Campaign Sentiment in European Party Manifestos*

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ABSTRACT

What explains the type of electoral campaign run by political parties? In this article, we focus on the strategic use of emotive language in campaign messages. We argue that the level of positive sentiment that parties adopt in their campaign messages depends on their incumbency status, their policy position, and objective economic conditions. We test these claims with a novel dataset containing information on the emotive language used in over 400 party manifestos across eight European countries from 1980 to 2012. As predicted, we find that incumbent parties, and incumbent prime ministerial parties in particular, use more positive sentiment than opposition parties. We find that ideologically moderate parties employ higher levels of positive sentiment than extremist ones. And we find that all parties exhibit lower levels of positive sentiment when the economy is performing poorly but that this negative effect is weaker for incumbents. Our analysis has important implications for research on campaign strategies and retrospective economic voting.

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1 Introduction

What explains the type of electoral campaign run by political parties? To a large extent, scholars have conceptualized electoral campaigns along two primary dimensions. The first dimension captures *campaign content* and has to do with whether parties compete on policy or valence (Downs, 1957; Wittman, 1973; Ansolabehere and Snyder, 2000; Groseclose, 2001; Schofield, 2003; Clarke et al., 2004; Serra, 2010; Bruter, Erikson and Strauss, 2010; Adams, 2001; Adams, Merrill and Grofman, 2005; Adams, Scheiner and Kawasumi, 2016). The second dimension captures *campaign focus* and has to do with whether parties adopt campaign messages that focus on themselves or their opponents (Skaperdas and Grofman, 1995; Ansolabehere et al., 1994; Lau and Pomper, 2002; Geer, 2006; Curini and Martelli, 2010; Elmelund-Præstekær, 2008, 2010; Hansen and Pedersen, 2008; De Nooy and Kleinnijenhuis, 2013). One aspect of campaigns that is generally ignored in this two-dimensional framework is *campaign sentiment*, which refers to the emotive content of campaign messages. Whereas campaign content and campaign focus address *what* parties say and *who* they say it about, campaign sentiment addresses *how* they say it.

Little is known about the emotive content of campaign messages. In a recent review, Brader and Marcus (2013, 181) note that "research on efforts to influence the emotions of others for political purposes is relatively rare." What research there is focuses on how campaign or issue advocacy messages can cue particular emotions and thereby influence aspects of individual behavior, primarily in the U.S. context (Marcus, Neuman and MacKuen, 2000; Brader, 2006; Huddy and Gunnthorsdottir, 2000; Roseman, Abelson and Ewing, 1986; Weber, Searles and Ridout, 2011). If campaign sentiment influences individual behavior, as this research indicates, then political actors should be strategic about its use. With the exception of Ridout and Searles (2011), there is a dearth of research on the strategic use of emotive content in campaign messages.

In this article, we examine the strategic use of emotive *language* in European election campaigns. Research on the emotive content of campaign messages has typically focused on the use of images and music (Huddy and Gunnthorsdottir, 2000; Brader, 2006). However, language can also engender different types of sentiment, such as fear, anxiety, sadness, or optimism (Pennebaker, 1993; Pennebaker and Francis, 1996; Pennebaker, Booth and Francis, 2007). We build on a long tradition in political science that looks at the role that language plays in shaping how individuals feel about and perceive the world around them (Edelman, 1964, 1977; Hipt, 1990). The importance of language is emphasized by Edelman (1985, 10), who goes so far as to say that "political language *is* political reality." Of particular interest to us here is whether

parties adopt language that conveys positive or negative sentiment. Campaign messages that include positive language evoke optimism and encourage people to adopt a positive frame when evaluating the current state of the world. In contrast, campaign messages that include negative language have the opposite effect.

Our theory is situated in the retrospective voting literature. Models of retrospective voting assume that individuals base their vote choice on the state of the world at election time, something that is typically attributed to incumbent performance in office (Key, 1966; Ferejohn, 1986; Bendor, Kumar and Siegel, 2010). In most cases, the state of the world is understood in economic terms (Kramer, 1971; Fiorina, 1981; Kiewiet, 1983; Norpoth, Lewis-Beck and Lafay, 1991; Lewis-Beck and Stegmaier, 2000; Duch, 2007; Nadeau, Lewis-Beck and Éric Bélanger, 2013). The basic intuition is that people will vote for the incumbent when economic performance is above some threshold but that they will switch to the opposition when this is not the case. The ability of individuals to vote retrospectively depends on a variety of contextual factors such as the ease with which they can attribute responsibility for economic performance to individual incumbent parties (Powell and Whitten, 1993; Powell, 2000; Duch and Stevenson, 2008; Hobolt, Tilley and Banducci, 2013; Duch, Przepiorka and Stevenson, 2015). The core insight, though, is that vote choice is determined by how individuals *perceive* the state of the world at election time.

The existing research largely assumes that voter perceptions of the world are related to objective economic reality. In effect, individuals are expected to have a more positive view of the world and, thus, evaluate the incumbent more favorably when, say, the unemployment rate is low. What tends to be overlooked, though, is that political elites can exert agency and shape retrospective voting by using their campaign messages to *frame* how individuals evaluate economic reality. In a recent article, Williams, Seki and Whitten (2016) show that parties use campaign messages to strategically emphasize or deemphasize economic issues. By altering the salience of economic issues (Budge and Farlie, 1983*a*), parties can change the weight that voters give to economic conditions in their voting calculus. In this particular account, parties do not seek to change how voters perceive objective economic reality but rather how much they care about it.

We argue that a complementary strategy that parties can adopt to shape retrospective voting involves using emotive language to alter how voters actually perceive economic conditions. The same objective reality can be understood very differently depending on how it is framed. For example, a message stating that "the economic outlook is positive, with employment increasing by 150,000" provides a much more positive frame for viewing the world than a message stating that "employment has increased by only 150,000." Differences like this, created by the strategic use of positive and negative emotive language, can substan-

tially influence how individuals perceive the world (Chong and Druckman, 2007; Sniderman and Theriault, 2004; Zaller, 1992; Simon and Jerit, 2007) and, hence, how they vote. Our theoretical account provides a potential explanation for why supporters of different parties often hold varying perceptions of the same objective economic conditions (Campbell et al., 1960; Mackuen, Erikson and Stimson, 1989; Duch, Palmer and Anderson, 2000; Evans and Andersen, 2006; Anderson, 2007; Enns, Kellstedt and McAvoy, 2012; Hetherington and Rudolph, 2015).

Our retrospective voting framework suggests that the level of positive campaign sentiment exhibited by a political party should depend on its incumbency status, its policy position, and objective economic conditions. Incumbent parties, particularly prime ministerial parties, should exhibit greater positive sentiment in their campaign messages than opposition parties. This is because incumbents are expected to gain support when voters have a more positive view of the world. The campaign messages of extremist parties should be characterized by less positive sentiment than those of more moderate parties. This is because extremist parties are expected to gain support when the world is viewed in a particularly negative light. The language that parties adopt when framing the state of the world cannot diverge too far from reality, though, otherwise voters will become suspicious. This suggests that the campaign sentiment of all political parties will be tied to some extent to objective economic conditions. It follows, then, that parties should exhibit greater positive sentiment when economic conditions are good. This increase in positive sentiment, though, should be greater for incumbent parties, as they are the prime beneficiaries of improved economic conditions.

We test our claims about campaign sentiment with a novel dataset that we constructed containing information on the emotive language used in over 400 party manifestos across eight European countries from 1980 to 2012. Party manifestos are obviously only one type of campaign message. However, they are of particular relevance here because they contain the campaign messages that parties have strategically chosen to present to voters, a look that is not filtered through the lens of the media. Moreover, party manifestos outline the overarching campaign strategy of parties in a way that, say, party press releases, which emerge irregularly throughout the campaign in response to ad hoc developments, might not. Historically, scholars have used manifestos to examine issue salience and position-taking (Budge et al., 2001; Klingemann et al., 2006). Our focus on the type of language that they include, thus, extends the use of manifestos in a completely new direction (Dolezal et al., 2013). Our empirical results strongly support our theoretical expectations and have important implications for the literatures on both campaign strategies and retrospective voting.

2 Theory

Existing research largely focuses on two particular dimensions of election campaigns. The first dimension, *campaign content*, has to do with whether parties compete on policy or valence. Early models of electoral competition were purely spatial and focused on the policy positions adopted by each party. These models originally addressed two-party systems (Downs, 1957; Wittman, 1973) but were soon extended to examine party entry (Palfrey, 1984; Shepsle, 1991; Osborne and Slivinski, 1996; Besley and Coate, 1997) and multi-party competition (Cox, 1990). The spatial nature of these models recognizes that it is hard to discuss politics without knowing 'where' parties stand on important issues (Laver and Schilperoord, 2007).

