make significantly more extreme statements. However, as voting intentions decline, mainstream parties are progressively more likely to deviate from the center, while niche parties move in the opposite direction, giving more emphasis to moderate policy positions. Additional analyses reveal that both types of parties tend to stick with the main messages from their manifestos when performing well in the polls. Since manifestos reflect the parties' dominant goals, this result provides further support for the argument developed here. Although the observable consequences of poor campaign performance differ for mainstream and niche parties, the driving mechanism is the same: heightened incentives to accommodate secondary goals. Importantly, these patterns hold in post-communist and Western European democracies.

The analyses uncover new evidence of the fluidity of party position taking and the importance of treating party goals dynamically (Spoon 2011; Strøm and Müller 1999). To my knowledge, this study represents the first effort to explain how European parties update their policy rhetoric on the campaign trail. From a normative standpoint, the dynamics uncovered here can be seen in a positive light. Elections are one of the rare times when a large segment

of the electorate tunes into politics (Andersen, Tilley, and Heath 2005; Gelman and King 1993). If parties would simply stick with their pre-established plan for the campaign – often decided by a small group of members months before the election –, the opportunities for policy responsiveness would be constrained. Continuous ideological updating is demanding and may divert party resources from other important areas of activity. Notwithstanding, at least close to elections it provides a trial-and-error process that may promote policies closer to the interests of voters.

4.1 A Theory of Campaign Responsiveness

In this section, I develop expectations on the relationship between public opinion and the campaign strategies adopted by different parties. The overarching theory is that responses to fluctuations in voter preferences are shaped by parties' need to accommodate different collective goals. Before outlining my arguments, some conceptual clarifications are required.

4.1.1 Parties' dominant collective goals

Parties have both policy and office goals (e.g., Downs 1957; Riker 1982; De Swaan 1973). Policy or ideological pursuits are defined as the aim to advocate for a specific set of policies (Budge and Laver 1986). Office- or vote-seeking goals, in turn, refer to an aspiration for increasing or sustaining control over the benefits of political office. Benefits include both seats in parliament and private goods granted by governmental appointments. This definition is intentionally broad to accommodate different baseline expectations. While securing some seats in parliament may be far from the ambitions of large parties, it represents a meaningful achievement for a small and nascent party.[3]

[3]The typology of party goals adopted here is purposefully parsimonious. See Strøm and Müller (1999) for a comprehensive assessment of party motivations. Throughout the paper, the terms 'policy goals' and 'ideological goals' are used interchangeably. Likewise, 'office-seeking' and 'vote-seeking' goal refer to the same concept described here.

Importantly, policy pursuits are not only within the reach of parties in government (Abou-Chadi and Orlowski 2016; Budge and Laver 1986). Political parties can advocate for a given issue through multiple channels such as the parliament, the media, or through grassroots campaigns (e.g., Farrer 2014). Hence, although being in government inevitably enhances the capacity of a party to shape policy, it is not a requirement for parties to pursue their ideological goals.

The importance parties attach to these collective pursuits is not static, as they often generate trade-offs (Müller and Strøm 1999). Previous research uncovered systematic differences across parties on the primary set of motivations driving their behavior (Harmel and Janda 1994; Spoon 2011). Some parties are led mostly by vote-seeking goals, while others give primacy to ideological pursuits.

A common distinction in the literature is made between mainstream and niche parties (Adams et al. 2006; Meguid 2005; Meyer and Wagner 2013; Wagner 2012). Mainstream or catch-all parties – such as Labor,Conservatives, or Christian Democrats – are mainly vote-seeking collective actors. Hence, in policy terms they have incentives to adopt moderate positions to maximize their electoral prospects (e.g., Calvo and Hellwig 2011; Ezrow 2005; Ezrow et al. 2011). Niche parties, in turn, are motivated more by the ideological goals of their members (D'Alimonte 1999; Kitschelt 1994; Meguid 2005). Following previous work on policy responsiveness (e.g., Adams et al. 2006; Ezrow 2008; Homola 2019), niche parties are defined as those from the Communist, Green, or Nationalist party families.[4] Although diverse in their policy stances, the similarities of niche parties outweigh the differences once we consider their role within the party system and the baseline motivations of their leaders

[4]This umbrella conceptualization - which includes both single-issue and ideologically motivated niche parties - is favored not only because it is consistent with previous work in the field, but also because it provides a clearer distinction between collective party goals. As discussed below, the key conclusions of the study are robust to alternative definitions of niche party, including the exclusion of Communist parties (Meguid 2005), and the challenger conceptualization proposed by De Vries and Hobolt (2012; Hobolt and De Vries 2015). Recent contributions have proposed alternative typologies of niche parties based on issue profiles (Meyer and Wagner 2013; Bischof 2017; Wagner 2012). I do not employ these measures since the goal of the study is to explore responsiveness on the Left-Right dimension.

(Meguid 2005).

Hence, mainstream and niche parties have distinct *dominant collective goals*. But how are these goals related to the behavior of parties on the campaign trail?

4.1.2 Campaign responsiveness as goal accommodation

I argue that parties' dominant collective goals determine their *preferred* strategy for the campaign: the set of policies and issues that will be offered to voters. That is, parties favor policy offerings that are expected to maximize their dominant goals.

Campaigns are prepared meticulously (Farrell and Webb 2000). Election programs are drafted several months in advance and follow detailed party rules, often including an initial proposal by the leadership, multiple stages of discussion, and a final endorsement by a representative gathering of the party. The outcome of this effort, according to Budge, is a "collective policy statement that [...] represents the combined views of the party as an organization" (2001; 51).

Therefore, parties' *ex-ante* plans for a campaign should reflect their dominant collective goals. For mainstream parties, this means emphasizing moderate positions to maximize their electoral prospects. Although spatial models offer contrasting predictions regarding the ideal vote-maximization strategies in multi-party elections (e.g., Adams 2001; Calvo and Hellwig 2011; Lin, Enelow, and Dorussen 1999), empirical work has consistently shown that mainstream parties in this context benefit electorally from adopting more moderate positions (Calvo and Hellwig 2011; Ezrow 2005). This argument is also consistent with research on party strategies in Western Europe showing that major parties have progressively become center-oriented vote maximizers, even when this strategy requires shedding the ideological roots of the party (Kirchheimer 1966; Van Kersbergen 1999; see also Ezrow et al. 2011, and Somer-Topcu 2015).[5]

[5]It is important to keep in mind that this prediction refers to relative issue emphasis on the campaign

In turn, niche parties should pursue their ideological goals by adopting a more polarized rhetoric in line with the policy preferences of their base (Ezrow 2008; Ezrow et al. 2011). I expect this equilibrium to hold to the extent that parties are performing well in the campaign. Parties are conservative organizations (Adams et al. 2004; Harmel and Janda 1994) and tend to update their strategies only when there are good reasons to do so (e.g., Somer-Topcu 2009). From here I derive my first expectation:

Dominant Goals Hypothesis*: When performing well in the campaign, mainstream parties adopt a campaign rhetoric that is more moderate than that of niche parties.*

However, what happens when voters shift away from a party on the campaign trail? In the context of an election campaign, drastic policy changes are unlikely as they may lead to accusations of pandering (Tavits 2007). Still, within the range of policy positions that compose a manifesto, parties can fine tune their campaign rhetoric. By altering the emphasis given to different policy issues, party leaders shape voters' perceptions of ideological positioning (Adams, Ezrow, and Somer-Topcu 2014). Previous work suggests that updating election programs by changing the attention devoted to different policy issues can be an effective strategy after disappointing elections (Meyer and Wagner 2013), and among incumbent parties facing poor economic conditions (Greene 2016; Hellwig 2012; Vavreck 2009; Williams, Seki, and Whitten 2016).

But how should voter signals shape campaign rhetoric? I argue that poor performance in the campaign raises the salience of parties' *secondary* goals, and consequently the need for party leaders to accommodate them. This process manifests itself differently for mainstream and niche parties.

Underperforming mainstream parties have heightened incentives to appeal to their core constituents in order to minimize losses. Core voters are individuals who consistently identify

trail. Mainstream parties may still emphasize off-center positions in promising campaign environments. The expectation is not that parties will converge on the position of the median voter but that campaign rhetoric should be progressively more moderate to appeal to a broader set of voters.

with the party and form the party's natural electoral base (Converse 1966; Green 2011). Hence, they represent a *safe haven* for unpopular mainstream parties (Robertson 1976). My expectation is that this process leads parties to adopt a more polarized campaign rhetoric, as party activists tend to occupy the far side of a party's ideological spectrum (e.g., Adams, Merrill, and Grofman 2005; Karreth, Polk, and Allen 2012; Moon 2004; but see Kitschelt 1989). This argument is in line with the work of Schofield and co-authors (Schofield 2003, 2005; Schofield and Sened 2005). The authors suggest that office-seeking parties with low valence have incentives to move away from the center to avoid alienating the interests of more policy-driven activists who provide the necessary time and resources to the party.[6]

For niche parties, in turn, the secondary aim of maintaining seats (i.e., their office goals) becomes more prominent as voters begin deserting the party. For most European niche parties, a small decrease in popular support brings the threat of not reaching the electoral threshold to elect one of their candidates, or at least losing a significant portion of their delegation in parliament. In either case, the parties' ideological pursuits – although dominant – are harder to achieve. Hence, underperforming niche parties have incentives to adopt a more moderate rhetoric in order to appeal to a wider range of voters. This argument is in line with recent work showing that heightened vote-seeking goals lead smaller and newer parties to switch from niche to mainstream issue profiles after disappointing elections (Meyer and Wagner 2013). Spoon (2011), in turn, shows that European small parties survive when their leaders are able to balance the competing goals of vote maximization and policy differentiation.

Altogether, poor campaign performance is expected to alter the balance of parties' collective goals by increasing the relative salience of secondary pursuits, and consequently impelling

[6]Appealing to core constituents in this context can be interpreted simply as a vote-seeking strategy. In a case study of the British Conservative party, Green (2011) provides evidence in line with this perspective. The study shows how leaders of the Conservative party focused on traditionally conservative issues after disappointing elections. However, as ideologically motivated core voters become a more important asset to mainstream parties, policy differentiation becomes a more integral part of the campaign strategy.

leaders to fine tune their campaign rhetoric. The competing goals argument generates two testable hypotheses:

Competing Goals Hypothesis I*: When underperforming in the polls, mainstream parties adopt a more polarized campaign rhetoric.*

Competing Goals Hypothesis II*: When underperforming in the polls, niche parties adopt a more moderate campaign rhetoric.*

4.2 Data and Measurement

I test these predictions in ten European countries, based on two main sources of data: (1) a new dataset of policy statements made by 68 European parties in recent campaigns, from 2005 to 2015; and (2) an original compilation of pre-election polls published in the same period.

The campaign statements come from the Comparative Campaign Dynamics Project (CCDP) (Debus, Somer-Topcu, and Tavits 2016). This cross-national project followed the media coverage of two election campaigns in ten European countries: Czech Republic, Denmark, Germany, Hungary, the Netherlands, Poland, Portugal, Spain, Sweden, and the United Kingdom.[7]

For each campaign, the project compiled data from the two highest circulation daily newspapers in the last month before Election Day.[8] The data collection process involved three steps. First, country experts identified *all* election-related articles published in each of

[7] Three elections in the case of the United Kingdom.

[8] A relevant concern of using media reports to measure campaign rhetoric is bias in the tone and volume of coverage. Although all countries in the study regulate print media coverage of elections and prohibit false statements about candidates (Cappello 2017), campaign reporting is not neutral (Greene and Lühiste 2018). To minimize bias in the coverage of different parties, country experts selected one left-leaning and one right-leaning outlet for each campaign. Table C1.3 (Appendix C1) lists the newspapers included in the study. Additionally, to account for biases in the volume of coverage of different parties, all the analyses control for the number of articles about a given party. Finally, robustness checks with fixed-effect models account for any systematic differences across parties, including their relationship with media outlets.

the newspapers in this period. Second, all first-page articles and a random selection of 5% of the remaining articles were selected for coding. Finally, each selected article was coded by three research assistants from the respective country, who filled out a questionnaire for each policy statement made by a party. The coding procedure was based on a comprehensive survey and posteriorly reviewed for inter-coder reliability.[9]

Table C1.1 (Appendix C1) summarizes these data. The number of articles coded in each election ranges from 105 to 142, containing an average of 396 policy statements per campaign. The daily average of policy statements for mainstream parties is 3.9, while the average for niche parties is 2.4.[10]

I used these data to create a measure of the ideological content of campaign statements made by parties throughout the campaign. For each policy statement, I identified its ideological tone following the approach adopted by the Comparative Manifesto Project (CMP; Budge 2013). The list of campaign statements coded is described in Table C1.2 (Appendix C1).[11] The policy statements with an ideological connotation were then used to create the following measure:

$$\text{Non-Centrist Rhetoric}_{p,d} = \begin{cases} 1, & \text{if Right}_p * [\text{Right Statements}_{p,d} - \text{Left Statements}_{p,d}] > 0 \\ 0, & \text{if Right}_p * [\text{Right Statements}_{p,d} - \text{Left Statements}_{p,d}] \leq 0 \end{cases}$$

Where Right_p is 1 for parties identified as right-wing in the CMP, and -1 for left-wing parties. Hence, *Non-Centrist Rhetoric* takes the value of 1 when the majority of policy statements made by party p on day d is aligned with their ideological positioning, and 0 otherwise. Overall, 48% of mainstream parties' daily statements are non-centrist, against

[9] More details on the coding procedure can be found in Baumann and Gross (2016), and Somer-Topcu, Tavits, and Baumann (2017).

[10] This difference is expected, since media outlets tend to devote more attention to mainstream parties. The empirical analyses account for this differential treatment.

[11] Appendix C2 provides a description of the coding decisions along with a series of sensitivity analyses. See also Somer-Topcu, Tavits, and Baumann (2017) for a similar approach.

56% in the case of niche parties. I decided to dichotomize the outcome variable because the daily median number of ideological statements for a given party is 1.[12]

It is important to note that this measure does not capture changes in positioning for individual policies. Instead, it follows the methodology of the RILE index by mapping an array of statements on different policy issues along a left-right scale. It is the weight given by party leaders to these different issues that ultimately determines the ideological tone of campaign rhetoric. Although there are different ways of quantifying policy statements, here I favored an approach consistent with the measure most often used in previous work on responsiveness.

The main predictor of interest in the analyses is a measure of campaign performance based voting intentions. To get estimates of popular support for each party throughout the campaigns, I compiled pre-election polling data for the periods covered in the CCDP. In nearly all European countries, polling companies regularly measure citizens' preferences for parties. Although sometimes varying in the question wording adopted, most studies ask how citizens would vote "if elections were held today."[13]

Overall, I compiled 749 polls for 20 national campaigns.[14] On days with more than one new poll, I took the mean of the voting intention estimates. On average, at least one new poll was published in 56% of campaign days in the CCDP dataset, although there is considerable variation across elections (see column 5 in Table C1.1). Finally, on days without new polls I conducted a linear interpolation of voting intentions.[15] This naïve method of poll aggregation

[12]That said, the main results presented below are substantively similar when a continuous measure of ideological rhetoric is used (see Table C5.7, in Appendix C5).

[13]Following Jennings and Wlezien's (2016) approach, I ignore differences in question wording. Previous research has shown that differences in question wordings have no discernible effects on poll results (Lau 1994). Moreover, most pollsters in Europe belong to the same international groups such as Gallup, TNS, Ipsos, or Yougov, which leads to a progressive homogenization of polling practices.

[14]More details on the sources of polling data and the coding rules adopted in the data collection process are described in Appendix C3. The 2010 Dutch election – covered in the CCDP – was left out of the analysis due to data availability.

[15]Results are substantively similar when piecewise constant interpolation is used. In this case, voting intentions on days without new polls remain constant at the level of the last published poll.

was preferred over more sophisticated techniques since the main goal here is not to produce the most accurate measure of voter preferences, but instead to capture how political actors perceive levels of support for their party throughout the campaign. Polling data were then used to create the following predictor:

$$\text{Campaign Performance}_{p,d} = \text{Voting Intentions}_{p,d} - \text{Vote Share in Previous Election}_{p}.$$

Where the Campaign Performance of party p in day d is the difference between estimated voting intentions and the vote share received by the same party in the last general election.[16] Appendix C4 discusses the choice of this baseline and compares it with alternative reference points. According to this formulation, regardless of party size, positive values signal good performance in the polls, while negative values suggest that a party is underperforming relative to the previous election.

4.2.1 Modeling Strategies

The unit of observation in the database is party-day and the data structure includes several sources of variation: across countries, years, parties, and time within each campaign. The predictions made above refer to within-campaign variation, therefore I account for the first two sources of variation by adding random intercepts for campaigns. Moreover, in order to deal with potential time dependencies within a given campaign, the models include an autoregressive term.

Hence, in the baseline specification of the multilevel logistic regressions estimated, the probability that a given party p produces a set of polarized policy statements on day d and

[16] Parties running for the first time were dropped out of the analyses.

campaign c is modeled as:

$$\begin{aligned} Pr(\text{Non-Centrist Rhetoric}_{d,p,c} = 1) = \text{logit}^{-1}[&\alpha_c + \\ &\beta_0 \text{Non-Centrist Rhetoric}_{d-1,p,c} + \\ &\beta_1 \text{Campaign Performance}_{d-1,p,c} + \\ &\beta_2 \text{Niche}_p + \\ &\beta_3 \text{Campaign Performance}_{d-1,p,c} \times \text{Niche}_p + \\ &\boldsymbol{\delta}\mathbf{Z}_{d-1,p,c} + \epsilon] \end{aligned}$$

$$\alpha_c \sim \text{N}(\mu_\alpha, \sigma_\alpha^2)$$

The term α_c is a random intercept and accounts for cross-campaign variation, while β_0 is the coefficient for the autoregressive term. The main predictor in the model – *Campaign Performance* – is interacted with a dichotomous variable that distinguishes between niche and mainstream parties. Niche_p equals 1 if the party is a member of one of the niche party families. The classification of party families comes from the CMP. This interaction allows me to test the main predictions of the theory. The dominant goals hypothesis suggests that for positive values of *Campaign Performance* niche parties are more likely to adopt a non-centrist rhetoric than mainstream parties ($\beta_3 > 0$, for *Campaign Performance* > 0). In turn, the competing goals hypothesis is that the effect of campaign performance on non-centrist rhetoric is *negative* for mainstream parties ($\beta_1 < 0$), but *positive* for niche parties ($\beta_1 + \beta_3 > 0$).[17]

Finally, $\mathbf{Z}_{d-1,p,c}$ is a matrix of control that may shape the relationship between campaign performance and policy statements. I account for the number of days until Election Day

[17] Although the hypotheses involve expectations about the same coefficient (β_3), it should be noted that support for one does not mean support for the other. For instance, the competing goals hypotheses are consistent with a pattern where, regardless of campaign performance, mainstream parties adopt a rhetoric that is systematically more extreme than the rhetoric of niche parties. In this case, the dominant goals hypothesis would be rejected. Berry, Golder, and Milton (2012) show the advantages of fully exploiting model interactions.

since the dynamics of responsiveness may change throughout the campaign. The models also control for the distance to the previous published poll to capture differences in the salience of the signals provided by opinion polls. Third, recent work shows that voters are more likely to discount the positions of parties in government (Ban and Somer-Topcu 2012). Hence, I account for whether a party controlled the executive in the last term. Fourth, I account for statements made by other election contenders about party p in the same time period, as they may distort voters' perceptions of the different parties (Somer-Topcu, Tavits, and Neumann 2017). These data also come from the CCDP. Finally, the models control for the effective number of parties and the proportion of campaign days for which the media content analysis identified policy statements from a given party. This variable captures potential biases in media attention to different parties.

4.3 Results

This section begins with a test of the three hypotheses derived from the theory of responsive campaigning, followed by a series of sensitivity analyses that test the robustness of the key findings. Finally, I present an additional analysis based on manifesto data to provide support for the mechanism implicit in the theory.

4.3.1 Public opinion and campaign rhetoric

Table 4.1 reports the results of multilevel logistic models with *Non-Centrist Rhetoric* as the outcome. The first two models follow the core specification described above, with random intercepts for campaigns that account for variation across countries and years. Column 1 presents a baseline specification, while the model in column 2 includes the full set of controls. The interpretation of the results is based on the latter.

First, I explore the differences in campaign strategies between mainstream and niche

Table 4.1: The effects of campaign performance on policy position taking for mainstream and niche parties.

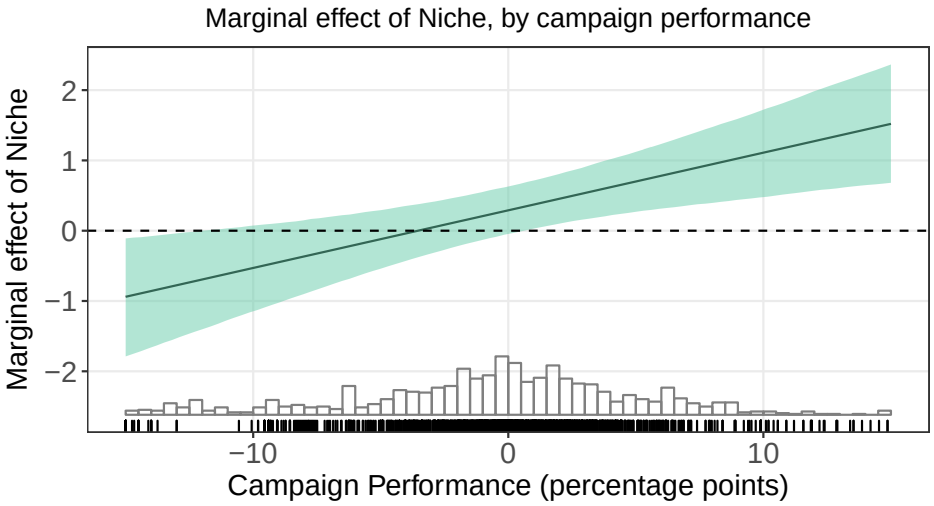
	$DV = \Pr(\textit{Non-Centrist Rhetoric}_d)$		
	Campaign Random Effects		Party-Campaign Random Effects
	(1)	(2)	(3)
Non-Centrist Rhetoric$_{d-1}$	0.71**	0.58**	0.26+
	(0.13)	(0.13)	(0.15)
Campaign Performance	−0.04**	−0.03**	−0.05*
	(0.01)	(0.01)	(0.02)
Niche	0.07	0.23	0.32
	(0.13)	(0.18)	(0.28)
Campaign Performance × Niche	0.09**	0.09**	0.12**
	(0.03)	(0.03)	(0.04)
Controls	No	Yes	Yes
σ_α	0.24	0.16	0.72
Observations	1,205	1,205	1,205
Log Likelihood	−753.1	−738.5	−725.3
AIC	1,518.1	1,501.1	1,474.5

Note: Cell entries are coefficients of hierarchical logit models with random intercepts for campaign (models 1 and 2) and party-campaign (model 3) (standard errors in parentheses). All predictors that vary at the day-level are measured at $d-1$. Full models in Table C5.1 (Appendix C5). +p<0.1; *p<0.05; **p<0.01, two-tailed test.

parties. The expectation is that when *Campaign Performance* is positive niche parties should be more likely to make non-centrist policy statements than mainstream parties, in line with their dominant collective goals. To assess this argument, Figure 4.1 plots the marginal effects of *Niche* as a function of *Campaign Performance*, along with 95% confidence intervals. This can be interpreted as the estimated difference between niche and mainstream parties in the likelihood of emphasizing polarized policy positions.

The positive slope suggests that as campaign performance improves, niche parties are increasingly more likely to make non-centrist policy statements than mainstream parties. However, as expected, this difference is only reliable when parties are performing as well or better than in the previous election. For *Campaign Performance* = 0, niche parties are 5.0

Figure 4.1: The effects of party type on non-centrist rhetoric, by campaign performance.



Note: The figure plots the marginal effects of *Niche* across different levels of *Campaign Performance*, as predicted in model 2 of Table 4.1. Since the predictor of interest is binary, the plot gives the marginal effects relative to the baseline of mainstream parties. The shaded bars indicate 95% confidence intervals. The distribution of *Campaign Performance* is plotted at the bottom, along with a rug for the subset of niche parties.

points more likely to make non-centrist statements than mainstream parties. However, this difference raises to 14.7 points when niche parties are polling 5 points above the previous election. Importantly, the distribution of the conditioning variable shows that the estimated effects for both types of parties are supported by the data. This result suggests that the *preferred* campaign strategies of mainstream and niche parties are systematically different, as theorized. Below I provide additional support for this argument.

