Seat Safety and Polarisation during Electoral Campaigns

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Abstract

Who drives divisiveness and polarisation in the run-up to an election? I collect and analyse a novel database of political speeches in the Portuguese parliament, and merge with MP's placement on electoral lists. I apply different measures of textual analysis and find that political divisiveness increases as an election comes near. Using a difference-in-differences design I find that during the campaign period the perceived divisiveness of politicians in safer seats increases compared to those in marginal seats. I discuss the limitations of the design, and close with a discussion of possible mechanisms. Politicians in safer seats have more polarising speeches in general, but also use more cognitive-heavy language than their peers; however, politicians who over-perform their seats in terms of polarisation are promoted to safer seats, while those who over-perform in terms of cognitive-heavy language are not.

Keywords: Difference-in-Differences, Text Analysis, Polarisation, Electoral Incentives, Seat Safety, Proportional Representation

1 Introduction

Campaigning is a common factor accross electoral systems. That politicians try to win the hearts and minds of voters is both natural and healthy; and that voters, or people in general, can be persuaded by both logic and emotion has been argued since Aristotle first made the distinction between Pathos, Logos, and Ethos.

The effect of elections on shifting politicians' speeches towards more populism and polarisation is in fact well established. Ash et al., 2015 saw increases in divisiveness related to elections in US Senate, and Hansen and Pedersen, 2008 which posit on the media as a mechanism promoting polarised campaign messages. Acemoglu et al., 2011 argues that politicians shift their policy positions with a populist bias during campaigning.

What is less established, however, is who are the apparent drivers of this polarisation. In a majoritarian system, we can theoretically expect that all politicians have an incentive to deliver polarising messages, exactly as Ash et al., 2015 have, and that the effect is stronger in the run-up to an election.

However the decision of supplying polarisation can be distinguished between the strategic incentives of the party and those of the individual. On the one hand, parties may benefit from divisiveness to increase base turnout when a poor performance is expected (as in Poljak, 2022a), and choose to deploy members of parliament who are more effective polarisers. On the other hand, MPs elected in safe seats may face no personal benefit from supplying higher divisivenes, as their re-election is certain; while a personal marginal benefit in re-election may be relevant for MPs in marginal seats. Concurrent to both of these effects, placement in lists is endogenously decided by parties themselves.

The main question this work tries to answer is exactly who provides polarisation in parliament, and which of these effects is likely to be more relevant. The recent Canen et al., 2020 has a similar question, applying it in the US and using roll call data. I focus instead on a setting with Proportional Representation and use text analysis.

A sizeable contribution is the novel database in which the analysis is based on. I collected and analysed all the speeches in the Portuguese Parliament, using a variety of textual analsysis techniques. I also collected the electoral lists for parties in legislative elections since 2005. As there is less research on the Portuguese context of electoral politics, these datasets are some of the first of their kind.

Given these datasets the question I first test if speeches given during electoral periods are more polarising than those outside of them. I find that all analysis of the text of the speech have null to very weak results, but that reactions to the speech by outside parties are much more frequent during campaigns. This can be interpreted to mean that the text of the speech may not be more polarising in itself, but that the speaker has a greater ability to elicit a polarised response ("perceived polarisation").

I then see if the effect is different depending on the relative safety of the seat of the speaker. I find very strong effects that it is those in safer seats driving the effects during electoral campaigning periods, and in this case with some evidence that the speech itself may be more divisive. Applying a difference-in-differences design, I mostly confirm these effects, finding that seat safety and closeness to an election explain a large amount of the interruptions and protests of a speech, and some evidence that the speech has more negative sentiment.

I do find support for the design in the fact that I find no evidence for differing pretrends for any measure between the two groups (safe seats vs marginal seats), but caution that there may be important spillover effects biasing estimates; and any effect sizes for those in safe seats are being compared against a group whose speeches have less perceived polarisation during the election period. A time-based placebo test lends further credence to the results.

Finally, I also present limited evidence on the mechanisms behind the effect. I find that politicians in safer seats have more polarising speeches than their peers, but also higher scores in a cognitive measure, which I assume as a proxy for the complexity of the themes discussed. However, I see that the future safety of the seat held by a politician is driven by their overperformance in polarisation, but not in cognitive complexity.

I take this as evidence that strategic decisions by parties of who to place in electoral lists is the larger effect responsible for these findings. My initial prior would be that members of parliament in marginal seats would have more incentives to deliver divisive messages, as the effects of their actions would drive their own re-election. Instead, I posit that parties promote those able to elicit more perceived polarisation, and that those in safer seats, likely as large stakeholders in their parties' success, are responding to the incentives the party faces instead of their own as MPs.

In answering this quesiton I connect with two strands of research in the literature.

First is a strand in political economics relating to how parties select candidates. There is a great amount of research in how this relates to majoritarian systems. Serra, 2011 and Adams and Merrill, 2008 discuss the benefits and potential trade-offs of a primary system. In fact, Casey et al., 2021 crafts an experiment where this exact trade-off is exemplified.

Given a majoritarian system, we also have studies looking at how candidate quality relates to the degree of electoral competition. Galasso and Nannicini, 2011 sees that candidates in closer races have higher valence, which is corroborated by Paola and Scoppa, 2011. Carrillo and Mariotti, 2001 shows a theoretical model where valence is unknown a priori and revealed through elections, and thus parties may gamble with new canddates when elections are difficult to win.

There is some research into how this applies to Proportional Representaiton (PR) systems; Dal Bó et al., 2017 shows how parties select above average individuals as MPs, while Mattozzi and Merlo, 2015 warn that Proportional Representation can select for worse politicians compared to majoritarian. Galasso and Nannicini, 2017 argues instead that majoritarian selects for higher valence than PR but only given a high number of competitive districts. The setting of PR systems is, however, understudied compared to majoritarian.

A second strand would be that of applying sentiment analysis techniques to political texts and parliamentary speeches in particular, and often measuring polarisation and divisiveness itself. An example would be Kosmidis et al., 2019 which used a dictionary-based approach to measure the degree of emotionality in UK party manifestos and US State of the Union speeches, concluding emotionality increases when ideological divisions are smaller and there is uncertainty about the correct policy choice. A much more technically sophisticated approach is taken by Gennaro and Ash, 2021, which measure emotionality and reasoning in political speeches in the US Congress, and find increases in emotionality since the 1970s.

A study in this strand similar to this work would be OSNABRÜGGE et al., 2021, which finds that in parliamentary speeches in the UK government, emotionality is higher in debates with higher viewership. Also particularly relevant would also be the recent working paper of Gennaro and Ash, 2022 which shows that higher C-SPAN viewership increases the emotionality of speeches in the US House of Representatives.

2 Data Collection and Treatment

2.1 Data Collection

I have collected parliamentary debate data directly from the Portuguese Parliament website. The full transcripts of parliamentary sessions were used to build the novel dataset where each intervention is catagorised as either a speech or an interruption to a speech. The summary statistics refer to speeches by MPs or members of government and to the interruptions to speeches made by MPs or members of government, excluding therefore procedural interventios from the Speaker or parliamentary secretaries.

This was the second attempt at collecting such a dataset for Portugal that I am aware of; the first being Généreux et al., 2012, which collects similar data from 2002 to 2008. However, the data collected by Généreux et al., 2012 is not comparable to the data collected in this work, as the data suffers from glaring inconsistencies, including frequently missclassifying the text of an interruption as the speaker who is being interrupted, or omitting the speaker all together. While this may not impair the aims of those authors, which seem to concentrate on providing data for better natural language analysis of Portuguese, it could not serve the basis of this analysis.

Speakers are often interrupted during the course of their interventions, and all interruptions are faithfully captured in the records. I have made an effort to characterise all interruptions and remove them from the corpus of the interventions; and so all statistics – including the number of interruptions, but also all text analysis measures – refer to the complete uninterrupted speech given by the speaker.

Ending in the Ninth Legislature (2005-2009), parliamentary records sometimes record dialogue as being between an interruptor and an "Orator". This Orator must therefore be identified, and is done so with error. The Robustness sample excludes these identifications, as they may be erroneous. From the Tenth Legislature (2009-2011) on, the two match.

I have restricted my analysis to MPs from five parties; from left to right, the Communist Party (Partido Comunista Português), the Left Block (Bloco de Esquerda), the Socialist Party (Partido Socialista), the Social Democratic Party (Partido Social Democrático), and the Christian Democrats (Centro Democrático e do Progresso – Partido Popular). MPs from the Green Party (Partido Ecologista "Os Verdes") are recoded as belonging to the Communist Party, as the Green party has run in all elections since its conception in a coalition with the Communists (either Legislative, Municipal, or European). These five parties represent all political forces in the Portuguese Parilament in most Legislatures analysed.

I have also scraped all of the candidate lists from the 2005 elections onwards. This allows me to match each Speaker with their position on the list, and to construct a measure of their seat safety. For each legislature, at least 80% of MPs have been succesfully matched to their position on the list. I have received an email from the electoral commission that previous candidate lists are not available online due to the GDPR.

Due to the limited availability of electoral list data, I focused all subsequent analysis on the Ninth to Fourteenth Legislatures, that is, between April 2005 and March 2022.

Portugal uses a closed list, proportional representation system, but with regional allocation of seats (at the "distrito" level, an otherwise defunct division of mainland portugal into 18 regions, along with the two autonomous regions of Madeira and Azores). This means that parties pubish regional lists, and that the number of seats won by each party is proportional to the number of votes received in each region, and the total seats elected in each region are proportional to the population. Candidates cannot be present in more than one regional list.

Using this list data, I have constructed a crude element of seat safety for each MP, wherein a seat is deemed safe if all previous candidates of that party in that particular seat have been elected between the 2005 to 2022 elections.

2.2 Text Analysis

I use three measures for text analysis.

First is "LEiA" (Almeida, 2018), a Portuguese fork of the popular Valence Aware Dictionary for sEntiment Reasoning (VADER) (Gilbert, 2014). This is a sentiment analysis tool that is nonetheless crude, only giving me a positive/negative/neutral score. Moreover, I have not been able to find wide use of this measure.

Second is the Linguistic Inquiry and Word Count (LIWC) tool, in particular the 2007 Dictionary as translated to Portuguese (Filho et al., 2013). This is a more sophisticated tool, which gives me a number of different measures of text. I have tested the Cognitive, Emotion, Positive and Negative measures. This dictionary based approach, however, can be quite limiting, as studied by van Atteveldt et al., 2021.

Third is a method of my own, built from the specificities of the data source. Parliamentary records have kept a record of not just the main intervention of each speaker, but also every interruption of that speaker, comprehensible or incomprehensible, attributable to a paritcular MP or not. I have used this to construct a measure of the number and type of interruptions per speech. In particular, I divide interruptions of a speech into interruptions with some text, (os simply "interruptions" from here on), or if they are incomprehensible, into either "protests" or "applauses", following the naming of the parliamentary records.

Note that the first two measures are measures of the contents of an intervention, while the third measure is of the reactions to the intervention. Thus, I can make a distinction between the actual divisive content contained in an intervention – I have used the negativity measure from either LEiA or LIWC, as well as the emotion measure from LIWC – or its "perceived divisiveness".

3 Empirical Analysis

3.1 Empirical Effect of Electoral Campaign Periods on Parliamentary Speeches

I start with a basic equation of the form

$$y_{s,t} = \beta X + \gamma e_t + \epsilon \tag{1}$$

where s is the speaker, t is time, X are our set of fixed effects and covariates, accounting always for gender and month fixed effects, either Party x Legislature or Party x Year, and optionally with a Speaker fixed effect; and e_t is our dummy for whether we are close to an election or not (i.e. an indicator variable).

To minimise the temptation of selecting variables for which effects are significant, I show throughout this section the results for $y_{s,t}$ as several different outcome variables. In particular: the number of interruptions per speech; the nunber of protests per speech; the number of applauses per speech; the emotive and cognitive measures from LIWC; and the negative measures from LIWC and LEiA.

In Appendix C I show robustness of differing definitions of the electoral campaign period. I find that effects may start already 60 days away from the electoral period; but as justified in the next subsection, I chose a 30 days period throughout.

In Appendix B I show the results from the estimating the equation of interest in (1). I find that there is a very sizeable increase in the number of Interruptions per speech (around 50% of the Mean), in the number of Protests per speech (around 100% of the Mean), and a decrease in the number of applauses per speech (ranging from 15% to 80% of the Mean). However, with the exception of a small effect on the Emotion Measure in the Robustness Sample, I find no evidence of a change of the sentiment of the speeches.

I conclude that there is little change in the polarisation of the speeches, but that the response to the speeches is sharply divisive. But how does this change given the electoral position of each speaker?

I now estimate a regression of the type:

$$y_{s.t} = \beta X + \gamma e_t + \nu(\theta_s * e_t) + \epsilon \tag{2}$$

where θ_t is another dummy, now accounting for whether a seat is safe. I consider a seat to be safe if the MPs position on the list of its Party has always been elected from 2005 to 2022.

Appendix D contains the results of this regression. I find that the effect of the electoral campaign period is much stronger for safe seats, which see an increase of over 5 times the number of interruptions of the average speech, and over 10 times the average number of protests. Mechanically, the estimated effects of campaigning in these measures for a marginal seat are both negative and strongly so.

I also find some evidence that the effect of campaigning makes the speeches more negative for the safe seats, with an oposite effect for the marginal seats. This is true under both Negativity measures (LIWC and LEIA), though the effects are smaller and at times not significant.

3.2 Identification Strategy: Difference-in-Differences using Seat Safety as treatment

I procceed with a difference-in-differences regression of the type:

$$y_{s.t} = \beta X + \gamma e_t + \rho\theta_{s.t} + \nu(\theta_{s.t} * e_t) + \epsilon \tag{3}$$

where $(\theta_t * e_t * t)$ is our "treatment" indicator, that is, a safe seat in an electoral campaign period. I assume month, PartyxLegislature and Speaker fixed effects throughout. I exclude all speeches 6 months before the electoral period.

Appendix G shows the results of the difference-in-differences regression. I find that that the speeches of speakers in safe seats are perceived as more divisive, with significant effects on the number of interruptions and protests. One of the measures of negativity (LIWC) also sees a significant rise, but for the other measure, the effect is negative but insignificant.

I would caution in interpreting the point estimates of the coefficients of the difference-in-differences, as the comparison made is against a group for which electlral campaigning results in a different outcome, in particular, of a decrease in perceived divisiveness broadly. This is not a good estimate of the effect of campaigning on the divisiveness of their speeches; but on the effect of campaigning on the difference in divisiveness of their speeches compared to the marginal seats. As parallel trends post-treatment is a common assumption for a Difference-in-Differences estimator, this is a limitation of the identification strategy undertaken.

3.2.1 Relevant Campaign Period

The 30 to 15 day period before each election also corresponds to the period when electoral conflict in Portugal is most amplified. A statutory campaign period starts 14 days before each election, but Parliament does not meet during this period. If divisiveness is beneficial to parties in increasing their vote, one would expect divisiveness in parliament to increase the most in the last period parliament can meet before each election due to inattentive voters.