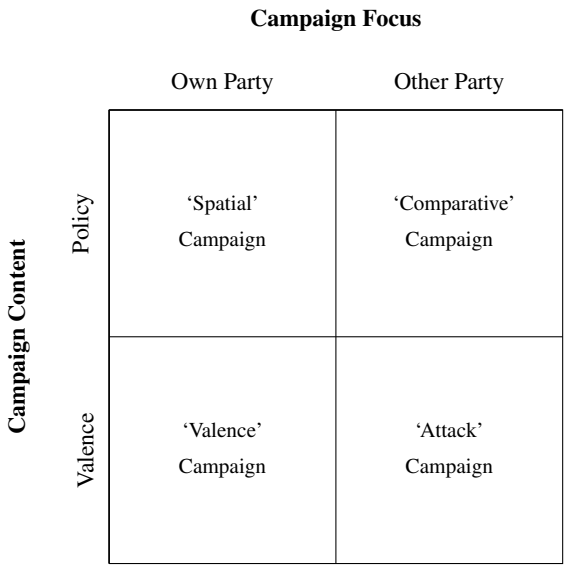
More recent models incorporate non-spatial valence factors such as party competence, integrity, experience, and image (Ansolabehere and Snyder, 2000; Groseclose, 2001; Schofield, 2003; Bruter, Erikson and Strauss, 2010; Serra, 2010; Adams, 2001; Adams, Merrill and Grofman, 2005). The development of these newer models can be traced to a recognition that voters often have little incentive to gather the information needed to evaluate parties in terms of their policies (Downs, 1957; Popkin, 1991; Lupia and McCubbins, 1998) and that individuals often use information short-cuts and heuristics when voting (Sniderman, Brody and Tetlock, 1991; Marcus, Neuman and MacKuen, 2000; Clarke et al., 2009).

The second dimension, *campaign focus*, has to do with whether parties focus their campaign messages on themselves or their opponents (Skaperdas and Grofman, 1995; Ansolabehere et al., 1994; Lau and Pomper, 2002; Elmelund-Præstekær, 2008, 2010; Hansen and Pedersen, 2008; Lau and Rovner, 2009; De Nooy and Kleinnijenhuis, 2013). This dimension is often referred to as campaign tone in the literature, with messages that focus on one's own party referred to as positive messages and those that focus on other parties referred to as negative messages (Geer, 2006). This terminology is confusing, though, as it mixes up the 'focus' or target of the campaign message with the 'tone' or sentiment of the campaign message, two things that are conceptually distinct and do not necessarily go together (Ridout and Franz, 2011).

Although scholars often examine these two dimensions in isolation, it is possible to put them together to obtain four 'pure' types of electoral campaigns, each of which is shown in Figure 1.[1] A *spatial campaign* is one in which parties appeal to voters by highlighting the policies they wish to implement. This is the type of campaign captured in traditional spatial models of electoral competition. A *comparative campaign* is one in which parties seek to attract voters by emphasizing the inferiority of their opponent's policies.

[1] In reality, each dimension shown in Figure 1 is continuous; we dichotomize them here purely for illustrative purposes.

Figure 1: A Two-Dimensional Conceptualization of Electoral Campaigns



This is similar to a 'comparative advertising' campaign in the economic sphere, where companies highlight the inferiority of a competitor's product by comparing it to their own (Barry, 1993; Grewal et al., 1997). A *valence campaign* is one in which parties appeal to voters by emphasizing their own strong valence characteristics. In contrast, an *attack campaign* is one in which parties seek to attract voters by pointing out the poor valence qualities of their opponents. This last type of campaign is often what the media have in mind when they talk about 'dirty politics' and refer to a campaign as being negative.

A key aspect of electoral campaigns that is overlooked in this two-dimensional framework is campaign sentiment. Campaign sentiment refers to the emotive content of campaign messages. It is widely recognized that politicians make emotional appeals to the public, and recent research indicates that these appeals can have a significant effect on individual behavior (Marcus, 2000; Brader and Marcus, 2013). For example, scholars have shown that campaign messages evoking fear can cause individuals to reconsider their political choices, whereas those evoking enthusiasm can cause them to stick with their pre-existing preferences (Brader, 2005, 2006). This research is consistent with the idea that individuals process information differently depending on their emotional mood (Schwarz, 2000).

Importantly, the emotive content of campaign messages does not correlate meaningfully with either of the two dimensions shown in Figure 1. Campaign messages that focus on one's own party do not always contain positive emotive content, and those that focus on other parties do not always contain negative emo-

tive content (Ridout and Searles, 2011). In their study of campaign messages in U.S. elections, Ridout and Franz (2011, 101) conclude that "[o]ne thing is clear. [Campaign focus] and emotional appeals are not one and the same." There is also significant variation in the emotive content of campaign messages across the campaign content dimension (Ridout and Franz, 2011, 94-95). Campaign sentiment thus represents a third and conceptually distinct dimension of electoral campaigns.

While there is a growing literature on how campaign messages can elicit particular emotions and thereby influence voter behavior, there is little research on how political actors strategically use emotion in their campaign messages. In this article, we argue that parties will strategically use emotion in their campaign messages to frame the current state of the world in either a positive or a negative light.

The incentive to frame the state of the world in a particular way can be tied to the logic underpinning models of retrospective voting. These models assume that an individual's vote choice depends on how they view the world at election time. The state of the world is understood to be determined, at least partially, by the incumbent's performance in office. Individuals reward the incumbent with their support when they perceive the state of the world to be good, but punish her by voting for the opposition when they perceive it to be poor. In most cases, the state of the world is understood in terms of the economy. Retrospective voting models were originally developed to explain voter choice in two-party systems (Kramer, 1971; Fiorina, 1981; Kiewiet, 1983) but have since been extended to examine voter choice in multi-party systems (Norpoth, Lewis-Beck and Lafay, 1991; Powell and Whitten, 1993; Lewis-Beck and Stegmaier, 2000; Duch and Stevenson, 2008; Tucker, 2006; van der Brug, van der Eijk and Franklin, 2007; Roberts, 2008; Hobolt, Tilley and Banducci, 2013; Nadeau, Lewis-Beck and Éric Bélanger, 2013).

If our vote choices are influenced by how we perceive the state of the world, then parties have incentives to shape those perceptions through their campaign messages. One way they can do this is through the substantive content of their campaign messages. For example, a party might highlight how its own policies and valence characteristics can change the world for the better, or it might emphasize how those of its competitors would make things worse. However, a second and complementary way to influence how voters perceive the world is through the emotive content of their campaign messages. The use of positive campaign sentiment can evoke optimism and encourage individuals to adopt a positive frame when evaluating the current state of the world. In contrast, the use of negative campaign sentiment can evoke pessimism and encourage individuals to adopt a negative frame when assessing the world around them. In effect, parties can influence voter perceptions of the world and, hence, vote choice not only through the *substantive* con-

tent of their campaign messages but also through the *emotive* content of their campaign messages. Plausibly voters are better at assessing the overall sentiment in campaign messages than the often detailed substantive positions that are staked out in these messages.[2]

In this regard, incumbent parties should exhibit higher levels of positive sentiment in their campaign messages than opposition parties. This is because incumbents, who are perceived as responsible for the current state of the world, can expect to gain support when voters view things in a more positive light. This expectation is outlined in the *Incumbent Party Hypothesis*:

> **Incumbent Party Hypothesis**: Incumbent parties use higher levels of positive sentiment in their campaign messages than opposition parties.

Coalition governments are a common feature of parliamentary democracies. When there is only one party in government, it is clear who the voters should hold responsible for the state of the world. It is much less clear, though, who they should hold responsible when there are multiple parties in power (Powell and Whitten, 1993; Powell, 2000; Hobolt, Tilley and Banducci, 2013; Duch, Przepiorka and Stevenson, 2015). The fact that the prime minister is the most visible member of the government and someone who is widely recognized as the agenda setter (Norpoth and Gschwend, 2010; Glasgow, Golder and Golder, 2011; Fortunato, Lin and Stevenson, 2013; Duch and Stevenson, 2013) suggests that voters will hold the prime ministerial party more responsible for the state of the world than its coalition partners. Indeed, empirical evidence consistently shows that the economic vote for the prime ministerial party is disproportionately high compared to that of other governmental parties (Duch and Stevenson, 2008; Debus, Stegmaier and Tosun, 2014). Given this, the prime ministerial party has a particularly strong incentive to use its campaign messages to portray the world in a positive light. At the same time, the other government parties have an incentive to distinguish themselves from the prime ministerial party — they will want to convince voters that things could have been better had they had more influence in the government. Putting these two incentives together suggests that while incumbent parties should generally exhibit higher levels of positive sentiment than opposition parties, prime ministerial parties should exhibit even higher levels than their coalition partners.[3] This expectation is outlined in the *Prime Ministerial Party Hypothesis*:

[2] Importantly, previous research has shown that emotional responses to the economic state of the world have a particularly strong impact on how individuals evaluate political actors (Conover and Feldman, 1986).

[3] Some scholars suggest that voters may also attribute responsibility for the state of the world to the finance ministry party, particularly when it comes to the state of the economy (Williams, Seki and Whitten, 2016). However, the empirical support for this claim is rather mixed. For example, Debus, Stegmaier and Tosun (2014) find that there is no economic vote for the finance ministry party in Germany. In their more comprehensive study, Duch and Stevenson (2008, 269) conclude that while the finance ministry

Prime Ministerial Party Hypothesis: Prime ministerial parties use higher levels of positive sentiment in their campaign messages than their coalition partners.