Next, I investigate how fluctuations in voter preferences shape the campaign rhetoric of both mainstream and niche parties, respectively. To do so, I now treat *Niche* as the conditioning variable in the interaction. Returning to Table 4.1 (column 2), the coefficient of *Campaign Performance* gives an estimate of the effect of voting intentions on campaign rhetoric for mainstream parties. As expected, the coefficient is negative and reliable (p-value < 0.01). The likelihood that mainstream parties make non-centrist policy statements decreases when they perform well in the polls. Put differently, as voters shift away, main-

stream parties are more likely to adopt a polarized rhetoric. This effect is substantively meaningful. The model predicts that, on average, a five-point *decrease* in voting intentions for mainstream parties is associated with a 7.1% *increase* in the probability of ideologically non-centrist statements on the following day.[18]

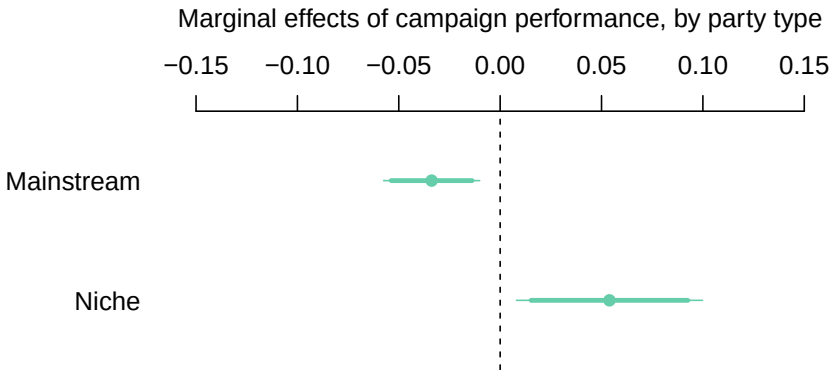
Hence, mainstream parties are more likely to deviate from the center following disappointing polls. The same is not true for niche parties. In order to simplify the interpretation of the interaction, in Figure 4.2 I present the marginal effects of *Campaign Performance* for both types of parties. The plot shows that the effects of campaign performance are not only significantly different for mainstream and niche parties, but in opposite directions. The coefficient for niche parties is positive and statistically significant (point estimate = 0.05; s.e. = 0.02). Accordingly, if a niche party experiences a five-point *decrease* in voting intentions, relative to the previous election, the predicted probability of making polarized statements on the following day decreases 11.4%.[19] The competing goals argument suggests that this is due to a growing salience of office goals among underperforming niche parties.

The coefficients of the control variables also provide meaningful information about the dynamics of campaign rhetoric (see Model 2 in Table C5.1 for full results). Contrary to what was anticipated, the incentives for rhetorical responsiveness do not change meaningfully as the election approaches. This result may be explained by ceiling effects: attentiveness to voter signals should already be at its peak one month before the election. In turn, as expected, parties are more responsive to the results of a new opinion poll as the number of days since the previous poll increases (point estimate = 0.05; s.e. = 0.02). This pattern is consistent with the notion that more informative signals are more likely to alter campaign rhetoric. Additionally, more statements made by other election contenders about a given

[18]For mainstream parties, the average value of the outcome variable is 0.48, and the difference in predicted probabilities for a five-point decrease in *Campaign Performance* is 3.4. Hence, a five-point decrease in voting intentions leads to a $0.034/0.48 = 0.071$ proportional increase in the probability of non-centrist statements.

[19]A five-point decrease in *Campaign Performance* for niche parties decreases the probability of non-centrist appeals in 6.3 points. Since the average value of the outcome for niche parties is 0.55: $0.062/0.55 = 0.114$.

Figure 4.2: The effects of campaign performance for mainstream and niche parties.



Note: Entries are point estimates of *Campaign Performance* for mainstream and niche parties, respectively, with 95/90% confidence intervals represented in narrow/wide bars.

party increase the likelihood that party leaders emphasize more moderate positions (point estimate = 0.10; s.e. = 0.03). This result was expected as a reaction to the capacity of party leaders to distort voters' images of party positioning (e.g., Somer-Topcu, Tavits, and Baumann 2017). Finally, I find no evidence that incumbents are more or less likely to update their rhetoric on the campaign trail, relative to parties in the opposition.[20]

4.3.2 Robustness checks

The results just described are robust to several alternative specifications (see Appendix C5 for details). First, I re-estimated the original model adding random intercepts for party-campaign. This specification is more restrictive than the original one since it accounts for variability across parties in any given campaign. Column 3 in Table 4.1 presents the results of this analysis. The variance parameter for the intercepts (0.72) is over four times larger

[20]The measure of incumbency used in the main models does not distinguish between junior and senior coalition partners. However, the key results remain substantively the same after accounting separately for parties controlling the PM and junior coalition partners (see Table C5.3, in Appendix C5). Additionally, Appendix C6 shows that incumbent and opposition parties do not respond differently to voter signals on the campaign trail. The patterns observed for mainstream and niche parties are not explained by their incumbency status.

than in the original model, suggesting this new specification captures considerably more cross-group variation. As expected, the point estimates are less precise, although the main substantive results remain. The effect of campaign performance on non-centrist rhetoric is negative for mainstream parties (point estimate $= -0.05$; s.e. $= 0.02$), and positive for niche parties (point estimate $= 0.07$; s.e. $= 0.03$).

Second, I re-estimated the main model with fixed-effects for campaigns and parties. Hierarchical models have several advantages when dealing with nested data. However, these models partially pool the estimates for different groups: if a given group only has a few observations, the group's estimate will be partially based on the more abundant data from other groups. This is potentially concerning because there might be systematic differences across parties or campaigns in the number of observations collected in the CCDP dataset, and in the volume of media coverage for different parties. Table C5.4 shows that the main results from the analysis are not altered in the fixed-effects framework. Importantly, by fully accounting for cross-campaign variation this sensitivity analysis also rules out concerns that the results are driven by system-level forces such as electoral institutions or economic conditions (e.g., Adams, Haupt, and Stoll 2011).

The results are robust to alternative conceptions of niche parties. Meguid (2005) defined niche parties as those rejecting the traditional class-based orientation of politics, raising novel issues, and limiting their issue appeals. Operationally, her typology is also based on party families but excludes Communist parties. In turn, De Vries and Hobolt (2012) proposed the challenger conceptualization of niche parties. *Challenger parties* are parties that have not previously held political office. According to the authors, given the marginalized position of challenger parties, "office-seeking is often not their primary goal" (2012; 253). Tables C5.5 and C5.6 show that the main dynamics of campaign responsiveness are identical under these alternative conceptualizations. This result also demonstrates the distinct motivations of

parties without experience in office.[21]

The effects of public opinion on campaign rhetoric are also robust to different specifications of the outcome variable. By dichotomizing *Non-Centrist Rhetoric* in the main analysis, some information was lost which may induce bias in the estimates. To account for this concern, in Table C5.7 I re-estimated the models with a continuous measure of *Non-Centrist Rhetoric*. The main results remain unchanged. Next, I built a three-day version of the outcome variable by aggregating policy statements made every three days. This alternative specification had two goals in mind: to test the stability of the results to different time horizons, and to enhance the reliability of the measure. As described above, the median daily number of ideological statements made by a single party in the CCDP is 1. Hence, small levels of random error in the coding of statements may lead to different values of the outcome variable. By increasing the number of statements used to build *Non-Centrist Rhetoric*, this concern is minimized. Table C5.8 replicates the analyses with this alternative outcome, and the results confirm the findings discussed above. Moreover, they suggest that the effects of public opinion polls on campaign rhetoric do not dissipate quickly.

Finally, the same substantive conclusions are obtained when the main dataset is partitioned in different ways. Researchers have raised concerns about the applicability of the RILE index to post-communist democracies (e.g., Benoit and Laver 2006; Mölder 2016). Table C5.9 shows that the parties from Central and Eastern European countries respond to fluctuations in voter preferences on the campaign trail just like their Western European counterparts. An additional concern regards the variation in polling coverage across elections, which may lead to systematic error in the measurement of campaign performance.

[21] A distinct concern regarding the niche typology adopted in the main analyses is that it combines parties with clear ideological roots and parties that mostly compete on non-left-right issues. For the latter, since the core issues that motivate their electorate may not be well represented on the ideological scale, a more appropriate test of the dominant/competing goals argument should use the key issues of each party as the reference point. The expectation is that issue-specific party leaders should emphasize the core issues of their party when performing well in the campaign, while deviating to attract a wider consistency when underperforming. Appendix C7 shows evidence in line with this perspective for populist radical right and green parties.

To assuage this concern, I re-estimated the main model splitting the dataset between elections with new polls in more or less than 50% of the campaign period. Table C5.10 reveals that similar dynamics are observed in high and low coverage elections. Finally, Table C5.11 shows that the findings are not due to negative autocorrelation between mainstream and niche parties in the same election. When the models are estimated separately for each type of party, the same results are uncovered.

4.3.3 Testing the mechanism: voter signals and dominant goals

The main analyses suggest that mainstream and niche parties respond differently to shifts in voter preferences on the campaign trail. I argue that this is due to differences in parties' dominant collective goals, and the way voter signals shift the salience of these goals. However, the patterns uncovered may be driven by different processes. To provide additional evidence for the theory advanced, I conducted an additional test.

The dominant goals argument implies that when parties are performing well in the campaign their primary goals drive the rhetoric adopted: mainstream parties will emphasize moderate positions to appeal to a broader set of voters, while niche parties will pursue their policy goals through polarized rhetoric. These messages should also be more in line with the main issues emphasized in their election programs. Party manifestos are generally produced several months before the election and reflect the core goals of the party (Budge 2001). Hence, if good campaign performance leads to a focus on the party dominant goals, both mainstream and niche parties should rely more on the main messages from their manifestos when performing well in the polls.

To test this mechanism, I identified the dominant issue in each party manifesto, as provided by the CMP, and created a new binary outcome that takes the value of 1 when a party mentions this issue on a given campaign day.[22] The expectation is that, regardless of

[22]The CMP codes election programs based on the share of quasi-sentences devoted to different policy

party type, better performance in the polls is associated with a higher propensity to stick with the original message devised for the campaign.

Table 4.2 provides support for this argument. The positive coefficient for *Campaign Performance* in model 1 suggests that parties are more likely to talk about the dominant issues in their manifestos when performing well in the campaign. The point estimate (0.02; p-value = 0.02) is modest but still relevant. On average, a five-point surge in voting intentions is associated with a 6.7% increase in the probability of parties mentioning their modal manifesto issues on the following day.[23] Model 2 finds no meaningful differences between mainstream and niche parties. The interaction between *Campaign Performance* and *Niche* is indistinguishable from zero, and a likelihood ratio test shows that the added term does not improve model fit ($\chi^2 = 0.14$; p-value = 0.71).

Hence, both types of parties are more likely to rely on the key messages established in their manifestos when performing well in the campaign. As seen above, this means a non-centrist rhetoric for niche parties and moderate positions for mainstream parties (cf. Figure 4.2). Although the observable consequences of fluctuations in public opinion differ for mainstream and niche parties, the driving mechanism seems to be the same: a pursuit for the party's dominant collective goals, and the need to accommodate secondary objectives when voters shift away from the party.

issues. Based on this information, I identified the most salient topic in each manifesto as the topic with the highest share of quasi-sentences. To allow for comparability, I restricted the analysis to issues covered in the CCDP dataset. Table C1.2, in Appendix C1, reports the matched categories. On average, parties mention their dominant issues 41.5% of the days. See Greene and Jensen (2016) for a similar empirical application of the CMP.

[23] A five-point increase in campaign performance is associated with a 2.8 points increase in the probability of referencing a dominant manifesto issue. Given that the average value of the outcome variable is 0.42: 0.028/0.42 =0.067

Table 4.2: The effect of campaign performance on the propensity to emphasize dominant manifesto issues.

	$DV = \Pr(\textit{Dominant Manifesto Issue}_d)$	
	(1)	(2)
Campaign Performance	0.02^{*}	0.02^{+}
	(0.01)	(0.01)
Niche	-0.01^{*}	-0.01^{*}
	(0.01)	(0.01)
Campaign Performance /*times* Niche		0.01
		(0.03)
Controls	Yes	Yes
$\sigma_{campaign}$	0.62	0.62
Observations	1,464	1,464
Log Likelihood	−875.5	−875.4
AIC	1,773.0	1,774.8

Note: Cell entries are coefficients of hierarchical logit models with random intercepts for campaign (standard errors in parentheses). All predictors that vary at the day-level are measured at $d-1$. Full models in Table C5.2. $^{+}$p<0.1; *p<0.05; **p<0.01, two-tailed test.

4.3.4 Discussion

In the months leading up to an election, parties put together a program establishing their main policy goals for the upcoming term. Researchers have used this information extensively to study dynamics of policy responsiveness. However, between the publication of the manifestos and Election Day, we still know little about the link between public opinion and the positions taken by party leaders. In this chaapter, I advance a theory of short-term responsiveness according to which parties' dominant goals drive the relationship between voter preferences and campaign rhetoric. Fluctuations in voting intentions shape the salience of policy and office goals, leading parties to update their messages. Underperforming mainstream parties accommodate the policy goals of their core voters by deviating from the ideological center. In turn, the secondary office goals of niche parties become more salient when voting intentions decrease, raising incentives for more moderate policy statements. I

find evidence in line with these arguments in both Western European and post-communist democracies.

The patterns uncovered here are not at odds with existing research on policy updating across elections, which mostly relies on measures of mass ideological preferences. Voting intentions, however, include not only policy evaluations but assessments of party valence. Moreover, to the extent that changes in support throughout a campaign reflect variation in policy preferences among voters, they provide no clear signal of direction on the left-right scale.[24] Finally, adjustments in campaign rhetoric may not be reflected in future party programs, which are likely driven by the parties' dominant collective goals (Budge 2001). Overall, short-term responsiveness is not expected to perfectly mirror the patterns observed from one election to the next one. Further exploring the connection between short-term and long-term responsiveness is a promising path for future contributions.

In that sense, this study opens new avenues for research on the links between voters and their representatives. It remains unclear whether the patterns of short-term responsiveness revealed here hold outside the campaign environment. My expectation is that the capacity of voter signals to shape the salience of different party goals may be weaker when elections are distant. However, if parties wait for the last months before an election to respond to public appeals, it might be too late. A full assessment of this question may require a different type of data – such as party press releases or social media communication –, as the media coverage of parties tends to be sparser outside of the campaign seasons. By providing unfiltered measures of party statements, these data would also allow for further validation of the measures produced by CCDP. Although CCDP tried to minimize bias in different ways, it remains an open questions whether media reports are a robust cross-national measure of party rhetoric.

The findings contrast with the perspective that European parties operate largely as

[24]For instance, assuming voter policy preferences are unimodal, a decrease in voting intentions for a centrist party may mean that voters either moved to the right or to the left.

trustees. At least close to elections, parties seem to be highly responsive to voter signals. While manifestos are an important guideline for campaign rhetoric, parties quickly update their pre-established plans when voters shift away from them, *and do so in ways that conform with their distinct motivations*. In that sense, this chapter complements research on the electoral consequences of policy positioning (e.g., Adams and Somer-Topcu 2009; Ezrow, Homola, and Tavits 2014). Although manifestos provide a good *proxy* for the campaign rhetoric of parties performing well in the polls, the same may not true for those underperforming.

Campaign responsiveness may also explain recent scholarship on political representation. It has been shown that European voters update their views of parties not from election manifestos but from the wider informational environment (Adams, Ezrow, and Somer-Topcu 2014). As it is shown here, policy statements made on the campaign trail are more fluid than the set of policy goals inscribed in the election programs. These patterns may explain how voters update their beliefs about different parties. Importantly, rhetorical fine-tuning operates not through major shifts in policy positioning, but through parties' issue emphasis strategies. In that sense, the study joins a growing line of work on the strategic updating of issue priorities (e.g., Greene 2016; Tavits and Potter 2015; Williams, Seki, and Whitten 2016).

The findings also provide a new explanation for variation in the fulfillment of election pledges. On average, European parties follow up on 60% of the promises made in their manifestos, although there is considerable variation across parties and countries (Thomson et al. 2017). The results presented here can explain part of this volatility: election pledges may be updated as new information comes up during the campaign.

Finally, the findings suggest that the salience of parties' collective goals is not static. Instead, it is shaped by environmental conditions such as fluctuations in voting intentions. By endogenizing the salience of party goals we may uncover more nuanced patterns in the behavior of political elites. The implications of this argument go beyond the context of

campaigns and responsiveness. At different stages in the career of a public official, or whether in government or opposition, the relative salience of policy and office goals may very well fluctuate.

Chapter 5

Opinion Polls as Mobilization and Fine-Tuning Devices[1]

Opinion polls play a central role in contemporary political campaigns. Updates on the performance of parties receive considerable attention from news outlets, and often serve as the baseline for political commentary on the weeks leading to Election day. We know that learning about the positions of the electorate can shape the behavior of voters (Duffy and Tavits 2008; Forsythe et al 1993; Meffert and Gschwend 2011; Morwitz and Pluzinski 1996). However, it is less clear how polling shape the strategies of party leaders on the campaign trail.

Understanding how parties respond to opinion polls is relevant for several reasons. The quantification of public opinion has often been criticized for its effects on the perceptions of voters (Ginsberg 1986; Herbst 1993), and the emphasis attached to popularity rather than policy issues (Bartels 1988; Patterson 2003). This explains that at the turn of the century over thirty democracies around the world had embargoes on the publication of opinion polls close to the election (Chung 2012). However, to fully understand the role of pre-election polls, we have to account for the supply-side of campaigns: parties and their candidates. This is particularly important in contexts of enhanced polarization, where parties play a

[1] An extended version of this chapter was published in *Electoral Studies* (Pereira 2019).

growing role in determining which type of information reaches the electorate (Lachat 2008). How do parties discuss public opinion data on the campaign trail? Do polls distract party leaders from their election programs, or instead lead them to clarify their policy positions? Finally, do polling results help explain negative campaigning?

I argue that party leaders use polls on the campaign trail for two main purposes: to mobilize voters and to fine-tune their campaign strategies. The success of a campaign is largely contingent on its capacity to 'spin' new information in its favor (Hickman 1991), and the way party leaders respond to polls is an element of this process. By strategically communicating polling results, parties can shape voters' view of the race, promote grassroots mobilization through bandwagon effects (Morton et al. 2015), and encourage donors. Hence, I expect campaign contenders to react selectively to polling data, offering disproportional attention to results conveying a positive image of party, while dismissing or criticizing studies with disappointing predictions.

Polling results also offer the opportunity for parties to refine their campaign strategies. In the long-run, parties shift their issue positions in response to public opinion signals (e.g., Adams et al. 2004; Ezrow et al. 2011; Somer-Topcu 2009). On the campaign trail, I expect a similar refinement process takes place. Although abrupt shifts in policy positions are unlikely due to the electoral costs of pandering (Adams 2012), parties have room to adjust the attention devoted to different issues. At any moment, party leaders may choose whether to talk about their party or other election contenders, and whether to emphasize different policy or valence issues. Voter signals can shape the decisions of party leaders to balance these different components of campaign rhetoric.

Recent scholarship suggests that when a party has a quasi-monopoly on a given policy, the potential gains from further communicating on that issue are limited (Tresch et al. 2013). Building upon these arguments, I argue that leaders from underperforming parties should be more likely to emphasize policy positions when talking about their own party. Moreover,

incentives to address issues 'owned' by other parties may also increase for parties trailing in the polls, as a way to appear in line with the desires of voters (Walgrave et al. 2009). Finally, campaign negativity may also be driven by poll results (Damore 2002; Elmelund-Præstekær 2008; Walter et al. 2014). There is a cost to negativity that may be outweighed by the potential of harming opponents, and this cost is a function of the party's current performance on the campaign trail. Hence, the incentives to go negative should increase among underperforming parties. In line with this view, I expect that parties trailing in the polls are be more likely to attack their opponents.

These arguments are tested with a new database of over 2,000 statements made by Portuguese party leaders on the campaign trail (Debus et al. 2016).[2] Daily newspaper articles published over the course of two campaigns were used to compile data on how parties talk about polling results, themselves, and other election contenders. These data were combined with opinion polling published in the same period The results show that political elites tailor their depictions of the mass public to their own benefit. Parties are more likely to mention their performance in the polls in response to promising results, and less likely to question the credibility of pollsters. Moreover, in response to disappointing polls, parties tend to refocus their campaign rhetoric on policy issues, rather than valence issues. Finally, the propensity for campaign negativity also increases when parties are underperforming.

Relying on pre-election polls to explore how parties shape their campaign rhetoric offers several advantages relative to other measures of public opinion. In the context of an electoral campaign, polls provide a picture of the overall performance of the contending parties, and all parties are focused on maximizing their electoral prospects. This is not necessarily true at other stages of the electoral cycle. For instance, incumbents may be willing to pursue unpopular policies early in the electoral cycle (Lindstädt and Vander Wielen 2014). Moreover,

[2]The project did not restrict the data collection process to statements made by the individual leaders of the different parties. Instead, it included statements by a variety of party members: incumbent MPs, local party leaders, or prior cabinet members. Hence the term *party leaders* should be interpreted broadly to refer to high-ranked party members.

no other measure of public opinion is available at the same rate over the campaign, offering the opportunity to have a more fine-grained understanding of the dynamic processes that characterize contemporary political campaigns.

These findings have relevant implications for the study of political campaigns, elite behavior, and political representation more broadly. First, they provide an explanation for why campaigns may not 'enlighten' the preferences of voters (Gelman and King 1993). Party leaders tailor their depictions of the public to their own benefit. Hence, unless voters are exposed to the messages of multiple parties, this process may lead to distorted perceptions of the campaign trail. This concern is particularly relevant in a world of political echo chambers (e.g., Boutyline and Willer 2017). Second, the patterns uncovered here reveal that a thorough understanding of campaign effects requires endogenizing party strategies. Although election manifestos provide an important baseline to capture the behavior of political elites on the campaign trail, parties are constantly refining their rhetoric in the weeks leading to an election. This process provides an explanation for the disconnect between manifestos and voter perceptions of parties' positions after the election (Adams et al. 2011a, 2014; Fernandez-Vazquez 2014, 2018).

5.1 Public Opinion and Party Strategies

An extensive body of literature has established a link between public opinion and the behavior of elected representatives. The dominant perspective is that political elites are responsive to public preferences (Geer 1996; Page and Shapiro 1992; Stimson et al. 1995; Wlezien 1996). More recent contributions have explored variability in levels of responsiveness. Researchers have noticed that political parties are more responsive when public preferences move away from the position of the party (Adams et al. 2004; Somer-Topcu 2009), and close to elections (Arceneaux et al. 2016), particularly in more competitive races (Canes-Wrone and Shotts

2004; Hobolt and Klemmensen 2005).

However, most studies explore long-term responsiveness, based on party programs or policy outcomes (e.g., Clark 2014; Homola 2019; Klüver and Spoon 2016). This focus is understandable since the ultimate goal of representation is to shape public policy. On the other hand, existing research has struggled to provide a more fine-grained understanding of how public opinion shapes the behavior of political elites in the short run. At least in the context of political campaigns – where the information available on public opinion and parties' positions significantly increases –, it is reasonable to expect that the incentives of political elites to respond to voter signals are distinct from those observed in the long run.

There are some important exceptions to this pattern, mostly inspired by developments of the issue-ownership theory (Petrocik 1996).[3] Damore (2004, 2005) has shown that American presidential candidates trailing in the polls are more likely to trespass on their competitor's issues. This perspective was also articulated by Aldrich and Griffin, who argued that "if voters identify certain issues as priorities, we would expect the candidates to speak more and show more advertisements about these issues" (2003, 247), regardless of their reputation on the issue. Still, most of this literature is based on bipartisan and personalized races. The extent to which these dynamics extend to other contexts is unclear.

Existing literature on political campaigns also offers some insights on the short-term interactions between public opinion and party strategies. Most studies in this field treat party strategies as fully optimized and static as the election nears, focusing instead on the effects of campaigns on voters (e.g., Farrell 2006; Jacobson 2015). However, research on negative campaigning has shown that parties underperforming on the campaign trail, and those facing more competitive opponents, are more likely to attack other election contenders (Damore 2002; Elmelund-Præstekær 2008; Walter et al. 2014). These findings suggest that campaign messages can be highly responsive to dynamics of public opinion. In the

[3]This argument builds on Budge and Farlie's (1983) saliency theory, according to which parties 'own' certain types of policies around which they center their campaign messages.

following section I articulate different ways in which parties can update their strategies on the campaign trail in response to public opinion signals.