Moreover, I would argue that the period between 30 and 15 days to each election corresponds in fact to the most relevant campaigning period, more so than the statutory period. First, as in the statutory period there are a series of limitations related to campaigning and media coverage. Secondly, as the fortnight that precedes the statutory period corresponds to when parties first have access to public property for outdoor advertisiing.

Televised debates are organised in the run up to each election. These are head-to-head debates between the leaders of each party in parliament, and sometimes a simultaneous debate between all candidates. Due to the large number of debates, they are spread accross all national broadcasting channels over a number of days. All debates occur almost exclusively during the period between 30 and 15 days to each election.

3.2.2 Parallel Trends Assumption

Appendix F deals with trying to establish the most crucial assumption of the model above, that of Parallel trends, using an event study plot. It assumes a model with lags of the type:

$$y_{s.t} = \beta X + \theta_s + \sum_{w} \gamma_w e_w + \rho \nu_w (\theta_s * e_w) + \epsilon \tag{4}$$

but wiht w being a fortnightly period until the upcoming election, the first priod being between 20 and 18 weeks to the elction, second between 18 and 16 weeks to the election, and so on until between 4 weeks and 2 weeks to the election. Parliament does not meet in the 2 weeks before any election due to the statutory campaign period.

Alternatively, I also fit a model of the type:

$$y_{s.t} = \beta X + \theta_s + \sum_m \gamma_m e_m + \rho \nu_m (\theta_s * e_m) + \epsilon \tag{5}$$

where the weekly periods are replaced by monthly periods.

In Appendix F the event study plot refers to the estimates of ν_w and ν_m. As the model is saturated, I omit the last period before what I have considered for treatment, which means between 6 and 4 weeks or between 2 and 1 months. For two outcomes, the Emotion and Negative measures from LIWC, I instead omit the period between 8 and 6 weeks for better visualisation.

The effects for Total Interruptions or Protests both seem to occur exactly at the 4 to 2 week mark. The effects for the Emotion and Negative measures from LIWC instead seem to occur at the 6 week mark and drop afterwards in the next period, but nonetheless at a higher point estimate than before 8 weeks.

Regardless, before the election there is no evidence for a separate pretrend for the treated group.

In any case, it is important to discuss whether the Parallel Pretrends assumption makes sense in this context. The two groups of marginal and safe seat MPs have different baseline levels of divisiveness – be it in terms of the text analysis measures or the number interruptions, as previously shown.

Note the baseline divisiveness for each group y_θ, with θ being our usual dummy for seat safety. I would posit that $\Delta y_0 \neq \Delta y_1$ mainly if in reaction to large political events. These need not be restricted to electoral periods, and may encompass also yearly budget negotiations, moments of crisis, or general shocks to public attention to politics or parliamentary behaviour. However, in the proximity of an electoral period, there should be no other relevant shocks. A priori this could also come from party decisions as well as the incentives of individual MPs.

3.2.3 Stable Unit Treatment Value Assumption

SUTVA in this context would mean that the effect of being close to an electoral period would affect each MP based on their seat safety independently of how it affects other MPs. However, reactions to speeches may reflect an overall environment that itself is endogenous to how polarising speeches are. Overall more divisive interventions could beget more divisive interventions, generating a sort of spillover effect.

Given this caveat, the point estimates in Appendix G may be biased and may fail to be significant if this bias were to be corrected. The direction of the bias is non-obvious, however. If ”spillovers” occur, it is conceivable these could affect all speeches regardless of position on electoral lists; and if the spillover effect is larger for higher positions on the list, that is part of the effect ν I am trying to measure.

Regardless, this is a limitation of the identification strategy undertaken.

3.2.4 Robustness to Time Placebo Test

I estimate the same regressions of interest as in (3) and (4), but change e_t to be the proximity to a "placebo" election, which occurs exactly one year before the real election, whether the actual election to occur is scheduled or a snap election.

Results for the Parallel Trends exercise are in Appendix H and the results for the difference-in-differences regression is in Appendix I. The placebo fails to yield any result, with no significant estimate.

3.3 Mechanism: Power of Seat Safety and Future Seat Safety

Now I estimate a regression of the type:

$$y_{s.t} = \beta X + \gamma\theta_{s.t} + u_{s.t} \tag{6}$$

I find (in Appendix D) that seat safety is positively correlated with a larger number of interruptions, protests and applauses, as well as the measures of text analysis; including both measures of negativity, and LIWC measures of emotiveness and cognitive thought.

Next, I estimate essentially the partitioned regression of the type:

$$\theta_{s,t+1} = \beta X + \gamma\theta_{s.t} + \chi u_{s.t} + \epsilon \tag{7}$$

The results in Appendix D show a rather different picture for χ, or the outcome in question unexplained by seat safety and the covariates. I see that over performance in terms of Interruptions, Protests and Applauses or applauses per speech are positively correlated with a higher placement on the next electoral list; and so are emotiveness and negativity under both measures. This is no longer true for cognitive thought, which has a negative insignificant effect.

I present this as limited evidence that parties actively promote the most divisive speakers, but not those with more complex speeches. However, there is no clear identification. Another mechanism to be considered that fits these facts could be that the most divisive speakers are better able to promote their faction within their party (as Persico et al., 2011 suggests).

4 Conclusion

These results are a personal refutation of my priors. If politicians are career oriented, and since only MPs in marginal seats are threatened to lose their seats, the original expectation was that it was these MPs responsible for electoral increases in polarisation; that was the conclusion of Canen et al., 2020 for example. Moreover, if we implicitly model that providing divisivness has party and Speaker costs, we would expect Speakers to over-provide divisiveness in the absense of party control.

Instead I have found, though with some limitations in the identification, that the drivers of electoral polarisation are speeches by those in safe seats. And moreover that over-performance in divisiveness is rewarded by parties.

The simplest explanation is that seat safety is endeogenously decided by parties, as they intend to promote those who can be more divisive in general. Then, in the run-up to an election, the campaigning period either exacerbates the ability of party stars with safe seats to supply perceived polarisation; or suggests strategic behaviour by parties, which choose to have polarisation be provided by those who can do it best.

4.1 Work In Progress

This is still an early draft of the project. Please click here for the latest version.

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Contents

5 Appendix A: Descriptive Statistics

Table 1: Number of Interruptions per Intervention

	(1)	(2)	(3)	(4)
	1980 to 2022 Sample		2005 to 2022 Sample	
	Full Sample	Robustness Sample	Full Sample	Robustness Sample
Total Number Interruptions	290,798	124,051	152,683	100,428
Average Interruption per Speech	1.64	0.98	2.04	1.64
Standard Deviation Interruptions	2.77	2.11	3.14	2.79
Maximum Number of Interruptions per Speech	57	38	57	38
Total Speeches	177,336	126,056	74,708	61,321
Interrupted Speeches	94,963	48,630	43,898	31,505
Non-Interrupted Speeches	82,373	77,426	30,810	29,816
Speeches without Reaction	81,792	63,925	16,792	13,927
Speeches with Laughter	29,479	28,188	16,116	15,809
Speeches with Protests	4,906	3,867	2,913	2,664
Speeches with Applauses	1,186	1,020	806	751
	LIWC Text Analysis			
Mean Cognitive Measure	0.34	0.34	0.33	0.33
Mean Emotional Measure	0.06	0.06	0.06	0.06
Mean Positive Measure	0.04	0.04	0.04	0.04
Mean Negative Measure	0.02	0.02	0.02	0.02
Mean Swear Measure	0.03	0.03	0.03	0.03
	LEIA Text Analysis			
Mean Positive Measure	0.09	0.09	0.09	0.09
Mean Negative Measure	0.10	0.10	0.11	0.11
Mean Neutral Measure	0.81	0.81	0.80	0.80
Mean Combined Positive/Neutral Measure	-0.07	-0.06	-0.10	-0.10

Notes: this table provides summary statistics of the text analysis performed on the dataset of parliamentary speeches. The Robustness sample excludes speeches which were transcribed as having been performed by an "orator" whose identification is done with error.

Table 2: Analysis by Male Speakers

	(1)	(2)	(3)	(4)
	1980 to 2022 Sample		2005 to 2022 Sample	
	Full Sample	Robustness Sample	Full Sample	Robustness Sample
Total Number Interruptions	241,838	94,091	117,199	72,520
Average Interruption per Speech	1.65	0.93	2.20	1.72
Standard Deviation Interruptions	2.78	2.05	3.27	2.87
Maximum Number of Interruptions per Speech	57	38	57	38
Total Speeches	146,775	101,427	53,313	42,238
Interrupted Speeches	78,933	37,927	32,663	22,357
Non-Interrupted Speeches	67,842	63,500	20,650	19,881
Speeches without Reaction	71,750	55,937	12,213	9,991
Speeches with Laughter	22,477	21,305	10,484	10,213
Speeches with Protests	3,906	2,950	2,068	1,849
Speeches with Applauses	943	782	589	537
		LIWC Text Analysis		
Mean Cognitive Measure	0.34	0.34	0.33	0.33
Mean Emotional Measure	0.06	0.06	0.06	0.06
Mean Positive Measure	0.04	0.04	0.04	0.04
Mean Negative Measure	0.02	0.02	0.02	0.02
Mean Swear Measure	0.03	0.03	0.03	0.03
		LEIA Text Analysis		
Mean Positive Measure	0.09	0.09	0.09	0.09
Mean Negative Measure	0.10	0.10	0.11	0.11
Mean Neutral Measure	0.81	0.81	0.80	0.80
Mean Combined Positive/Neutral Measure	-0.06	-0.05	-0.08	-0.09

Notes: this table provides summary statistics of the text analysis performed on the dataset of parliamentary speeches. The Robustness sample excludes speeches which were transcribed as having been performed by an "orator" whose identification is done with error.

Table 3: Analysis by Female Speakers

	(1)	(2)	(3)	(4)
	1980 to 2022 Sample		2005 to 2022 Sample	
	Full Sample	Robustness Sample	Full Sample	Robustness Sample
Total Number Interruptions	48,960	29,960	35,484	27,907
Average Interruption per Speech	1.60	1.22	1.66	1.46
Standard Deviation Interruptions	2.73	2.34	2.74	2.58
Maximum Number of Interruptions per Speech	38	35	35	35
Total Speeches	30,561	24,629	21,395	19,083
Interrupted Speeches	16,030	10,703	11,235	9,148
Non-Interrupted Speeches	14,531	13,926	10,160	9,935
Speeches without Reaction	10,042	7,988	4,579	3,936
Speeches with Laughter	7,002	6,883	5,632	5,596
Speeches with Protests	1,000	917	845	815
Speeches with Applauses	243	238	217	214
		LIWC Text Analysis		
Mean Cognitive Measure	0.34	0.34	0.33	0.33
Mean Emotional Measure	0.06	0.06	0.06	0.06
Mean Positive Measure	0.04	0.04	0.04	0.04
Mean Negative Measure	0.02	0.02	0.02	0.02
Mean Swear Measure	0.03	0.03	0.03	0.03
		LEIA Text Analysis		
Mean Positive Measure	0.09	0.09	0.09	0.09
Mean Negative Measure	0.11	0.11	0.11	0.11
Mean Neutral Measure	0.80	0.80	0.80	0.80
Mean Combined Positive/Neutral Measure	-0.11	-0.11	-0.13	-0.13

Notes: this table provides summary statistics of the text analysis performed on the dataset of parliamentary speeches. The Robustness sample excludes speeches which were transcribed as having been performed by an "orator" whose identification is done with error.

Table 4: Analysis by Party of Speaker

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	Communist Party		Left Block		Socialist Party		Social Democratic Party		Christian Democrats	
	Full Sample	Robustness Sample	Full Sample	Robustness Sample	Full Sample	Robustness Sample	Full Sample	Robustness Sample	Full Sample	Robustness Sample
Total Number Interruptions	33,382	22,289	15,064	10,750	30,386	17,306	39,880	26,366	33,213	22,959
Average Interruption per Speech	1.85	1.48	1.34	1.10	1.85	1.33	2.61	2.18	2.93	2.54
Standard Deviation Interruptions	2.75	2.36	2.25	2.02	3.02	2.52	3.65	3.37	3.72	3.50
Maximum Number of Interruptions per Speech	33	24	35	35	35	34	57	37	38	38
Total Speeches	18,012	15,047	11,231	9,762	16,451	12,979	15,281	12,100	11,346	9,046
Interrupted Speeches	10,807	8,067	5,673	4,354	8,956	5,789	10,006	7,039	8,054	5,854
Non-Interrupted Speeches	7,205	6,980	5,558	5,408	7,495	7,190	5,275	5,061	3,292	3,192
Speeches without Reaction	5,691	4,645	1,999	1,562	3,063	2,487	2,449	2,021	1,967	1,589
Speeches with Laughter	3,692	3,621	3,503	3,478	3,759	3,672	3,003	2,923	1,786	1,742
Speeches with Protests	446	403	428	407	1,000	919	628	557	361	328
Speeches with Applauses	97	89	100	93	334	319	177	161	85	76
					LIWC Text Analysis					
Mean Cognitive Measure	0.33	0.33	0.34	0.34	0.33	0.33	0.33	0.33	0.34	0.34
Mean Emotional Measure	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
Mean Positive Measure	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
Mean Negative Measure	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
Mean Swear Measure	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
					LEIA Text Analysis					
Mean Positive Measure	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09
Mean Negative Measure	0.11	0.11	0.12	0.12	0.10	0.10	0.11	0.11	0.11	0.11
Mean Neutral Measure	0.80	0.80	0.80	0.80	0.81	0.81	0.80	0.80	0.80	0.80
Mean Combined Positive/Neutral Measure	-0.18	-0.18	-0.24	-0.24	0.01	0.02	-0.04	-0.04	-0.04	-0.05

Notes: this table provides summary statistics of the text analysis performed on the dataset of parliamentary speeches. The Robustness sample excludes speeches which were transcribed as having been performed by an ”orator” whose identification is done with error. The sample in this table is reduced to interventions between 2005 and 2022, which is the main estimation period.

6 Appendix B: Regressions on Campaigning Period

Table 5: Interruptions per Intervention

	Full Sample				Robustness Sample			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
PartyxLegislature	Yes	No	Yes	No	Yes	No	Yes	No
PartyxYear	No	Yes	No	Yes	No	Yes	No	Yes
Speaker	No	No	Yes	Yes	No	No	Yes	Yes
Close to Election	1.127***	1.014***	0.850***	0.699**	1.290***	1.213***	1.039***	0.912***
	(0.280)	(0.280)	(0.273)	(0.273)	(0.295)	(0.294)	(0.288)	(0.288)
Observations	74,252	74,251	74,098	74,097	60,865	60,864	60,728	60,727
Adjusted R2	0.08	0.09	0.13	0.14	0.09	0.10	0.14	0.15
Mean of Outcome	2.06	2.06	2.06	2.06	1.65	1.65	1.65	1.65
S.d. of Far Outcome	3.15	3.15	3.15	3.15	2.81	2.81	2.81	2.81

Notes: this table provides results of a regression of the Number of Interruptions per Intervention for each speech on closeness to the electoral period. Closeness to the electoral period is defined as a dummy of being within 30 days of an upcoming election. All regressions have gender and month fixed effects. Standard Errors are clustered at the Speaker level. The Robustness sample excludes speeches which were transcribed as having been performed by an "orator" whose identification is done with error. The sample in this table is reduced to interventions between 2005 and 2022.