The level of positive sentiment that parties exhibit in their campaign messages should also depend on their policy position. Even controlling for their incumbency status, we would expect ideologically extreme parties to exhibit lower levels of positive sentiment than ideologically moderate parties. This is because voters are more likely to reject moderate parties and turn to more ideologically extreme parties when they perceive the state of the world to be particularly bad (King et al., 2013). Radical parties in Europe propose 'root and branch' reform of the political and economic system and many adopt populist rhetoric that holds all moderate parties responsible for society's ills (Mudde, 2007; March, 2011; Golder, 2016). Radical parties do not just want voters to punish the incumbent, they want voters to abandon the mainstream parties altogether. This is most likely to occur when the current state of affairs is considered particularly problematic. This line of reasoning fits with media and scholarly accounts that link the recent success of radical parties on the left and right to Europe's economic crisis (Grittersova et al., 2016). The expectation that ideologically extreme parties will exhibit lower levels of positive sentiment is captured in the *Extreme Ideology Hypothesis*:

Extreme Ideology Hypothesis: Ideologically extreme parties use lower levels of positive sentiment in their campaign messages than ideologically moderate parties.

The level of positive sentiment that parties exhibit in their campaign messages should vary not only with their incumbency status and policy position but also with objective measures of the state of the world. While parties will try to use the emotive content of their campaign messages to get voters to see the world through a particular frame, the extent to which they can do this is constrained by economic reality (Nadeau, Lewis-Beck and Éric Bélanger, 2013; Lewis-Beck, Martini and Kiewiet, 2013). If the campaign sentiment parties adopt is too positive when times are bad or too negative when times are good, then voters may get suspicious and punish them for their lack of credibility. As a result, we should expect the level of positive sentiment exhibited by all parties to vary in line with objective measures of the economy. In other words, parties will exhibit less positive sentiment in their campaign messages when the economy is performing poorly than when it is performing well. This expectation is outlined in the *Economic Performance Hypothesis*:

Economic Performance Hypothesis: Campaign messages will exhibit lower levels of positive sentiment when the economy is performing poorly than when it is performing well.

party experiences some of the economic vote, "most of it goes to the prime ministerial party." Consistent with these previous studies, we find little evidence that parties controlling the finance ministry use higher levels of positive sentiment in their campaign messages than their coalition partners (see Online Appendix A).

The hypotheses proposed so far suggest that incumbency status and economic performance have an independent effect on the level of positive sentiment in campaign manifestos. However, there are reasons to believe that these two factors may also interact to affect levels of positive sentiment. The negative effect of poor economic performance on levels of positive sentiment should differ depending on whether a party is in government or in the opposition. This is because incumbent parties have an incentive to downplay the poor performance of the economy, whereas opposition parties have an incentive to exaggerate it. This expectation is outlined in the *Conditional Economic Performance Hypothesis*:

> **Conditional Economic Performance Hypothesis**: Campaign messages will exhibit lower levels of positive sentiment when the economy is performing poorly than when it is performing well. This negative effect of poor economic performance is weaker for incumbent parties than for opposition parties.

All conditional claims are symmetric (Berry, Golder and Milton, 2012). As a result, our claim that the effect of economic performance on levels of positive sentiment in campaign messages depends on a party's incumbency status logically implies the claim that the effect of a party's incumbency status on levels of positive sentiment depends on how well the economy is performing. As already noted, incumbent parties should always use higher levels of positive sentiment in their campaign messages irrespective of the state of the economy. However, the positive effect of incumbency should be greater when the economy is performing poorly. This is because opposition parties will want to use particularly negative emotive language relative to incumbent parties in these circumstances as a way of emphasizing the poor state of the world. This expectation is outlined in the *Conditional Incumbent Party Hypothesis*:

> **Conditional Incumbent Party Hypothesis**: Incumbent parties use higher levels of positive sentiment in their campaign messages than opposition parties. This positive effect of incumbency is greater when the economy is performing poorly than when it is performing well.

3 Empirical Analysis

We test our hypotheses by looking at the strategic use of positive and negative emotive language in party manifestos (Hipt, 1990). While much of the recent research on emotion and politics has looked at the use of images and music in campaign messages, we return to an older tradition in political science that examines the role that language plays in shaping individual perceptions of the political world (Edelman, 1964, 1977). As numerous studies in linguistics and psychology indicate, language is important because it can engender

different emotions in people (Pennebaker, 1993; Pennebaker and Francis, 1996; Tausczik and Pennebaker, 2010) and thereby influence the frame through which individuals perceive the world.

Manifestos obviously represent only one type of campaign message. However, they are perhaps the most important type of campaign message as they contain each party's official platform (Budge et al., 2001; Klingemann et al., 2006). Indeed, there is considerable evidence that "parties make determined efforts to campaign based on their . . . manifestos" and that the campaign messages in party manifestos are accurately mirrored in those that parties "communicate to the public via other avenues, such as campaign advertisements, party elites' campaign speeches, and media interviews" (Adams, Ezrow and Somer-Topcu, 2011, 372). Manifestos provide parties with an opportunity to directly place their campaign strategy before voters in a way that is unfiltered by the media. Parties spend a large amount of time deciding which issues to include and how much space to give them (Janda et al., 1995; Green and Hobolt, 2008; Vavreck, 2009; Dolezal et al., 2012; Green and Jennings, 2012; Greene, 2016). We suspect that parties are just as strategic about the kinds of emotive language they include in their manifestos.

In line with salience theory, research shows that parties rarely use manifestos to target their opponents (Budge, 1982; Budge and Farlie, 1983*a*,*b*; Dolezal et al., 2014). Instead, they use them to focus on their own policies and valence characteristics. As we demonstrate, though, manifestos exhibit considerable variation in the extent to which they include positive and negative emotive language. This provides further support for our claim that campaign sentiment is conceptually distinct from the two dimensions shown in Figure 1.

Our dataset comprises 421 party manifestos from 1980 to 2012 from eight countries: France, Germany, Ireland, Italy, Netherlands, Portugal, Spain, and the United Kingdom. We focus on this set of countries largely for computational reasons — we can only create our particular measures of campaign sentiment for manifestos written in English, Dutch, French, German, Italian, Portuguese, and Spanish (Pennebaker, Booth and Francis, 2007). Almost all of the countries in our sample have experienced coalition governments. This is important as our *Prime Ministerial Party Hypothesis* requires us to test the claim that prime ministerial parties exhibit higher levels of positive sentiment than their coalition partners. Our party manifestos were obtained from the Political Documents Archive (Benoit, Bräuninger and Debus, 2009). This archive includes manifestos for all parties that win at least 1% of the valid votes in the election for which the manifesto was written. Our corpus of manifestos spans 70 national elections. The average manifesto contains $21,979$ words and 879 sentences. In total, our manifestos comprise $9,274,954$ words.

3.1 Measuring Campaign Sentiment

We measure campaign sentiment using the *Linguistic Inquiry and Word Count* (LIWC, pronounced "Luke") program (Pennebaker, Booth and Francis, 2007). This is a tool for conducting automatic sentiment analysis that is widely used in the social sciences (Coviello et al., 2014; Gunsch et al., 2000; Ireland et al., 2011; Kramer, Guillory and Hancock, 2014; Pennebaker, 1993) and increasingly in political science (Bryan and Ringsmuth, 2016; Corley and Wedeking, 2014; Owens and Wedeking, 2011, 2012; Settle et al., 2016).[4] The program scans text documents and uses a language-specific dictionary to assign each word to one or more word categories.[5] Each category groups words that share similar linguistic dimensions. For example, categories might be pronouns or verbs, psychological constructs such as affect or cognition, concern categories such as work or home, or linguistic dimensions. As the program scans a document, it increments the count of words that belong to each category. It then divides the final counts by the total number of words in the document, creating a measure of the percentage of words in a document that belong to each category. As an example, LIWC could analyze a document and report that 15% of the words are verbs or that 2% of the words pertain to the home concern category. Researchers have repeatedly verified that the LIWC categories accurately measure these underlying linguistic constructs. In particular, sociological and psychological research has shown that LIWC categories have strong predictive, concurrent, and convergent validity (Pennebaker and Francis, 1996; Alpers et al., 2005; Pennebaker, Booth and Francis, 2007).[6]

Two LIWC categories are of particular interest here: (i) positive emotive words and (ii) negative emotive words. Each category is mutually exclusive in that words in one category do not appear in another. Documents can contain both positive and negative emotive words. Most of the words used in language

[4] Tausczik and Pennebaker (2010, 39-50) provide a summary of over one hundred published studies that have used the LIWC software in dozens of psychological domains since its introduction in the early 1990s.

[5] The default English dictionary includes almost 4,500 words or word stems. It has been estimated that, on average, these words account for over 86% of the words people use in various forms of writing and speech (Pennebaker et al., 2007, 10).