5.2 The Strategic Use of Polls on the Campaign Trail

Public opinion polls are a central feature of contemporary campaigns. I contend that parties use this information (1) to mobilize voters, and (2) to fine-tune their campaign rhetoric.

5.2.1 Poll results as mobilization tools

Contenders to public office cannot fully control the flow of information that reaches the electorate. Still, party elites can shape the salience of different issues and the attention devoted to them (Hickman 1991; Iyengar and Simon 2000). As Bauman and Herbst put it, "[how] candidates choose to react to public polls is a vital part of campaign planning" (1994, 134). I argue that parties' reaction to polling results is a function of poll standings and *ex-ante* expectations. When faced with a poll that exceeds expectations, party leaders can exploit this information to mobilize their supporters and provide a self-image of success. In various contexts, it has been shown that voters can be galvanized through bandwagon effects (Bartels 1988; Kenney and Rice 1994; Morton et al. 2015).[4] A recent field experiment provides causal evidence that polling results shape the behavior of voters (Orkin n.d.). In a competitive local election in South Africa, voters were randomly assigned to receive results from two opinion polls predicting different front-runners. The study shows that voters who learned that their party was ahead in the polls were 12 percentage points more likely to vote for that party.

Hence, parties have incentives to proactively disseminate the results of promising polls.

[4]Bandwagon effects are sometimes counterbalanced by the opposite phenomenon – underdog effects – where voters may be inclined to support a party that is underperforming. However, existing literature suggests that the former process tends to prevail (Jacobson 2015).

This effort is particularly important to encourage party activists and local party leaders who are directly in the field reaching out to voters. Public opinion data are a direct measure of the success of their efforts. Therefore, by bringing up the results of promising polls in their campaign events, party leaders are also providing a positive reinforcement to party activists who are key to the success of the organization (Miller and Schofield 2003). For the same reasons, poll results that fall below expectations should be avoided and downplayed. The inherent uncertainty surrounding estimates of public opinion offers parties the opportunity to question the credibility of any individual poll. I expect that party leaders are more likely to do so after a disappointing poll. Together, these arguments lead to two predictions:

H1a: *Parties are more likely to mention recent opinion polls on the campaign trail after surveys with promising results.*

H1b: *Parties are less likely to criticize public opinion studies on the campaign trail after surveys with promising results.*

5.2.2 Poll results and campaign rhetoric

Poll results also allow parties to update their campaign strategies. Previous work has shown that parties adjust their programs when public opinion shifts away from them (Adams et al. 2004; Somer-Topcu 2009). With the prominent role played by opinion polls on public debate and the professionalization of political campaigns, it is reasonable to expect that a similar process takes place on the campaign trail. In the short-term, parties may not have incentives to dramatically shift positions on policy due to risks of being accused of political opportunism, or pandering (Adams 2012). Still, there is leeway for political elites to change the attention given to different issues or different parties in order to maximize their electoral goals. Previous scholarship has shown that updating the attention devoted to different issues from one election to the next is an effective strategy after disappointing results (Meyer and

Wagner 2013), or in response to changes in economic conditions (Greene 2016; Hellwig 2012; Tavits and Potter 2014).

At any point in the campaign, parties can decide to devote time discussing their own policy positions or valence attributes (Stokes 1963).[5] I argue that the weight given to these different types of campaign rhetoric is shaped by public opinion signals. Researchers have shown that when a party is seen as the *owner* of a given issue by a majority of the electorate, the potential gains from further communicating on that issue are limited (Tresch et al. 2013). The same is not true for moderately 'owned' issues, where an emphasis from the party can help reinforcing perceptions of issue ownership. By focusing attention on moderately 'owned' issues, parties can anchor the support of voters mobilized by these policies.[6]

Opinion polls provide party leaders with a signal of the degree to which their policy proposals are gaining or losing traction among voters. Hence, I expect parties underperforming in the polls to pay special attention to their own policy proposals on the campaign trail. By devoting additional attention to those issues, parties can enhance perceptions of issue ownership (Walgrave et al. 2009). In turn, parties performing well in the campaign can deviate from often complex policy proposals and focus instead on valence issues. The intentional use of valence issues can be an effective way of attracting voters (Curini 2015; Schofield 2003), particularly close to elections (Abney et al. 2013). However, mentions to own valence attributes can easily be discounted as empty talk. When backed by promising pre-election polls, campaign rhetoric that focuses on the competence, performance, or unity of the party, can be seen as more credible. Together, these two mechanisms – heightened incentives for un-

[5]Following Adams et al. (2011b), I distinguish strategic valence – e.g., name recognition, or campaign skills – from character valence, defined here as statements about the party or party leader's competence, performance, integrity, or unity (see also Abney et al. 2013). Both the theoretical arguments and empirical strategic focus specifically on the latter. Hence, throughout the text, valence issues/attributes refer to character valence.

[6]It is important to distinguish *'owned'* issues from parties' 'own policies' or 'own policy issues', as discussed throughout the text. While the former concept refers to the issue-ownership theory, the latter simply qualifies which party endorses a given policy issue. To avoid confusion in the text, references to the issue ownership concept are wrapped in single quotation marks (e.g., 'owned' issue).

derperforming parties to emphasize policy issues, and more credibility attached to character valence statements after promising polls – lead to the following prediction:

***H2**: Underperforming parties are more likely to emphasize their own policy proposals when talking about themselves.*

Public opinion updates may also shape how parties talk about *other election contenders*. Like before, when leaders mention other parties on the campaign trail, they can focus both on policy or valence issues associated with those parties. I expect that the incentives for 'issue trespassing' – to raise issues 'owned' by other election contenders – should increase when parties are underperforming in the polls. Parties may opt to trespass in order to appear in line with the desires of voters (Damore 2004; see also Sides 2006), and to counteract perceptions that a given issue is dominated by another party (Walgrave et al. 2009). This reputation does not necessarily translate into public support (Stubager and Slothuus 2012). Still, at least for salient issues perceived ownership shapes voting behavior (Bélanger and Meguid 2008).

In turn, parties performing well in the campaign are not expected to engage in this strategy. Issue trespassing may require party leaders to deviate from the messages originally planned for the campaign, with inevitable risks that parties – as conservative organizations (Harmel and Janda 1994) – would prefer to avoid. Moreover, it should only be effective for salient issues in which parties have little reputation, a scenario more likely among underperforming parties. The following prediction derives from these arguments:

***H3**: Underperforming parties are more likely to emphasize policy issues when talking about other election contenders.*

Finally, poll results are also likely to shape the propensity of parties to go negative. Negative campaigning is arguably the component of campaign strategies most extensively

studied in this literature. The growing consensus among researchers is that attacks on different contenders are often an interactive process (e.g., Lau and Rovner 2009). That said, different studies have shown that the likelihood of negative campaigning increases as parties trail in the polls (Damore 2002, Walter et al. 2014). Attacking other election contenders brings the risk of producing lower affect for the attacker (Lau et 2007). The concern of backlash effects makes this strategy less attractive for parties that are already doing well in the campaign. Building upon these contributions, I expect that party leaders will be more likely to adopt an offensive strategy aimed at targeting other parties after disappointing polls.

***H4**: Underperforming parties are more likely to discuss valence attributes of other election contenders.*

5.3 Empirical Strategy

To test my expectations about the sensitivity of campaign rhetoric to public opinion signals, I rely on data from the Comparative Campaign Dynamics Project (Debus et al. 2016; hereafter CCDP). This cross-national project compiled data from the media coverage of election campaigns in ten European countries over the course of two recent elections. For each campaign, CCDP coded data from the two highest circulation daily newspapers in the last weeks before Election Day.[7]

The data collection proceeded in three steps. First, country experts identified *all* election-related articles published in each newspaper during the campaign. Second, all first-page articles and a random selection of 5% of the remaining articles were selected for coding. Finally, each selected article was coded by three research assistants from the respective country, who filled out a questionnaire for each statement made by a party. The coding

[7]Campaign reporting is not neutral (Greene and Lühiste 2018). Hence, to minimize bias in the selection of newspapers, country experts were asked to select one left-leaning and one right-leaning outlet.

procedure was based on a comprehensive online survey and posteriorly reviewed for inter-coder reliability.[8]

5.3.1 Case selection

The analyses reported below are based on the Portuguese segment of CCDP, since Portugal was the only country where statements about pre-election polls were included in the coding scheme. That said, several reasons make Portugal a relevant case. First, the Portuguese multiparty system shares several characteristics with those found in other European countries, with high levels of party cohesion and party leaders concentrating significant powers (Poguntke et al. 2016). Second, the relatively small number of parties makes the task of uncovering patterns of campaign rhetoric based on media content analysis more tractable. For the last two decades, five parties consistently receive over 90% of the votes (Freire 2010). Although the arguments advanced here are expected to replicate in more pulverized party systems, a larger number of parties would make it harder to identify nuances in campaign rhetoric since media outlets cannot devote the same levels of attention to all election contenders.

Finally, the Portuguese media system also provides an interesting context to study campaign rhetoric based on news coverage. When compared with other European countries, the levels of political bias in Portuguese mainstream media are low (Santana-Pereira and Nina 2016). According to a study of media systems in 33 European countries, Portugal is the second EU-member where the political views of journalists are less discernible to the public (Popescu et al. 2012). This pattern largely results from strict legislation on campaign coverage in place since the democratic transition in the 1970s. During the official campaign period (the same period covered by CCDP), news outlets are required to report daily campaign events of all election contenders.[9] These features of the Portuguese case give

[8]More details on the coding procedure can be found in Baumann and Gross (2016).

[9]The legislation (*Decreto-lei 85-D/75*) went as far as stipulating a minimum threshold of words devoted to each party (2,500 for daily newspapers, and 1,500 for other media outlets). In 2015, after the elections

me additional confidence regarding the empirical strategy adopted here. Concerns about the generalizability of the findings are discussed in the concluding remarks.

The campaigns covered by CCDP in Portugal took place in 2009 and 2011. Both elections were fairly competitive, leading to a center-left minority government in 2009 and a center-right coalition government in 2011. While the 2009 campaign followed patterns familiar to Portuguese observers (e.g., Freire 2010), the 2011 election took place weeks after Portugal signed a bailout agreement with the International Monetary Fund, which inevitably took center stage in the campaign (Magalhães 2012). To account for any systematic differences in the dynamics of campaign rhetoric across elections, all models reported below include fixed effects for election.

News articles came from Público and Jornal de Notícias. A total of 240 articles were analyzed: 60 articles per newspaper/election, published during the official campaign period (two weeks before Election Day, excluding the election's eve). From these articles, coders identified 2,140 campaign statements made by leaders of all parties with parliamentary seats during this period: the Socialist party (PS), the Social Democratic Party (PSD), the Christian Democrats (CDS), the Communist Party (CDU), and the Left Block (BE).

5.3.2 Research design

Campaign rhetoric was divided in four main categories: (1) policy statements or (2) valence statements by party leaders regarding their own party; and (3) policy statements or (4) valence statements about other parties in the election.[10] Valence references correspond to general statements about honesty, integrity, competence, unity or charisma of a given party.

covered here, this law was replaced by less strict legislation (*Lei 72-A/2015).*

[10]The project coded policy positions on 16 different issues: taxes, social policy/public services, inflation, unemployment, other economic performance, centralization vs. regional autonomy, environment, immigration, asylum, justice system, law and order, security, terrorism, national way of life, traditional morality, family values, religion, europe/EU, internationalism (not EU), foreign intervention, agriculture/rural affairs. For the Portuguese survey, two specific issues were added: corruption, bailout and austerity measures.

Additionally, coders identified any statements made by party leaders about their placement and the placement of other parties in recent opinion polls.

Table 5.1 describes the distribution of statements by type and target. As expected, the majority of statements made by party leaders about their own party regards policy issues (58%). However, when talking about other parties, political elites emphasize policy issues as much as valence considerations (49% and 50%, respectively). Finally, references to recent polls are negligible when party leaders talk about other contenders, but more common when talking about themselves. These data were used to generate the different measures of campaign rhetoric used in the analyses. To facilitate the interpretation of the different quantities produced, I describe them in the respective sections, below.

In turn, the main predictors of interest are based on pre-election polling data published in the media as the campaigns unfolded. The data come from Magalhães et al. (2011) and include all publicly available polls released in the period covered by CCDP. When more than one poll was published on a given day, I took the average estimate for each party.[11] Overall, at least one new poll was published in 59% of the campaign days covered in the study. To create a measure of performance in the polls that is comparable across parties, I took the difference between each individual estimate of voting intentions and the party vote share in the previous general election. Different variations of this variable (*Share Difference*) are detailed in the following sections.

Polls published in the media are not the only measure of public opinion that parties have access to. Nowadays, the vast majority of parties have private pollsters providing information that is not revealed to the public.[12] Private polling may threat the empirical strategy adopted here if the measures of public opinion used in the study are either (1) too coarse, or (2) systematically different from the ones produced privately. By itself, the first

[11] In order to make all poll estimates and election results comparable, the voting intentions and election outcomes for all five parties were recalculated to sum to 100%.

[12] But see Druckman and Jacobs (2006) for a rare occasion when researchers had access to private polling data.

Table 5.1: The distribution of campaign statements by target and type.

	Statement type		
Target	Policy	Valence	Poll Standings
Own party	597	367	62
	(0.58)	(0.36)	(0.06)
Other party	544	560	10
	(0.49)	(0.50)	(0.01)

Note: Entries are the number of statements coded by CCDP by target (see row labels) and type (see column headers). Row percentages in parenthesis.

concern would not bias the results but make the true relationship between public opinion and elite rhetoric harder to uncover. Hence, the present analysis can be seen as a hard test of the arguments advanced. The second issue may actually bias the results. However, it is very unlikely that publicly available polls vary systematically from studies conducted privately. Existing research on the sources of poll accuracy show that there are only small differences in the survey methodologies adopted by different polling companies operating in Portugal, and that the effects of these methodological choices are residual (Magalhães et al. 2011; Pereira 2011). Finally, the public nature of the polls analyzed here is relevant in itself. The fact that published polls are part of public discourse raises incentives for parties to react to them, even when private information is available.

The main goal of the empirical analyses described below is to uncover how the campaign rhetoric of different parties evolves in response to opinion polls published in the media. Hence, the unit of analysis is party-day. To account for systematic differences across parties and elections in the relationship between polls and the behavior of party leaders, all models include fixed effects for party and year. The analyses, therefore, capture within-party differences in rhetoric over the course of each campaign. To account for differences in the error terms across parties, clustered standard errors were estimated by party. Finally, since polls become more prevalent as elections approach, the models also account for distance to

Election day.

5.4 Results

The empirical analyses are presented in two stages. First, I test whether parties use polls as mobilization devices, by emphasizing promising results and downplaying disappointing ones. Next, I explore how parties update their campaign rhetoric in response to published polls.

5.4.1 Polls as Mobilization Devices

The first prediction derived from the theory is that parties are more likely to bring up recent polling results as part of their campaign activities when a public opinion survey suggests the party is performing well. To capture references to polls, I created a binary outcome variable that takes the value of 1 if a campaign member mentions the party's placement in recent opinion polls, and 0 otherwise.[13]

Since the expected relationship between poll results and mentions to public opinion surveys is non-linear, the baseline measure of campaign performance described above were transformed in two binary indicators. *Positive Share* and *Negative Share* take the value of 1 when a newly released poll suggests a promising or disappointing result for the party, respectively. For days without new polls, both variables take the value of 0. The expectation is that the probability of party leaders mentioning polls in campaign events increases *only* when the survey presents a promising result for the party.

Table 5.2 presents the results of three logistic regressions with the probability of party leaders mentioning their own poll standings as the outcome variable.[14] Model 1 only includes a dummy for whether a poll was published on the previous day. As expected, new polls

[13]The exact wording on the questionnaire filled by the coders was the following: "Does the subject mention its own placement in recent opinion polls?"

[14]The models described here estimate the probability of references to polls in $t+1$, the day after a survey is published. The results are robust to the inclusion of $t+2$ and $t+3$. Table D1.2 presents these results.

become part of the campaign discourse, as party leaders are more likely to mention their own placement in the survey. Although not theoretically relevant, this result offers some baseline evidence that parties react to opinion polls published in the media, regardless of the private polling data they may have access to.

Model 2, in turn, distinguishes between polls reporting estimates *above and below* the vote share obtained by the party in the previous general election. Again, the baseline category is no poll being published on the previous day. The coefficients for the two indicators are positive. However, only promising polls – those with estimates of voting intentions above the previous vote share – significantly affect the probability of a party referencing them. The model predicts a meaningfully different reaction to polls based on the results of the study. The probability that a party mentions its poll standings goes from 10.6% after a disappointing result, to 32.7% after promising polls. This difference is statistically significant at conventional levels (p-value of difference in coefficients = 0.04).

Finally, as a robustness check, the third model in Table 5.2 includes a different specification of polling performance. Here, the results of a given poll are compared with the estimates from the *previous published poll*. Conceptually, this represents a more nuanced measure of shifts in public opinion, and a harder test of the argument. Substantively, the results hold. Only parties moving up in the estimates of voting intentions from one study to the next publicly reference their poll standings on the campaign trail.

Together these results offer some initial evidence that campaign contenders are strategic in their use of new polling results. However, so far the analysis has not taken into account the tone of the references. It is possible that parties are simply criticizing or discrediting polls, regardless of their performance, or reporting them neutrally and favoring instead a campaign driven by policy issues. Such patterns would not be consistent with the argument advanced here. Instead, parties should become more critical about polls when the results of a survey fall below their expectations, and more positive after promising results.

Table 5.2: The probability of party leaders referencing polls on the campaign trail, by features of poll results.

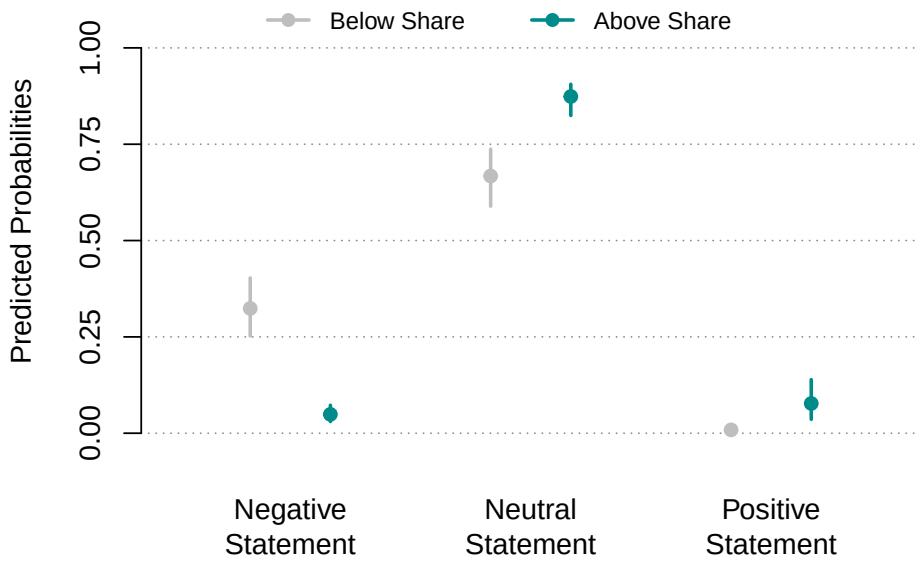
	Pr(Mention to Polls$_t$)		
	(1)	(2)	(3)
Poll$_{t-1}$	1.03*	-	-
	(0.49)		
Above Share$_{t-1}$	-	1.56**	-
		(0.55)	
Below Share$_{t-1}$	-	0.16	-
		(0.66)	
Above Estimate$_{t-1}$	-	-	1.24*
			(0.56)
Below Estimate$_{t-1}$	-	-	0.89
			(0.55)
Constant	−0.38	−0.34	1,242.25*
	(0.74)	(0.77)	(487.29)
Election Fixed Effects	Yes	Yes	Yes
Party Fixed Effects	Yes	Yes	Yes
Observations	150	150	150
Log Likelihood	−70.80	−68.63	−70.57

Note: Entries are coefficients of logistic regressions with mention to polls as the outcome variable (clustered standard errors in parentheses). Full model results in Table D1.1.*p<0.05; **p<0.01

CCDP data allows me to test this implication of the theory. For each statement about recent polls identified in the project, coders were asked to report if the tone of the subject was positive, neutral, or negative. This information was used to generate a new outcome variable that identifies the tone of references: −1 (negative tone), 0 (neutral tone), or 1 (positive tone). The same set of controls is included in the model.

Due to the functional form of the outcome variable, I estimated an ordered logit model. To ease the interpretation of the coefficients, Figure 5.1 displays the predicted probabilities for the three levels of the dependent variable – negative, neutral, or positive statement –, as a

Figure 5.1: Predicted probabilities of the effect of promising and disappointing polls on the type of mentions to to the study.



Note: Points are predicted probabilities of negative/neutral/positive references to polls (as described on the horizontal labels) as a function of newly released polls with disappointing results (*Below Share*) or promising results (*Above Share*). Bars represent 95% confidence intervals. Predicted probabilities and confidence intervals estimated from ordered logit (full model in Table D1.3).

function of poll results that are above or below the previous vote share.[15] The analysis reveals that different polling results significantly shape the tone of the statements made by party leaders. The probability of a negative mention to polls goes from 32.4% after a disappointing poll, to only 4.9% after a promising result. In turn, the probability of a positive mention to polls is less than one percent after a *Below Share* poll, but raises to 7.7% after an *Above Share* poll. These patterns are in line with the view that political leaders use public opinion surveys instrumentally.

[15]The full model is presented in Table D1.3.

5.4.2 Polls as Fine-Tuning Devices

The previous section established that parties use public opinion data selectively as part of their campaign strategy. Now, I explore how parties – regardless of their public statements about polls – use this information to inform their policy and valence rhetoric on the campaign trail. In order to test the effects of polls on how parties talk about themselves and about other contenders, I created three outcome variables.

Own Policy Emphasis is the share of self-statements made about policy issues, defined for party p in period t as

$$\text{Own Policy Emphasis}_{p,t} = \frac{\text{\# Own Policy Statements}_{p,t}}{\text{\# Own Policy Statements}_{p,t} + \text{\# Own Valence Statements}_{p,t}}. \quad (5.1)$$

This variable captures the attention devoted by party leaders to the policy positions endorsed by their party. The prediction derived from theory is that political elites facing disappointing polls will put more emphasis on their own policy issues when talking about themselves.

Others Policy Emphasis captures a similar construct – the share of mentions to policy issues – but regarding references to other parties. The variable is calculated as follows:

$$\text{Others Policy Emphasis}_{p,t} = \frac{\text{\# Others Policy Statements}_{p,t}}{\text{\# Others Policy Statements}_{p,t} + \text{\# Others Valence Statements}_{p,t}}. \quad (5.2)$$

This measure captures the emphasis put by party leaders on policy issues *when talking about other parties in the election*. As described above, incentives for issue trespassing are expected to increase for parties underperforming in the polls. Hence, disappointing polls should lead to an enhanced attention to policies endorsed by other parties.

Finally, *Campaign Negativity* is measured as the proportion of valence statements devoted to other parties:

$$\text{Campaign Negativity}_{p,t} = \frac{\text{\# Others Valence Statements}_{p,t}}{\text{\# Others Valence Statements}_{p,t} + \text{\# Own Valence Statements}_{p,t}}. \quad (5.3)$$

The tone of the valence references is not directly captured in this measure. However, 94.1% of all statements about other parties' valence characteristics where negative in tone, while 85.0% of self-valence statements in the dataset were positive in tone. Hence, I expect a negative relationship between performance in the polls and campaign negativity.[16]

Polling performance, in turn, is captured as the difference between the voting intentions for a given party and its vote share in the previous election (*Share Difference*). For days without new polls, a linear interpolation was calculated.[17] Figure 5.2 plots the measure produced for each of the parties in the 2009 and 2011 campaigns. Although broad trends can be identified, each individual poll provides considerable variation for all five parties.[18] The analyses reported below leverage this variability.

Table 5.3 presents the results from three linear regressions, where the unit of analysis is party-day. Model 1 has *Own Policy Emphasis* as the outcome variable. The negative coefficient of *Share Difference* suggests that parties are more likely to emphasize their own policy positions in the days following disappointing polls. This result is substantively meaningful. The point estimate suggests that if a party goes from a share difference of +3 to −3, the proportion of self-statements devoted to policy issues increases 18 points (-6*$-0.03 = 0.18$). Since the average number of self-statements in a three-day period is 19, the model predicts that this hypothetical shift would lead to 3.4 more statements devoted to policy (0.18*19 = 3.42). This finding conforms with the expectation that parties adjust how they talk about themselves on the campaign trail, in response to public opinion signals.