Table 6: Number of Protests

	Full Sample				Robustness Sample			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
PartyxLegislature	Yes	No	Yes	No	Yes	No	Yes	No
PartyxYear	No	Yes	No	Yes	No	Yes	No	Yes
Speaker	No	No	Yes	Yes	No	No	Yes	Yes
Close to Election	0.492***	0.492***	0.390***	0.367***	0.701***	0.670***	0.624***	0.576***
	(0.105)	(0.105)	(0.104)	(0.104)	(0.126)	(0.126)	(0.124)	(0.125)
Observations	74,252	74,251	74,098	74,097	60,865	60,864	60,728	60,727
Adjusted R2	0.03	0.03	0.06	0.06	0.04	0.04	0.07	0.07
Mean of Outcome	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36
S.d. of Far Outcome	1.15	1.15	1.15	1.15	1.16	1.16	1.16	1.16

Notes: this table provides results of a regression of the total number of protests for each speech on closeness to the electoral period. Closeness to the electoral period is defined as a dummy of being within 30 days of an upcoming election. All regressions have gender and month fixed effects. Standard Errors are clustered at the Speaker level. The Robustness sample excludes speeches which were transcribed as having been performed by an "orator" whose identification is done with error. The sample in this table is reduced to interventions between 2005 and 2022.

Table 7: Number of Applauses

	Full Sample				Robustness Sample			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
PartyxLegislature	Yes	No	Yes	No	Yes	No	Yes	No
PartyxYear	No	Yes	No	Yes	No	Yes	No	Yes
Speaker	No	No	Yes	Yes	No	No	Yes	Yes
Close to Election	-0.449**	-0.518***	-0.823***	-1.008***	-0.291	-0.269	-0.586***	-0.668***
	(0.191)	(0.192)	(0.177)	(0.178)	(0.216)	(0.216)	(0.199)	(0.199)
Observations	74,252	74,251	74,098	74,097	60,865	60,864	60,728	60,727
Adjusted R2	0.06	0.07	0.20	0.20	0.09	0.09	0.23	0.24
Mean of Outcome	1.30	1.30	1.30	1.30	1.27	1.27	1.27	1.27
S.d. of Far Outcome	2.13	2.13	2.13	2.13	2.05	2.05	2.05	2.05

Notes: this table provides results of a regression of the total number of applauses for each speech on closeness to the electoral period. Closeness to the electoral period is defined as a dummy of being within 30 days of an upcoming election. All regressions have gender and month fixed effects. Standard Errors are clustered at the Speaker level. The Robustness sample excludes speeches which were transcribed as having been performed by an ”orator” whose identification is done with error. The sample in this table is reduced to interventions between 2005 and 2022.

Table 8: Cognitive Measure (LIWC)

	Full Sample				Robustness Sample			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
PartyxLegislature	Yes	No	Yes	No	Yes	No	Yes	No
PartyxYear	No	Yes	No	Yes	No	Yes	No	Yes
Speaker	No	No	Yes	Yes	No	No	Yes	Yes
Close to Election	-0.002	0.001	-0.004	-0.002	-0.004	-0.001	-0.006	-0.004
	(0.004)	(0.004)	(0.003)	(0.003)	(0.004)	(0.004)	(0.004)	(0.004)
Observations	74,252	74,251	74,098	74,097	60,865	60,864	60,728	60,727
Adjusted R2	0.02	0.03	0.08	0.08	0.02	0.03	0.08	0.08
Mean of Outcome	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33
S.d. of Far Outcome	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04

Notes: this table provides results of a regression of the LIWC Cognitive Measure for each speech on closeness to the electoral period. Closeness to the electoral period is defined as a dummy of being within 30 days of an upcoming election. All regressions have gender and month fixed effects. Standard Errors are clustered at the Speaker level. The Robustness sample excludes speeches which were transcribed as having been performed by an ”orator” whose identification is done with error. The sample in this table is reduced to interventions between 2005 and 2022.

Table 9: Emotion Measure (LIWC)

	Full Sample				Robustness Sample			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
PartyxLegislature	Yes	No	Yes	No	Yes	No	Yes	No
PartyxYear	No	Yes	No	Yes	No	Yes	No	Yes
Speaker	No	No	Yes	Yes	No	No	Yes	Yes
Close to Election	0.002	0.003	0.002	0.002	0.005**	0.005**	0.004*	0.004*
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
Observations	74,252	74,251	74,098	74,097	60,865	60,864	60,728	60,727
Adjusted R2	0.01	0.02	0.06	0.06	0.02	0.02	0.06	0.07
Mean of Outcome	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
S.d. of Far Outcome	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02

Notes: this table provides results of a regression of the LIWC Emotion Measure for each speech on closeness to the electoral period. Closeness to the electoral period is defined as a dummy of being within 30 days of an upcoming election. All regressions have gender and month fixed effects. Standard Errors are clustered at the Speaker level. The Robustness sample excludes speeches which were transcribed as having been performed by an "orator" whose identification is done with error. The sample in this table is reduced to interventions between 2005 and 2022.

Table 10: Negative Measure (LIWC)

	Full Sample				Robustness Sample			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
PartyxLegislature	Yes	No	Yes	No	Yes	No	Yes	No
PartyxYear	No	Yes	No	Yes	No	Yes	No	Yes
Speaker	No	No	Yes	Yes	No	No	Yes	Yes
Close to Election	0.001	0.002	0.000	0.001	0.000	0.001	-0.000	0.000
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Observations	74,252	74,251	74,098	74,097	60,865	60,864	60,728	60,727
Adjusted R2	0.02	0.03	0.06	0.07	0.03	0.04	0.07	0.07
Mean of Outcome	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
S.d. of Far Outcome	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01

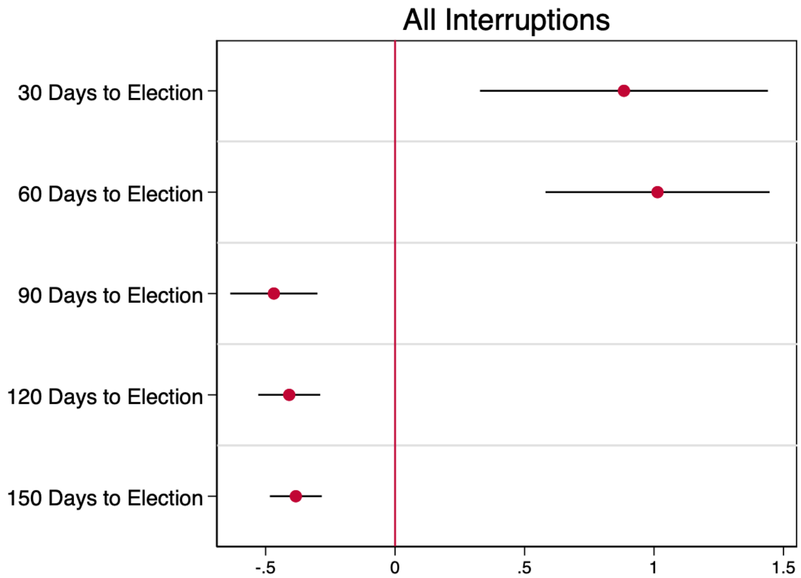
Notes: this table provides results of a regression of the LIWC Negative Measure for each speech on closeness to the electoral period. Closeness to the electoral period is defined as a dummy of being within 30 days of an upcoming election. All regressions have gender and month fixed effects. Standard Errors are clustered at the Speaker level. The Robustness sample excludes speeches which were transcribed as having been performed by an "orator" whose identification is done with error. The sample in this table is reduced to interventions between 2005 and 2022.

Table 11: Negative Measure (LEIA)

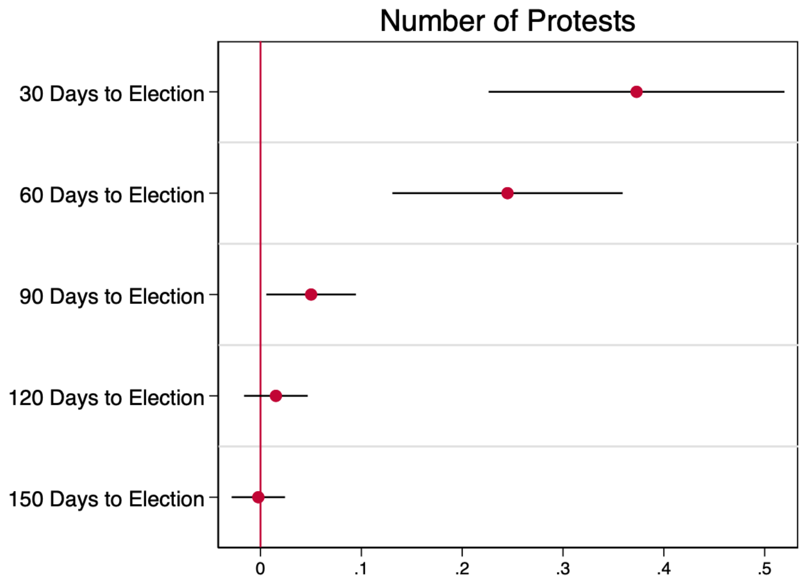
	Full Sample				Robustness Sample			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
PartyxLegislature	Yes	No	Yes	No	Yes	No	Yes	No
PartyxYear	No	Yes	No	Yes	No	Yes	No	Yes
Speaker	No	No	Yes	Yes	No	No	Yes	Yes
Close to Election	0.004	0.005	0.002	0.002	0.006	0.006	0.004	0.004
	(0.004)	(0.004)	(0.004)	(0.004)	(0.005)	(0.005)	(0.005)	(0.005)
Observations	74,252	74,251	74,098	74,097	60,865	60,864	60,728	60,727
Adjusted R2	0.03	0.04	0.09	0.09	0.04	0.05	0.09	0.10
Mean of Outcome	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11
S.d. of Far Outcome	0.04	0.04	0.04	0.04	0.05	0.05	0.05	0.05

Notes: this table provides results of a regression of the LEiA Negative Measure for each speech on closeness to the electoral period. Closeness to the electoral period is defined as a dummy of being within 30 days of an upcoming election. All regressions have gender and month fixed effects. Standard Errors are clustered at the Speaker level. The Robustness sample excludes speeches which were transcribed as having been performed by an "orator" whose identification is done with error. The sample in this table is reduced to interventions between 2005 and 2022.

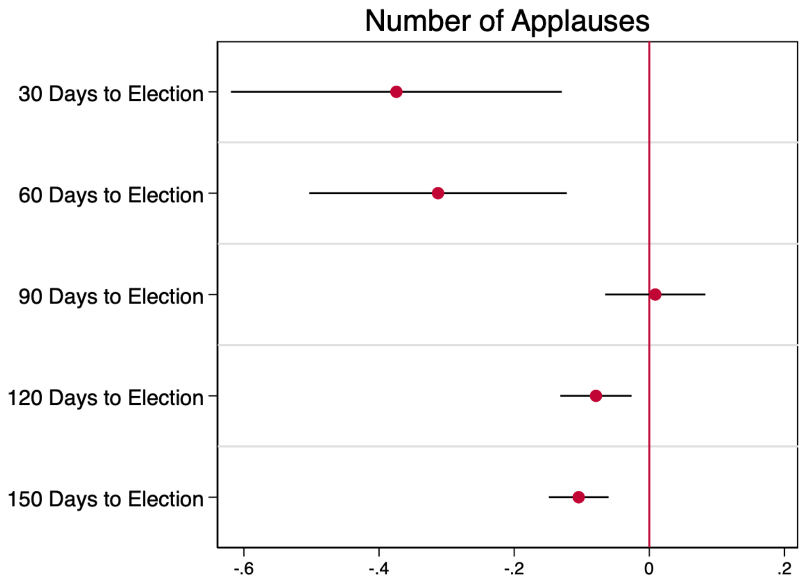
7 Appendix C: Robustness to Choice of Campaigning Period



Notes: this graph provides the point estimates and confidence intervals for the regression of interest as in Appendix B given different definitions for an "electoral" period. All regressions have gender, month, and PartyxYear fixed effects. Standard Errors are clustered at the Speaker level. This uses the Full sample, reduced to interventions between 2005 and 2022



Notes: this graph provides the point estimates and confidence intervals for the regression of interest as in Appendix B given different definitions for an ”electoral” period. All regressions have gender, month, and PartyxYear fixed effects. Standard Errors are clustered at the Speaker level. This uses the Full sample, reduced to interventions between 2005 and 2022



Notes: this graph provides the point estimates and confidence intervals for the regression of interest as in Appendix B given different definitions for an "electoral" period. All regressions have gender, month, and PartyxYear fixed effects. Standard Errors are clustered at the Speaker level. This uses the Full sample, reduced to interventions between 2005 and 2022

8 Appendix D: Regressions on Campaigning Period interacted with Seat Safety

Table 12: Interruptions per Intervention

	Full Sample				Robustness Sample			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
PartyxLegislature	Yes	No	Yes	No	Yes	No	Yes	No
PartyxYear	No	Yes	No	Yes	No	Yes	No	Yes
Speaker	No	No	Yes	Yes	No	No	Yes	Yes
Close to Election	-6.922***	-6.460***	-5.634***	-5.304***	-7.018***	-6.428***	-5.861***	-5.367***
	(2.060)	(2.055)	(2.003)	(2.001)	(1.823)	(1.811)	(1.777)	(1.771)
Seat Safety * Close to Election	10.410***	9.999***	8.797***	8.454***	10.671***	9.884***	9.182***	8.452***
	(2.498)	(2.491)	(2.428)	(2.424)	(2.210)	(2.196)	(2.155)	(2.146)
Observations	74,632	74,631	74,421	74,420	61,279	61,278	61,078	61,077
Adjusted R2	0.07	0.08	0.13	0.14	0.08	0.10	0.14	0.15
Mean of Outcome	2.04	2.04	2.04	2.04	1.64	1.64	1.64	1.64
S.d. of Outcome	3.13	3.13	3.13	3.13	2.79	2.79	2.79	2.79

Notes: this table provides results of a regression of the number of interruptions for each speech on closeness to the electoral period and of closeness to the electoral period interacted with the Speaker having a safe seat on the last electoral list. Closeness to the electoral period is defined as a dummy of being within 30 days of an upcoming election. All regressions have gender and month fixed effects. Standard Errors are clustered at the Speaker level. The Robustness sample excludes speeches which were transcribed as having been performed by an "orator" whose identification is done with error. The sample in this table is reduced to interventions between 2005 and 2022.