[6] It is clear that LIWC can misclassify individual words, particularly those that are used in an ironic or sarcastic manner (Tausczik and Pennebaker, 2010, 30). However, these errors rarely affect results at the document level as LIWC uses a probabilistic model of language that classifies words based on how they are most commonly used (Pennebaker, 2015). As one would expect, LIWC's accuracy is conditional on the length of the text it analyzes — it does better at analyzing longer texts, such as reports, than shorter ones, such as tweets (Pennebaker, 2015). The fact that the average manifesto contains approximately $22,000$ words means that LIWC should provide accurate results in our particular application. Ultimately, concerns with the potential misclassification of individual words in party manifestos relates to potential measurement error in our dependent variable. As is well known, measurement error in the dependent variable does not affect the unbiasedness of one's parameter estimates; it simply leads to larger variances than would otherwise be the case (Gujurati, 2003, 525). In other words, any measurement error resulting from the LIWC program will only make it harder for us to find statistically significant results. Finally, we recognize that there are other software that can conduct automatic sentiment analysis, such as AFINN, ANEW, Stanford's NLP, and WordNet-Affect. However, these programs tend to be limited to only a few languages, typically English and Chinese, and do not have LIWC's long history of validation both within and across languages.

obviously have no emotional valence and, as a result, the scores for both categories are relatively low in all types of documents. In Table 1, we show the mean percentage of positive and negative words for different types of text written in English (Pennebaker, Booth and Francis, 2007, 11). The mean percentage of positive words ranges from 1.33% (scientific articles) to 3.72% (blogs). The mean percentage of negative words ranges from 0.71% (daily writing) to 2.67% (emotion writing). In our sample of party manifestos across seven different languages, the mean percentage of positive words is 3.02% (1.91) and the mean percentage of negative words is 1.32% (0.79). The standard deviations are shown in parentheses.[7]

Table 1: Mean *Positive Words Scores* and *Negative Words Scores* in English

	Party Manifestos	Emotion Writing	Daily Writing	Scientific Articles	Blogs	Novels	Talking
Positive Words	3.02	3.28	1.83	1.33	3.72	2.86	3.42
Negative Words	1.32	2.67	0.71	0.84	2.07	1.98	1.49

Note: Table 1 presents the mean percentages of positive and negative emotive words across different types of texts. The first column contains the mean percentages from the party manifestos in our sample. The remaining columns present the mean percentages across a range of English texts. The scores come from a sample of texts that includes the language used by over $24,000$ writers or speakers and contains over 168 million words (Pennebaker, Booth and Francis, 2007, 9-13). 'Emotion Writing' includes texts that deal with 'deeply emotional topics,' while 'Daily Writing' includes texts that are about trivial daily matters. 'Scientific Writing' includes 113 articles from *Science* that were published between 1997 and 2007. 'Blogs' includes texts from $714,000$ blogs written by about $20,000$ authors. 'Novels' includes 209 novels that were published between 1700 and 2004. 'Talking' includes the texts of voice recorded conversations taken from several observational studies.

To better understand these two categories of words, consider the English dictionary. The positive words category contains 406 words such as **efficient**, **good**, or **improve**. The sentence below comes from the UK Conservative Party's manifesto in 1987. Positive words are shown in bold.

In the last eight years our country has changed — changed for the **better.**

If we were to code this sentence as the whole document, then the *positive words score* would be 7.69, indicating that $1/13 = 7.69\%$ of the words are positive.

The negative words category in the English dictionary contains 499 words, such as **beaten**, **danger**, or **unimpressive**. The sentence below comes from the UK Liberal Party's manifesto in 1987. Negative words are underlined and shown in bold.

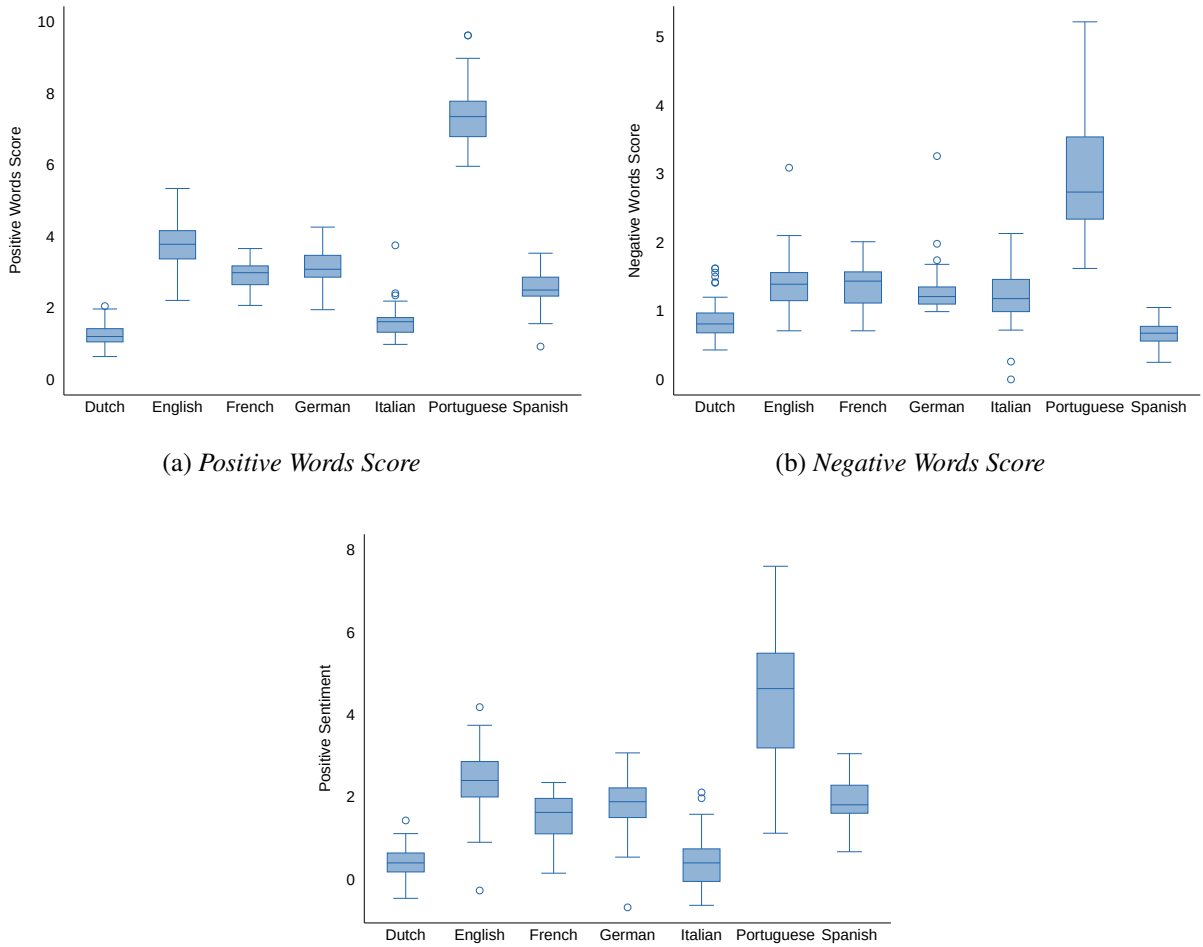
Too many elderly people suffer from **isolation**, **fear** *and* **cold**.

[7]More descriptive information for our manifestos can be found in Online Appendix B, which contains histograms of positive and negative words scores.

If we were to code this sentence as the whole document, then the *negative words score* would be 30.00, indicating that $3/10 = 30.00\%$ of the words are negative.[8]

As one might expect, the levels of positive or negative word scores vary across different languages. This is illustrated by the boxplots shown in the upper portion of Figure 2. The manifestos written in Por-

Figure 2: *Positive Words Scores*, *Negative Words Scores*, and *Positive Sentiment* by Language



(a) *Positive Words Score*

(b) *Negative Words Score*

(c) *Positive Sentiment*

Note: Figure 2 shows a series of boxplots for *positive words scores*, *negative words scores*, and *Positive Sentiment* by language for 421 party manifestos from eight West European countries from 1980 to 2012. *Positive words scores* refer to the percentage of positive emotive words in a manifesto, while *negative words scores* refer to the percentage of negative emotive words in a manifesto. *Positive Sentiment*, our dependent variable, is calculated as the *positive words score* for a manifesto minus that manifesto's *negative words score*.

[8]The sentences we examined here show how LIWC codes words using the English dictionary. The set of words assigned to each category varies slightly across languages and hence dictionaries. While this might be seen as a source of concern, multiple studies have shown that the dictionaries for different languages validly and reliably measure similar valence constructs (Alparone et al., 2015; Aluísio, 2015; Pennebaker, Booth and Francis, 2007; Piolat et al., 2011; Ramírez-Esparza et al., 2007; Wolf et al., 2008; Zijlstra et al., 2005).

tuguese, for example, exhibit much higher levels of both positive and negative words than the manifestos written in other languages. In our upcoming empirical analyses, we take account of the heterogeneity across languages in the use of positive and negative words through the use of language fixed effects.

Ultimately, our hypotheses are concerned with the overall level of positive sentiment exhibited in a manifesto. Since manifestos can contain both positive and negative words, our dependent variable, *Positive Sentiment*, is calculated as the *positive words score* for a manifesto minus that manifesto's *negative words score*. The theoretical range for our dependent variable is $+100\%$ if all words were positive to -100% if all words were negative. In line with the fact that most of the words people use lack emotional valence, the actual range for *Positive Sentiment* in our sample is -0.68% to 7.60%; the mean is 1.70% and the standard deviation is 1.45%. The lower portion of Figure 2 provides boxplots for *Positive Sentiment* across our seven languages. Again this shows that there is heterogeneity across languages. The manifestos written in Dutch have the lowest mean levels of *Positive Sentiment*, while those written in Portuguese have the highest.