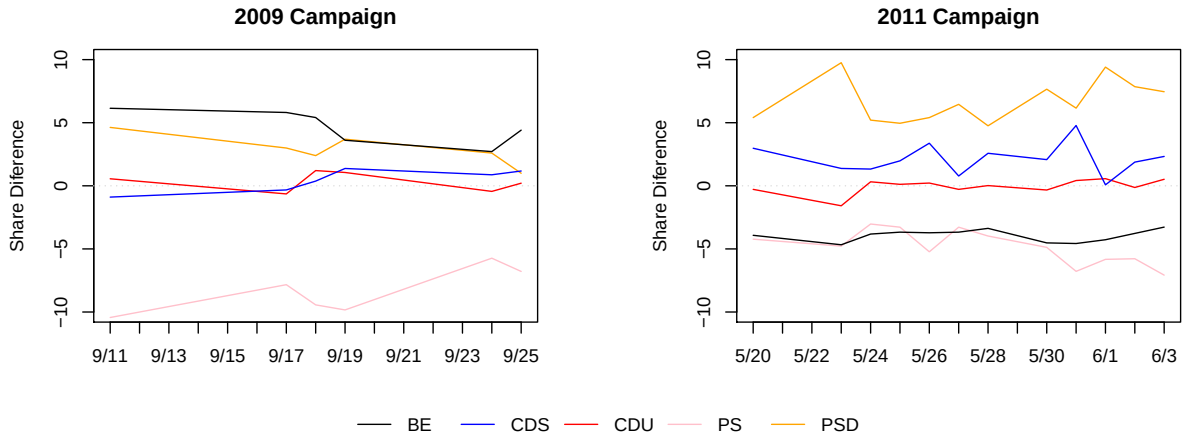
A similar process takes place with respect to references to other parties. Model 2 has

[16] All three outcome variable are measured for three-day periods. The distribution of the different variables can be found in the Figure D1.1.

[17] For instance, if in $t = 1$ a poll estimate for a given party is 15%, and the next poll came out in $t = 3$ with the estimate of 20%, the estimate associated with day 2 is 17.5%. The results are substantively similar when piecewise constant interpolation is adopted. In this case, the estimated voting intentions on days without new polls remain constant at the level observed in the last survey.

[18] The exception to this pattern is the Communist Party (CDU), which is known for its stable voter base (Magalhães 2014; Van Biezen 1998). The fixed effects framework accounts for systematic differences across parties.

Figure 5.2: Campaign performance by party, across the 2009 and 2011 campaigns.



Note: Each panel plots the difference between estimated voting intentions and previous vote share (*Share Difference*) by campaign day, for each party, in 2009 (left panel) and 2011 (right panel).

Others Policy Emphasis as the response variable. The model predicts that the better one party is performing in the polls, the less likely it is to talk about the policy positions of other parties. The coefficient of -0.02 suggests that, with the remaining variables held constant, a 6-point increase in *Share Difference* is associated with a 12-points decrease in the proportion of statements referencing the policy positions of other parties ($6 \times -0.02 = -0.12$). This result is in line with the argument that incentives for issue trespassing increase when parties are underperforming in the polls.

Finally, the third column in Table 5.3 assesses how the parties' propensity for negativity is shaped by polling results. Mentions to the valence characteristics of other parties are a central feature of negative campaigning (Lau and Rovner 2009). The model predicts that the propensity for negativity increases when parties are underperforming in the polls. The coefficient for the effect of *Share Difference* is -0.01 and marginally reliable at conventional levels (p-value $= .052$). Although smaller in magnitude, the point estimate is still relevant. Returning to the hypothetical example used above, the model predicts that a 6-points de-

Table 5.3: The effects of public opinion polling on campaign rhetoric.

	Own Policy Emphasis	Others Policy Emphasis	Campaign Negativity
	(1)	(2)	(3)
Share Difference	-0.03^{**}	-0.02^{**}	$-0.01^{\dagger}$
	(0.01)	(0.01)	(0.01)
Days to Election	0.02^{**}	0.02^{**}	-0.01^{*}
	(0.004)	(0.004)	(0.003)
Constant	0.48^{**}	0.36^{**}	-0.24^{**}
	(0.05)	(0.05)	(0.04)
Election Fixed Effects	Yes	Yes	Yes
Party Fixed Effects	Yes	Yes	Yes
Observations	150	150	150
Adjusted R^2	0.33	0.30	0.29

Note: Entries are OLS coefficients (clustered standard errors in parentheses). Outcome variables in column headers. Full model results in Table D1.4. †p<0.10; *p<0.05; **p<0.01

crease in the polls is associated with an identical increase in the share of valence statements devoted to other parties. Since over 94% of references to other parties' valence characteristics are negative in tone, this result suggests that underperforming contenders are more likely to adopt an offensive strategy targeted at other parties.[19]

5.5 Discussion

For decades, research on campaign effects has explored how different party appeals and campaign events shape the attitudes and behavior of voters. We know considerably less about the ways political elites use the ongoing information generated throughout a campaign to inform their behavior. This chapter sheds some initial light on this question by exploring how party leaders instrumentally use pre-election polls on the campaign trail.

[19]The results are substantively the same when the measure of campaign negativity excludes non-negative valence statements about other parties (point estimate = 0.012; p-value = 0.04). See Table D1.5, in the Appendix, for more details.

I argue that parties use public opinion data as tools to mobilize voters and to fine-tune their campaign messages. The study finds evidence in line with this view based on a novel database of campaign statements made by Portuguese parties, combined with public opinion data published during the same period. The results suggest that party leaders use polling information strategically as mobilization tools. By emphasizing results from promising polls while criticizing less optimistic studies, parties can try to shape the perceptions of voters regarding the course of the race. In turn, opinion polling is also used to update campaign strategies. Party leaders are more likely to emphasize their own policy positions and the policy positions of other parties after disappointing polls. I argue that these patterns result from an effort to consolidate perceptions of issue ownership. Previous research shows that party rhetoric can shape perceptions of issue ownership (Walgrave et al. 2009). Still, further analyses are required to isolate the precise mechanisms driving this relationship. Finally, in line with previous work, the analyses reveal that public opinion signals also drive tendencies for negative campaigning. Parties performing well in the polls are less likely to attack their opponents' honesty, integrity, or competence.

The data compiled for the current study has advantages but also limitations that are worth noticing, as they may pave the way for future contributions. First, the analysis is restricted to a single European country raising concerns of generalizability. Although recent scholarship reveals high levels of homogeneity in campaign strategies across European parties (Lilleker et al. 2015), Portuguese campaigns remain less professionalized than in other Western European countries like Germany, Italy, or Sweden (Lisi 2011). My expectation is that more resourceful and professional campaigns would be even more efficient at responding to voter signals, although this remains an open question. Moreover, the Portuguese party system lacks the same diversity of special-issue or populist parties that are becoming increasingly common across Europe. It is still unclear whether the patterns uncovered here hold for less established and anti-systemic political organizations. Finally, it is possible that the

patterns of rhetorical fine-tuning uncovered here are 'noisier' in electoral systems with more personal vote-seeking incentives. Research in countries where the preferential vote system has been strengthened shows that a sizable number of candidates engage in personalized campaigns (Eder et al. 2015). The degree to which the key messages of a party remain discernible in these contexts require further investigation. Still, the arguments advanced here suggest that this should only be a concern when the campaign performance of an individual party varies considerably across districts. Otherwise, pre-election polls should be providing similar signals to the different candidates of a given party.

Second, although CCDP provides invaluable fine-grained data on daily campaign rhetoric, these data are mediated by journalists who may – inadvertently or not – induce bias in their coverage. All the analyses reported above include fixed effects by party to account for systematic differences in coverage across parties. Still, the study is unable to rule out all sources of bias. A recent survey of European media systems highlights Portugal as one of the countries with lowest levels of political bias in media coverage (Santana-Pereira and Nina 2016), largely due to strict campaign coverage laws. That said, future contributions would benefit from contrasting CCDP data with unfiltered measures of campaign rhetoric, such as party press releases or social media communication.

Finally, the current study is not in a position to make causal claims. The interpretation of the findings was made with this limitation in mind. Future scholarship is needed to further investigate the arguments advanced here, and their underlying mechanisms. A survey experiment with elected officials would be an ideal setting to isolate how political elites respond to different public opinion signals. Moreover, I encourage researchers to further explore the nuances of campaign rhetoric. The focus on policy and valence issues in this study provides an interesting step in this process, but the typology of statements adopted is coarse. Future data collection efforts would benefit from a more detailed analysis of elite rhetoric. Additionally, an interesting question left open in the current study is who do

parties discuss when underperforming in the campaign. Do trailing parties focus on the front-runner, on more ideologically proximate competitors, or parties with similar sizes? Answering this question would help us further understand the dynamics of the supply-side of political campaigns.

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Appendix A

Understanding and Reducing Biases in Elite Beliefs About the Electorate

This supplementary appendix includes the following sections:

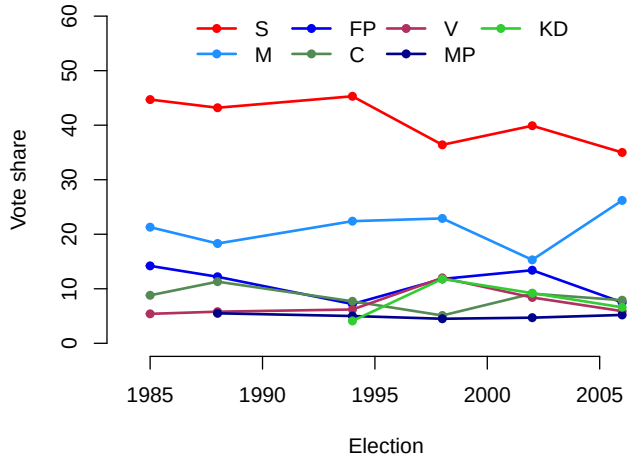
- **Appendix A.1** - Study 1: The Swedish context
- **Appendix A.2** - Study 1: Descriptives
- **Appendix A.3** - Study 1: Additional analyses
- **Appendix A.4** - Study 2: Case selection
- **Appendix A.5** - Study 2: Descriptives
- **Appendix A.6** - Study 2: Additional analyses
- **Appendix A.7** - Study 2: Informed consent and questionnaire

A.1 Study 1: The Swedish context

Study 1 is based on individual-level data from Swedish MPs. Sweden is a typical party-centered European system. Parties, as organizations, often play a significant role in providing the link between voters and representatives (Öhberg and Naurin 2016). Between 1985 and 2006, the period studied here, the political landscape was dominated by the Swedish Social Democratic party, winning the majority of votes in all seven elections with vote shares ranging from 35 to 45%. Public support for the remaining parties remained fairly stable throughout the two decades considered in the study. Figure A1.1 summarizes the vote shares received by the seven parties with at least one seat in the Swedish Riksdag during this period. Constitutionally, Sweden has influential parties organized in a parliamentary system with a low degree of separation of powers. Party cohesion is strong, but the relationship between candidates and voters is encouraged through a preferential vote system (Esaiasson and Holmberg 1996).

The Swedish Riksdag is composed by 349 members representing 29 multi-member districts. The districts vary in size, from Gotland (2 seats and roughly 44 thousand eligible voters) to Stockholm County (38 seats representing 892,592 voters, in 2014). Since 1985, the Swedish Parliamentary Study (RDU) regularly asks MPs to describe how important is promoting views they personally consider important, as part of their legislative work, *or* promote the views of their own constituency. Pooling the responses in all six waves of the survey, less than one fourth of MPs (22.0%) consider that behaving as a trustee is more important than behaving as a delegate. This statistic is likely to be inflated by social desirability bias, but still suggests how MPs perceive the value of accommodating voter preferences as part of their job. See Öhberg and Naurin (2016) for a similar conclusion.

Figure A1.1: Electoral support for Swedish parties: 1985-2006.



A.2 Study 1: Descriptives

Appendix A2 describes a series of descriptive analyses from Study 1. Table A2.1 lists the policy issues asked in each wave of the mass surveys, along with average levels of support. Table A2.2, in turn, describes the bivariate correlations between the different measures of high-status in the mass survey. The correlations range from .08 to .35. Finally, Table A2.3 provides descriptive statistics of all the main variables included in the analyses from Study 1.

Table A2.1: Policy issue questions concurrently asked in elite and mass surveys, and share of voters supporting each policy by year.

			Survey Year					
Policy issues	SNES	SOM	1986	1988	1994	1998	2002	2006
Reduce the public sector	✓	✓	41.6	38.5	32.6	26.6	26.8	29.2
Abolish the wage-earner funds	✓	-	55.5	-	-	-	-	-
Reduce defense spending	✓	✓	35.8	29.5	56.2	49.7	-	35.2
More health care should be privately run	✓	✓	53.4	47.5	21.6	28.9	-	37.3
Prohibit all kinds of pornography	✓	-	55.9	-	51.5	64.2	60.2	47.6
Allow commercials on TV	✓	✓	61.9	-	24.7	-	-	-
Build child care centers	✓	-	52.9	-	-	-	-	-
Introduce six hour working day	✓	✓	58.1	53.3	49.2	49.9	55.2	49.1
Retain nuclear power after 2010	✓	✓	29.3	36.5	40.3	-	-	-
Reduce income differences in society	✓	✓	-	59.4	60.3	64.4	-	71.6
Ban private driving in inner cities	✓	-	-	59.8	49.8	40.9	-	35.8
Raise taxes for high income earners	✓	-	-	-	75.0	-	-	-
Accept fewer refugees into Sweden	✓	✓	-	-	53.7	47.3	49.6	42.5
Gender quotas for public management positions	✓	-	-	-	31.8	-	-	-
Membership in the EMU	✓	✓	-	-	-	36.4	35.0	-
Sweden should abolish nuclear power	✓	✓	-	-	-	49.6	44.9	41.6
Sweden should leave the EU	✓	✓	-	-	-	38.7	-	27.5
Sweden should apply for NATO	✓	✓	-	-	15.1	23.8	22.6	20.2
Less stringent labour laws	-	✓	-	-	-	-	29.4	-
Reduce taxes	✓	✓	-	-	-	-	51.8	57.9
Introduce language test for citizenship	✓	-	-	-	-	-	44.0	-
Strengthen the rights of animals	✓	✓	-	-	-	-	65.8	-
Sweden should introduce the Euro	✓	✓	-	-	-	-	-	35.4
Turkey should be granted membership	-	✓	-	-	-	-	-	12.3

Note: Entries are shares of supporters by policy issue and year (assuming a proportional distribution of undecided). SNES and SOM refer to the Swedish National Election Studies and the SOM Institute Survey, respectively. ✓s indicate that a given policy issue was asked in that survey. All policy items were also asked in the elite surveys.

Table A2.2: Correlations between measures of affluence in mass survey.

	White-collar	College degree	>85th income percentile	Urban
White-collar	-	0.28	0.35	0.15
College degree	-	-	0.21	0.08
>85th income percentile	-	-	-	0.19
Urban	-	-	-	-

Table A2.3: Descriptive statistics of key variables in MP-policy dataset.

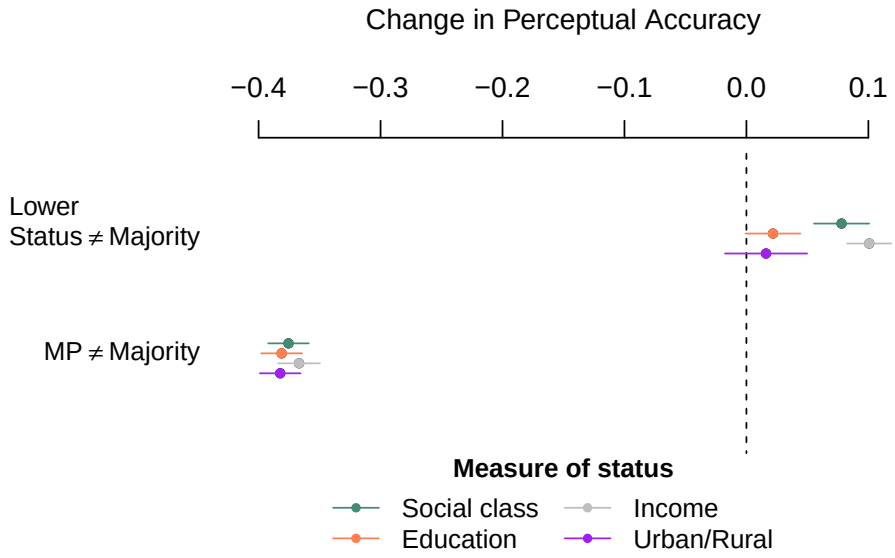
Variable name	Min	Max	Mean	Median	SD
Outcome variables					
Perceptual accuracy	0.00	1.00	0.73	1.00	0.44
Perceived policy support	0.00	1.00	0.50	0.00	0.50
Predictors					
White-collar $\neq$ Majority	0.00	1.00	0.08	0.00	0.27
Higher Education $\neq$ Majority	0.00	1.00	0.11	0.00	0.32
Higher Income $\neq$ Majority	0.00	1.00	0.16	0.00	0.37
Urban $\neq$ Majority	0.00	1.00	0.06	0.00	0.24
Blue-collar $\neq$ Majority	0.00	1.00	0.08	0.00	0.27
Lower Education $\neq$ Majority	0.00	1.00	0.11	0.00	0.31
Lower Income $\neq$ Majority	0.00	1.00	0.24	0.00	0.43
Rural $\neq$ Majority	0.00	1.00	0.04	0.00	0.20
MP and Voters dealigned	0.00	1.00	0.43	0.00	0.50
Moderators					
Contacts with unions	1.00	5.00	2.62	2.00	0.90
Contacts with businesses	1.00	5.00	2.80	3.00	0.91
White-collar MP	0.00	1.00	0.47	0.00	0.50
College degree MP	0.00	1.00	0.57	1.00	0.50
Urban MP	0.00	1.00	0.42	0.00	0.49
Controls					
Preference imbalance	0.00	0.49	0.21	0.21	0.13
Expertise	0.00	1.00	0.11	0.00	0.32
Experience in office (logged terms)	0.00	2.22	0.77	0.69	0.60

A.3 Study 1: Additional analyses

This section describes a series of robustness checks and sensitivity analyses complementing the main results of Study 1. Table A3.1 presents the full models used to build Figure 2.2 in the main text. Table A3.2 replicates the main analyses with fixed effects by individual MP (1,205 unique legislators). The results are robust to this stricter modelling strategy accounting for any systematic differences across legislators. In Table A3.3, in turn, I replicate the main findings based on a different conceptualization of constituency: the electorate as a whole. This is possible since in 1985 (and only in this wave) the parliamentary survey asked MPs not only about the preferences of their own party voters (used in the main analyses), but also of the electorate as a whole. Besides the decrease in scope and statistical power, the same substantive results are obtained. These results suggest that the key findings reported in Study 1 (see Figure 2.2) do not seem to be contingent on the definition of constituency adopted.

Figure A3.1, in turn, reveals that the effects of high-status disagreement does not replicate among low-status voters. When less privileged subconstituencies disagree with the majority in a given party, perceptual accuracy *does not* decrease. Tables A3.4, A3.5, and A3.6 replicate the main analyses including a) undecided voters in the measure of public support, b) bootstrap standard errors to account for uncertainty in public opinion estimates derived from the mass surveys, and c) distinguishing between large and small parties, respectively. These analyses mitigate concerns that the findings reported in the main text are contingent on the measurement strategy adopted. Table A3.7 reestimates the main analyses with logit models to account for the binary outcome. The same results are obtained. Finally, Tables A3.8 and A3.9 provide supporting information to the mechanism tests for the exposure hypothesis, reported in the main text in Figures 2.3 and 2.4, respectively.

Figure A3.1: The role of low-status voters and MP personal preferences on perceptual accuracy.



Note: Dots are estimates from linear probability models with perceptual accuracy as the outcome variable. Horizontal lines represent 95% confidence intervals. The main predictors are listed on the y-axis. Exact color represents a distinct model based on the operationalization of high-status voters.

Table A3.1: The role of high-status voters and MP personal preferences on perceptual accuracy. Complement to Figure 2.2.

	Perceptual Accuracy			
	Social Class	Education	Income	Urban
	(1)	(2)	(3)	(4)
High-Status ≠ Majority	−0.12**	−0.11**	−0.04**	−0.10**
	(0.01)	(0.01)	(0.01)	(0.01)
MP and Voters dealigned	−0.38**	−0.37**	−0.38**	−0.38**
	(0.01)	(0.01)	(0.01)	(0.01)
Preference Imbalance	0.71**	0.69**	0.77**	0.75**
	(0.03)	(0.03)	(0.03)	(0.03)
Expertise	−0.001	−0.001	−0.001	−0.001
	(0.01)	(0.01)	(0.01)	(0.01)
Experience in office	0.01	0.01	0.01	0.01
	(0.004)	(0.004)	(0.004)	(0.004)
Constant	0.45**	0.46**	0.44**	0.44**
	(0.11)	(0.11)	(0.11)	(0.11)
Policy FE	Yes	Yes	Yes	Yes
Survey FE	Yes	Yes	Yes	Yes
Party FE	Yes	Yes	Yes	Yes
Observations	22,373	22,373	22,351	22,373
Adjusted R^2	0.35	0.35	0.34	0.34

Entries are coefficients of linear probability models with *Perceptual Accuracy* as the outcome. Column headers describe the conceptualization of high-status voters in each model. **p < .01; *p < .05

Table A3.2: Determinants of perceptual accuracy, with fixed effects by individual MP.

	Perceptual Accuracy			
	Social Class	Education	Income	Urban
	(1)	(2)	(3)	(4)
High-Status ≠ Majority	-0.12^{**}	-0.11^{**}	-0.05^{**}	-0.09^{**}
	(0.01)	(0.01)	(0.01)	(0.01)
MP and Voters dealigned	-0.42^{**}	-0.41^{**}	-0.42^{**}	-0.42^{**}
	(0.01)	(0.01)	(0.01)	(0.01)
Preference Imbalance	0.61^{**}	0.61^{**}	0.64^{**}	0.65^{**}
	(0.02)	(0.02)	(0.02)	(0.02)
Expertise	0.003	0.004	0.002	0.004
	(0.01)	(0.01)	(0.01)	(0.01)
Experience in office	0.004	0.004	0.004	0.002
	(0.01)	(0.01)	(0.01)	(0.01)
Constant	0.87^{**}	0.86^{**}	0.86^{**}	0.86^{**}
	(0.11)	(0.11)	(0.11)	(0.11)
Legislator FE	Yes	Yes	Yes	Yes
Observations	22,373	22,373	22,351	22,373
Adjusted R^2	0.33	0.33	0.33	0.33

Entries are model coefficients of linear probability models with fixed effects by individual MP (N = 1,069). Column headers describe conceptualization of affluence for each respective model. $^{**}p < .01$; $^{*}p < .05$

Table A3.3: The role of high-status voters and MP personal preferences on perceptual accuracy, with *whole electorate* as the reference constituency.

	Perceptual Accuracy		
	Social Class	Education	Income
	(1)	(2)	(3)
High-Status ≠ Majority	−0.09*	−0.09*	−0.09*
	(0.04)	(0.04)	(0.04)
MP and Electorate dealigned	−0.32**	−0.32**	−0.32**
	(0.02)	(0.02)	(0.02)
Preference Imbalance	0.26	0.26	0.26
	(0.17)	(0.17)	(0.17)
Expertise	−0.002	−0.002	−0.002
	(0.03)	(0.03)	(0.03)
Experience in office	−0.003	−0.003	−0.003
	(0.01)	(0.01)	(0.01)
Constant	0.79**	0.79**	0.79**
	(0.03)	(0.03)	(0.03)
Party FE	Yes	Yes	Yes
Observations	2,792	2,792	2,792
Adjusted R^2	0.11	0.11	0.11

Entries are model coefficients of linear probability models (cluster-robust standard errors in parenthesis). Column headers describe conceptualization of high-status for each respective model. The analyses are based exclusively on data from the 1985 wave of the parliamentary survey (RDU). Therefore, survey and policy FEs were omitted. Urban/rural models not estimated due to lack of variability in the predictors. **p < .01; *p < .05

Table A3.4: The role of high-status voters and MP personal preferences on perceptual accuracy, including undecided voters in public opinion measures.