Table 13: Number of Applauses

	Full Sample				Robustness Sample			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
PartyxLegislature	Yes	No	Yes	No	Yes	No	Yes	No
PartyxYear	No	Yes	No	Yes	No	Yes	No	Yes
Speaker	No	No	Yes	Yes	No	No	Yes	Yes
Close to Election	-0.778	-0.684	-0.018	0.072	-0.831	-0.668	-0.179	-0.054
	(1.397)	(1.398)	(1.298)	(1.300)	(1.324)	(1.323)	(1.220)	(1.220)
Seat Safety * Close to Election	0.436	0.277	-0.556	-0.795	0.505	0.226	-0.323	-0.625
	(1.693)	(1.695)	(1.573)	(1.575)	(1.605)	(1.604)	(1.479)	(1.478)
Observations	74,632	74,631	74,421	74,420	61,279	61,278	61,078	61,077
Adjusted R2	0.06	0.06	0.20	0.20	0.08	0.09	0.23	0.23
Mean of Outcome	1.29	1.29	1.29	1.29	1.26	1.26	1.26	1.26
S.d. of Outcome	2.11	2.11	2.11	2.11	2.02	2.02	2.03	2.03

Notes: this table provides results of a regression of the number of applauses for each speech on closeness to the electoral period and of closeness to the electoral period interacted with the Speaker having a safe seat on the last electoral list. Closeness to the electoral period is defined as a dummy of being within 30 days of an upcoming election. All regressions have gender and month fixed effects. Standard Errors are clustered at the Speaker level. The Robustness sample excludes speeches which were transcribed as having been performed by an "orator" whose identification is done with error. The sample in this table is reduced to interventions between 2005 and 2022.

Table 14: Number of Protests

	Full Sample				Robustness Sample			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
PartyxLegislature	Yes	No	Yes	No	Yes	No	Yes	No
PartyxYear	No	Yes	No	Yes	No	Yes	No	Yes
Speaker	No	No	Yes	Yes	No	No	Yes	Yes
Close to Election	-3.146***	-3.097***	-2.688***	-2.648***	-3.158***	-3.096***	-2.716***	-2.660***
	(0.767)	(0.768)	(0.758)	(0.760)	(0.773)	(0.773)	(0.763)	(0.765)
Seat Safety * Close to Election	5.055***	4.983***	4.458***	4.377***	5.073***	4.975***	4.494***	4.388***
	(0.930)	(0.931)	(0.919)	(0.920)	(0.937)	(0.937)	(0.925)	(0.927)
Observations	74,632	74,631	74,421	74,420	61,279	61,278	61,078	61,077
Adjusted R2	0.03	0.03	0.06	0.06	0.04	0.04	0.07	0.07
Mean of Outcome	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35
S.d. of Outcome	1.14	1.14	1.14	1.14	1.15	1.15	1.15	1.15

Notes: this table provides results of a regression of the number of protests for each speech on closeness to the electoral period and of closeness to the electoral period interacted with the Speaker having a safe seat on the last electoral list. Closeness to the electoral period is defined as a dummy of being within 30 days of an upcoming election. All regressions have gender and month fixed effects. Standard Errors are clustered at the Speaker level. The Robustness sample excludes speeches which were transcribed as having been performed by an ”orator” whose identification is done with error. The sample in this table is reduced to interventions between 2005 and 2022.

Table 15: Cognitive Measure (LIWC)

	Full Sample				Robustness Sample			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
PartyxLegislature	Yes	No	Yes	No	Yes	No	Yes	No
PartyxYear	No	Yes	No	Yes	No	Yes	No	Yes
Speaker	No	No	Yes	Yes	No	No	Yes	Yes
Close to Election	-0.008	-0.008	-0.015	-0.015	-0.008	-0.009	-0.016	-0.016
	(0.026)	(0.026)	(0.026)	(0.026)	(0.027)	(0.027)	(0.026)	(0.026)
Seat Safety * Close to Election	0.010	0.013	0.019	0.020	0.011	0.013	0.019	0.021
	(0.032)	(0.032)	(0.031)	(0.031)	(0.033)	(0.033)	(0.032)	(0.032)
Observations	74,632	74,631	74,421	74,420	61,279	61,278	61,078	61,077
Adjusted R2	0.02	0.02	0.08	0.08	0.02	0.03	0.08	0.08
Mean of Outcome	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33
S.d. of Outcome	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04

Notes: this table provides results of a regression of the LIWC cognitive measure for each speech on closeness to the electoral period and of closeness to the electoral period interacted with the Speaker having a safe seat on the last electoral list. Closeness to the electoral period is defined as a dummy of being within 30 days of an upcoming election. All regressions have gender and month fixed effects. Standard Errors are clustered at the Speaker level. The Robustness sample excludes speeches which were transcribed as having been performed by an "orator" whose identification is done with error. The sample in this table is reduced to interventions between 2005 and 2022.

Table 16: Emotion Measure (LIWC)

	Full Sample				Robustness Sample			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
PartyxLegislature	Yes	No	Yes	No	Yes	No	Yes	No
PartyxYear	No	Yes	No	Yes	No	Yes	No	Yes
Speaker	No	No	Yes	Yes	No	No	Yes	Yes
Close to Election	-0.010	-0.009	-0.010	-0.011	-0.010	-0.009	-0.010	-0.011
	(0.014)	(0.014)	(0.014)	(0.014)	(0.014)	(0.014)	(0.014)	(0.014)
Seat Safety * Close to Election	0.019	0.018	0.018	0.019	0.019	0.018	0.018	0.019
	(0.017)	(0.017)	(0.016)	(0.017)	(0.017)	(0.017)	(0.017)	(0.017)
Observations	74,632	74,631	74,421	74,420	61,279	61,278	61,078	61,077
Adjusted R2	0.01	0.01	0.06	0.06	0.02	0.02	0.06	0.07
Mean of Outcome	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
S.d. of Outcome	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02

Notes: this table provides results of a regression of the LIWC emotion measure for each speech on closeness to the electoral period and of closeness to the electoral period interacted with the Speaker having a safe seat on the last electoral list. Closeness to the electoral period is defined as a dummy of being within 30 days of an upcoming election. All regressions have gender and month fixed effects. Standard Errors are clustered at the Speaker level. The Robustness sample excludes speeches which were transcribed as having been performed by an "orator" whose identification is done with error. The sample in this table is reduced to interventions between 2005 and 2022.

Table 17: Negative Measure (LIWC)

	Full Sample				Robustness Sample			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
PartyxLegislature	Yes	No	Yes	No	Yes	No	Yes	No
PartyxYear	No	Yes	No	Yes	No	Yes	No	Yes
Speaker	No	No	Yes	Yes	No	No	Yes	Yes
Close to Election	-0.015*	-0.016*	-0.014*	-0.015*	-0.015*	-0.016*	-0.015*	-0.016*
	(0.008)	(0.008)	(0.008)	(0.008)	(0.008)	(0.008)	(0.008)	(0.008)
Seat Safety * Close to Election	0.020**	0.021**	0.018*	0.020**	0.020**	0.021**	0.019*	0.020**
	(0.010)	(0.010)	(0.010)	(0.010)	(0.010)	(0.010)	(0.010)	(0.010)
Observations	74,632	74,631	74,421	74,420	61,279	61,278	61,078	61,077
Adjusted R2	0.02	0.03	0.06	0.07	0.03	0.03	0.07	0.07
Mean of Outcome	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
S.d. of Outcome	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01

Notes: this table provides results of a regression of the LIWC negative measure for each speech on closeness to the electoral period and of closeness to the electoral period interacted with the Speaker having a safe seat on the last electoral list. Closeness to the electoral period is defined as a dummy of being within 30 days of an upcoming election. All regressions have gender and month fixed effects. Standard Errors are clustered at the Speaker level. The Robustness sample excludes speeches which were transcribed as having been performed by an "orator" whose identification is done with error. The sample in this table is reduced to interventions between 2005 and 2022.

Table 18: Negative Measure (LEIA)

	Full Sample				Robustness Sample			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
PartyxLegislature	Yes	No	Yes	No	Yes	No	Yes	No
PartyxYear	No	Yes	No	Yes	No	Yes	No	Yes
Speaker	No	No	Yes	Yes	No	No	Yes	Yes
Close to Election	-0.050*	-0.050*	-0.034	-0.033	-0.051*	-0.050*	-0.035	-0.033
	(0.030)	(0.030)	(0.029)	(0.029)	(0.030)	(0.030)	(0.030)	(0.029)
Seat Safety * Close to Election	0.083**	0.081**	0.060*	0.057	0.083**	0.081**	0.062*	0.058
	(0.036)	(0.036)	(0.035)	(0.035)	(0.037)	(0.037)	(0.036)	(0.036)
Observations	74,632	74,631	74,421	74,420	61,279	61,278	61,078	61,077
Adjusted R2	0.03	0.04	0.09	0.09	0.04	0.05	0.09	0.10
Mean of Outcome	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11
S.d. of Outcome	0.04	0.04	0.04	0.04	0.05	0.05	0.05	0.05

Notes: this table provides results of a regression of the LEIA negative measure for each speech on closeness to the electoral period and of closeness to the electoral period interacted with the Speaker having a safe seat on the last electoral list. Closeness to the electoral period is defined as a dummy of being within 30 days of an upcoming election. All regressions have gender and month fixed effects. Standard Errors are clustered at the Speaker level. The Robustness sample excludes speeches which were transcribed as having been performed by an "orator" whose identification is done with error. The sample in this table is reduced to interventions between 2005 and 2022.

9 Appendix E: Regressions on Seat Safety

Table 19: Interruptions per Intervention

	Full Sample				Robustness Sample			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
PartyxLegislature	Yes	No	Yes	No	Yes	No	Yes	No
PartyxYear	No	Yes	No	Yes	No	Yes	No	Yes
Closeness to Election	No	No	Yes	Yes	No	No	Yes	Yes
Seat Safety	0.730***	0.636***	0.733***	0.638***	0.575***	0.592***	0.578***	0.595***
	(0.085)	(0.085)	(0.085)	(0.085)	(0.081)	(0.081)	(0.081)	(0.081)
Observations	28,095	28,095	28,095	28,095	25,370	25,370	25,370	25,370
Adjusted R2	0.08	0.09	0.08	0.09	0.06	0.08	0.06	0.08
Mean of Outcome	1.83	1.83	1.83	1.83	1.59	1.59	1.59	1.59
S.d. of Outcome	2.90	2.90	2.90	2.90	2.66	2.66	2.66	2.66
	Future Seat Safety on Residualised Outcome							
Unexplained Outcome	0.003***	0.003***	0.003***	0.003***	0.003***	0.003***	0.003***	0.003***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)

Notes: this table provides results of a regression of the number of interruptions for each speech on the safety of the seat of the Speaker. Seat Safety is a dummy equal to 1 when the placement of the list of the Speaker has been filled by the Party in all elections since 2005, including seats elected only after recusals. Closeness to the electoral period is defined as a dummy of being within 30 days of an upcoming election. All regressions have gender and month fixed effects. Standard Errors are clustered at the Speaker level. The second panel is a regression of the first panel's unexplained variation on future seat safety; this is a partitioned regression. Future seat safety is defined as Seat Safety, and equal to 0 if the Speaker drops off the list. The Robustness sample excludes speeches which were transcribed as having been performed by an "orator" whose identification is done with error. The sample in this table is reduced to interventions between 2005 and 2022.

Table 20: Number of Applauses

	Full Sample				Robustness Sample			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
PartyxLegislature	Yes	No	Yes	No	Yes	No	Yes	No
PartyxYear	No	Yes	No	Yes	No	Yes	No	Yes
Closeness to Election	No	No	Yes	Yes	No	No	Yes	Yes
Seat Safety	0.940***	0.948***	0.939***	0.948***	0.885***	0.918***	0.884***	0.918***
	(0.059)	(0.060)	(0.059)	(0.060)	(0.060)	(0.060)	(0.060)	(0.060)
Observations	28,095	28,095	28,095	28,095	25,370	25,370	25,370	25,370
Adjusted R2	0.07	0.08	0.07	0.08	0.08	0.09	0.08	0.09
Mean of Outcome	1.34	1.34	1.34	1.34	1.32	1.32	1.32	1.32
S.d. of Outcome	2.03	2.03	2.03	2.03	1.99	1.99	1.99	1.99
	Future Seat Safety on Residualised Outcome							
Unexplained Outcome	0.006***	0.006***	0.006***	0.006***	0.007***	0.007***	0.007***	0.007***
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)

Notes: this table provides results of a regression of the number of applauses for each speech on the safety of the seat of the Speaker. Seat Safety is a dummy equal to 1 when the placement of the list of the Speaker has been filled by the Party in all elections since 2005, including seats elected only after recusals. Closeness to the electoral period is defined as a dummy of being within 30 days of an upcoming election. All regressions have gender and month fixed effects. Standard Errors are clustered at the Speaker level. The second panel is a regression of the first panel's unexplained variation on future seat safety; this is a partitioned regression. Future seat safety is defined as Seat Safety, and equal to 0 if the Speaker drops off the list. The Robustness sample excludes speeches which were transcribed as having been performed by an "orator" whose identification is done with error. The sample in this table is reduced to interventions between 2005 and 2022.

Table 21: Number of Protests

	Full Sample				Robustness Sample			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
PartyxLegislature	Yes	No	Yes	No	Yes	No	Yes	No
PartyxYear	No	Yes	No	Yes	No	Yes	No	Yes
Closeness to Election	No	No	Yes	Yes	No	No	Yes	Yes
Seat Safety	0.222***	0.227***	0.223***	0.228***	0.214***	0.223***	0.216***	0.224***
	(0.034)	(0.034)	(0.034)	(0.034)	(0.035)	(0.035)	(0.035)	(0.035)
Observations	28,095	28,095	28,095	28,095	25,370	25,370	25,370	25,370
Adjusted R2	0.03	0.03	0.03	0.03	0.03	0.04	0.03	0.04
Mean of Outcome	0.34	0.34	0.34	0.34	0.34	0.34	0.34	0.34
S.d. of Outcome	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
	Future Seat Safety on Residualised Outcome							
Unexplained Outcome	0.008***	0.008***	0.008***	0.008***	0.007***	0.008***	0.007***	0.008***
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)

Notes: this table provides results of a regression of the number of protests for each speech on the safety of the seat of the Speaker. Seat Safety is a dummy equal to 1 when the placement of the list of the Speaker has been filled by the Party in all elections since 2005, including seats elected only after recusals. Closeness to the electoral period is defined as a dummy of being within 30 days of an upcoming election. All regressions have gender and month fixed effects. Standard Errors are clustered at the Speaker level. The second panel is a regression of the first panel's unexplained variation on future seat safety; this is a partitioned regression. Future seat safety is defined as Seat Safety, and equal to 0 if the Speaker drops off the list. The Robustness sample excludes speeches which were transcribed as having been performed by an "orator" whose identification is done with error. The sample in this table is reduced to interventions between 2005 and 2022.