3.2 Independent Variables

To test our hypotheses, we created two variables to capture a party's incumbency status. *Incumbent Party* is a dichotomous variable that equals 1 when the party is in government at the time of the election for which the manifesto is written, and 0 otherwise.[9] *Incumbent Party* $\times$ *Prime Ministerial Party* is another dichotomous variable that equals 1 when the party is the prime ministerial party, and 0 otherwise.[10] All information on the incumbency status of parties comes from Glasgow, Golder and Golder (2011).

We created two variables to evaluate our *Extreme Ideology Hypothesis*. *Left-Right* captures a party's mean position on a 0-10 left-right scale as determined by country experts (Döring and Manow, 2015). *Left-Right*^{2} is a quadratic term designed to test the conditional claim that ideologically extreme parties use lower levels of positive sentiment than ideologically moderate parties. As an alternative strategy for evaluating

[9]There is one exception to this coding rule relating to the 1981 legislative elections in France. The socialist François Mitterrand was elected French president on May 10, 1981. The right-wing coalition government led by Raymond Barre that had been in office since April 3, 1978 resigned three days later on May 13. A caretaker left-wing government led by socialist Pierre Mauroy took office on May 21 and ruled until newly scheduled legislative elections were held one month later on June 21 (Thiébault, 2000, 507). Although the left-wing government (*Partie Socialiste*) was technically in power at the time of the election, it is more appropriate to code the right-wing parties — *Rassemblement pour la République* and the *Union pour la Démocratie* — that resigned from office on May 13 as the incumbent governmental parties for the purposes of testing our theory. We should note, though, that coding the left-wing *Parti Socialiste* as the incumbent government for the 1981 legislative elections does not affect our results. Finally, we note that there were no incumbent government parties for the 1996 elections in Italy. This was because a non-partisan technocratic government had been in power since January 17, 1995.

[10]Note that we do not need to include a dichotomous variable, *Prime Ministerial Party*, in our empirical analysis even though it is a constitutive element of our interaction variable. This is because its inclusion leads to perfect multicollinearity given that *Prime Ministerial Party* is only equal to one when the party is also an incumbent party (Brambor, Clark and Golder, 2006, 70, note 8).

our *Extreme Ideology Hypothesis*, we created a third variable, *Extremist Party*, based on a party's 'family'. *Extremist Party* is a dichotomous variable that equals 1 if a party belongs to a party family on the extreme left (communist) or the extreme right (far right), and 0 otherwise.[11] Data for this variable come from the *Parliaments and Governments Database* (*ParlGov*) database (Döring and Manow, 2015).

We also created measures of economic performance. We focus on unemployment and inflation because the economic voting literature specifically singles these indicators out as being "related to changes in support for the government in many countries" (Powell and Whitten, 1993, 392). *Unemployment* is the unemployment rate and comes from the International Monetary Fund (2015). *Inflation* is the inflation rate and comes from the World Bank (2012). We lag these variables by a year to ensure that they reflect the economic conditions at a time prior to when the parties write their manifestos. We also create two interactions, *Incumbent Party* $\times$ *Unemployment* and *Incumbent Party* $\times$ *Inflation*, to test the conditionality of the *Conditional Economic Performance Hypothesis* and the *Conditional Incumbent Party Hypothesis*.

3.3 Model Specification and Results

Given the nature of our dependent variable, we test our hypotheses using ordinary least squares. We employ robust standard errors clustered by election to take account of the fact that the content and language used in party manifestos are unlikely to be independent within a given election. As a reminder, we also include language fixed effects to take account of the fact that users of different languages differ in their underlying proclivity to employ positive and negative words. As expected, statistical tests indicate that a model with these language fixed effects is superior to one without them.[12] The results of ten different models are presented in Table 2. The first two columns (Models 1 and 2) focus on the relationship between positive sentiment and incumbency status. The next two columns (Models 3 and 4) add our indicators of a party's policy position. The remaining columns add our economic indicators, either inflation (Models 5 and 6), unemployment (Models 7 and 8), or both inflation and unemployment (Models 9 and 10).

As predicted by the *Incumbent Party Hypothesis*, Model 1 shows that incumbent parties are significantly more positive in the emotive language that they use in their manifestos than opposition parties. This is indicated by the positive and statistically significant coefficient on *Incumbent Party*. The effect of incumbency is substantively large. The results from Model 1 suggest that positive sentiment is 23.6% [17.2%,

[11] Our results remain robust if we also classify Green parties as extreme left parties (March, 2011; Grittersova et al., 2016).

[12] Our results are qualitatively similar if we do not cluster our standard errors by election or if we use country fixed effects instead of language fixed effects.They are also robust to a variety of bootstrap and jacknife procedures.

Table 2: *Positive Sentiment* in European Party Manifestos

	Dependent Variable: *Positive Sentiment*									
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9	Model 10
Incumbency										
Incumbent Party	0.53***	0.36***	0.15**	0.26***	0.27***	0.05	0.24***	0.34***	0.18	0.03
	(0.07)	(0.07)	(0.06)	(0.08)	(0.08)	(0.11)	(0.08)	(0.13)	(0.14)	(0.13)
Incumbent Party × Prime Ministerial Party	-	0.28***	0.24***	0.24***	0.21**	0.23***	0.24***	0.26***	0.25***	0.23***
	-	(0.08)	(0.07)	(0.08)	(0.08)	(0.08)	(0.08)	(0.08)	(0.08)	(0.08)
Ideology										
Left-Right	-	-	0.41***	-	-	-	-	-	-	0.39***
	-	-	(0.07)	-	-	-	-	-	-	(0.07)
Left-Right^2	-	-	−0.04***	-	-	-	-	-	-	−0.04***
	-	-	(0.01)	-	-	-	-	-	-	(0.01)
Extremist Party	-	-	-	−0.50***	−0.49***	−0.47***	−0.45***	−0.45***	−0.43***	-
	-	-	-	(0.11)	(0.11)	(0.10)	(0.10)	(0.10)	(0.10)	-
Economics										
Inflation	-	-	-	-	−0.03***	-0.04***	-	-	−0.03**	-0.02**
	-	-	-	-	(0.01)	(0.01)	-	-	(0.01)	(0.01)
Incumbent Party × Inflation	-	-	-	-	-	0.04***	-	-	0.03**	0.02*
	-	-	-	-	-	(0.01)	-	-	(0.01)	(0.01)
Unemployment	-	-	-	-	-	-	−0.03***	−0.02**	−0.02*	-0.02*
	-	-	-	-	-	-	(0.01)	(0.01)	(0.01)	(0.01)
Incumbent Party × Unemployment	-	-	-	-	-	-		−0.01	-0.01	-0.002
	-	-	-	-	-	-		(0.02)	(0.02)	(0.02)
Constant	2.24***	2.23***	1.35***	2.33***	2.41***	2.45***	2.60***	2.57***	2.66***	1.71***
	(0.10)	(0.10)	(0.17)	(0.09)	(0.10)	(0.10)	(0.10)	(0.10)	(0.12)	(0.18)
Language Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Manifestos	421	421	382	412	391	391	405	405	388	359
Elections	70	70	69	70	64	64	68	68	63	62
R^2	0.78	0.78	0.82	0.80	0.81	0.81	0.81	0.81	0.82	0.83

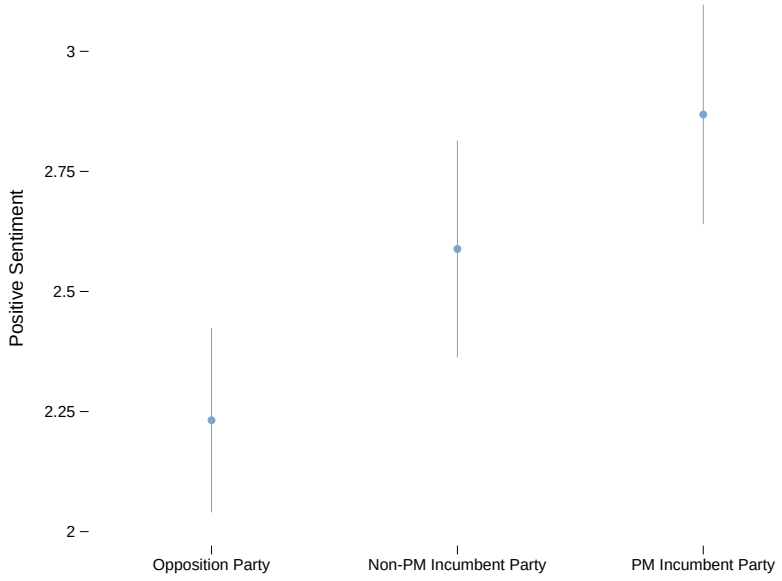
* $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$ (two-tailed).

Note: Robust standard errors clustered by election are shown in parentheses. Data come from 421 party manifestos in 70 national legislative elections in eight West European countries from 1980 to 2012. The dependent variable, *Positive Sentiment*, is calculated as the percentage of positive emotive words in a manifesto minus the percentage of negative emotive words in a manifesto.

30.3%] higher in the manifestos of incumbent parties than in those of opposition parties.[13] 95% two-tailed confidence intervals are shown in parentheses. As predicted by the *Prime Ministerial Party Hypothesis*, the results in Model 2 indicate that prime ministerial parties adopt even higher levels of positive sentiment in their manifestos than their coalition partners. This is indicated by the positive and statistically significant coefficient on *Incumbent* × *Prime Ministerial Party*.