	Perceptual Accuracy			
	Social Class	Education	Income	Urban
	(1)	(2)	(3)	(4)
High-Status ≠ Majority	−0.10**	−0.09**	−0.07**	−0.14**
	(0.02)	(0.01)	(0.01)	(0.02)
MP and Voters dealigned	−0.38**	−0.38**	−0.38**	−0.39**
	(0.01)	(0.01)	(0.01)	(0.01)
Preference Imbalance	0.62**	0.61**	0.60**	0.62**
	(0.02)	(0.02)	(0.02)	(0.02)
Expertise	0.01	0.01	0.01	0.01
	(0.01)	(0.01)	(0.01)	(0.01)
Experience in office	−0.0005	−0.002	−0.002	−0.0004
	(0.005)	(0.005)	(0.005)	(0.005)
Constant	0.80**	0.81**	0.80**	0.81**
	(0.02)	(0.02)	(0.02)	(0.02)
Policy FE	Yes	Yes	Yes	Yes
Survey FE	Yes	Yes	Yes	Yes
Party FE	Yes	Yes	Yes	Yes
Observations	22,373	22,373	22,351	22,373
Adjusted R^2	0.29	0.29	0.29	0.29

Entries are model coefficients of linear probability models (cluster-robust standard errors in parenthesis). Column headers describe conceptualization of high-status for each respective model. **p < .01; *p < .05

Table A3.5: The role of high-status voter and MP personal preferences on perceptual accuracy, with bootstrapped standard errors.

	Perceptual Accuracy			
	Social Class	Education	Income	Urban
	(1)	(2)	(3)	(4)
High-Status ≠ Majority	−0.12**	−0.11**	−0.04*	−0.10**
	(0.03)	(0.03)	(0.02)	(0.03)
MP and Voters dealigned	−0.38**	−0.37**	−0.38**	−0.38**
	(0.01)	(0.01)	(0.01)	(0.01)
Preference Imbalance	0.71**	0.69**	0.77**	0.75**
	(0.04)	(0.04)	(0.04)	(0.04)
Expertise	−0.001	−0.001	−0.001	−0.001
	(0.01)	(0.01)	(0.01)	(0.01)
Experience in office	0.01	0.01	0.01	0.01
	(0.004)	(0.004)	(0.004)	(0.004)
Constant	0.45**	0.46**	0.44**	0.44**
	(0.14)	(0.13)	(0.13)	(0.13)
Policy FE	Yes	Yes	Yes	Yes
Survey FE	Yes	Yes	Yes	Yes
Party FE	Yes	Yes	Yes	Yes
Observations	22,373	22,373	22,351	22,373
Adjusted R^2	0.35	0.35	0.34	0.34

Entries are coefficients of linear probability models with *Perceptual Accuracy* as the outcome (bootstrapped standard errors in parenthesis). Column headers describe the conceptualization of high-status voters in each model. **p < .01; *p < .05

Table A3.6: The role of affluent voter and MP personal preferences on perceptual accuracy, among large and small parties.

	Social Class		Education		Income	
	(1)	(2)	(3)	(4)	(5)	(6)
High-Status ≠ Majority	−0.11**	−0.09**	−0.10**	−0.13**	−0.04**	−0.05**
	(0.02)	(0.03)	(0.02)	(0.02)	(0.01)	(0.02)
MP and Voters dealigned	−0.35**	−0.41**	−0.35**	−0.41**	−0.35**	−0.41**
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Preference Imbalance	0.76**	0.54**	0.76**	0.46**	0.82**	0.52**
	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.05)
Expertise	−0.001	−0.003	−0.001	−0.003	−0.001	−0.003
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Experience in office	−0.002	0.02**	−0.002	0.02**	−0.001	0.02**
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Constant	0.48**	0.42**	0.48**	0.45**	0.46**	0.43**
	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)
Policy FE	Yes	Yes	Yes	Yes	Yes	Yes
Survey FE	Yes	Yes	Yes	Yes	Yes	Yes
Party FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	14,271	8,102	14,271	8,102	14,271	8,080
Adjusted R^2	0.35	0.36	0.35	0.37	0.35	0.36

Entries are model coefficients of linear probability models (cluster-robust standard errors in parenthesis). Column headers describe conceptualization of affluence for each respective model. Models 1-3-5 restrict the analyses to large parties (Social Democratic Party, and Moderate Party); models 2-4-6 restrict the analysis to smaller parties. $^{**}p < .01$; $^{*}p < .05$

Table A3.7: Logit models of the role of affluent voter and MP personal preferences on perceptual accuracy.

	Perceptual Accuracy			
	Social Class	Education	Income	Urban
	(1)	(2)	(3)	(4)
High-Status ≠ Majority	−0.28**	−0.22**	0.13*	−0.20*
	(0.08)	(0.07)	(0.07)	(0.08)
MP and Voters dealigned	−2.28**	−2.27**	−2.29**	−2.28**
	(0.06)	(0.06)	(0.06)	(0.06)
Preference Imbalance	6.40**	6.41**	7.10**	6.57**
	(0.26)	(0.25)	(0.28)	(0.24)
Expertise	−0.03	−0.03	−0.03	−0.03
	(0.06)	(0.06)	(0.06)	(0.06)
Experience in office	0.04	0.04	0.04	0.04
	(0.03)	(0.03)	(0.03)	(0.03)
Constant	1.80**	1.81**	1.70**	1.79**
	(0.13)	(0.13)	(0.14)	(0.13)
Policy FE	Yes	Yes	Yes	Yes
Survey FE	Yes	Yes	Yes	Yes
Party FE	Yes	Yes	Yes	Yes
Observations	22,373	22,373	22,351	22,373
AIC	17,473.8	17,477.3	17,454.0	17,481.4

Entries are coefficients of logit models (cluster-robust standard errors in parenthesis). Column headers describe the conceptualization of affluence for each respective model. **p < .01; *p < .05

Table A3.8: The marginal effects of white-collar voters disagreeing with the majority on perceptual accuracy, conditional on MP contacts with (a) blue collar unions, and (b) business organizations. Complement to Figure 2.3.

	Perceptual Accuracy	
	(1)	(2)
High-Status ≠ Majority	−0.20**	−0.09*
	(0.04)	(0.04)
Union contacts	−0.001	-
	(0.004)	
White-Collar ≠ Majority × Union Contacts	0.02	-
	(0.01)	
Business contacts	-	0.01*
		(0.004)
White-Collar ≠ Majority × Business Contacts	-	−0.02
		(0.01)
MP and Voters dealigned	−0.36**	−0.36**
	(0.01)	(0.01)
Preference Imbalance	0.71**	0.72**
	(0.03)	(0.03)
Expertise	−0.001	−0.001
	(0.01)	(0.01)
Experience in office	0.01	0.004
	(0.01)	(0.01)
Constant	0.81**	0.79**
	(0.02)	(0.02)
Policy FE	Yes	Yes
Survey FE	Yes	Yes
Party FE	Yes	Yes
Observations	16,093	16,099
Adjusted R^2	0.36	0.36

Entries are coefficients of linear probability models with *Perceptual Accuracy* as the outcome variable (cluster-robust standard errors in parenthesis). **p < .01; *p < .05

Table A3.9: The effects of different voter preferences on perceived policy support, conditional on MPs background. Complement to Figure 2.4.

	Perceptual Accuracy		
	Social Class	Education	Urban
	(1)	(2)	(3)
High-Status ≠ Majority	−0.11**	−0.08**	−0.08**
	(0.02)	(0.02)	(0.02)
White collar MP	0.01	-	-
	(0.01)		
High-Status ≠ Majority × White collar MP	−0.01	-	-
	(0.02)		
College degree MP	-	−0.01	-
		(0.01)	
High-Status ≠ Majority × College degree MP	-	−0.05*	-
		(0.02)	
Urban MP	-	-	−0.01
			(0.01)
High-Status ≠ Majority × Urban MP	-	-	−0.05*
			(0.02)
MP and Voters dealigned	−0.38**	−0.37**	−0.38**
	(0.01)	(0.01)	(0.01)
Preference Imbalance	0.71**	0.69**	0.75**
	(0.03)	(0.03)	(0.03)
Expertise	−0.001	−0.001	−0.001
	(0.01)	(0.01)	(0.01)
Experience in office	0.01	0.01	0.01
	(0.004)	(0.004)	(0.004)
Policy FE	Yes	Yes	Yes
Survey FE	Yes	Yes	Yes
Party FE	Yes	Yes	Yes
Observations	22,373	22,373	22,373
Adjusted R^2	0.35	0.35	0.34

Entries are coefficients of linear probability models with *Perceptual Accuracy* as the outcome variable (cluster-robust standard errors in parenthesis). Column headers describe conceptualization of high-status for each respective model. **p < .01; *p < .05

A.4 Study 2: Case selection

Switzerland holds an average of 10 popular voters per year (Giger and Klüver 2016). There are three types of direct democratic instruments in the country: *mandatory referendums* for constitutional changes initiated by the Federal Assembly; *optional referendums* to vote on laws already accepted by the Federal Assembly; and *popular initiatives* where citizens can propose constitutional amendments, by collecting 100,00 signatures or more. The two issues explored in this study are popular initiatives. This study leverages referendum results to produce *accurate measures* of expressed public preferences at different levels of geographical aggregation.

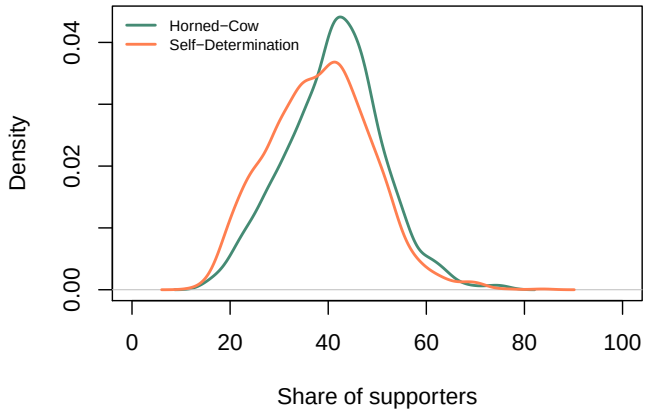
It is worth elaborating on this opportunity. Previous work on perceptions of public opinion contrasted elite beliefs with constituency opinion based on nationally representative samples (e.g., Converse and Pierce 1986, Miller and Stokes 1963). However, by partitioning representative samples, the different sub-groups may no longer be representative. Recently, the combination of larger samples with poststratification techniques (Park et al. 2004) motivated new work on elite perceptions (Broockman and Skovron 2018; Hertel-Fernandez et al. 2019). However, this method still relies on important assumptions about the data (Buttice and Highton 2013), and sample sizes that are rare outside the United States. By relying on the actual behavior of voters on different referendums it is possible to have accurate measures of expressed preferences even in small administrative units.

Two other features of the Swiss context make it an interesting case to study elite misperceptions. First, the large number of popular votes gives Swiss representatives ample resources to develop accurate perceptions of voters. Second, Swiss municipalities are fairly small. In 2014, the average population was 3,545 inhabitants. Hence, the task of gauging public opinion is arguably easier than in larger and more diverse constituencies, leaving less room to improve elite perceptions.

Swiss municipalities are relatively small, with roughly half having less than 1,000 inhabitants. Despite their size, municipalities play an important role in the Swiss political system, being responsible for over 30% of public spending and having wide fiscal autonomy (Ladner 2006).

To collect data on elite perceptions of public support for the policy issues on the ballot, I fielded a survey with municipal representatives: members of the executive council. Municipal governments are governed by a local council and headed by a mayor, like most of their

Figure A5.1: Distributions of local-level support for the horned-cow and self-determination referendums.



Note: Lines represent density functions of the share of supporters in each municipality for each of the referendums.

European counterparts (Norton 1991). The legislative side of Swiss local governments can either take the form of town meetings or city parliaments. But officials in this branch were not included in the study. Nearly two thirds of all councilors do not belong to a specific political party. Finally, like in the United States and in other European countries, in most Swiss municipalities local councilor is a part-time occupation.

A.5 Study 2: Descriptives

This section of the Appendix describes some relevant descriptive information from Study 2. Table A5.1 provides basic demographics of the sample of local officials who took part in the survey, and compares this sample with the larger pool of officials from which they were recruited (N = 6,973), representing nearly 60% of the population of Swiss local councilors. There are no statistically distinguishable differences across the samples on the observed characteristics. Figure A5.1 plots the distribution of local support for the two initiatives included in the study. The distributions reveal considerable variation across municipalities.

Table A5.2, in turn, provides a series of covariate balance tests suggesting that the randomization worked properly on these relevant observables. Finally, Figure A5.2 provides screenshots of the exposure vignette.

Table A5.1: Descriptive characteristics of the recruitment pool and study participants.

	Pool	Sample
Female (%)	25.78	22.41
Age (years)	54.02	54.54
University degree or higher (%)	36.29	41.59
Experience in office (years)	7.9	8.0
In majority (%)	–	66.45
Hired by local administration (%)	30.90	29.98
Full time politician (%)	17.40	18.14
FDP member (%)	29.40	30.57
SVP member (%)	20.15	18.51
SP member (%)	12.96	15.87
Size of executive (N)	6.1	6.2
Population (N)	4463.0	4421.0
N	6,973	2,787

Note: The left column describes the pool of local officials surveyed in the 2017 National Survey of Members of Local Executives, representing $\approx 60\%$ of the population of Swiss local councilors. The right column describes the sample of officials recruited from this pool who took part in the current study.

Table A5.2: Covariate Balance across Treatment Groups.

Covariates	Control	Exposure	Exposure & Self-Awareness	p-value
FDP member	0.29	0.30	0.32	0.60
SVP member	0.20	0.19	0.17	0.35
SP member	0.15	0.16	0.17	0.67
German language	0.70	0.72	0.71	0.85
Population	4502.76	4135.50	4620.25	0.57
% SVP support	34.55	34.45	33.89	0.51
% Foreign-born citizens	17.12	16.59	17.54	0.10
% SP+Green support	21.30	21.31	21.71	0.51
% Farmers	13.94	13.44	12.49	0.09
In Majority	0.67	0.67	0.65	0.66
Election expectations	3.37	3.42	3.41	0.68
Support for self-determination	0.34	0.33	0.33	0.99
Support for horned-cow	0.33	0.32	0.35	0.33
Likelihood Ratio Test:				
Exposure - Control	$\chi^2(24) = 18.2$		$Pr(> \chi^2) = 0.79$	
Exposure & Self-Awareness - Control	$\chi^2(24) = 16.8$		$Pr(> \chi^2) = 0.86$	
Exposure & Self-Awareness - Exposure	$\chi^2(22) = 15.3$		$Pr(> \chi^2) = 0.85$	

Note: Entries in the top panel are means of covariates across treatment conditions and p-values correspond to F tests of difference in means. The model fit of logistic regressions with treatment assignments as a function of all covariates was compared with the respective null model. The likelihood ratio tests described in the bottom panel do not reject the null models.

Figure A5.2: Example of *Exposure* vignettes for self-determination initiative.

(a) Policy description

(b) Perceived electorate composition

(c) Contrasting perceptions with statistical data

(d) Measuring outcome

Note: Panel labels describe key goal of each step in the treatment, in alphabetical order. Panel (a) remained constant across treatment conditions (except for the last paragraph). Censored text refers to the municipality of the respondent.

A.6 Study 2: Additional analyses

This section presents a series of complementary results and sensitivity analyses regarding Study 2. Tables A6.1 and A6.2 complement Figures 2.5 and 2.6 in the main text. In turn, Tables A6.3 and A6.4 provide the results of the manipulation check implemented at the end of the study, and replicate the main results restricting the sample to respondents who passed the manipulation check, respectively. The effect sizes are consistently larger among local officials who passed the manipulation check.

Table A6.5 test whether the time between survey completion and the referendums moderated perceptual accuracy, and the treatment effects. The analysis provides no conclusive results. Finally, Figure A6.1 replicates the main analysis with an alternative outcome variable: the absolute difference between the official's estimate and the referendum results. The results for each initiative separately are substantively the same. Only the coefficient of Electorate Composition in the pooled analysis is no longer reliable.

Table A6.1: The effects of exposure and self-awareness to social projection on perceptual accuracy. Complement to Figure 2.5.

	Perceptual Accuracy		
	Self-Determination	Horned-Cow	Pooled
	(1)	(2)	(3)
Exposure	0.06**	0.03	0.05**
	(0.02)	(0.02)	(0.01)
Exposure & Self-Awareness	0.04*	0.02	0.03*
	(0.02)	(0.02)	(0.01)
Horned-cow initiative	-	-	0.02
			(0.01)
Constant	0.69**	0.73**	0.70**
	(0.01)	(0.01)	(0.01)
Observations	2,787	2,787	5,574
Adjusted R^2	0.003	0.000	0.002

Note: Entries are coefficients of linear probability models (SEs in parenthesis, and cluster-robust SEs in model 3) of the effect of providing information on the electorate composition and self-awareness on perceptual accuracy. *p<0.05; **p<0.01

Table A6.2: The effects of self-awareness on the propensity of legislators to project their preferences on the electorate. Complement to Figure 2.6.

	Predicted support		
	Self-Determination	Horned-Cow	Pooled
	(1)	(2)	(3)
Own support	3.10**	4.54**	3.77**
	(0.34)	(0.41)	(0.15)
Exposure & Self-Awareness	1.22	2.68*	1.93**
	(1.13)	(1.36)	(−0.42)
Own support × [Exposure & Self-Awareness]	−0.95*	−1.17*	−1.04**
	(0.48)	(0.58)	(0.15)
Horned-Cow Initiative	-	-	−7.33**
			(−0.07)
Constant	37.63**	26.88**	36.01**
	(0.80)	(0.96)	(0.45)
Observations	1,803	1,797	3,600
Adjusted R^2	0.06	0.09	0.13

Note: Entries are OLS estimates of the effect of policy support on perceptions of public support, by treatment group (SEs in parenthesis, and cluster-robust SEs in model 3). Control group omitted to isolate the effect of the self-awareness intervention. *p<0.05; **p<0.01

Table A6.3: Manipulation check.

Control	Exposure	Exposure & Self-Awareness
64.1	59.3	67.6
(611)	(539)	(616)

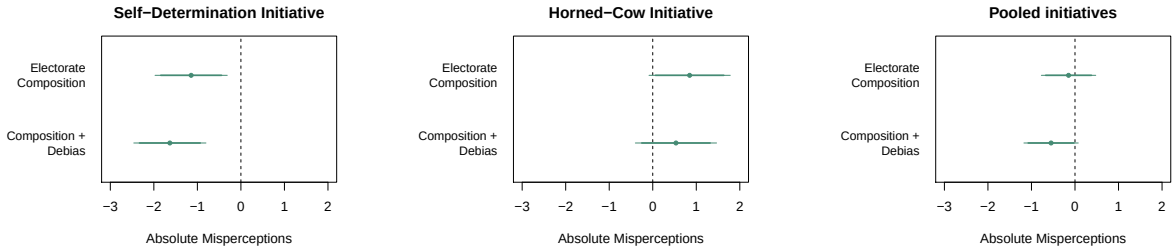
Note: Entries are the share and absolute number of respondents (in parenthesis) who correctly identified their treatment assignment, by treatment condition. Main treatment effects are robust to restricting the analyses to this sub-sample.

Table A6.4: Replication of main results among respondents who passed manipulation check (see Table A6.3).

	Perceived accuracy		
	Self-Determination	Horned-Cow	Pooled
	(1)	(2)	(3)
Exposure	0.10**	0.03	0.06**
	(0.03)	(0.03)	(0.02)
Exposure & Self-Awareness	0.06*	0.02	0.04*
	(0.03)	(0.02)	(0.02)
Horned-cow initiative	-	-	0.02
			(0.01)
Constant	0.68**	0.73**	0.70**
	(0.02)	(0.02)	(0.01)
Observations	1,766	1,766	3,532
Adjusted R^2	0.01	0.00	0.00

Note: Entries are coefficients of linear probability models (SEs in parenthesis) of the effect of providing information on electorate composition and self-awareness on perceptual accuracy. *p<0.05; **p<0.01

Figure A6.1: The effects of exposure and self-awareness to social projection on absolute misperceptions, by referendum.



(a) Self-Determination initiative (b) Horned-Cow initiative (c) Pooled initiatives

Note: Points are average treatment effects of exposure and exposure & self-awareness on absolute misperceptions (control group as reference point). Negative effects represent higher perceptual accuracy. Wider/Thinner horizontal lines are 95%/90% confidence interval from two-sample t-tests.

Table A6.5: The effect of distance between survey completion and federal vote on perceptual accuracy.

	Self-Determination		Horned-Cow		Pooled	
	(1)	(2)	(3)	(4)	(5)	(6)
Distance to election (days)	−0.003	0.004	−0.004	−0.002	−0.003	0.001
	(0.002)	(0.004)	(0.002)	(0.004)	(0.002)	(0.003)
Exposure	-	0.185	-	0.055	-	0.120
		(0.094)		(0.092)		(0.064)
Distance × Exposure	-	−0.008	-	−0.002	-	−0.005
		(0.006)		(0.006)		(0.004)
Exposure & Self-Awareness	-	0.197*	-	0.045	-	0.121
		(0.091)		(0.089)		(0.065)
Distance ×	-	−0.011	-	−0.002	-	−0.006
Exposure & Self-Awareness		(0.006)		(0.006)		(0.004)
Horned-cow initiative	-	-	-	-	0.019	0.019
					(0.012)	(0.012)
Constant	0.766**	0.632**	0.800**	0.765**	0.773**	0.689**
	(0.038)	(0.067)	(0.037)	(0.066)	(0.027)	(0.047)
Observations	2,787	2,787	2,787	2,787	5,574	5,574
Adjusted R^2	0.0001	0.003	0.001	−0.0002	0.001	0.002

Note: Entries are coefficients of linear probability models (SEs for models 1-4 and cluster-robust SEs for models 5-6) of the effect of distance between survey completion and election day, on perceptual accuracy. Models 1, 3, and 5 only include the measure of distance to referendum, while models 2, 4, and 6 interact this measure with the different treatments. *p<0.05; **p<0.01

A.7 Study 2: Informed consent and questionnaire

Informed consent - first page of the questionnaire

We invite you to participate in a research study being conducted by investigators from the [Name of university redacted for review purposes] and [Name of university redacted for review purposes]. You are being asked to participate in this research study because you showed interest in taking part in a follow-up survey of the 2017 National Survey of Municipal Executive Members. The purpose of the study is to learn about your expectations for upcoming referendums. Approximately 2,000 people will take part in this study.

If you agree to participate, we would like you to ask about your opinion on different policy issues, and your expectations about the results of upcoming referendums. The survey is short and will not take more than 5 minutes. You are free to skip any questions that you prefer not to answer. If at any point you want to interrupt your participation, you can simply close the web page.

There are no known risks from being in this study, and you will not benefit personally. However, we hope that others may benefit in the future from what we learn as a result of this study. You will not have any costs for being in this research study. You will not be paid for being in this research study.

We will keep the information you provide confidential by not asking you any personal questions. However, federal regulatory agencies and [Name of university redacted for review purposes], including the [Name of university redacted for review purposes] Institutional Review Board (a committee that reviews and approves research studies) and the [IRB office redacted for review purposes] may inspect and copy records pertaining to this research. If we write a report about this study, we will do so in such a way that you cannot be identified.

Your participation in this study is completely voluntary. You may choose not to take part at all. If you decide to participate in the study you may stop participating at any time. Any data that was collected as part of this study will remain as part of the study records and cannot be removed. If you decide not to take part in the study or if you stop participating at any time, you won't be penalized or lose any benefits for which you otherwise qualify. If you do not wish to participate in this study or want to end your participation in the study, return the survey without answering any of the questions. You will not be penalized or lose any benefits for which you otherwise qualify.

We encourage you to ask questions. If you have any questions about the research study itself or if you feel you have been harmed from being in the study, please contact: Professor [Name of author redacted for review purposes] ([Name of university redacted for review purposes], [Email redacted for review purposes]) or [Name of author redacted for review purposes] ([Name of university redacted for review purposes], [Email redacted for review purposes]). If you have questions, concerns, or complaints about your rights as a research participant, please contact the [IRB office redacted for review purposes] at [Email redacted for review purposes]. General information about being a research participant can be found on the [IRB office redacted for review purposes] web site, [Website redacted for review purposes]. To offer input about your experiences as a research participant or to speak to someone other than the research staff, call the Human Research Protection Office at the number above.

Thank you very much for your consideration of this research study.