Table 22: Cognitive Measure (LIWC)

	Full Sample				Robustness Sample			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
PartyxLegislature	Yes	No	Yes	No	Yes	No	Yes	No
PartyxYear	No	Yes	No	Yes	No	Yes	No	Yes
Closeness to Election	No	No	Yes	Yes	No	No	Yes	Yes
Seat Safety	0.003**	0.003***	0.003**	0.003***	0.003**	0.003***	0.003**	0.003***
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Observations	28,095	28,095	28,095	28,095	25,370	25,370	25,370	25,370
Adjusted R2	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
Mean of Outcome	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33
S.d. of Outcome	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
	Future Seat Safety on Residualised Outcome							
Unexplained Outcome	-0.012	-0.017	-0.012	-0.017	-0.022	-0.029	-0.022	-0.029
	(0.030)	(0.030)	(0.030)	(0.030)	(0.032)	(0.032)	(0.032)	(0.032)

Notes: this table provides results of a regression of the LIWC Cognitive Measure for each speech on the safety of the seat of the Speaker. Seat Safety is a dummy equal to 1 when the placement of the list of the Speaker has been filled by the Party in all elections since 2005, including seats elected only after recusals. Closeness to the electoral period is defined as a dummy of being within 30 days of an upcoming election. All regressions have gender and month fixed effects. Standard Errors are clustered at the Speaker level. The second panel is a regression of the first panel's unexplained variation on future seat safety; this is a partitioned regression. Future seat safety is defined as Seat Safety, and equal to 0 if the Speaker drops off the list. The Robustness sample excludes speeches which were transcribed as having been performed by an "orator" whose identification is done with error. The sample in this table is reduced to interventions between 2005 and 2022.

Table 23: Emotion Measure (LIWC)

	Full Sample				Robustness Sample			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
PartyxLegislature	Yes	No	Yes	No	Yes	No	Yes	No
PartyxYear	No	Yes	No	Yes	No	Yes	No	Yes
Closeness to Election	No	No	Yes	Yes	No	No	Yes	Yes
Seat Safety	0.002***	0.002***	0.002***	0.002***	0.002***	0.002***	0.002***	0.002***
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Observations	28,095	28,095	28,095	28,095	25,370	25,370	25,370	25,370
Adjusted R2	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.02
Mean of Outcome	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
S.d. of Outcome	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
	Future Seat Safety on Residualised Outcome							
Unexplained Outcome	0.178***	0.169***	0.179***	0.169***	0.136**	0.123**	0.137**	0.124**
	(0.057)	(0.057)	(0.057)	(0.057)	(0.061)	(0.061)	(0.061)	(0.061)

Notes: this table provides results of a regression of the LIWC Emotion Measure for each speech on the safety of the seat of the Speaker. Seat Safety is a dummy equal to 1 when the placement of the list of the Speaker has been filled by the Party in all elections since 2005, including seats elected only after recusals. Closeness to the electoral period is defined as a dummy of being within 30 days of an upcoming election. All regressions have gender and month fixed effects. Standard Errors are clustered at the Speaker level. The second panel is a regression of the first panel's unexplained variation on future seat safety; this is a partitioned regression. Future seat safety is defined as Seat Safety, and equal to 0 if the Speaker drops off the list. The Robustness sample excludes speeches which were transcribed as having been performed by an "orator" whose identification is done with error. The sample in this table is reduced to interventions between 2005 and 2022.

Table 24: Negative Measure (LIWC)

	Full Sample				Robustness Sample			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
PartyxLegislature	Yes	No	Yes	No	Yes	No	Yes	No
PartyxYear	No	Yes	No	Yes	No	Yes	No	Yes
Closeness to Election	No	No	Yes	Yes	No	No	Yes	Yes
Seat Safety	0.002***	0.002***	0.002***	0.002***	0.002***	0.002***	0.002***	0.002***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Observations	28,095	28,095	28,095	28,095	25,370	25,370	25,370	25,370
Adjusted R2	0.02	0.03	0.02	0.03	0.02	0.03	0.02	0.03
Mean of Outcome	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
S.d. of Outcome	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
	Future Seat Safety on Residualised Outcome							
Unexplained Outcome	0.549***	0.580***	0.549***	0.581***	0.517***	0.541***	0.517***	0.541***
	(0.098)	(0.098)	(0.098)	(0.098)	(0.105)	(0.105)	(0.105)	(0.105)

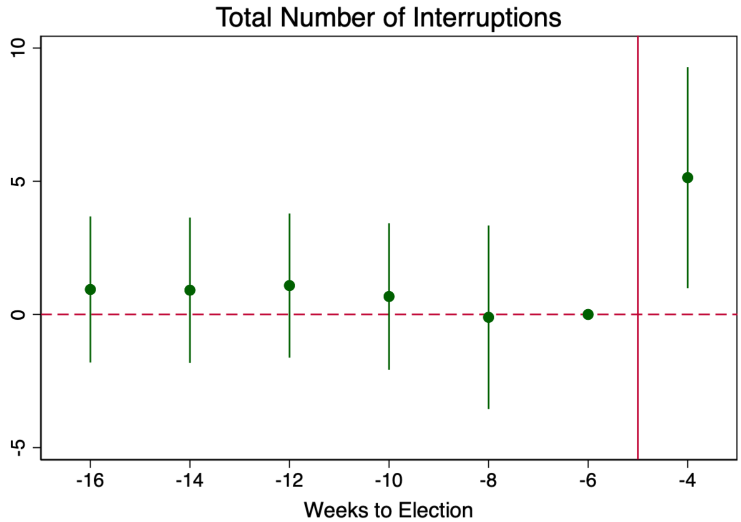
Notes: this table provides results of a regression of the LIWC Negative Measure for each speech on the safety of the seat of the Speaker. Seat Safety is a dummy equal to 1 when the placement of the list of the Speaker has been filled by the Party in all elections since 2005, including seats elected only after recusals. Closeness to the electoral period is defined as a dummy of being within 30 days of an upcoming election. All regressions have gender and month fixed effects. Standard Errors are clustered at the Speaker level. The second panel is a regression of the first panel's unexplained variation on future seat safety; this is a partitioned regression. Future seat safety is defined as Seat Safety, and equal to 0 if the Speaker drops off the list. The Robustness sample excludes speeches which were transcribed as having been performed by an "orator" whose identification is done with error. The sample in this table is reduced to interventions between 2005 and 2022.

Table 25: Negative Measure (LEIA)

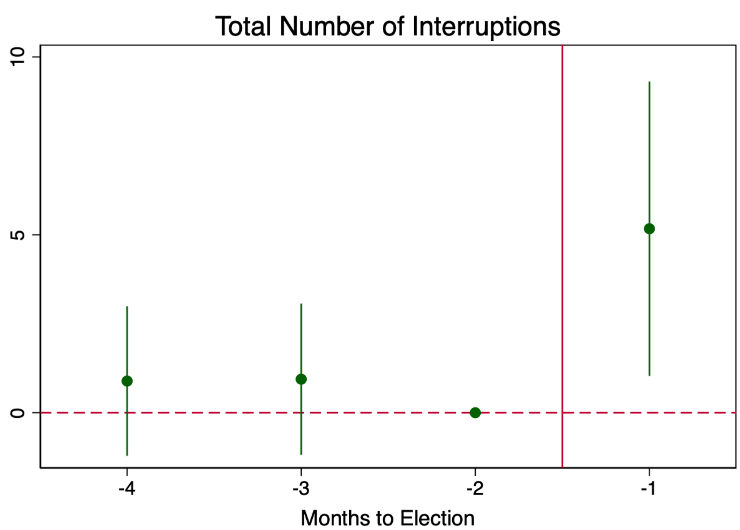
	Full Sample				Robustness Sample			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
PartyxLegislature	Yes	No	Yes	No	Yes	No	Yes	No
PartyxYear	No	Yes	No	Yes	No	Yes	No	Yes
Closeness to Election	No	No	Yes	Yes	No	No	Yes	Yes
Seat Safety	0.016***	0.017***	0.016***	0.017***	0.016***	0.017***	0.016***	0.017***
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Observations	28,095	28,095	28,095	28,095	25,370	25,370	25,370	25,370
Adjusted R2	0.03	0.04	0.03	0.04	0.03	0.04	0.03	0.04
Mean of Outcome	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11
S.d. of Outcome	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
	Future Seat Safety on Residualised Outcome							
Unexplained Outcome	0.214***	0.229***	0.214***	0.229***	0.227***	0.236***	0.227***	0.236***
	(0.026)	(0.026)	(0.026)	(0.026)	(0.028)	(0.028)	(0.028)	(0.028)
s								

Notes: this table provides results of a regression of the LEIA Cognitive Measure for each speech on the safety of the seat of the Speaker. Seat Safety is a dummy equal to 1 when the placement of the list of the Speaker has been filled by the Party in all elections since 2005, including seats elected only after recusals. Closeness to the electoral period is defined as a dummy of being within 30 days of an upcoming election. All regressions have gender and month fixed effects. Standard Errors are clustered at the Speaker level. The second panel is a regression of the first panel's unexplained variation on future seat safety; this is a partitioned regression. Future seat safety is defined as Seat Safety, and equal to 0 if the Speaker drops off the list. The Robustness sample excludes speeches which were transcribed as having been performed by an "orator" whose identification is done with error. The sample in this table is reduced to interventions between 2005 and 2022.

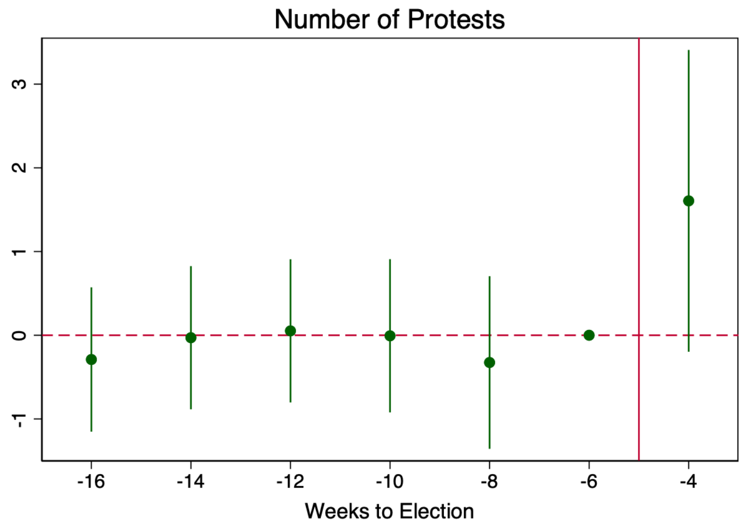
10 Appendix F: Event Study Plots



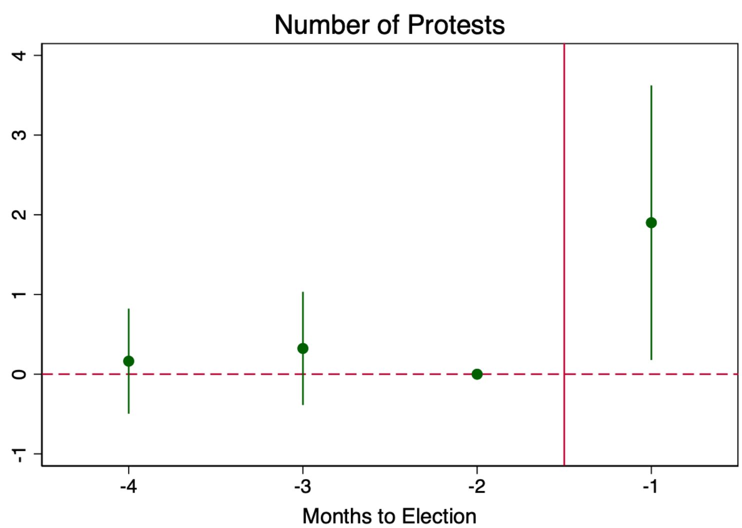
Notes: this graph provides the event study plot for the Number of Interruptions per Intervention using weekly time periods. All regressions have month, Speaker and PartyXElection fixed effects. Standard Errors are clustered at the Speaker level and the 95% Confidence Interval is reported. This uses the Full sample, reduced to interventions between 2005 and 2022



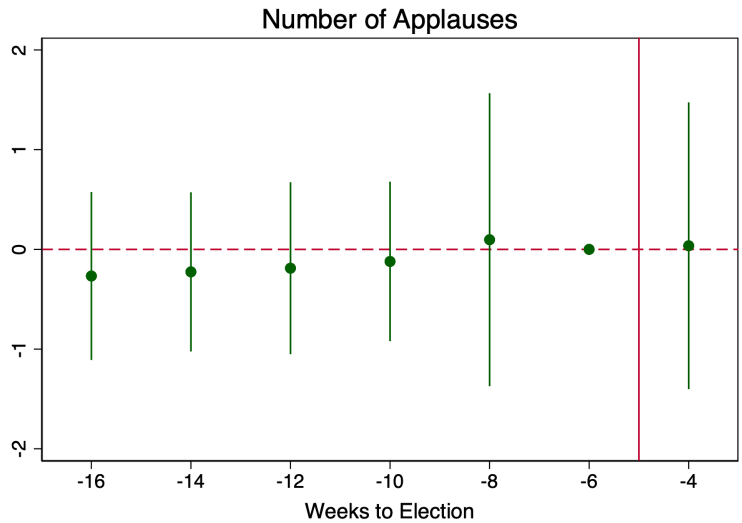
Notes: this graph provides the event study plot for the Number of Interruptions per Intervention using monthly time periods. All regressions have month, Speaker and PartyXElection fixed effects. Standard Errors are clustered at the Speaker level and the 95% confidence interval is reported. This uses the Full sample, reduced to interventions between 2005 and 2022



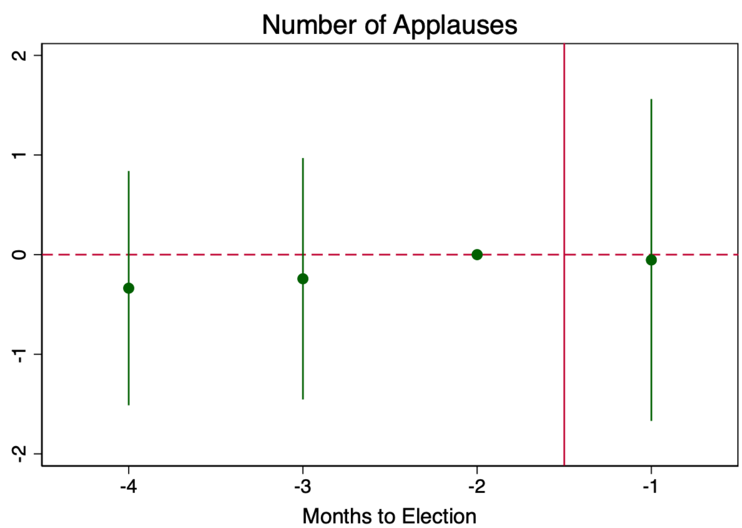
Notes: this graph provides the event study plot for the total number of protests using weekly time periods. All regressions have month, Speaker and PartyXElection fixed effects. Standard Errors are clustered at the Speaker level and the 95% confidence interval is reported. This uses the Full sample, reduced to interventions between 2005 and 2022