Figure 3 provides a graphical summary of our results with respect to incumbency status. Specifically, it shows the predicted level of *Positive Sentiment* for parties that differ in their incumbency status based on the results in Model 2. Non-prime ministerial incumbent parties exhibit 16% [8.9%, 23.2%] more positive sentiment than opposition parties. Prime ministerial incumbent parties exhibit 29% [21.1%, 36.7%] more positive sentiment than opposition parties. And prime ministerial incumbent parties exhibit 12.5% [5.5%, 19.8%] more positive sentiment than non-prime ministerial incumbent parties.[14] These results are qualitatively similar across all the models in Table 2.[15] Overall, our results with respect to incumbency status are

Figure 3: *Positive Sentiment* and a Party's Incumbency Status



Note: Figure 3 plots the predicted level of *Positive Sentiment* for opposition parties, non-prime ministerial incumbent parties, and prime ministerial incumbent parties using the results from Model 2 in Table 2. The solid blue lines represent two-tailed 95% confidence intervals.

[13]This is calculated as $(\frac{2.24+0.53}{2.24} - 1) \times 100 = 23.6\%$.

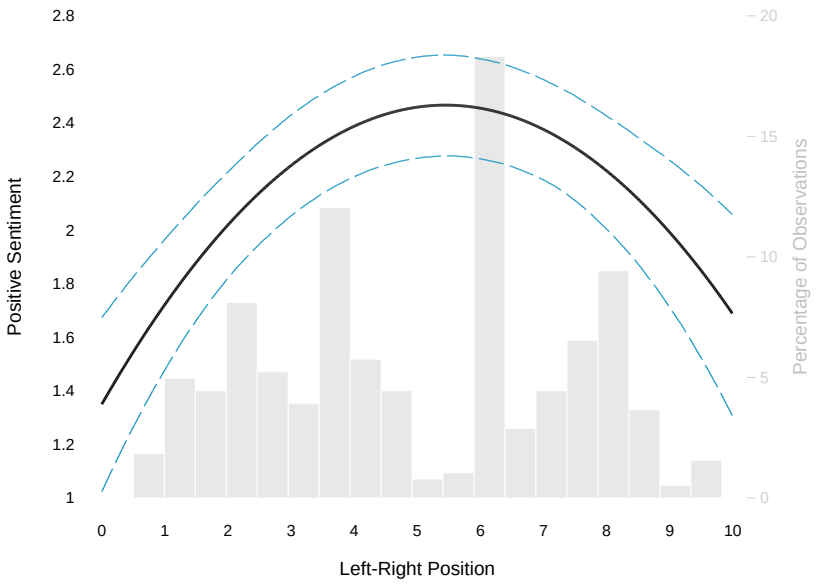
[14]The confidence intervals in Figure 3 overlap slightly. However, it is important to remember that overlapping confidence intervals are not necessarily evidence that the differences between point estimates are statistically insignificant (Schenker, 2001; Gelman and Stern, 2006). Indeed, we know that these differences are significantly different as the coefficients on *Incumbent Party* and *Incumbent Party* × *Prime Ministerial Party* in Model 2 are both highly statistically significant ($p < 0.001$).

[15]Not too much should be read into the statistically insignificant coefficients on *Incumbent Party* in Models 6, 9, and 10 as these

strongly supportive of our theoretical argument. They suggest that parties think strategically, not only about the substantive content of their party manifestos, but also about the emotive language they use to convey that content. Our results are also consistent with the growing empirical evidence that prime ministerial parties are held more responsible for the state of the world at election time than their coalition partners (Duch and Stevenson, 2008, 2013; Debus, Stegmaier and Tosun, 2014; Duch, Przepiorka and Stevenson, 2015).

As predicted by the *Extreme Ideology Hypothesis*, ideologically extreme parties use lower levels of positive sentiment in their manifestos than more ideologically moderate parties. This is indicated by the positive and statistically significant coefficient on *Left-Right* and the negative and statistically significant coefficient on *Left-Right*^{2} in Model 3. Together these coefficients indicate that positive sentiment first rises and then falls as a party's policy position moves across the left-right policy space. This is graphically illustrated in Figure 4. The solid black line indicates the predicted level of positive sentiment exhibited by opposition parties using the results from Model 3 in Table 2.[16] The dashed blue lines represent two-

Figure 4: *Positive Sentiment* and a Party's Left-Right Policy Position



Note: The solid black line plots the predicted level of *Positive Sentiment* for opposition parties across the left-right policy space using the results from Model 3 in Table 2. The dashed blue lines represent two-tailed 95% confidence intervals. The black vertical axis on the left represents the predicted value of *Positive Sentiment*. The light gray vertical axis on the right pertains to the histogram and indicates the percentage of observations in the sample at different values of *Left-Right*.

coefficients capture the effect of being a non-prime ministerial incumbent party when inflation (and unemployment) is zero.

[16]The shape of this black line is the same for incumbent parties. The only difference is that the line would be shifted up to reflect the higher level of positive sentiment exhibited by incumbent, as opposed to opposition, parties, something indicated by the positive and statistically significant coefficients on *Incumbent Party* and *Incumbent Party* × *Prime Ministerial Party* in Model 3.

tailed 95% confidence intervals. The black vertical axis on the left indicates the predicted value of *Positive Sentiment*. The light gray vertical axis on the right pertains to the histogram and indicates the percentage of observations in the sample at different values of *Left-Right*. Positive sentiment is maximized when a party's policy position is at 5.45 on the 0-10 scale and declines sharply as a party's policy position moves towards either the extreme left or the extreme right. This is exactly in line with our theoretical story.

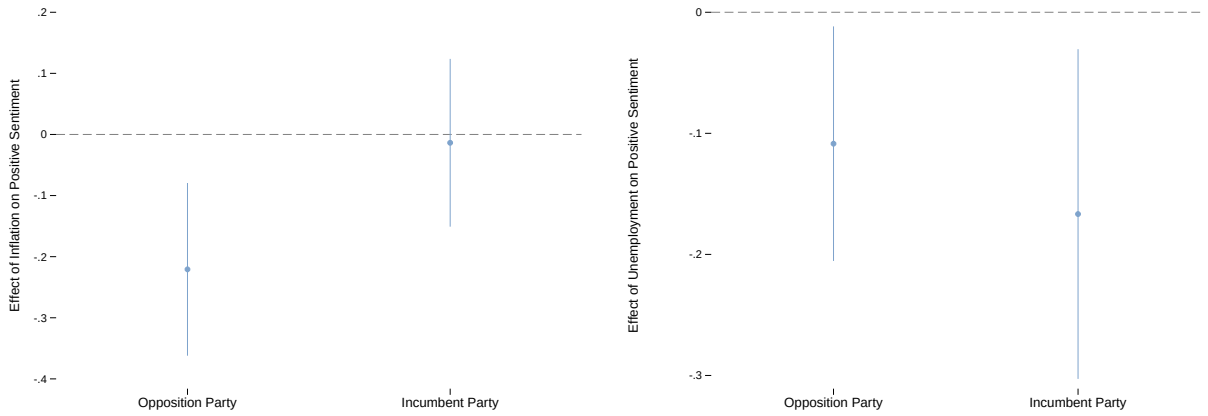
Further support for the *Extreme Ideology Hypothesis* comes from Model 4. As predicted, the coefficient on *Extremist Party* is negative and statistically significant, indicating that ideologically extreme parties exhibit lower levels of positive sentiment than ideologically moderate parties. This effect is once again substantively large. As an example, the results in Model 4 indicate that extremist opposition parties employ 21.7% [13.5%, 31.66%] less positive sentiment in their manifestos than moderate opposition parties. Our results with respect to how a party's policy position influences the level of positive sentiment that it exhibits in its campaign messages are qualitatively similar across all of the models in Table 2.[17]

In line with the *Economic Performance Hypothesis*, the results in Models 5 and 7 indicate that parties adopt lower levels of positive sentiment in their manifestos when the economy is performing poorly. This is indicated by the negative and statistically significant coefficient on *Inflation* in Model 5 and the negative and statistically significant coefficient on *Unemployment* in Model 7. These results suggest that the campaign sentiment adopted by political parties does vary in line with objective economic conditions just as the standard economic voting framework would lead us to expect.

But does the effect of objective economic conditions on campaign sentiment vary with a party's incumbency status as the *Conditional Economic Performance Hypothesis* predicts? Strong support for a conditional relationship comes from Model 6 where we focus on inflation. This is indicated by the negative and statistically significant coefficient on *Incumbent Party* $\times$ *Inflation*. To evaluate the conditional effect of economic performance and incumbency status in more detail, Figure 5(a) plots the effect of a one standard deviation increase in inflation on *Positive Sentiment* for opposition parties and incumbent parties. The solid blue lines represent two-tailed 95% confidence intervals. Inflation has a strong negative and statistically significant effect on the level of positive sentiment exhibited by opposition parties. Although the effect of inflation on the level of positive sentiment exhibited by incumbent parties remains negative, it is much smaller and is no longer statistically significant — the confidence intervals now contain zero. The evidence

[17] To maximize our sample size when evaluating our *Extreme Ideology Hypothesis*, we focus on the dichotomous *Extremist Party* variable in models 4-9. However, our inferences are robust to substituting in our *Left-Right* and *Left-Right*^{2} variables instead. To support this claim, we revert back to our continuous *Left-Right* measure of a party's policy position in Model 10.