Questionnaire

[start=1,label=(**Q0):**]We would like to start by asking you about your own position on a set of issues that will be subject to popular votes. Please indicate how much you Oppose or Support the following initiatives:

1.
   - Horned-Cow Initiative [The initiative aims to encourage farmers to raise cows and goats with horns through federal incentives.]
   - Self-Determination Initiative [Requires that in cases of conflict between Swiss law and international law, the former prevails.]
   - Legal basis for monitoring social insurance beneficiaries [To expand the surveillance capabilities of social insurance agencies investigating cases of suspicion involving social security beneficiaries.]

   [Response options: Very opposed, Slightly opposed, Slightly supportive, Very supportive]

2. In the last local election for your office, were there more than one candidate or party running?

   - Yes
   - No
   - Not Applicable

[Q3-5: If Yes/No]

3. In that election, what vote share did you or your party (if running in a list) receive? If you are not sure about the answer, just give us your best guess. You don't need to look it up.

4. Given your original expectations about the election, how did you feel about your results? The election results were: [Below my expectations, Slightly below my expectations, Just as I expected, Slightly above my expectations, Above my expectations]

5. Does you party or list currently hold a majority of seats in the executive? [Yes, No, Not Applicable]

6. On the 25th of November, Swiss citizens will be asked to vote on three federal referendums. On the next pages, we are interested in your expectations about the results of the referendums in your municipality: the share of voters in $e://Field/City that you expect to support each initiative. Read carefully the description of each issue under consideration before giving your prediction.

[Q7-13: If Control = 1; otherwise, jump to Q14]

7. Title: Self-Determination Initiative (Swiss Law over foreign judges)
   Description: The initiative launched by the SVP/UDC seeks to solve conflicts between the Federal Constitution and the international treaties signed by Switzerland. The idea is that if a popular initiative supported by a majority is in conflict with a pre-existing international treaty, the constitution will have to prevail (subject to peremptory rules of international law, such as the prohibition of torture). Currently, in the event of conflicts between the constitution and an international treaty, a solution through democratic processes is favored. In most cases, these conflicts are solved through a law change subject to an optional referendum.

8. It is always hard to anticipate the results of popular votes, but we would like to ask you to predict the share of voters in $e://Field/City that will SUPPORT the Self-Determination Initiative.

   Please give us your best guess from 0% to 100%: [0-100%]

9. How confident are you in your prediction? [Not confident at all, Slightly confident, Moderately confident, Highly confident]

10. On the next page, you will be asked to consider a different initiative that will be voted on the 25th of November.

11. Title: For the dignity of livestock (Horned-Cow Initiative)
    Description: Launched by the interest group "Hornkuh", this initiative aims to encourage farmers to raise cows and goats with horns. Today, 3 out of 4 cows are dehorned. Dehorning facilitates free-range cattle growing because it reduces the risk of injury. However, dehorning is a controversial practice. Since raising horned animals entails higher costs, the authors of the initiative would like the Confederation to support livestock producers.

12. It is always hard to anticipate the results of popular votes, but we would like to ask you to predict the share of voters in $e://Field/City that will SUPPORT the Horned-Cow Initiative.

    Please give us your best guess from 0% to 100%: [0-100%]

13. How confident are you in your prediction? [Not confident at all, Slightly confident, Moderately confident, Highly confident]

    [Q14-26: If Exposure = 1 OR Exposure+Self-Awareness = 1; otherwise, jump to Q27; randomize order of issue]

14. Title: For the dignity of livestock (Horned-Cow Initiative)
    Description: Launched by the interest group "Hornkuh", this initiative aims to encourage farmers to raise cows and goats with horns. Today, 3 out of 4 cows are dehorned. Dehorning facilitates free-range cattle growing because it reduces the risk of injury. However, dehorning is a controversial practice. Since raising horned animals entails higher costs, the authors of the initiative would like the Confederation to support livestock producers.

    We will ask you to predict the share of voters in your municipality that will support the Horned-Cow Initiative. However, because it is hard to anticipate the results of popular votes, we will give you some tips in advance.

15. Title: For the dignity of livestock (Horned-Cow Initiative)

    When thinking about the preferences of voters, it often helps considering the views of different groups in the constituency. To help you in this process, think about the residents of $e://Field/City and give us your best guess to the following questions:

    - What share of the workers in $e://Field/City works in the primary sector (including agriculture, forestry, or fishing)? [0-100%]
    - In the 2015 federal elections, what was the combined share of votes received by the SP and the GPS in $e://Field/City? [0-100%]

16. To give you some reference points, here are your answers along with the most recent data from the Federal Statistical Office in your municipality and in Switzerland as a whole.

	Your guess	$e://Field/City*	Switzerland*
% Workers in primary sector	from Q15	$e://Field/Farmers	3.2%
% SP and GPS supporters in 2015	from Q15	$e://Field/Left	25.9%

* Source: Federal Statistical Office

[Q17: If Exposure+Self-Awareness = 1, otherwise jump to Q18]

17. Finally, one last tip. Decades of research show that people tend to project their own preferences on others. Without noticing, we often overestimate approval for issues we support, while underestimating approval for issues we oppose. Try to take this into account when making your prediction.

18. With this in mind, give us your expectation of the share of voters in $e://Field/City that will SUPPORT the Horned-Cow Initiative. Please give us your best guess from 0% to 100%: [0-100%]

19. How confident are you in your prediction? [Not confident at all, Slightly confident, Moderately confident, Highly confident]

20. On the next page, you will be asked to consider a different initiative that will be voted on the 25th of November.

21. Title: Self-Determination Initiative (Swiss Law over foreign judges)
    Description: The initiative launched by the SVP/UDC seeks to solve conflicts between the Federal Constitution and the international treaties signed by Switzerland. The idea is that if a popular initiative supported by a majority is in conflict with a pre-existing international treaty, the constitution will have to prevail (subject to peremptory rules of international law, such as the prohibition of torture). Currently, in the event of conflicts between the constitution and an international treaty, a solution through democratic processes is favored. In most cases, these conflicts are solved through a law change subject to an optional referendum.

    We will ask you to predict the share of voters in your municipality that will support the Self-Determination Initiative. However, because it is hard to anticipate the results of popular votes, we will give you some tips in advance.

22. Title: Self-Determination Initiative (Swiss Law over foreign judges)

    When thinking about the preferences of voters, it often helps considering the views of different groups in the constituency. To help you in this process, think about the residents of $e://Field/City and give us your best guess to the following questions:

    - In the 2015 federal elections, what share of voters in $e://Field/City voted for the SVP? [0-100%]
    - What share of the population in $e://Field/City is foreigner? [0-100%]

23. To give you some reference points, here are your answers along with the most recent data from the Federal Statistical Office in your municipality and in Switzerland as a whole.

	Your guess	$e://Field/City*	Switzerland*
% SVP Supporters in 2015	from Q22	$e://Field/SVP	29.4%
% Foreigners	from Q22	$e://Field/Foreigners	24.6%

* Source: Federal Statistical Office

[Q24: If Exposure+Self-Awareness = 1, otherwise jump to Q25]

24. Finally, one last tip. Decades of research show that people tend to project their own preferences on others. Without noticing, we often overestimate approval for issues we support, while underestimating approval for issues we oppose. Try to take this into account when making your prediction.

25. With this in mind, give us your expectation of the share of voters in $e://Field/City that will SUPPORT the Self-Determination Initiative. Please give us your best guess from 0% to 100%: [0-100%]

26. How confident are you in your prediction? [Not confident at all, Slightly confident, Moderately confident, Highly confident]

27. In the prediction tasks above, which tips were you provided?

    - No tips
    - Information about the electorate
    - Information about the electorate and a suggestion to avoid projecting my own preferences
    - The results from an old referendum

[Q28: If Control = 1, otherwise jump to Q29]

28. This is your final screen. We know that survey questions sometimes don't allow one to tell the full story. We would welcome any feedback or suggestions you have on the survey in the box below: [open answer]

29. Would you like to be contacted with any reports we create based on this survey? We believe this can make your experience in the study more interesting. [Yes/No]

    That concludes the survey. Thank you for your time!

Appendix B

The Expertise Curse

This supplementary appendix includes the following sections:

- **Appendix B.1** - Versions of the policy appeal
- **Appendix B.2** - Descriptive statistics
- **Appendix B.3** - Sensitivity analyses

B.1 Versions of the policy appeal

The vignette used to test the expertise curse hypothesis varied both the issue domain of the policy appeal (to manipulate expertise), and the position of the group of voters sending the message (to hold issue disagreement constant). In total, the study included ten different versions of the hypothetical message: 5 policy issues × support/opposition. Below we present English tranlation of all ten versions.

Health care

In favor: Imagine the following: A group of voters is approaching you and wants you to **support** a proposal to ban companies for running hospitals. They believe that health care is facing major challenges. They see equality as a central issue. Their main argument is that a ban on companies for operating hospitals makes it **easier** for vulnerable patients to choose the healthcare they need.

Against: Imagine the following: A group of voters is approaching you and wants you to **oppose** a proposal to ban companies for running hospitals. They believe that health care is facing major challenges. They see equality as a central issue. Their main argument is that a ban on companies for operating hospitals makes it **more difficult** for vulnerable patients to choose the healthcare they need.

Education

In favor: Imagine the following: A group of voters is approaching you and wants you to **support** a proposal to provide more resources to charter schools. They believe that the school faces major challenges. They see equality as a central issue. Their main argument is that more resources for charter schools make it **easier** for vulnerable children to get a place in a school that takes care of their needs.

Against: Imagine the following: A group of voters is approaching you and wants you to **oppose** a proposal to provide more resources to charter schools. They believe that the school faces major challenges. They see equality as a central issue. Their main argument is that more resources for charter schools make it **more difficult** for vulnerable children to get a place in a school that takes care of their needs.

Immigration

In favor: Imagine the following: A group of voters is approaching you and wants you to **support** a proposal to receive fewer refugees. They believe that integration policies face major challenges. They see equality as a central issue. Their main argument is that **receiving fewer refugees** allows Sweden to take care of the most vulnerable groups in society.

Against: Imagine the following: A group of voters is approaching you and wants you to **oppose** a proposal to receive fewer refugees. They believe that integration policies face major challenges. They see equality as a central issue. Their main argument is that **accepting refugees** allows Sweden to take care of the most vulnerable groups in society.

Social Welfare

In favor: Imagine the following: A group of voters is approaching you and wants you to **support** a proposal to ban panhandling. They believe that the issue of social security faces major challenges. They see equality as a central issue. Their main argument is that a ban on panhandling would **help** protecting vulnerable groups in society.

Against: Imagine the following: A group of voters is approaching you and wants you to **oppose** a proposal to ban panhandling. They believe that the issue of social security faces major challenges. They see equality as a central issue. Their main argument is that a ban on panhandling would **not help** protecting vulnerable groups in society.

Housing

In favor: Imagine the following: A group of voters is approaching you and wants you to **support** a proposal for reduced interest deductions for home loans. They believe that the housing market faces major challenges. They see equality as a central issue. Their main argument is that lowered interest deductions for home mortgages would **reduce** the risk that vulnerable groups end up subsidizing the houses of more affluent people.

Against: Imagine the following. A group of voters is approaching you and wants you to **oppose** a proposal for reduced interest deductions for home loans. They believe that the housing market faces major challenges. They see equality as a central issue. Their main argument is that lowered interest deductions for home mortgages would **increase** the risk that vulnerable groups end up subsidizing the houses of more affluent people.

B.2 Descriptive statistics

Table B2.1 summarizes the political and demographic characteristics of the sample of elected officials that took part in the study. The sample is part of the Panel of Politicians and includes a diverse group of representatives from all main parties and levels of government. Table B2.2 describes perceptions of influence within the party group among Swedish MPs. The data comes from the 2010 Riksdag parliamentary survey and suggests that Swedish legislators influence their party group mainly within their own areas of expertise. Finally, Table B2.3 presents the distribution of issues areas identified by study participants as the domains of highest or lowest expertise.

Table B2.1: Demographic characteristics of the Panel of Politicians.

	Respondents
Age (years)	61.9
Female (%)	34.8
College degree or higher (%)	50.1
Social Democrats (%)	27.8
Moderate Party (%)	18.7
Centre Party	11.1
Left Party	10.7
Liberals (%)	10.3
Green Party (%)	8.2
Christian Democrats (%)	5.2
Sweden Democrats (%)	4.0
Local government	73.0
Regional government	16.8
National/European government	4.0

Note: Entries are percentages or average values for the 1,861 officials who completed the survey.

Table B2.2: Perceptions of influence within party, by type of issue, from parliamentary survey.

	% Ability to influence party position within	
	Own area of expertise	Outside area of expertise
Very good	53.2	8.8
Fairly good	43.2	62.9
Fairly bad	3.2	26.4
Very bad	0.3	2.0

Note: Each column represents the distribution of MPs responses to the questions: "How do you rate your ability to impact your party group's position on issues within/outside your own expertise". Source: 2010 Swedish parliamentary survey.

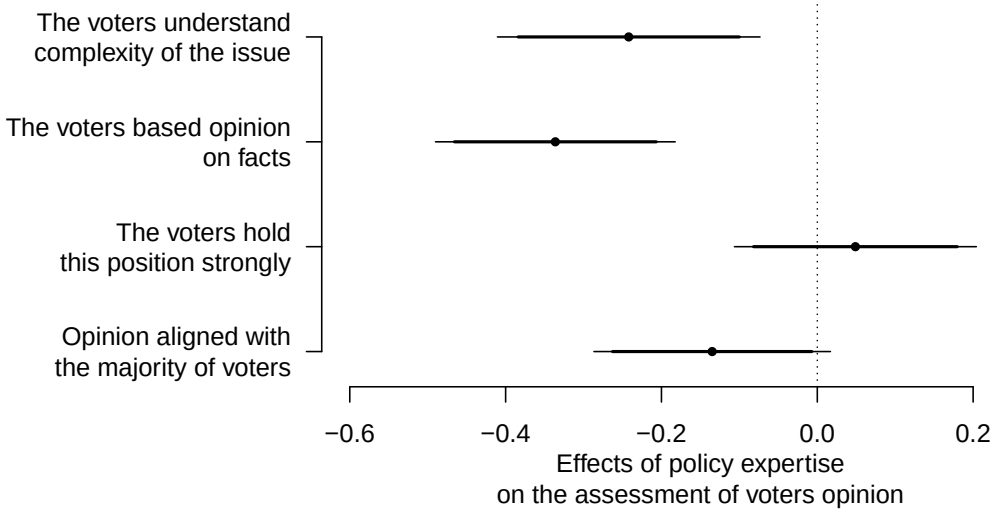
Table B2.3: Distribution of issue areas by high/low policy expertise.

Issue Area	**% High Expertise**	**% Low Expertise**
Healthcare	15.6	36.7
Education	30.5	10.2
Immigration	10.6	13.0
Social Welfare	19.0	11.6
Housing	24.3	28.6

B.3 Sensitivity Analyses

Table B3.1 complements Figure 3.1 in the main text. Figure B3.1, in turn, replicates the main analyses without covariate adjustment. Figure B3.2 and Figure B3.3 reestimate the effect of expertise on officials' response to the policy appeal including clustered standard errors and fixed effects by issue area, respectively, to account for heterogeneity across domains. Finally, Table B3.2 complements Figure 3.2 in the main text with the full models estimated to test how formal education moderates the expertise curse.

Figure B3.1: The effects of expertise on the ability of legislators to incorporate contrasting views, without covariate adjustment.



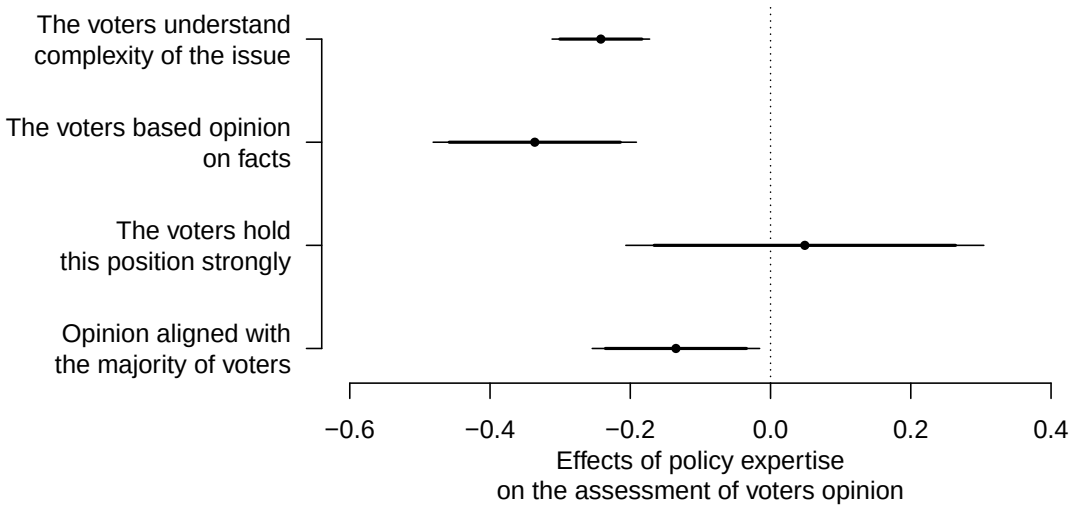
Note: Points are estimates of the causal effect of policy expertise on legislators' assessment of voters' opinion. Horizontal narrow/wide bars are 95%/90% confidence intervals. Agreement with each statement listed on the y-axis corresponds to a distinct outcome variable. Estimates and standard errors derived from bivariate linear models. See Table B3.1 for full model results.

Table B3.1: The effects of expertise on the ability of legislators to incorporate contrasting views. Complement to Figure 3.1 and Figure B3.1.

	Understand Complexity		Opinion based on facts		Hold position strongly		Represents majority opinion	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Expertise	-0.24^{**}	-0.28^{**}	-0.34^{**}	-0.35^{**}	0.05	0.01	-0.13^{+}	-0.17^{*}
	(0.09)	(0.09)	(0.08)	(0.08)	(0.08)	(0.08)	(0.08)	(0.08)
Educational Level		-0.05^{+}		-0.03		0.09^{**}		-0.01
		(0.03)		(0.03)		(0.03)		(0.03)
Age		0.002		0.002		-0.01^{**}		0.01^{*}
		(0.003)		(0.003)		(0.003)		(0.003)
Social Democrats		0.23		0.02		-0.23		-0.06
		(0.16)		(0.15)		(0.15)		(0.15)
Centre Party		0.14		0.12		-0.01		-0.19
		(0.19)		(0.18)		(0.18)		(0.17)
Liberals		0.15		-0.03		-0.13		-0.04
		(0.19)		(0.18)		(0.18)		(0.17)
Moderate Party		0.06		-0.25		-0.22		-0.31^{*}
		(0.17)		(0.16)		(0.16)		(0.16)
Christian Democrats		0.23		0.13		-0.10		-0.08
		(0.24)		(0.22)		(0.22)		(0.22)
Green Party		0.24		0.29		0.07		0.05
		(0.21)		(0.19)		(0.19)		(0.19)
Sweden Democrats		0.02		-0.21		-0.26		-0.48^{*}
		(0.27)		(0.25)		(0.25)		(0.25)
Feminist Initiative		0.55		-0.16		0.16		-0.07
		(0.43)		(0.39)		(0.40)		(0.39)
Other Party		0.15		0.44		-0.34		-0.01
		(0.31)		(0.28)		(0.29)		(0.28)
Constant	2.96^{**}	3.01^{**}	2.96^{**}	2.97^{**}	5.36^{**}	5.87^{**}	2.96^{**}	2.74^{**}
	(0.06)	(0.32)	(0.06)	(0.29)	(0.06)	(0.30)	(0.06)	(0.29)
Observations	1,669	1,511	1,667	1,509	1,668	1,511	1,667	1,510
R^2	0.005	0.01	0.01	0.02	0.0002	0.03	0.002	0.01

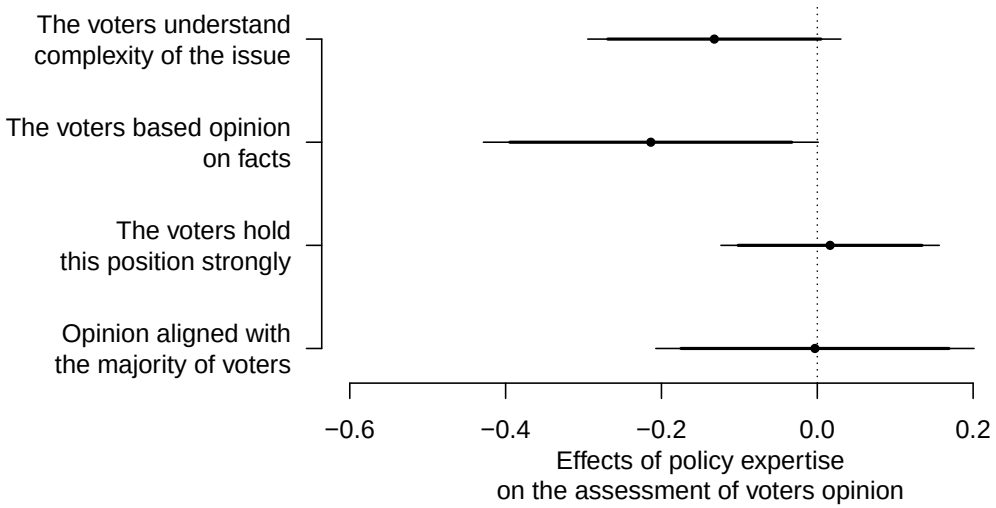
Note: Entries are coefficients of linear models (SEs in parenthesis) with legislators' responses to the policy appeal as the outcome variable. For each outcome (described in the column headers), we estimated a bivariate regression (Models 1, 3, 5, and 7) and a multivariate regression with covariate adjustment (Models 2, 4, 6, and 8). *p<0.05; **p<0.01

Figure B3.2: The effects of expertise on the ability of legislators to incorporate contrasting views, with clustered standard errors by policy issue.



Note: Points are estimates of the causal effect of policy expertise on legislators' assessment of voters' opinion, among public officials with (black) and without (gray) a college degree. Horizontal narrow/wide bars are 95%/90% confidence intervals. Agreement with each statement listed on the y-axis corresponds to a distinct outcome variable. Estimates and clustered standard errors derived from linear models with covariate adjustment for party, age, and education.

Figure B3.3: The effects of expertise on the ability of legislators to incorporate contrasting views, with fixed effects by policy issue and clustered standard errors.



Note: Points are estimates of the causal effect of policy expertise on legislators' assessment of voters' opinion, among public officials with (black) and without (gray) a college degree. Horizontal narrow/wide bars are 95%/90% confidence intervals. Agreement with each statement listed on the y-axis corresponds to a distinct outcome variable. Estimates and clustered standard errors derived from linear models with fixed effects by issue and covariate adjustment for party, age, and education.

Table B3.2: The effects of expertise on the ability of legislators to incorporate contrasting views, by levels of formal education. Complement to Figure 3.2.

	Understand Complexity	Opinion based on facts	Hold position strongly	Represents majority opinion
	(1)	(2)	(3)	(4)
Expertise	−0.17	−0.22^{+}	0.02	0.02
	(0.13)	(0.12)	(0.12)	(0.12)
College Degree	−0.03	0.08	0.26*	0.30*
	(0.13)	(0.12)	(0.12)	(0.12)
Social Democrats	0.24	0.04	−0.25	−0.02
	(0.16)	(0.15)	(0.15)	(0.15)
Centre Party	0.14	0.12	−0.001	−0.16
	(0.19)	(0.18)	(0.18)	(0.17)
Liberals	0.15	−0.03	−0.12	−0.02
	(0.19)	(0.18)	(0.18)	(0.17)
Moderate Party	0.05	−0.24	−0.21	−0.30^{+}
	(0.17)	(0.16)	(0.16)	(0.16)
Christian Democrats	0.21	0.12	−0.10	−0.09
	(0.24)	(0.22)	(0.22)	(0.22)
Green Party	0.23	0.29	0.09	0.05
	(0.21)	(0.19)	(0.19)	(0.19)
Sweden Democrats	0.03	−0.18	−0.27	−0.41^{+}
	(0.27)	(0.25)	(0.25)	(0.24)
Feminist Initiative	0.58	−0.14	0.16	−0.06
	(0.43)	(0.39)	(0.40)	(0.39)
Other Party	0.14	0.44	−0.32	0.01
	(0.31)	(0.28)	(0.29)	(0.28)
Age	0.002	0.003	−0.02**	0.01*
	(0.003)	(0.003)	(0.003)	(0.003)
Expertise × College Degree	−0.22	−0.24	−0.02	−0.38*
	(0.18)	(0.16)	(0.17)	(0.16)
Constant	2.68**	2.72**	6.31**	2.48**
	(0.26)	(0.23)	(0.24)	(0.23)
Observations	1,511	1,509	1,511	1,510
R^2	0.01	0.02	0.03	0.02

Note: Entries are coefficients of linear models (SEs in parenthesis) with legislators' responses to the policy appeal as the outcome variable (described in the column headers). *p<0.05; **p<0.01

Appendix C

Responsive Campaigning

This supplementary appendix includes the following sections:

- Appendix C.1 - CCDP Data – Tables describing the CCDP data used to produce measures of daily campaign rhetoric.
- Appendix C.2 - Coding CCDP Policy Statements – A discussion of how the ideological tone of campaign statements was measured, and a test of the main analyses with alternative issue classifications.
- Appendix C.3 - Measuring Campaign Performance from Polling Data – Description of the pre-election polling data used to produce measures of campaign performance.
- Appendix C.4 - Comparing Baselines for Campaign Performance – A series of sensitivity tests of the main findings to different baseline measures used in the calculation of *Campaign Performance*
- Appendix C.5 - Additional Tables – Twelve tables with the full specifications of the main models in the text, and different robustness checks.
- Appendix C.6 - Incumbency Status and Campaign Responsiveness – A test of an alternative mechanism with incumbency status as the key driver of campaign responsiveness.
- Appendix C.7 - Campaign Responsiveness for Populist Radical Right and Green Parties – An analysis of campaign responsiveness for special-issue niche parties.