Notes: this graph provides the event study plot for the total number of protests using monthly time periods. All regressions have month, Speaker and PartyXElection fixed effects. Standard Errors are clustered at the Speaker level and the 95% confidence interval is reported. This uses the Full sample, reduced to interventions between 2005 and 2022



Notes: this graph provides the event study plot for the total number of applauses using weekly time periods. All regressions have month, Speaker and PartyXElection fixed effects. Standard Errors are clustered at the Speaker level and the 95% confidence interval is reported. This uses the Full sample, reduced to interventions between 2005 and 2022



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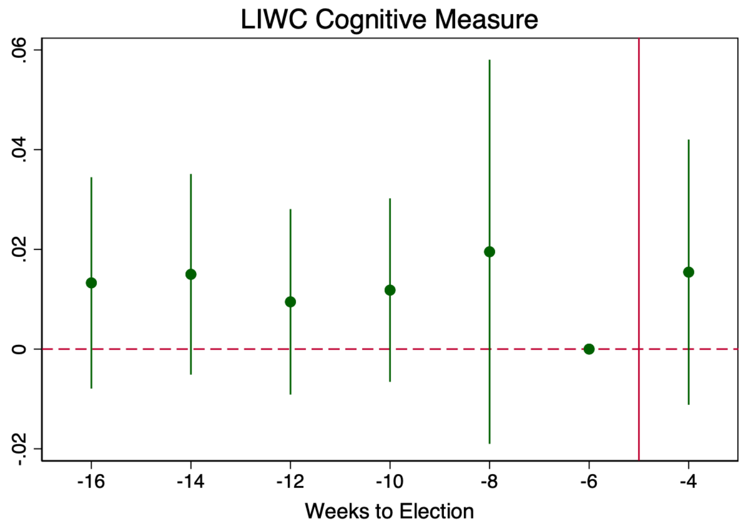
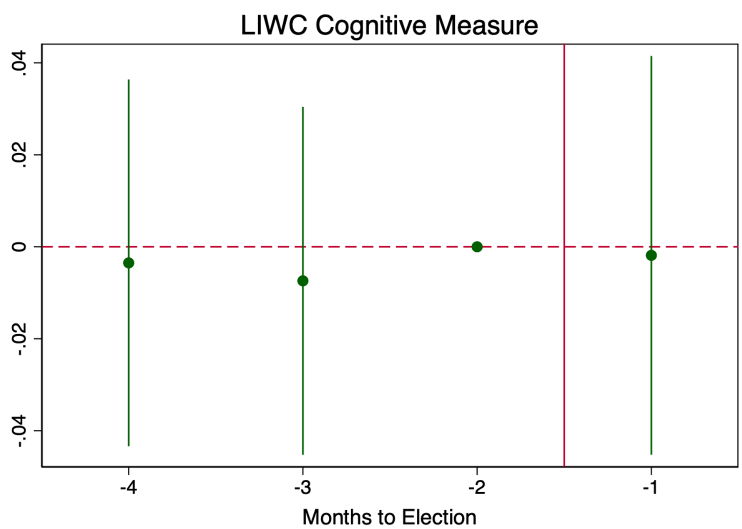


Notes: this graph provides the event study plot for the cognitive measure from LIWC using weekly time periods. All regressions have month, Speaker and PartyXElection fixed effects. Standard Errors are clustered at the Speaker level and the 95% confidence interval is reported. This uses the Full sample, reduced to interventions between 2005 and 2022



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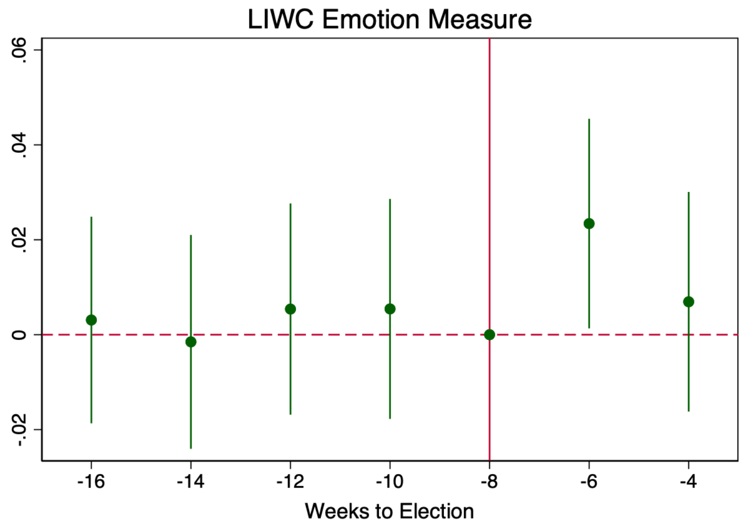
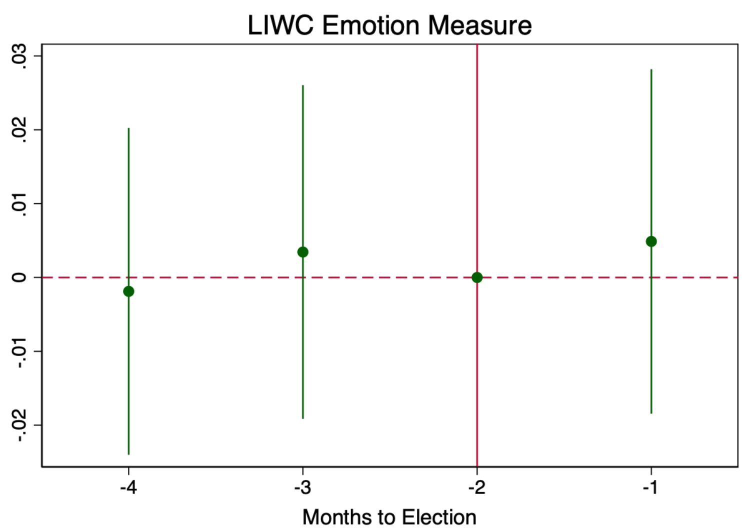
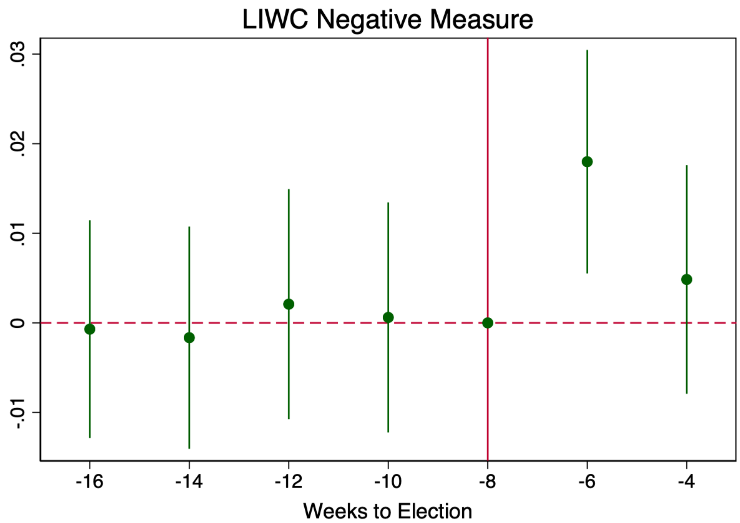


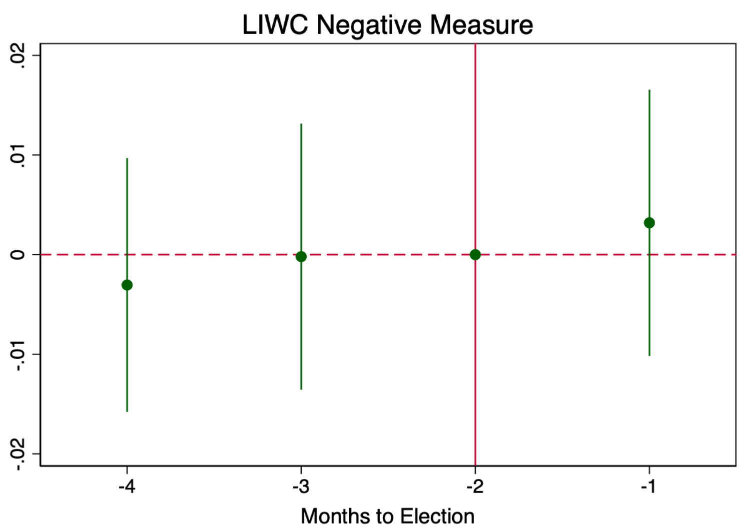
Notes: this graph provides the event study plot for the emotion measure from LIWC using weekly time periods. All regressions have month, Speaker and PartyXElection fixed effects. Standard Errors are clustered at the Speaker level and the 95% confidence interval is reported. This uses the Full sample, reduced to interventions between 2005 and 2022



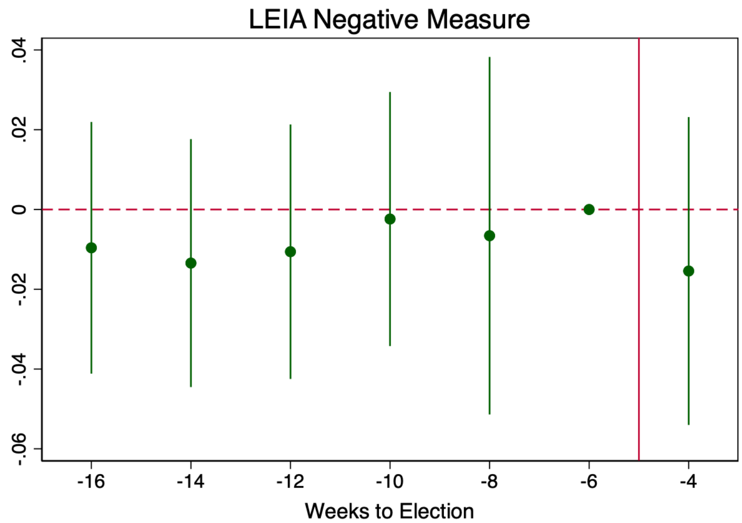
Notes: this graph provides the event study plot for the emotion measure from LIWC using monthly time periods. All regressions have month, Speaker and PartyXElection fixed effects. Standard Errors are clustered at the Speaker level and the 95% confidence interval is reported. This uses the Full sample, reduced to interventions between 2005 and 2022



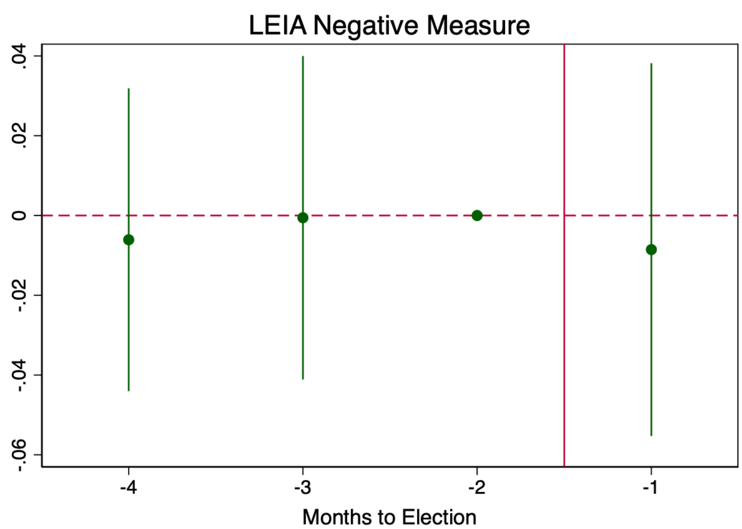
Notes: this graph provides the event study plot for the negative measure from LIWC using weekly time periods. All regressions have month, Speaker and PartyXElection fixed effects. Standard Errors are clustered at the Speaker level and the 95% confidence interval is reported. This uses the Full sample, reduced to interventions between 2005 and 2022



Notes: this graph provides the event study plot for the negative measure from LIWC using monthly time periods. All regressions have month, Speaker and PartyXElection fixed effects. Standard Errors are clustered at the Speaker level and the 95% confidence interval is reported. This uses the Full sample, reduced to interventions between 2005 and 2022



Notes: this graph provides the event study plot for the negative measure from LEIA using weekly time periods. All regressions have month, Speaker and PartyXElection fixed effects. Standard Errors are clustered at the Speaker level and the 95% confidence interval is reported. This uses the Full sample, reduced to interventions between 2005 and 2022



Notes: this graph provides the event study plot for the negative measure from LEIA using monthly time periods. All regressions have month, Speaker and PartyXElection fixed effects. Standard Errors are clustered at the Speaker level and the 95% confidence interval is reported. This uses the Full sample, reduced to interventions between 2005 and 2022

11 Appendix G: Difference-in-Differences Results

Table 26: Interruptions per Intervention

	Full Sample	Robustness Sample
	(1)	(2)
Safe Seat	4.855***	4.861***
	(1.465)	(1.463)
Observations	3,789	3,670
Mean of Outcome	1.87	1.81
S.d. of Outcome	2.98	2.93

Notes: this table provides estimates of the coefficient of closeness to an election interacted with the Speaker having a Safe Seat, in a difference-in-differences regression. Closeness to the electoral period is defined as a dummy of being within 30 days of an upcoming election. Seat Safety is a dummy equal to 1 when the placement of the list of the Speaker has been filled by the Party in all elections since 2005, including seats elected only after recusals. All regressions have month, and PartyxElection fixed effects. Standard Errors are clustered at the Speaker level. The Robustness sample excludes speeches which were transcribed as having been performed by an "orator" whose identification is done with error. The sample in this table is reduced to interventions 6 months before each electoral period between 2005 and 2022.

Table 27: Number of Protests

	Full Sample	Robustness Sample
	(1)	(2)
Safe Seat	2.199**	2.199**
	(1.052)	(1.052)
Observations	3,789	3,670
Mean of Outcome	0.36	0.36
S.d. of Outcome	1.16	1.15

Notes: this table provides estimates of the coefficient of closeness to an election interacted with the Speaker having a Safe Seat, in a difference-in-differences regression. Closeness to the electoral period is defined as a dummy of being within 30 days of an upcoming election. Seat Safety is a dummy equal to 1 when the placement of the list of the Speaker has been filled by the Party in all elections since 2005, including seats elected only after recusals. All regressions have month, and PartyxElection fixed effects. Standard Errors are clustered at the Speaker level. The Robustness sample excludes speeches which were transcribed as having been performed by an "orator" whose identification is done with error. The sample in this table is reduced to interventions 6 months before each electoral period between 2005 and 2022.