Figure 5: The Effect of Objective Economic Indicators on *Positive Sentiment*



(a) Inflation (b) Unemployment

Note: Figure 5 shows the effect of objective economic indicators on *Positive Sentiment*. Panel (a) shows the effect of a one standard deviation increase in inflation on *Positive Sentiment* for opposition and incumbent parties using the results from Model 6 in Table 2. Panel (b) shows the effect of a one standard deviation increase in unemployment on *Positive Sentiment* for opposition and incumbent parties using the results from Model 8 in Table 2. The solid blue lines represent two-tailed 95% confidence intervals. The coefficient on *Incumbent Party* $\times$ *Inflation* is 0.04 (0.01), while the coefficient on *Incumbent Party* $\times$ *Unemployment* is -0.01 (0.02); standard errors are shown in parentheses.

presented in Figure 5(a) is consistent with our claim that incumbent parties use positive campaign sentiment to frame poor economic performance in as good a light as they can whereas opposition parties try to frame it in as bad a light as they can.

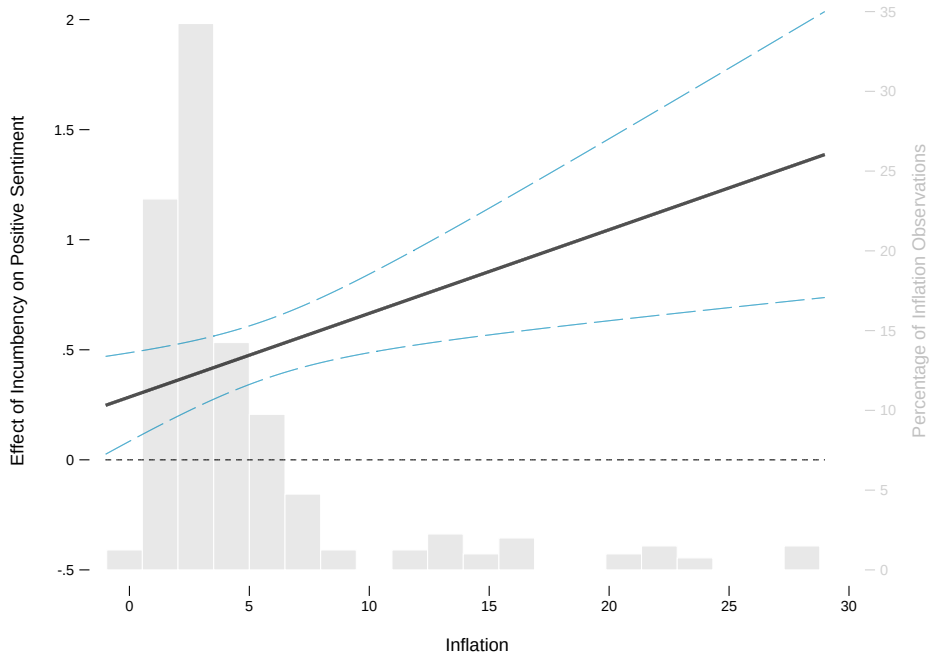
There is no support for the *Conditional Economic Performance Hypothesis* when we focus on unemployment. The results in Model 8 indicate that unemployment always reduces the level of positive sentiment in party manifestos. However, the magnitude of this effect does not seem to vary with a party's incumbency status. This is indicated by the negative and statistically significant coefficient on *Unemployment* and the fact that the coefficient on *Incumbent Party* $\times$ *Unemployment* is not statistically significant. As Figure 5(b) visually demonstrates, a one standard deviation increase in unemployment has a similarly sized negative effect on the level of positive sentiment exhibited by both opposition and incumbent parties — the two confidence intervals overlap almost entirely.[18]

That we obtain slightly different *conditional* results with respect to inflation as opposed to unemployment suggests that parties may feel that they can use emotive language to frame some economic conditions more than others. One interpretation of our results is that incumbent parties feel free to ignore inflation when it comes to the emotive content of their campaign messages but not unemployment.

[18] As Models 9 and 10 demonstrate, our results with respect to inflation and unemployment are robust to including both measures of objective economic performance in the same model specification.

Our last hypothesis, the *Conditional Incumbent Party Hypothesis*, has to do with how the effect of incumbency status on positive campaign sentiment varies with objective economic conditions. Recall that we expect the positive effect of incumbency on campaign sentiment to be greater when the economy is performing poorly. We obtain strong support for this hypothesis when we focus on inflation. This is again indicated by the fact that the coefficient on *Incumbent Party* × *Inflation* in Model 6 is both positive and statistically significant. In Figure 6, we plot the effect of being the incumbent prime ministerial party on positive sentiment across the observed range of inflation. The solid blue lines represent two-tailed 95% confidence intervals. As predicted, this marginal effect, which is always positive and statistically significant, grows in magnitude with higher rates of inflation. We do not obtain such strong support for the *Conditional Incumbent Party Hypothesis* when we focus on unemployment. While we find that incumbency status always increases positive campaign sentiment as predicted, we do not find that the magnitude of this effect increases with unemployment. This is indicated by the fact that the coefficient on *Incumbent Party* × *Unemployment* in Model 8 is not statistically significant.

Figure 6: The Effect of Incumbency Status on *Positive Sentiment*



Note: The solid black line in Figure 6 shows the effect of being the incumbent prime ministerial party on *Positive Sentiment* across the observed range of inflation using the results from Model 6 in Table 2. The dashed blue lines represent two-tailed 95% confidence intervals. The black vertical axis on the left indicates the magnitude of the effect of being the incumbent prime ministerial party. The light gray vertical axis on the right pertains to the histogram and indicates the percentage of observations in the sample at different values of *Inflation*.

4 Conclusion

Electoral campaigns are often conceptualized along two primary dimensions. The *campaign content* dimension captures the extent to which political parties compete on policy issues or valence characteristics. The *campaign focus* dimension captures whether parties focus their campaign messages on themselves or their opponents. In this article, we have argued that *campaign sentiment*, which captures the emotive content of campaign messages, represents a third and conceptually distinct dimension of election campaigns. Whereas campaign content and campaign focus address *what* parties say and *who* they say it about, campaign sentiment addresses *how* they say it.

In recent years, scholars have shown that campaign messages can engender different types of emotion and thereby shape people's behavior and their perceptions of the world around them. An implication of this research is that political parties will be strategic not only about the substantive content of their campaign messages but also about the kind of sentiment that they use to convey that content. Some parties will adopt campaign sentiment that seeks to frame the current state of the world in a positive light, whereas others will adopt campaign sentiment that seeks to frame it in a negative light.

Building on the logic underpinning models of retrospective voting, we used a novel dataset containing information on the emotive language used in over 400 European party manifestos to examine how the level of positive campaign sentiment exhibited by political parties depends on their incumbency status, their policy position, and objective economic conditions. As predicted, incumbent parties, and in particular prime ministerial parties, exhibit greater positive sentiment than opposition parties. Also in line with our theoretical expectations, our analysis revealed that ideologically extreme parties adopt much lower levels of positive sentiment than more ideologically moderate parties, and that all parties adopt significantly lower levels of positive sentiment when objective economic conditions are poor. Taken together, our results suggest that parties are indeed strategic about the type of emotive language they employ in their manifestos.

Our argument provides a possible explanation for why people often hold different perceptions of the same objective economic conditions and why these differing perceptions are frequently tied to an individual's partisan identity (Campbell et al., 1960; Mackuen, Erikson and Stimson, 1989; Duch, Palmer and Anderson, 2000; Evans and Andersen, 2006; Anderson, 2007; Enns, Kellstedt and McAvoy, 2012). While our findings suggest that political parties seek to strategically frame the state of the world during their electoral campaigns, they are not inconsistent with research showing that individuals generally respond to

objective economic reality at election time (Lewis-Beck, Nadeau and Elias, 2008; Nadeau, Lewis-Beck and Éric Bélanger, 2013; Lewis-Beck, Martini and Kiewiet, 2013). As Gelman and King (1993) noted a long time ago, high-information and balanced electoral campaigns can produce 'enlightened preferences' on the part of voters. In effect, competing campaign messages from different parties can over time reveal to voters the true 'fundamentals' of the state of the world.

We know little about the strategic use of emotive content in election campaigns. Whereas we addressed the use of broad emotive categories, such as positive and negative sentiment, future research might fruitfully focus on the strategic use of more specific emotions such as fear, anger, or enthusiasm. Alternatively, scholars could look at whether the overall amount of emotive content in an election campaign has changed over time. Do some parties, such as populist parties or those with charismatic leaders, use more emotive content in their campaign messages than other parties? How do parties respond to the emotive content in their rivals' campaign messages? Does the emotive content of a party's current election campaign depend on how that party performed in the previous election? Does the amount and type of campaign sentiment vary across the different media that parties use to convey their campaign messages? To a large extent, the field of research looking at the strategic use of campaign sentiment is wide open.