C.1 CCDP Data

Table C1.1: Campaign statements and polls.

Country	Campaign	Number of articles	Number of policy statements	Share of days with new polls
Czech Republic	2010	107	368	0.13
	2013	122	503	0.32
Denmark	2009	119	415	0.66
	2013	124	502	0.75
Germany	2007	121	310	0.52
	2011	108	310	0.65
Hungary	2008	86	258	0.21
	2011	107	298	0.17
Poland	2006	119	277	0.07
	2010	133	511	0.79
Portugal	2012	114	377	0.36
	2007	111	378	0.79
Spain	2011	99	322	0.8
	2009	108	376	0.53
Sweden	2011	114	524	0.64
	2010	114	570	0.5
UK	2014	110	412	0.68
	2005	128	435	0.84
	2010	137	568	1
The Netherlands	2015	97	282	0.62
Campaign Averages	-	114	399	0.55

Table C1.2: Categorization of policy statements: Comparative Campaign Dynamics Project (CCDP) and the Comparative Manifesto Project.

Category in CCDP	Category in CMP	Direction
Taxes - Increase	Equality: Positive	Left
Taxes - Decrease	Incentives: Positive	Right
Tackle with/ reduce inflation	Economic Orthodoxy	Right
Tackle with/ reduce unemployment	Economic Growth	Left
Increase spending for various social policies	Welfare State Expansion + Education Expansion	Left
Decrease spending for various social policies	Welfare State Limitation + Education Limitation	Right
More centralization/ less regional autonomy	Centralization	Neutral
More regional autonomy/ less centralization	Decentralization	Neutral
Pro-environmental policies	Environmental protection	Neutral
Critical of environmental policies	Free Market Economy	Right
More open/supportive of immigration/asylum	National Way of Life: Immigration: Positive	Neutral
Tougher/ restrictive on immigration/asylum	National Way of Life: Immigration: Negative	Right
Stronger justice system		Right
Weaker justice system		Neutral
Strong on law and order, security, terrorism (more police/less crime)	Law and Order: Positive	Right
Support for individual liberties, less police presence, and criticism of police state	Law and Order: Negative	Neutral
Pro national way of life	National Way of Life: Positive	Right
Anti-national way of life	National Way of Life: Negative	Neutral
Pro-traditional morality	Traditional Morality: Positive	Right
Anti-traditional morality	Traditional Morality: Negative	Neutral
Pro-European Union	European Union: Positive	Neutral
Anti-European Union	European Union: Negative	Neutral
Pro-Internationalism	Internationalism: Positive	Left
Anti-Internationalism	Internationalism: Negative	Neutral
Pro-Foreign Intervention	Military: Positive	Right
Anti-Foreign Intervention	Military: Negative	Left
Support for farmers and agricultural policies	Agriculture and Farmers: Positive	Neutral
Opposing support for agriculture and farmers	Agriculture and Farmers: Negative	Neutral

Note: See Appendix C2 for a description of the coding decisions in the ideological tone of the issues.

Table C1.3: Daily newspapers included in the CCDP.

	Newspaper	
Country	Right-leaning	Left-leaning
Czech Republic	Mladá fronta Dnes	Právo
Denmark	Jyllands-Posten	Politiken
Germany	Frankfurter Allgemeine Zeitung	Süddeutsche Zeitung
Hungary	Magyar Nemzet	Népszabadság
The Netherlands	De Telegraaf	de Volkskrant
Poland	Rzeczpospolita	Gazeta Wyborcza
Portugal	Jornal de Notícias	Público
Spain	El Mundo	El País
Sweden	Aftonbladet	Dagens Nyheter
United Kingdom	The Daily Telegraph	The Guardian

Table C1.4: Parties included in the empirical analyses.

Czech Republic	CSSD	KDU-CSL
	ODS	KSCM
	TOP09	
Denmark	Socialdemokraterne	Det Radikale Venstre
	Venstre	Dansk Folkeparti
	Det Konservative Folkeparti	Socialistik Folkeparti
	Enhedslisten	Ny Alliance/Liberal Alliance
Germany	CDU-CSU	FDP
	SPD	Buendnis 90/Die Gruenen
	Die Linke	
Hungary	Fidesz-KDNP	SZDSZ
	MSZP	
The Netherlands	PvdA	CDA
	VVD	CU
	D66	GroenLinks
	PVV	SP
Poland	LPR	PiS
	PO	PSL
	SRP	
Portugal	PS	BE
	PSD	CDS
	CDU	
Sweden	Moderate Party	Center Party
	Social Democratic Party	Feminist Initiative
	Christian Democratic Party	Liberal Party
	Sweden Democrats	Green Party
	Left Party	
Spain	PP	CiU
	PSOE	EAJ-PNV
	IU	ERC
	UPyD	
UK	Conservative Party	Liberal Democratic Party
	Labour Party	UKIP

C.2 Coding CCDP Policy Statements

The key outcome variable in the main analyses describes the ideological tone of policy statements made by party leaders throughout the 20 campaigns included in CCDP. The strategy adopted here follows the same logic used by CMP to produce the RILE index: label a series of policy positions as *right*, *left*, or *neutral*, and then aggregate the number of statements in each category.

To do so, I started by matching the the full set of policy issues coded by CCDP with the list of CMP issues (see Table C1.2 for full list). Only two of the 28 CCDP issues were not possible to match: *stronger justice system*, and *weaker justice system*. The ideological label of these issues - Right and Neutral, respectively - is based on Somer-Topcu, Tavits, and Baumann (2017) coding of CCDP issues. For the remaining issues, the ideological labels come from the typology in the RILE index (Budge 2013), with three exceptions: *Taxes - Increase* (left), *Taxes - Decrease* (right), and *Tougher/restrictive on immigration/asylum* (right). RILE treats these three issues as neutral potentially given its focus on the writings of early modern theorists to identify the ideological positions of different issues (Budge 2013). Again, this coding decision follows Somer-Topcu, Tavits, and Baumann (2017).

Overall, the direction of 23 of the 28 CCDP issues follows CMP. To explore the sensibility of the main findings reported in the manuscript to the decisions made on these five additional issues, I created three new versions of the outcome variable: (1) treating all justice system statements as neutral; (2) restricting the set of issues used to calculate the outcome variable to the 23 categories directly matched with CMP; and (3) including the full set of issues but increasing the number of left statements by switching the coding of *Pro-environmental policies*, *Open to immigration*, *Support for civil liberties*, and *Anti-traditional morality* from neutral to left.

Table C2.1 replicates the main specification from Table 4.1 (model 2) with these alterna-

tive measures presented in the order described above. The results are largely consistent with the main findings. Although the coefficients vary slightly across specifications, the differences are residual, particularly for the key predictors in the model: *Campaign Performance*, and *Niche*.

C.3 Measuring Campaign Performance from Polling Data

To produce measures of campaign performance for the different parties and campaigns covered in the CCDP, I compiled 749 pre-election from several sources. In putting together this database, I followed consistent procedures and coding rules that are detailed here.

Polling houses use different sampling and weighting schemes to generate their estimates. These different methodological strategies are often a challenge for researchers interested in aggregating polls (e.g., Jennings and Wlezien 2016; Erikson and Wlezien 2012). However, for the purposes of this study different methods of arriving at polling estimates are not a concern, since the goal is to capture how different political actors perceive levels of support for their party, as reported in the media. Therefore, I collected headline figures of voting intentions, as this is the data made available to the public.

Still, in order to compare poll estimates with previous election results, two manipulations were required. First, for polls that did not allocate undecided voters, I distributed the estimates among the contesting parties, as it is the norm in previous research (e.g., Kou and Sobel 2004, Traugott 2001). Second, both election results and poll estimates were recalculated to account for (1) small parties not included in polls, (2) parties that disappeared from one election to the next, and (3) parties that were running for the first time. In order to produce comparable estimates of vote share from polls and election returns, new parties were dropped from the analyses (as they lacked a benchmark for performance) and election

Table C2.1: The effects of campaign performance on different versions of the *Non-Centrist Rhetoric*$_d$.

	DV = Pr(*Non-Centrist Rhetoric*$_d$)		
	(1)	(2)	(3)
Non-Centrist Rhetoric$_{d-1}$	0.59^{**}	0.62^{**}	0.70^{**}
	(0.14)	(0.15)	(0.13)
Campaign Performance	-0.03^{*}	-0.02^{+}	-0.04^{**}
	(0.01)	(0.01)	(0.01)
Niche	0.11	0.30	0.27
	(0.21)	(0.19)	(0.18)
Campaign Performance × Niche	0.09^{**}	0.09^{**}	0.09^{**}
	(0.03)	(0.03)	(0.03)
Days to Election	0.003	−0.004	−0.002
	(0.01)	(0.01)	(0.01)
Poll Distance	0.04	0.06^{**}	0.05^{*}
	(0.03)	(0.02)	(0.02)
ENP	−0.08	-0.11^{*}	−0.01
	(0.08)	(0.06)	(0.06)
% Days Covered	1.35^{*}	1.29^{*}	0.87^{+}
	(0.64)	(0.51)	(0.53)
Others' Statements	-0.06^{*}	-0.10^{**}	-0.13^{**}
	(0.03)	(0.03)	(0.03)
Incumbent	-0.43^{*}	0.27	−0.28
	(0.18)	(0.18)	(0.18)
Constant	-1.41^{*}	-1.84^{**}	-1.47^{*}
	(0.71)	(0.57)	(0.59)
σ_α	0.36	0.02	0.23
Observations	1,205	1,205	1,205
Log Likelihood	−739.7	−661.7	−737.2
Akaike Inf. Crit.	1,503.4	1,347.3	1,498.4

Note: Cell entries are coefficients of hierarchical logit models with random intercepts for campaign (standard errors in parentheses). Model 1 treats *Stronger justice system* statements as Neutral. Model 2 treats *Stronger justice system*, *Tougher on immigration*, *Taxes-Increase*, and *Taxes-Decrease* statements as Neutral. Model 3 treats *Pro-environmental policies*, *Open to Immigration*, *Support for individual liberties*, and *Anti-traditional morality* statements as Left. $^{+}$p<0.1; *p<0.05; **p<0.01, two-tailed test.

results and voting intentions were recalculated for the same set of parties.

A final concern regards the dating of polls. Most public opinion surveys are conducted over multiple days. Since the goal here is to identify when a poll becomes public, I compiled the publication dates associated with each poll. In the few cases when this information was not available, I considered the publication date to be the last day in the field plus one additional day.[1]

The polls come from multiple sources, listed in Table C3.1. Exit polls were excluded from the analyses. The massive dataset recently compiled by Jennings and Wlezien (2016; henceforth JW), with over 26,000 pre-election polls from across the world, served as the baseline. To expand upon JW's collection, I first contacted national experts with previous experience on polling data in the 10 countries included in the CCDP. A number of datasets and sources were kindly shared by these scholars. Next, I compiled data from survey repositories available either online or through international polling companies (Gallup, TNS, Ipsos, and Yougov). Finally, the data compiled through these sources was cross-checked against JW's collection to flag inconsistencies and maximize the number of data points.

[1]The results are robust to treating the last day in the field as the publication day itself.

Table C3.1: Sources for polling data.

Country	Source
Czech Republic	Czech Social Science Data Archive
Denmark	meningsmalinger.dk
Germany	JW; pollytix.eu/pollytix-german-election-trend
Hungary	JW; www.valasztaskutatas.hu; index.hu/politika/belfold/2006/valasztas/kozvelemeny
The Netherlands	van der Velden (2014); www.allepeilingen.com; Data Archiving Network Service (DANS)
Poland	JW; en.wikipedia.org/wiki/Opinion_polling_for_the_Polish_parliamentary_election,_2007
Portugal	Magalhães, Aguiar-Conraria, and Pereira (2011); www.popstar.pt
Sweden	JW; www.novus.se
Spain	El Mundo; www.electocracia.com; Centro de Investigaciones Sociológicas
UK	JW; ukpollingreport.co.uk

Note: JW stands for Jennings and Wlezien's (2016) database of polls.

C.4 Comparing Baselines for Campaign Performance

In the main analyses reported in the manuscript, campaign performance is measured as the difference between estimated voting intentions at a given point in the campaign and the vote share received by the party in the previous election. Although elections represent arguably the strongest signal of public support available to parties, it is possible that parties use different baselines to infer their performance on the campaign trail: voting intentions on the previous day or week in the campaign, since the election of a new leader, or even the results from a recent midterm election.

If these complementary baselines represent a stronger or distinct signal used by party leaders, they could influence the relationship between my measure of campaign performance and campaign rhetoric. To account for this concern, I estimated a series of models that add alternative measures of performance to the original specification To allow for comparability

across campaigns, the baselines for these new measures are based exclusively on polling data: average voting intentions on (1) the previous day, (2) the previous week, (3) the previous month, (4) the previous two months, (5) the previous year, or (6) the previous two years.[2]

For a preliminary assessment of these alternative measures, I calculated bivariate correlations between the original campaign performance variable and the new performance variables. Table C4.1 shows that as the time frame of the baseline increases, the performance measures become increasingly correlated with the variable used in the study. This pattern makes sense, as moving back in time necessarily implies approaching the previous election. Moreover, it suggests that using the previous election as the baseline seems to capture both the election itself but also a broader notion of performance over the course of the last term.

Table C4.1: Bivariate correlations between the campaign performance measure adopted in the study, and alternative measures with varying baselines.

	Alternative Performance Measures					
	Previous Day	Previous Week	Previous Month	Previous Two Months	Previous Year	Previous Two Years
ρ_{XY}	0.10	0.12	0.20	0.22	0.31	0.48

Note: Cell entries are bivariate correlation coefficients between the measure of campaign performance used in the study (X) and alternative measures based on different baselines (Y).

Table C4.2 presents the results of the extended specifications. Differences in the number of observations are due to polling availability for larger time frames. Substantively, two patterns stand out. First, the coefficients for the original measure of campaign performance remain largely identical to the original model specification, and statistically significant. The only exception is the relationship between performance and campaign rhetoric *among mainstream parties*, which is no longer distinguishable from zero once accounting for performance measures based on average voting intentions in the previous year or two (Models 5 and 6).

[2]Midterm contests such as sub-national or presidential elections would not be comparable across countries, and their distance from the election under study would also vary.

The same is not true for niche parties. This result suggests that mainstream parties may use a richer source of information to determine their performance on the campaign trail. That said, the correlation coefficients reported above suggest that the information provided by averaging polls over multiple years progressively overlaps with what we may learn from previous election results. Second, and more importantly, none of the alternative measures of performance is meaningfully associated with campaign rhetoric for either mainstream and niche parties. Hence, overall the analyses demonstrate that the measure of performance adopted in the study, although not perfect, is not overshadowed by alternative baselines.

Table C4.2: The effects of campaign performance on policy position taking: comparing the election baseline with alternatives.

	$DV = \Pr(\textit{Non-Centrist Rhetoric}_d)$					
	Previous Day (1)	Previous Week (2)	Previous Month (3)	Previous Two Months (4)	Previous Year (5)	Previous Two Years (6)
Campaign Performance	-0.04^{**}	-0.03^{*}	-0.03^{*}	-0.03^{*}	-0.02	-0.01
	(0.01)	(0.01)	(0.01)	(0.01)	(0.02)	(0.02)
Niche	0.24	0.35^{+}	0.24	0.27	0.44^{+}	0.49^{*}
	(0.18)	(0.20)	(0.22)	(0.22)	(0.24)	(0.24)
Campaign Performance × Niche	0.09^{**}	0.07^{*}	0.10^{**}	0.10^{**}	0.10^{**}	0.10^{**}
	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.04)
Alternative Performance	0.13^{+}	-0.05	-0.05	-0.04	-0.03	-0.03
	(0.07)	(0.04)	(0.05)	(0.05)	(0.04)	(0.04)
Alternative Performance × Niche	-0.22	0.07	0.05	0.04	-0.04	-0.04
	(0.14)	(0.08)	(0.07)	(0.07)	(0.06)	(0.06)
Constant	-1.73^{**}	-1.98^{**}	-1.80^{**}	-1.85^{**}	-2.13^{**}	-2.23^{**}
	(0.56)	(0.62)	(0.70)	(0.70)	(0.76)	(0.75)
σ_α	0.17	0.15	0.16	0.16	0.13	0.12
Observations	1,205	987	959	959	881	881
Log Likelihood	−736.5	−598.7	−579.2	−579.4	−534.6	−534.4
AIC	1,501.0	1,225.5	1,186.5	1,186.8	1,097.3	1,096.8

Note: Cell entries are coefficients of hierarchical logit models with random intercepts for campaign (standard errors in parentheses). Column headers identify the baseline used to produce the alternative measure of performance in each model. All models include the same set of controls reported in the main analysis. $^{+}$p<0.1; *p<0.05; **p<0.01, two-tailed test.

C.5 Additional Tables

Table C5.1: The effects of campaign performance on policy position taking for mainstream and niche parties.

	$DV = \Pr(\textit{Non-Centrist Rhetoric}_d)$		
	Campaign Random Effects		Party-Campaign Random Effects
	(1)	(2)	(3)
Non-Centrist Rhetoric$_{d-1}$	0.71^{**}	0.58^{**}	0.26^{+}
	(0.13)	(0.13)	(0.15)
Campaign Performance	-0.04^{**}	-0.03^{**}	-0.05^{*}
	(0.01)	(0.01)	(0.02)
Niche	0.07	0.23	0.32
	(0.13)	(0.18)	(0.28)
Campaign Performance × Niche	0.09^{**}	0.09^{**}	0.12^{**}
	(0.03)	(0.03)	(0.04)
Days to Election	-	0.003	0.01
		(0.01)	(0.01)
Poll Distance	-	0.05^{*}	0.05^{+}
		(0.02)	(0.03)
ENP	-	-0.02	-0.04
		(0.06)	(0.08)
% Days Covered	-	1.14^{*}	1.48^{*}
		(0.51)	(0.70)
Others' Statements	-	-0.10^{**}	-0.05^{+}
		(0.03)	(0.03)
Incumbent	-	-0.22	-0.22
		(0.18)	(0.30)
Constant	-0.93^{**}	-1.72^{**}	-1.91^{*}
	(0.11)	(0.56)	(0.76)
σ_α	0.24	0.16	0.72
Observations	1,205	1,205	1,205
Log Likelihood	-753.1	-738.5	-725.3
AIC	1,518.1	1,501.1	1,474.5

Note: Cell entries are coefficients of hierarchical logit models with random intercepts for campaign (models 1 and 2) and party-campaign (model 3) (standard errors in parentheses). All predictors that vary at the day-level are measured at $d-1$. $^{+}$p<0.1; *p<0.05; **p<0.01, two-tailed test.

Table C5.2: The effect of campaign performance on the propensity to emphasize dominant manifesto issues.

	$DV = \Pr(\textit{Dominant Manifesto Issue}_d)$	
	(1)	(2)
Campaign Performance$_{d-1}$	0.02^{*}	0.02^{+}
	(0.01)	(0.01)
Niche	-0.01^{*}	-0.01^{*}
	(0.01)	(0.01)
Campaign Performance × Niche	-	0.01
		(0.03)
Days to Election	−0.01	−0.01
	(0.03)	(0.03)
Poll Distance	−0.01	−0.01
	(0.02)	(0.02)
ENP	−0.17	−0.17
	(0.11)	(0.11)
% Days Covered	0.02^{*}	0.02^{+}
	(0.01)	(0.01)
Others' Statements	0.74	0.74
	(0.56)	(0.56)
Incumbent	0.23	0.22
	(0.16)	(0.17)
% Dominant Issue	-0.65^{**}	-0.65^{**}
	(0.20)	(0.20)
Constant	−0.16	−0.17
	(0.76)	(0.75)
$\sigma_{campaign}$	0.62	0.62
Observations	1,464	1,464
Log Likelihood	−875.5	−875.4
AIC	1,773.0	1,774.8

Note: Cell entries are coefficients of hierarchical logit models with random intercepts for campaign (standard errors in parentheses). All predictors that vary at the day-level are measured at $d-1$. $^{+}$p<0.1; *p<0.05; **p<0.01, two-tailed test.

Table C5.3: The effects of campaign performance on policy position taking for mainstream and niche parties, accounting for role in incumbent government.

	$DV = \Pr(\textit{Non-Centrist Rhetoric}_d)$	
	Campaign Random Effects (1)	Party-Campaign Random Effects (2)
Non-Centrist Rhetoric$_{d-1}$	0.58^{**}	0.27^{+}
	(0.13)	(0.15)
Campaign Performance	-0.04^{**}	-0.05^{*}
	(0.01)	(0.02)
Niche	0.23	0.31
	(0.18)	(0.28)
Campaign Performance × Niche	0.08^{**}	0.12^{**}
	(0.03)	(0.04)
Days to Election	0.004	0.01
	(0.01)	(0.01)
Poll Distance	0.05^{*}	0.05^{+}
	(0.02)	(0.03)
ENP	-0.02	-0.04
	(0.06)	(0.08)
% Days Covered	1.10^{*}	1.46^{*}
	(0.51)	(0.70)
Others' Statements	-0.10^{**}	-0.05^{+}
	(0.03)	(0.03)
Senior Coalition Partner	-0.28	-0.25
	(0.19)	(0.31)
Junior Coalition Partner	-0.29	-0.12
	(0.28)	(0.41)
Constant	-1.66^{**}	-1.89^{*}
	(0.57)	(0.76)
σ_α	0.17	0.71
Observations	1,205	1,205
Log Likelihood	-738.0	-725.2
AIC	1,502.0	1,476.4

Note: Cell entries are coefficients of hierarchical logit models with random intercepts for campaign (model 1) and party-campaign (model 2) (standard errors in parentheses). All predictors that vary at the day-level are measured at $d-1$. $^{+}$p<0.1; *p<0.05; **p<0.01, two-tailed test.

Table C5.4: Logit fixed-effects models of the effects of campaign performance on policy position taking.

	$DV = \Pr(\textit{Non-Centrist Rhetoric}_d)$	
	Campaign Fixed Effects (1)	Party Fixed Effects (2)
Non-Centrist Rhetoric$_{d-1}$	0.52^{**}	0.05
	(0.13)	(0.15)
Campaign Performance	-0.04^{**}	-0.03^{+}
	(0.01)	(0.02)
Niche	0.13	1.73^{*}
	(0.21)	(0.87)
Campaign Performance × Niche	0.10^{**}	0.09^{*}
	(0.03)	(0.04)
Days to Election	0.01	0.01
	(0.01)	(0.01)
Poll Distance	0.05	0.06^{*}
	(0.03)	(0.03)
% Days Covered	0.72	2.67^{+}
	(0.66)	(1.62)
Others' Statements	-0.10^{**}	0.01
	(0.03)	(0.03)
Incumbent	−0.30	−0.0003
	(0.19)	(0.33)
Constant	-1.62^{**}	-3.24^{*}
	(0.60)	(1.49)
Observations	1,205	1,205
Log Likelihood	−725.4	−657.1
AIC	1,508.8	1,448.1

Note: Cell entries are coefficients of logit models with *Non-Centrist Rhetoric* as the outcome variable and fixed effects for campaign (Model 1) and party (Model 2) (standard errors in parentheses).$^{+}$p<0.1; *p<0.05; **p<0.01, two-tailed test.

Table C5.5: The effects of campaign performance on policy position taking: Meguid's (2005) typology of niche parties.