Table 28: Number of Applauses

	Full Sample	Robustness Sample
	(1)	(2)
Safe Seat	0.083	0.084
	(0.581)	(0.582)
Observations	3,789	3,670
Mean of Outcome	1.19	1.18
S.d. of Outcome	2.10	2.02

Notes: this table provides estimates of the coefficient of closeness to an election interacted with the Speaker having a Safe Seat, in a difference-in-differences regression. Closeness to the electoral period is defined as a dummy of being within 30 days of an upcoming election. Seat Safety is a dummy equal to 1 when the placement of the list of the Speaker has been filled by the Party in all elections since 2005, including seats elected only after recusals. All regressions have month, and PartyxElection fixed effects. Standard Errors are clustered at the Speaker level. The Robustness sample excludes speeches which were transcribed as having been performed by an "orator" whose identification is done with error. The sample in this table is reduced to interventions 6 months before each electoral period between 2005 and 2022.

Table 29: Cognitive Measure (LIWC)

	Full Sample	Robustness Sample
	(1)	(2)
Safe Seat	-0.001	-0.000
	(0.008)	(0.008)
Observations	3,789	3,670
Mean of Outcome	0.33	0.33
S.d. of Outcome	0.04	0.04

Notes: this table provides estimates of the coefficient of closeness to an election interacted with the Speaker having a Safe Seat, in a difference-in-differences regression. Closeness to the electoral period is defined as a dummy of being within 30 days of an upcoming election. Seat Safety is a dummy equal to 1 when the placement of the list of the Speaker has been filled by the Party in all elections since 2005, including seats elected only after recusals. All regressions have month, and PartyxElection fixed effects. Standard Errors are clustered at the Speaker level. The Robustness sample excludes speeches which were transcribed as having been performed by an ”orator” whose identification is done with error. The sample in this table is reduced to interventions 6 months before each electoral period between 2005 and 2022.

Table 30: Emotion Measure (LIWC)

	Full Sample	Robustness Sample
	(1)	(2)
Safe Seat	0.006	0.006
	(0.005)	(0.005)
Observations	3,789	3,670
Mean of Outcome	0.06	0.06
S.d. of Outcome	0.02	0.02

Notes: this table provides estimates of the coefficient of closeness to an election interacted with the Speaker having a Safe Seat, in a difference-in-differences regression. Closeness to the electoral period is defined as a dummy of being within 30 days of an upcoming election. Seat Safety is a dummy equal to 1 when the placement of the list of the Speaker has been filled by the Party in all elections since 2005, including seats elected only after recusals. All regressions have month, and PartyxElection fixed effects. Standard Errors are clustered at the Speaker level. The Robustness sample excludes speeches which were transcribed as having been performed by an "orator" whose identification is done with error. The sample in this table is reduced to interventions 6 months before each electoral period between 2005 and 2022.

Table 31: Negative Measure (LIWC)

	Full Sample	Robustness Sample
	(1)	(2)
Safe Seat	0.007**	0.007**
	(0.003)	(0.003)
Observations	3,789	3,670
Mean of Outcome	0.02	0.02
S.d. of Outcome	0.01	0.01

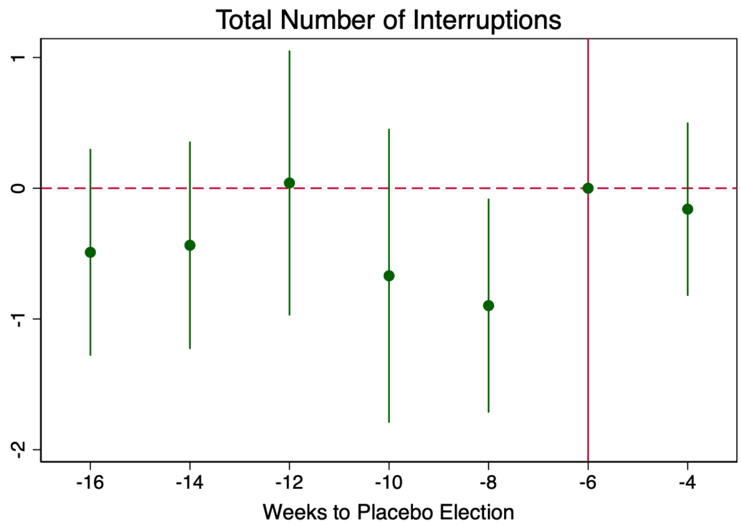
Notes: this table provides estimates of the coefficient of closeness to an election interacted with the Speaker having a Safe Seat, in a difference-in-differences regression. Closeness to the electoral period is defined as a dummy of being within 30 days of an upcoming election. Seat Safety is a dummy equal to 1 when the placement of the list of the Speaker has been filled by the Party in all elections since 2005, including seats elected only after recusals. All regressions have month, and PartyxElection fixed effects. Standard Errors are clustered at the Speaker level. The Robustness sample excludes speeches which were transcribed as having been performed by an ”orator” whose identification is done with error. The sample in this table is reduced to interventions 6 months before each electoral period between 2005 and 2022.

Table 32: Negative Measure (LEIA)

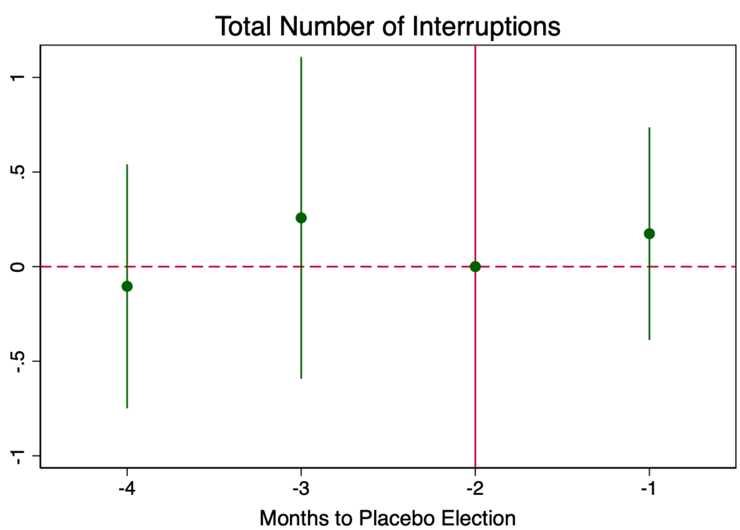
	Full Sample	Robustness Sample
	(1)	(2)
Safe Seat	0.018	0.018
	(0.012)	(0.012)
Observations	3,789	3,670
Mean of Outcome	0.11	0.11
S.d. of Outcome	0.05	0.05

Notes: this table provides estimates of the coefficient of closeness to an election interacted with the Speaker having a Safe Seat, in a difference-in-differences regression. Closeness to the electoral period is defined as a dummy of being within 30 days of an upcoming election. Seat Safety is a dummy equal to 1 when the placement of the list of the Speaker has been filled by the Party in all elections since 2005, including seats elected only after recusals. All regressions have month, and PartyxElection fixed effects. Standard Errors are clustered at the Speaker level. The Robustness sample excludes speeches which were transcribed as having been performed by an "orator" whose identification is done with error. The sample in this table is reduced to interventions 6 months before each electoral period between 2005 and 2022.

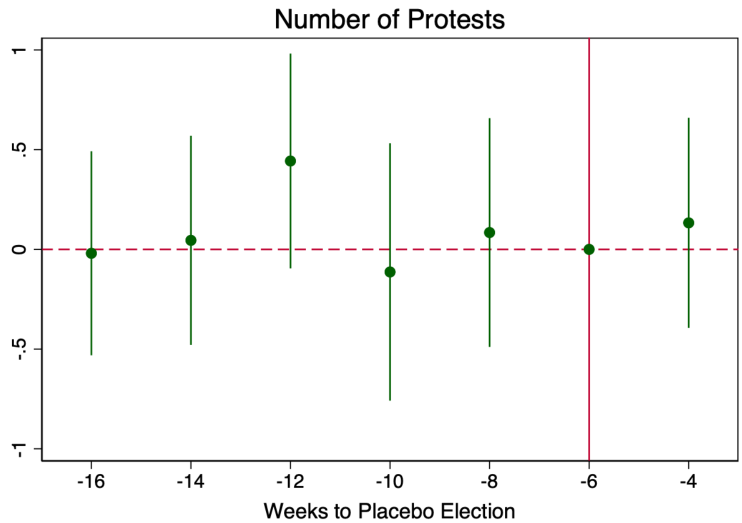
12 Appendix H: Placebo Test, Event Study Plot



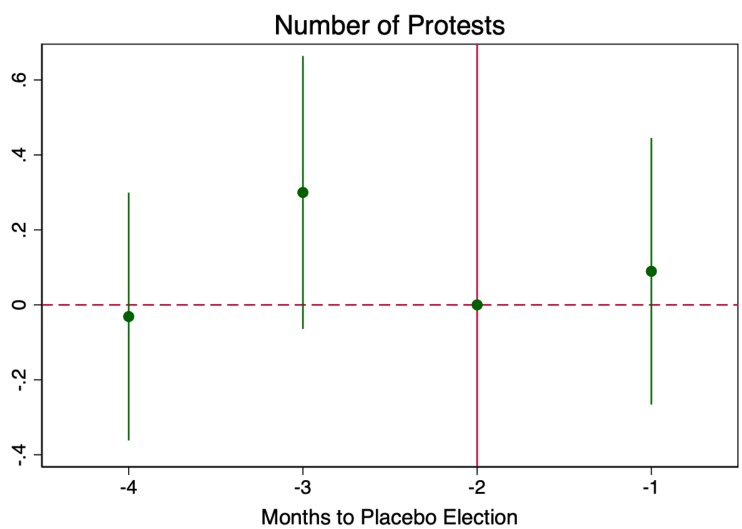
Notes: this graph provides the event study plot for the Number of Interruptions per Intervention using weekly time periods. All regressions have month, Speaker and PartyXElection fixed effects. Standard Errors are clustered at the Speaker level and the 95% confidence interval is reported. This uses the Full sample, reduced to interventions between 2005 and 2022



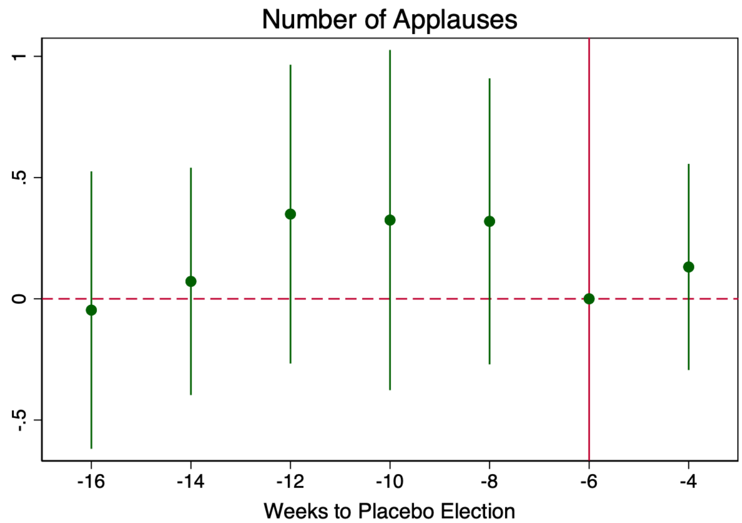
Notes: this graph provides the event study plot for the Number of Interruptions per Intervention using monthly time periods. All regressions have month, Speaker and PartyXElection fixed effects. Standard Errors are clustered at the Speaker level and the 95% confidence interval is reported. This uses the Full sample, reduced to interventions between 2005 and 2022



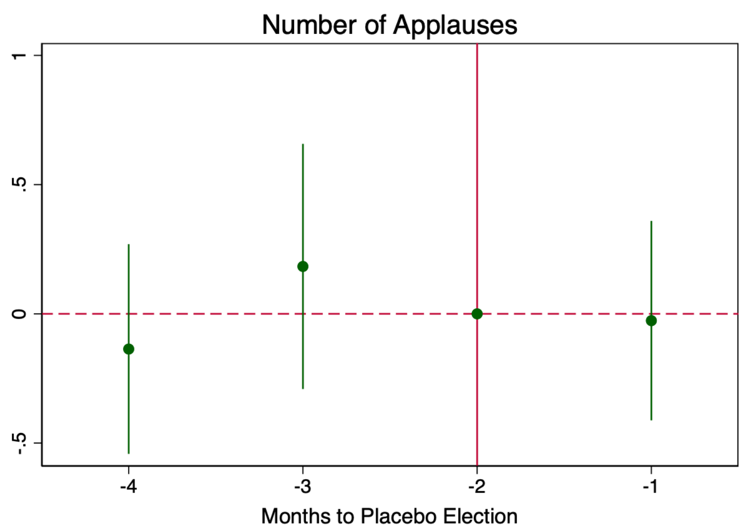
Notes: this graph provides the event study plot for the total number of protests using weekly time periods. All regressions have month, Speaker and PartyXElection fixed effects. Standard Errors are clustered at the Speaker level and the 95% confidence interval is reported. This uses the Full sample, reduced to interventions between 2005 and 2022



Notes: this graph provides the event study plot for the total number of protests using monthly time periods. All regressions have month, Speaker and PartyXElection fixed effects. Standard Errors are clustered at the Speaker level and the 95% confidence interval is reported. This uses the Full sample, reduced to interventions between 2005 and 2022



Notes: this graph provides the event study plot for the total number of applauses using weekly time periods. All regressions have month, Speaker and PartyXElection fixed effects. Standard Errors are clustered at the Speaker level and the 95% confidence interval is reported. This uses the Full sample, reduced to interventions between 2005 and 2022



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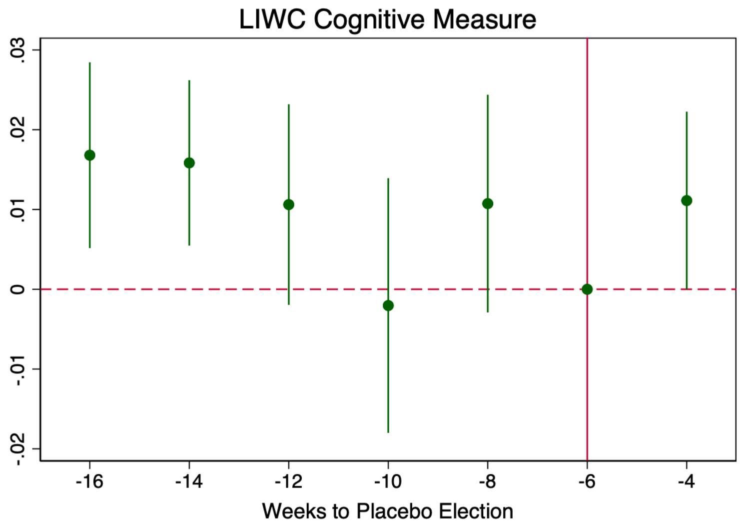
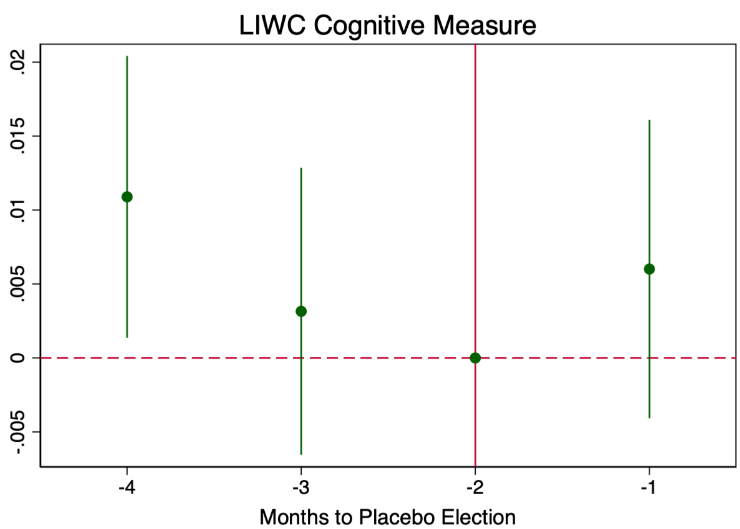