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Online Appendix A: Finance Ministry Party

The *Prime Ministerial Party Hypothesis* states that prime ministerial parties use higher levels of positive sentiment in their campaign messages than their coalition partners. Voters are likely to hold the prime ministerial party more responsible for the state of the world than its coalition partners. This is because the prime minister is the most visible member of the government and because the prime ministerial party is widely recognized as the agenda setter (Glasgow, Golder and Golder, 2011; Fortunato, Lin and Stevenson, 2013; Duch and Stevenson, 2013). Consistent with this, empirical evidence shows that the economic vote for the prime ministerial party is disproportionately high compared to that of other governmental parties (Duch and Stevenson, 2008; Debus, Stegmaier and Tosun, 2014).

Some scholars have suggested that voters may also attribute responsibility for the state of the world to the finance ministry party, particularly when it comes to the state of the economy (Williams, Seki and Whitten, 2016). However, the empirical support for this claim is rather mixed. For example, Debus, Stegmaier and Tosun (2014) find that there is no economic vote for the finance ministry party in Germany. In their more comprehensive study, Duch and Stevenson (2008, 269) conclude that while the finance ministry party experiences some of the economic vote, "most of it goes to the prime ministerial party." We claimed in the main text (see note 3) that, consistent with these previous studies, there is little evidence that parties controlling the finance ministry use higher levels of positive sentiment in their campaign messages than their coalition partners. We now turn to the basis for our claim.

In Table 3, we present the results from four different models where we examine the level of positive campaign sentiment found in the manifestos of incumbent parties, incumbent prime ministerial parties, and incumbent foreign ministry parties. Data on incumbent foreign ministry parties comes from Seki and Williams (2014). Model 1 in Table 3 acts as a baseline and simply reports the results from Model 2 in Table 2. While the results in Model 2 in Table 3 indicate that the level of positive sentiment exhibited by finance ministry parties is not significantly different from that exhibited by its coalition partners as a whole, those in Model 3 indicate that finance ministry parties still do not exhibit higher levels of positive sentiment than their coalition partners even when we separate out prime ministerial parties. These inferences are based on the fact that the coefficients on *Incumbent Party*$\times$*Finance Ministry Party* are not statistically significant in either Model 2 or Model 3.

The additional interaction term in Model 4 allows us to examine whether the level of positive senti-

Table 3: *Positive Sentiment* in European Party Manifestos

Dependent Variable: Level of Positive Sentiment in a Party Manifesto				
	Model 1	Model 2	Model 3	Model 4
Incumbency				
Incumbent Party	0.36***	0.48***	0.36***	0.39***
	(0.08)	(0.08)	(0.09)	(0.10)
Incumbent Party×Prime Ministerial Party	0.28***	-	0.28***	0.23***
	(0.08)	-	(0.08)	(0.11)
Incumbent Party×Finance Ministry Party	-	0.08	−0.01	−0.09
	-	(0.08)	(0.09)	(0.14)
Incumbent PM Party ×Incumbent FM Party	-	-	-	0.12
	-	-	-	(0.20)
Constant	2.23***	2.23***	2.23***	2.23***
	(0.10)	(0.10)	(0.10)	(0.10)
Language Fixed Effects	Yes	Yes	Yes	Yes
Manifestos	421	421	421	421
Elections	70	70	70	70
R^2	0.78	0.78	0.78	0.78

* $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$ (two-tailed).

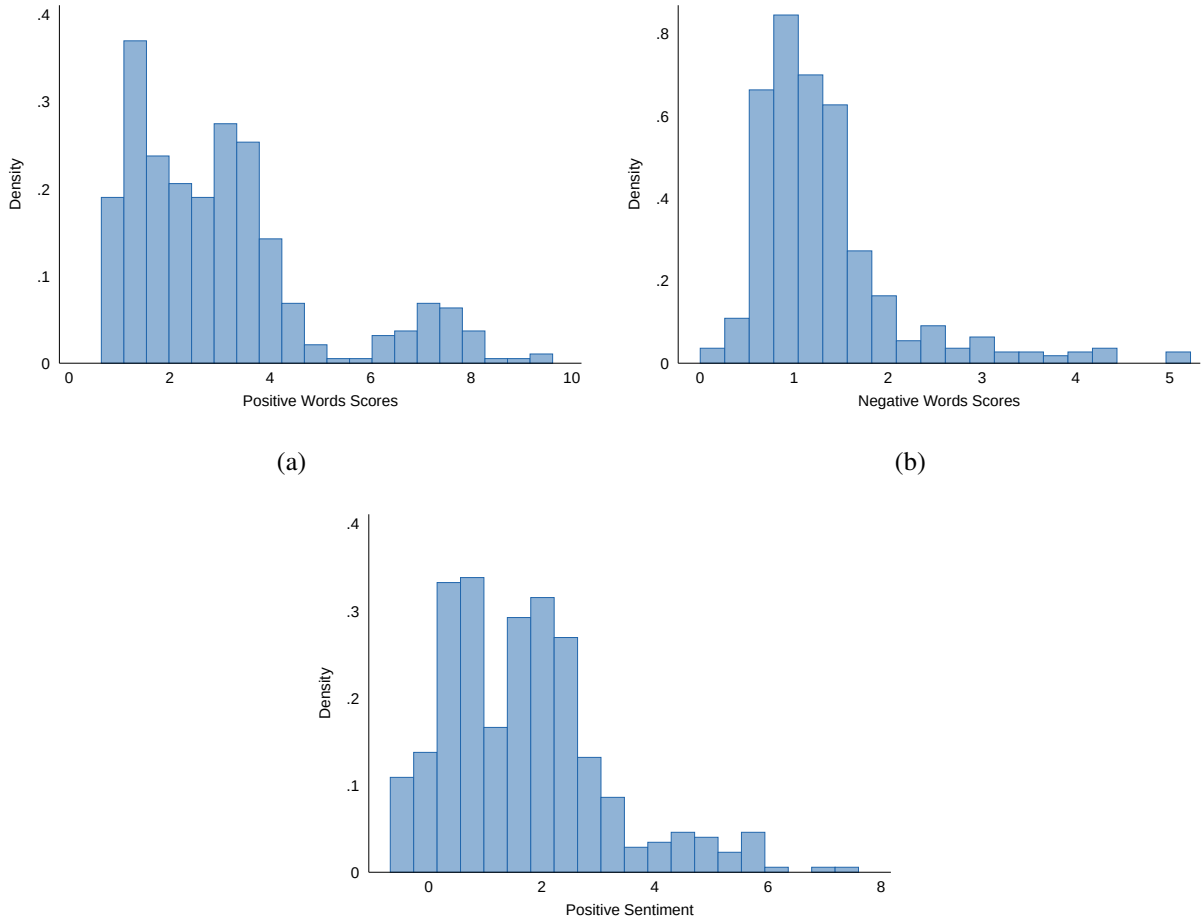
Note: Robust standard errors clustered by election are shown in parentheses. Data come from 421 party manifestos from eight West European countries from 1980 to 2011. The dependent variable, *Positive Sentiment*, is calculated as the percentage of positive emotive words in a manifesto minus the percentage of negative emotive words in a manifesto. *Incumbent PM Party* is equal to *Incumbent Party×Prime Ministerial Party* and *Incumbent FM Party* is equal to *Incumbent Party×Finance Ministry Party*.

ment exhibited by a party in its manifesto depends on whether it controls both the finance ministry and the prime ministership or just the finance ministry but not the prime ministership. In our sample, there are 14 observations where a party controls the finance ministry but not the prime ministership and 21 observations where a party controls the prime ministership but not the finance ministry. The results in Model 4 show that controlling the finance ministry, either alone or in combination with the prime ministership, never changes the level of positive sentiment in a party's manifesto. This is indicated by the statistically insignificant coefficients on both *Incumbent Party×Finance Ministry Party* and *Incumbent PM Party×Incumbent FM Party*. Consistent with the *prime ministerial party hypothesis* and the discussion in the main text, though, the results presented in Table 3 indicate that prime ministerial parties always exhibit higher levels of positive sentiment in their manifestos than their coalition partners, even when they do not control the finance ministry. This is indicated by the positive and statistically significant coefficients on *Incumbent Party×Prime Ministerial Party*.

Online Appendix B: *Positive Sentiment* and Positive and Negative Words Scores

In Online Appendix B, we provide more descriptive information on our measure of positive campaign sentiment. Recall that *Positive Sentiment* is calculated as the *positive words score* for a manifesto minus that manifesto's *negative words score*. *Positive words scores* refer to the percentage of positive emotive words in a manifesto, while *negative words scores* refer to the percentage of negative emotive words in a manifesto. The observed range for *Positive Sentiment* in our sample is -0.68% to 7.60%; the mean is 1.70% and the standard deviation is 1.45%. The observed range for *positive words score* is 0.64% to 9.62%; the mean is

Figure 7: Histograms of *Positive Sentiment* and Positive and Negative Words Scores



Note: Figure 7 shows a series of histograms for *positive words scores* (panel a), *negative words scores* (panel b), and *Positive Sentiment* (panel c) for 421 party manifestos from eight West European countries from 1980 to 2012. *Positive words scores* refer to the percentage of positive emotive words in a manifesto, while *negative words scores* refer to the percentage of negative emotive words in a manifesto. *Positive Sentiment* is calculated as the *positive words score* for a manifesto minus that manifesto's *negative words score*.

3.02% and the standard deviation is 1.91%. The observed range for *negative words score* is 0% to 5.22%; the mean is 1.32% and the standard deviation is 0.79%.