	DV = *Non-Centrist Rhetoric*$_d$	
	Campaign Random Effects	Party-Campaign Random Effects
Non-Centrist Rhetoric$_{d-1}$	0.59^{**}	0.28^{+}
	(0.14)	(0.16)
Campaign Performance	-0.03^{**}	-0.05^{*}
	(0.01)	(0.02)
Niche	0.04	-0.01
	(0.21)	(0.32)
Campaign Performance × Niche	0.09^{**}	0.10^{*}
	(0.03)	(0.05)
Days to Election	0.003	0.005
	(0.01)	(0.01)
Poll Distance	0.04	0.04
	(0.03)	(0.03)
ENP	-0.01	-0.02
	(0.07)	(0.09)
% Days Covered	0.97	1.07
	(0.61)	(0.84)
Others' Statements	-0.11^{**}	-0.05
	(0.03)	(0.03)
Incumbent	-0.21	-0.21
	(0.18)	(0.30)
Constant	-1.62^{*}	-1.67^{+}
	(0.67)	(0.90)
σ_α	0.20	0.70
Observations	1,096	1,096
Log Likelihood	-660.8	-649.9
AIC	1,345.6	1,323.8

Note: Cell entries are coefficients of hierarchical logit models with random intercepts for campaign and party-campaign, respectively (standard errors in parentheses). $^{+}$p<0.1; *p<0.05; **p<0.01, two-tailed test.

Table C5.6: The effects of campaign performance on policy position taking: challengers and mainstream parties.

	DV = Non-Centrist Rhetoric$_d$	
	Campaign Random Effects	Party-Campaign Random Effects
Non-Centrist Rhetoric$_{d-1}$	0.57^{**}	0.25^{+}
	(0.13)	(0.15)
Campaign Performance	-0.03^{**}	-0.04^{*}
	(0.01)	(0.02)
Challenger	0.59^{**}	0.79^{**}
	(0.17)	(0.26)
Campaign Performance × Challenger	0.09^{**}	0.12^{**}
	(0.03)	(0.04)
Days to Election	0.002	0.005
	(0.01)	(0.01)
Poll Distance	0.05^{*}	0.05^{+}
	(0.02)	(0.03)
ENP	−0.01	−0.02
	(0.05)	(0.08)
% Days Covered	1.46^{**}	1.87^{**}
	(0.46)	(0.65)
Others' Statements	-0.10^{**}	-0.05^{+}
	(0.03)	(0.03)
Incumbent	−0.15	−0.15
	(0.17)	(0.28)
Constant	-2.04^{**}	-2.36^{**}
	(0.50)	(0.70)
σ_α	0.10	0.69
Observations	1,205	1,205
Log Likelihood	−734.2	−721.4
AIC	1,492.4	1,466.8

Note: Cell entries are coefficients of hierarchical logit models with random intercepts for campaign and party-campaign, respectively (standard errors in parentheses). $^{+}$p<0.1; *p<0.05; **p<0.01, two-tailed test.

Table C5.7: The effects of campaign performance on policy position taking with continuous measure of campaign rhetoric.

	DV = Non-Centrist Rhetoric$_d$	
	Campaign Random Effects	Party-Campaign Random Effects
Non-Centrist Rhetoric$_{d-1}$	0.23^{**}	0.07^{*}
	(0.03)	(0.03)
Campaign Performance	-0.04^{**}	-0.07^{**}
	(0.01)	(0.02)
Niche	0.32^{*}	0.52^{+}
	(0.15)	(0.29)
Campaign Performance × Niche	0.07^{**}	0.10^{**}
	(0.02)	(0.04)
Days to Election	0.002	0.003
	(0.01)	(0.01)
Poll Distance	0.04^{+}	0.04^{+}
	(0.02)	(0.02)
ENP	0.01	0.003
	(0.06)	(0.08)
% Days Covered	0.82^{+}	1.18^{+}
	(0.45)	(0.67)
Others' Statements	-0.10^{**}	-0.03
	(0.02)	(0.02)
Incumbent	-0.20	-0.16
	(0.15)	(0.32)
Constant	-0.60	-0.88
	(0.51)	(0.73)
σ_α	0.24	0.88
σ_y	1.79	1.65
Observations	1,205	1,205
Log Likelihood	−2,438.8	−2,396.1
AIC	4,903.5	4,818.2

Note: Cell entries are coefficients of linear models with random intercepts for campaign (N=19) and party-campaign (N=105), respectively (standard errors in parentheses). All predictors that vary at the day-level are measured at $d-1$. $^{+}$p<0.1; *p<0.05; **p<0.01, two-tailed test.

Table C5.8: The effects of campaign performance on policy position taking on the next 3 days.

	$DV = \Pr(\textit{Non-Centrist Rhetoric}_{d:d+2})$	
	Campaign Random Effects	Party-Campaign Random Effects
Non-Centrist Rhetoric$_{d-3:d-1}$	0.79^{**}	-0.09
	(0.10)	(0.13)
Campaign Performance	-0.05^{**}	-0.10^{**}
	(0.01)	(0.03)
Niche	0.28^{+}	0.53
	(0.15)	(0.47)
Campaign Performance × Niche	0.10^{**}	0.16^{**}
	(0.02)	(0.05)
Days to Election	0.003	0.01
	(0.01)	(0.01)
Poll Distance	0.02	0.03
	(0.02)	(0.02)
ENP	0.05	0.08
	(0.06)	(0.12)
% Days Covered	1.94^{**}	3.24^{**}
	(0.37)	(0.93)
Others' Statements	-0.13^{**}	-0.02
	(0.03)	(0.03)
Incumbent	-0.55^{**}	-0.55
	(0.15)	(0.52)
Constant	-2.21^{**}	-3.07^{**}
	(0.43)	(1.01)
σ_α	0.26	1.49
Observations	2,239	2,239
Log Likelihood	−1,372.9	−1,240.8
AIC	2,769.8	2,505.5

Note: Cell entries are coefficients of hierarchical logit models with random intercepts for campaign and party-campaign, respectively (standard errors in parentheses). $^{+}$p<0.1; *p<0.05; **p<0.01, two-tailed test.

Table C5.9: The effects of campaign performance on policy position taking: Western European and post-communist countries.

	$DV = \Pr(\textit{Non-Centrist Rhetoric}_d)$	
	Western Europe (1)	Eastern and Central Europe (2)
Non-Centrist Rhetoric$_{d-1}$	0.59^{**}	0.41
	(0.15)	(0.31)
Campaign Performance	-0.05^{**}	-0.03^{+}
	(0.02)	(0.02)
Niche	0.28	0.21
	(0.21)	(0.63)
Campaign Performance × Niche	0.10^{**}	0.15^{+}
	(0.03)	(0.08)
Days to Election	0.01	−0.0001
	(0.01)	(0.02)
Poll Distance	0.04	0.05
	(0.06)	(0.03)
ENP	−0.07	0.04
	(0.10)	(0.08)
% Days Covered	0.95	2.00
	(0.60)	(2.27)
Others' Statements	-0.08^{**}	-0.18^{*}
	(0.03)	(0.07)
Incumbent	−0.10	-0.86^{*}
	(0.21)	(0.43)
Constant	-1.48^{+}	−2.26
	(0.77)	(1.73)
σ_α	0.24	–
Observations	952	253
Log Likelihood	−585.7	−147.4
Akaike Inf. Crit.	1,195.3	318.9

Note: Cell entries are coefficients of hierarchical logit models with random intercepts for campaign (standard errors in parentheses). Due to the small number of groups, σ_α cannot be calculated in Model 2. Model 1 includes parties from: Denmark, Germany, The Netherlands, Portugal, Sweden, Spain, and the UK. Model 2 includes parties from: Czech Republic, Hungary, and Poland. $^{+}$p<0.1; *p<0.05; **p<0.01, two-tailed test.

Table C5.10: The effects of campaign performance on policy position taking: high-coverage and low-coverage campaigns.

	$DV = \Pr(\textit{Non-Centrist Rhetoric}_d)$	
	$\geq 50\%$ days with new polls	$< 50\%$ days with new polls
	(1)	(2)
Non-Centrist Rhetori$_{d-1}$c	0.56^{**}	0.46
	(0.15)	(0.33)
Campaign Performance	-0.05^{*}	-0.03^{+}
	(0.02)	(0.02)
Niche	0.31	0.20
	(0.21)	(0.66)
Campaign Performance × Niche	0.10^{**}	0.14
	(0.03)	(0.08)
Days to Election	0.01	−0.01
	(0.01)	(0.02)
Poll Distance	0.05	0.04
	(0.06)	(0.04)
ENP	−0.05	0.03
	(0.09)	(0.09)
% Days Covered	1.03^{+}	2.24
	(0.59)	(2.33)
Others' Statements	-0.08^{**}	-0.16^{*}
	(0.03)	(0.08)
Incumbent	−0.09	-1.02^{+}
	(0.20)	(0.53)
Constant	-1.65^{*}	−2.15
	(0.75)	(1.76)
Controls	Yes	Yes
σ_α	0.23	–
Observations	991	214
Log Likelihood	−607.1	−126.2
AIC	1,238.2	276.4

Note: Cell entries are coefficients of a hierarchical logit models with random intercepts for campaign (standard errors in parentheses). Due to the small number of groups, σ_α cannot be calculated in Model 2. $^{+}$p<0.1; *p<0.05; **p<0.01, two-tailed test.

Table C5.11: The effects of campaign performance on policy position taking: analysis by party type.

	$DV = \Pr(\textit{Non-Centrist Rhetoric}_d)$	
	Mainstream Parties (1)	Niche Parties (2)
Non-Centrist Rhetoric$_{d-1}$	0.70^{**}	0.40^{+}
	(0.17)	(0.22)
Campaign Performance	-0.03^{*}	0.05^{*}
	(0.01)	(0.02)
Days to Election	0.003	0.0002
	(0.01)	(0.01)
Poll Distance	0.04	0.08^{+}
	(0.03)	(0.05)
ENP	-0.02	-0.03
	(0.08)	(0.08)
% Days Covered	0.91	1.45^{*}
	(0.87)	(0.58)
Others' Statements	-0.14^{**}	-0.04
	(0.03)	(0.04)
Incumbent	-0.17	-
	(0.19)	
Constant	-1.58^{+}	-1.52^{**}
	(0.91)	(0.59)
σ_α	0.06	–
Observations	765	440
Log Likelihood	-464.6	-272.6
AIC	949.2	599.9

Note: Cell entries are coefficients of hierarchical logit models with random intercepts for campaign (standard errors in parentheses). Due to the small number of groups, σ_α cannot be calculated. $^{+}$p<0.1; *p<0.05; **p<0.01, two-tailed test.

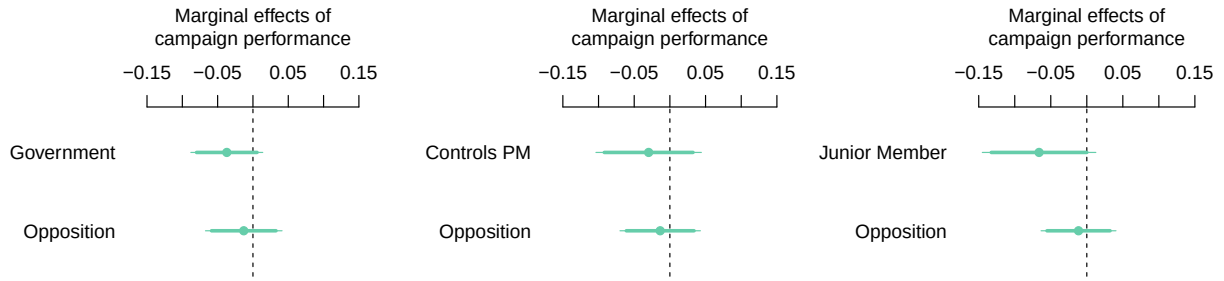
C.6 Incumbency Status and Campaign Responsiveness

Recent scholarship has shown that voters respond differently to the positions of parties in government and opposition parties (Bawn and Somer-Topcu 2012; Greene 2016). While opposition parties perform better when adopting more moderate positions, the opposite is true for incumbent parties. For this reason, the models reported in the previous sections control for incumbency. Still, since the mainstream-niche typology partially overlaps with the governing status of the parties in the sample (Pearson's $r = 0.41$), it is possible that the key findings are explained not by different party goals - as suggested - but by the context-specific incentives of incumbent and opposition parties.

To assess this alternative mechanism, I re-estimated the main models replacing the mainstream-niche typology with different measures of incumbency. Figure C6.1 reports the marginal effects of *Campaign Performance* for parties in government and opposition (left panel), senior coalition partners and opposition (center panel), and junior coalition partners and opposition (right panel). A party is identified as a senior coalition partner if the prime-minister is a member of the party. Junior coalition partners correspond to the remaining members of government. The results are consistent across specifications and suggest that incumbency status does not reliably alter the dynamics of rhetorical responsiveness on the campaign trail. Although the point estimates for parties in government are more negative than for opposition parties - suggesting a more moderate rhetoric when performing well in the campaign - the differences are not distinguishable from zero at conventional levels of statistical significance.

The analysis suggests that the different patterns of responsiveness observed for mainstream and niche parties are not explained by incumbency status. This result is consistent with the theoretical argument advanced here since both office-seeking and vote-seeking parties can be in government or in opposition at a given point in time.

Figure C6.1: The effects of campaign performance for different specifications of incumbent and opposition parties.



Note: Entries are point estimates of *Campaign Performance* for coalition members and opposition parties (left panel), senior coalition partners and opposition parties (central panel), and junior coalition partners and opposition parties (right panel), respectively, with 95/90% confidence intervals represented in narrow/wide bars.

C.7 Campaign Responsiveness for Populist Radical Right and Green Parties

The main analysis in the manuscript relies on the mainstream-niche typology to distinguish between parties with different dominant collective goals. However, a concern with this empirical strategy is that some niche parties do not compete on left-right issues. For them, a more appropriate test of the competing goals argument would focus *not* on variation in issue emphasis along the left-right ideological scale but on the specific set of issues they care most about. According to the theoretical argument advanced in the manuscript, special-issue niche parties performing well in the campaign should emphasize their core issues, consistent with their collective policy goals. When underperforming, in turn, these parties should deviate from these issues to appeal to a broader constituency.

I test these expectations among populist radical right and green parties in the sample.[3]

[3]Based on Mudde (2007) typology of radical right parties, I identified six radical right parties in CCDP: Sweden Democrats (Sd), Party for Freedom (PVV), Danish People (DF), Alternative for Germany (AfD), Self-Defense of the Republic of Poland (SRP), and the League of Polish Families (LPR). Although Mudde

From the set of issues available in the CCDP dataset (see Table C1.2 for the full list), I identified three core issues for radical right parties: tougher measures on immigration/asylum, support for law and order/security, and support for national way of life. The core issue identified for green parties is support for environmental protection.

Models 1 and 2 in Table C7.1 report the effects of campaign performance on the probability that (1) populist radical right and (2) green parties emphasize the core issues of their platforms. Both models are underpowered, given the small number of parties in each group. Still, the coefficient for *Campaign Performance* is in the expected direction in both specifications. To increase statistical power, Model 3 combines the data for radical right and green parties. The outcome variable in this model is still the probability that an individual party makes a statement on one of their core issues, as defined above. The coefficient for the key predictor is positive and reliable (point estimate 0.13; s.e. = 0.06). Substantively, it suggests that a five-point increase in campaign performance is associated with a 9.9 points increase in the probability that these parties make a statement on one of their core policy issues. Put differently, a five-point *decrease* in voting intentions leads to a nearly 10 point increase in the probability that radical right and green parties deviate from their core issues. This result is in line with the competing goals argument articulated in the main text.

In sum, the analyses reported here show that similar patterns of campaign responsiveness occur for the broad sample of niche parties identified in the CCDP and the issue-specific radical right and green parties. Although these parties compete on different dimensions, the dynamics of responsiveness are motivated by similar collective goals.

(2007) does not include UKIP in his typology, additional analyses with the inclusion of UKIP reveal the same substantive results. In turn, four green parties are included in CCDP: the Swedish Green Party (Mp), the Green Left (GL), and the Alliance 90/The Greens.

Table C7.1: The effects of campaign performance for radical right and green parties.

	Pr(Core Issues Rhetoric$_d$)		
	Radical Right Parties	Green Parties	Radical Right + Green Combined
	(1)	(2)	(3)
Campaign Performance	0.19^{**}	0.06	0.13^{*}
	(0.07)	(0.12)	(0.06)
Days to Election	-0.05^{*}	-0.01	-0.03^{+}
	(0.03)	(0.03)	(0.02)
% Days Covered	4.95^{**}	5.59^{*}	4.81^{**}
	(1.64)	(2.51)	(1.43)
Constant	-3.22^{**}	-4.76^{**}	-3.84^{**}
	(0.83)	(1.26)	(0.72)
$\sigma_{party-campaign}$	0.00	0.24	0.27
Observations	222	226	448
Log Likelihood	-63.0	-67.6	-133.7
AIC	135.9	145.1	277.5

Note: Cell entries are coefficients of hierarchical logit models with random intercepts for party-campaign (standard errors in parentheses).Column headers identify (1) the outcome variable in each model specification, and (2) the group of parties included in the analysis. *RR+G Combined* stands for radical right and green parties combined. $^{+}$p<0.1; *p<0.05; **p<0.01, two-tailed test.

Appendix D

Opinion Polls as Mobilization and Fine-Tuning Devices

This supplementary appendix includes the following tables:

- Table D1.1 – Full specifications of models estimating the probability of references to recent opinion polls: complement to Table 5.2.
- Table D1.2 – Probability of parties referencing polls in the following three days, by type of poll results.
- Table D1.3 – The effect of poll characteristics on the tone of references to polls. Complement to Figure 5.1.
- Figure D1.1 – Distributions of continuous outcome variables (from Table 5.3).
- Table D1.4 – Full specification of models estimating the effects of public opinion polling on campaign rhetoric.
- Table D1.5 – The effects of public opinion polling on campaign negativity, excluding non-negative valence statements about other parties.

D.1 Additional tables

Table D1.1: Probability of party leaders referencing polls on the campaign trail, by features of poll results. Complement to Table 5.2.

	Pr(Mention to Polls$_t$)		
	(1)	(2)	(3)
Poll$_{t-1}$	1.03*	-	-
	(0.49)		
Above Share$_{t-1}$	-	1.56**	-
		(0.55)	
Below Share$_{t-1}$	-	0.16	-
		(0.66)	
Above Estimate$_{t-1}$	-	-	1.24*
			(0.56)
Below Estimate$_{t-1}$	-	-	0.89
			(0.55)
Days to Election	−0.18**	−0.18**	−0.17**
	(0.05)	(0.05)	(0.05)
CDS	0.70	0.32	0.67
	(0.74)	(0.82)	(0.73)
CDU	0.90	0.76	0.91
	(0.69)	(0.75)	(0.70)
PS	0.90	1.36	0.94
	(0.67)	(0.77)	(0.69)
PSD	0.26	−0.22	0.30
	(0.73)	(0.79)	(0.73)
2011 Election	−1.19*	−1.08*	−1.24*
	(0.48)	(0.49)	(0.49)
Constant	−0.38	−0.34	−0.41
	(0.80)	(0.85)	(0.81)
Observations	150	150	150
Log Likelihood	−70.80	−68.63	−70.57

Note: Entries are coefficients of logistic regressions with mention to polls as the outcome variable (clustered standard errors in parentheses). *p $<$ .05; **p $<$ .01

Table D1.2: Probability of parties referencing polls in the following 3 days, by features of poll results.

	Dependent variable:		
	Pr(Mention to Polls next 3 days)		
	(1)	(2)	(3)
Poll_{t-1}	1.40^{**}		
	(0.48)		
Positive Poll_{t-1}		1.99^{**}	
		(0.61)	
Negative Poll_{t-1}		0.53	
		(0.56)	
Positive Share_{t-1}			1.06^{*}
			(0.55)
Negative Share_{t-1}			1.67^{**}
			(0.55)
Days to Election	-0.13^{**}	-0.13^{**}	-0.14^{**}
	(0.05)	(0.06)	(0.05)
2011 Election	-1.44^{**}	-1.32^{**}	-1.40^{**}
	(0.48)	(0.48)	(0.48)
Constant	0.58	0.81	0.63
	(0.71)	(0.72)	(0.70)
Observations	150	150	150
AIC	185.58	181.83	186.05

Note: Entries are coefficients of logistic regressions with mention to polls as the outcome variable (clustered standard errors in parentheses).*p<0.05; **p<0.01

Table D1.3: The effect of poll characteristics on the tone of references to polls. Complement to Figure 5.1.

	Direction of mention to poll standings
	(1)
Above Share$_{t-1}$	2.25**
	(0.20)
Days to Election	−0.01
	(0.03)
CDS	−1.24**
	(0.30)
CDU	−1.10**
	(0.22)
PS	0.51**
	(0.17)
PSD	−1.57**
	(0.27)
2011 Election	0.92**
	(0.01)
Cutoffs	
Negative — Neutral	1842.1**
	(0.04)
Neutral — Positive	1847.6**
	(0.55)
Observations	90
AIC	132.04

Note: Entries are coefficients of ordered logistic regressions with direction of mention to polls as the outcome variable (clustered standard errors in parentheses). Only days after new polls included in the model. *p<0.05; **p<0.01

Table D1.4: The effects of public opinion polling on campaign rhetoric.

	Own Policy Emphasis	Others Policy Emphasis	Campaign Negativity
	(1)	(2)	(3)
Share Difference	-0.03^{**}	-0.02^{**}	$-0.01^{\dagger}$
	(0.01)	(0.01)	(0.01)
Days to Election	0.02^{**}	0.02^{**}	-0.01^{*}
	(0.004)	(0.004)	(0.003)
CDS	0.02	0.11^{*}	0.22^{**}
	(0.05)	(0.05)	(0.04)
CDU	-0.04	0.06	0.09^{*}
	(0.06)	(0.05)	(0.04)
PS	-0.42^{**}	-0.26^{**}	0.23^{**}
	(0.08)	(0.07)	(0.06)
PSD	-0.05	-0.04	0.13^{*}
	(0.06)	(0.06)	(0.05)
2011 Election	0.02	-0.08^{*}	-0.13^{**}
	(0.03)	(0.03)	(0.03)
Constant	0.48^{**}	0.36^{**}	-0.24^{**}
	(0.05)	(0.05)	(0.04)
Observations	150	150	150
Adjusted R^2	0.33	0.30	0.29

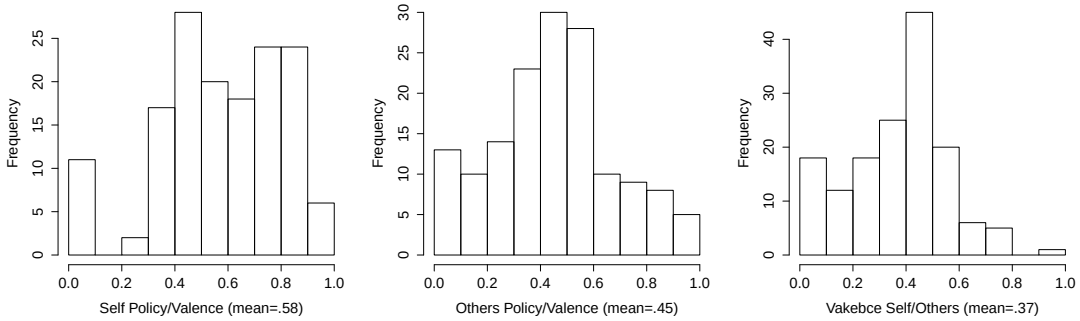
Note: Entries are OLS coefficients (clustered standard errors in parentheses). Outcome variables in column headers. †p<0.10; *p<0.05; **p<0.01

Table D1.5: The effects of public opinion polling on campaign negativity, excluding non-negative valence statements about other parties.

	Campaign Negativity
Share Difference	0.01*
	(0.01)
Days to Election	0.01*
	(0.003)
CDS	0.24**
	(0.05)
CDU	0.09*
	(0.05)
PS	0.26**
	(0.06)
PSD	0.13*
	(0.05)
2011 Election	−0.12**
	(0.03)
Constant	0.23**
	(0.05)
Observations	150
Adj. R-squared	0.28

Note: Entries are OLS coefficients (standard errors in parentheses). Outcome variable calculated without accounting for neutral or positive valence statements about other election contenders. †p<0.10; *p<0.05; **p<0.01

Figure D1.1: Distributions of continuous outcome variables (from Table 5.3).



Note: Histograms of each outcome measure used in Table 5.3.