Notes: this graph provides the event study plot for the cognitive measure from LIWC using weekly time periods. All regressions have month, Speaker and PartyXElection fixed effects. Standard Errors are clustered at the Speaker level and the 95% confidence interval is reported. This uses the Full sample, reduced to interventions between 2005 and 2022



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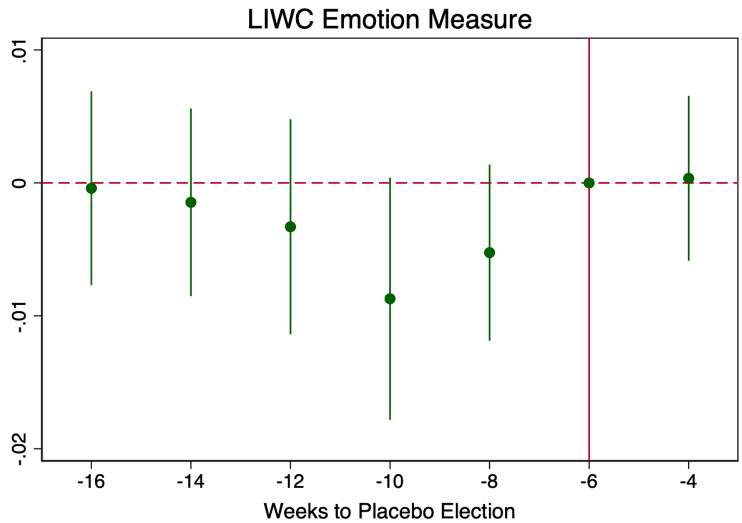
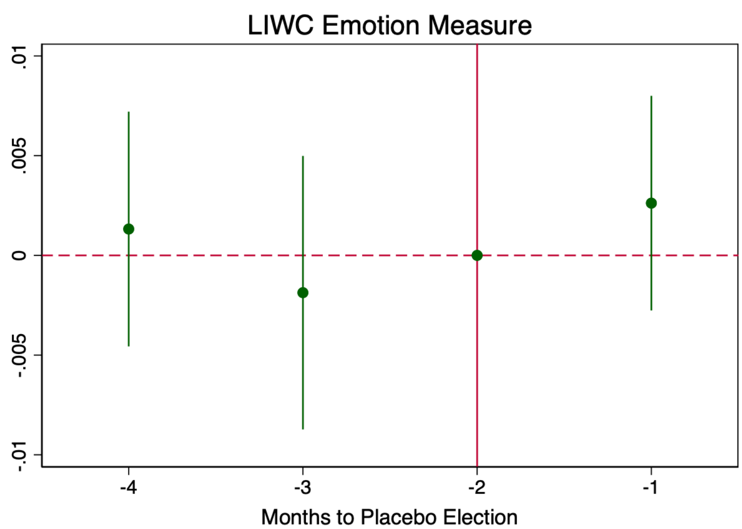


Notes: this graph provides the event study plot for the emotion measure from LIWC using weekly time periods. All regressions have month, Speaker and PartyXElection fixed effects. Standard Errors are clustered at the Speaker level and the 95% confidence interval is reported. This uses the Full sample, reduced to interventions between 2005 and 2022



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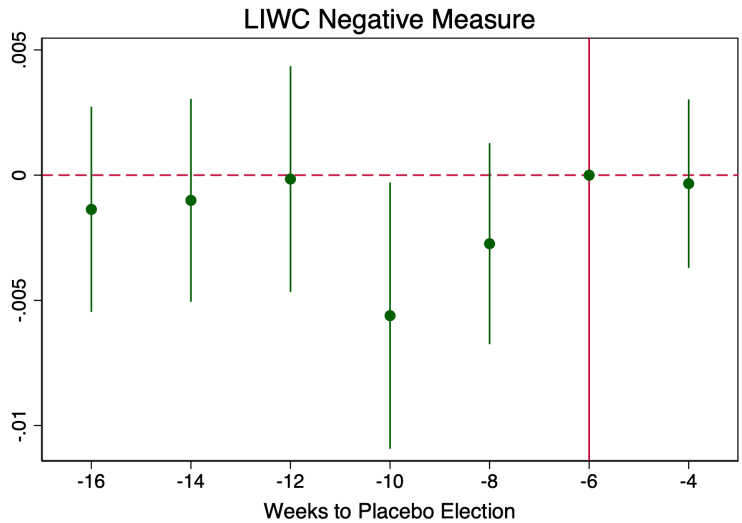
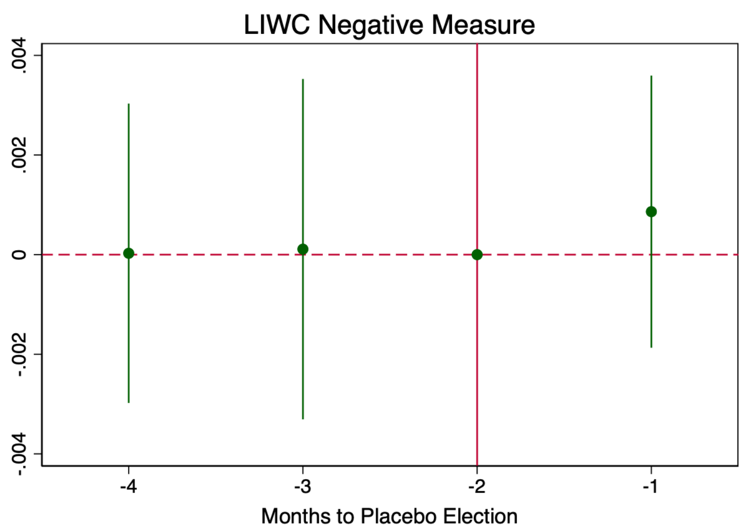


Notes: this graph provides the event study plot for the negative measure from LIWC using weekly time periods. All regressions have month, Speaker and PartyXElection fixed effects. Standard Errors are clustered at the Speaker level and the 95% confidence interval is reported. This uses the Full sample, reduced to interventions between 2005 and 2022



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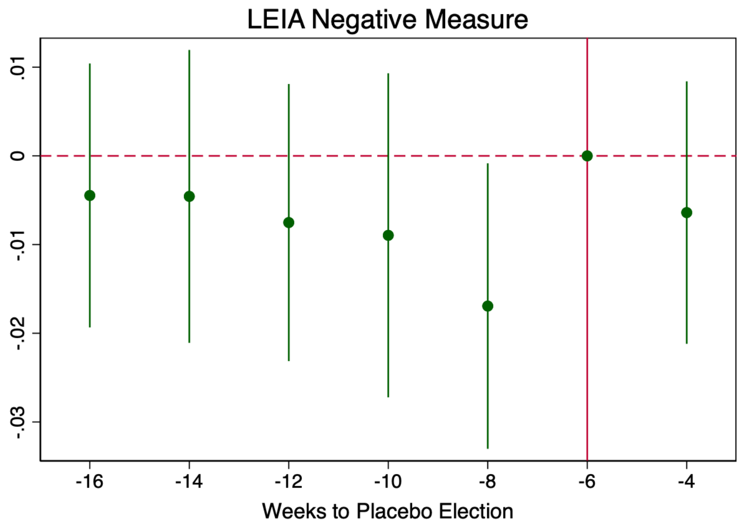
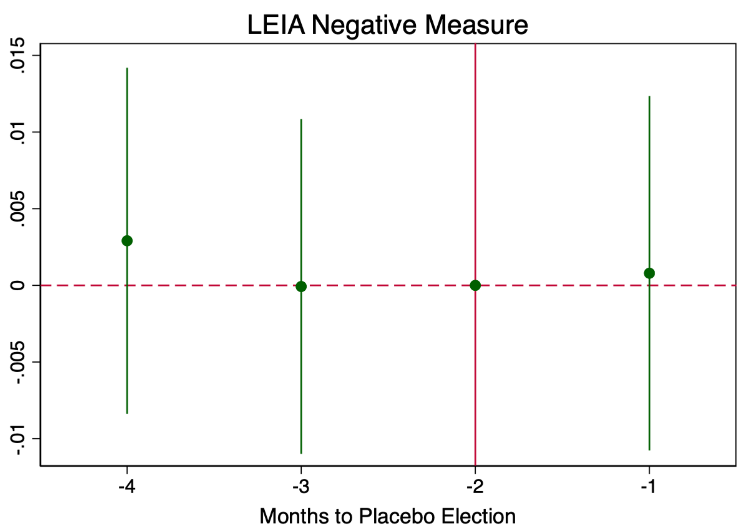


Notes: this graph provides the event study plot for the negative measure from LEIA using weekly time periods. All regressions have month, Speaker and PartyXElection fixed effects. Standard Errors are clustered at the Speaker level and the 95% confidence interval is reported. This uses the Full sample, reduced to interventions between 2005 and 2022



Notes: this graph provides the event study plot for the negative measure from LEIA using monthly time periods. All regressions have month, Speaker and PartyXElection fixed effects. Standard Errors are clustered at the Speaker level and the 95% confidence interval is reported. This uses the Full sample, reduced to interventions between 2005 and 2022

13 Appendix I: Placebo Test, Difference-in-Differences Results

Table 33: Interruptions per Intervention

	Full Sample	Robustness Sample
	(1)	(2)
Safe Seat	0.285	0.306
	(0.212)	(0.212)
Observations	7,637	6,249
Mean of Outcome	2.24	1.88
S.d. of Outcome	3.24	2.95

Notes: this table provides estimates of the coefficient of closeness to an election interacted with the Speaker having a Safe Seat, in a difference-in-differences regression. Closeness to the electoral period is defined as a dummy of being within 30 days of an upcoming placebo election. Seat Safety is a dummy equal to 1 when the placement of the list of the Speaker has been filled by the Party in all elections since 2005, including seats elected only after recusals. All regressions have month, and PartyxElection fixed effects. Standard Errors are clustered at the Speaker level. The Robustness sample excludes speeches which were transcribed as having been performed by an "orator" whose identification is done with error. The sample in this table is reduced to interventions 6 months before each electoral period between 2005 and 2022.

Table 34: Number of Protests

	Full Sample	Robustness Sample
	(1)	(2)
Safe Seat	0.079	0.080
	(0.083)	(0.083)
Observations	7,637	6,249
Mean of Outcome	0.35	0.35
S.d. of Outcome	1.14	1.18

Notes: this table provides estimates of the coefficient of closeness to an election interacted with the Speaker having a Safe Seat, in a difference-in-differences regression. Closeness to the electoral period is defined as a dummy of being within 30 days of an upcoming placebo election. Seat Safety is a dummy equal to 1 when the placement of the list of the Speaker has been filled by the Party in all elections since 2005, including seats elected only after recusals. All regressions have month, and PartyxElection fixed effects. Standard Errors are clustered at the Speaker level. The Robustness sample excludes speeches which were transcribed as having been performed by an "orator" whose identification is done with error. The sample in this table is reduced to interventions 6 months before each electoral period between 2005 and 2022.

Table 35: Number of Applauses

	Full Sample	Robustness Sample
	(1)	(2)
Safe Seat	0.065	0.071
	(0.126)	(0.126)
Observations	7,637	6,249
Mean of Outcome	1.30	1.29
S.d. of Outcome	2.20	2.09

Notes: this table provides estimates of the coefficient of closeness to an election interacted with the Speaker having a Safe Seat, in a difference-in-differences regression. Closeness to the electoral period is defined as a dummy of being within 30 days of an upcoming placebo election. Seat Safety is a dummy equal to 1 when the placement of the list of the Speaker has been filled by the Party in all elections since 2005, including seats elected only after recusals. All regressions have month, and PartyxElection fixed effects. Standard Errors are clustered at the Speaker level. The Robustness sample excludes speeches which were transcribed as having been performed by an "orator" whose identification is done with error. The sample in this table is reduced to interventions 6 months before each electoral period between 2005 and 2022.

Table 36: Cognitive Measure (LIWC)

	Full Sample	Robustness Sample
	(1)	(2)
Safe Seat	-0.001	-0.001
	(0.002)	(0.002)
Observations	7,637	6,249
Mean of Outcome	0.33	0.33
S.d. of Outcome	0.04	0.04

Notes: this table provides estimates of the coefficient of closeness to an election interacted with the Speaker having a Safe Seat, in a difference-in-differences regression. Closeness to the electoral period is defined as a dummy of being within 30 days of an upcoming placebo election. Seat Safety is a dummy equal to 1 when the placement of the list of the Speaker has been filled by the Party in all elections since 2005, including seats elected only after recusals. All regressions have month, and PartyxElection fixed effects. Standard Errors are clustered at the Speaker level. The Robustness sample excludes speeches which were transcribed as having been performed by an "orator" whose identification is done with error. The sample in this table is reduced to interventions 6 months before each electoral period between 2005 and 2022.

Table 37: Emotion Measure (LIWC)

	Full Sample	Robustness Sample
	(1)	(2)
Safe Seat	0.001	0.001
	(0.001)	(0.001)
Observations	7,637	6,249
Mean of Outcome	0.06	0.06
S.d. of Outcome	0.02	0.02

Notes: this table provides estimates of the coefficient of closeness to an election interacted with the Speaker having a Safe Seat, in a difference-in-differences regression. Closeness to the electoral period is defined as a dummy of being within 30 days of an upcoming placebo election. Seat Safety is a dummy equal to 1 when the placement of the list of the Speaker has been filled by the Party in all elections since 2005, including seats elected only after recusals. All regressions have month, and PartyxElection fixed effects. Standard Errors are clustered at the Speaker level. The Robustness sample excludes speeches which were transcribed as having been performed by an "orator" whose identification is done with error. The sample in this table is reduced to interventions 6 months before each electoral period between 2005 and 2022.

Table 38: Negative Measure (LIWC)

	Full Sample	Robustness Sample
	(1)	(2)
Safe Seat	0.001	0.001
	(0.001)	(0.001)
Observations	7,637	6,249
Mean of Outcome	0.02	0.02
S.d. of Outcome	0.01	0.01

Notes: this table provides estimates of the coefficient of closeness to an election interacted with the Speaker having a Safe Seat, in a difference-in-differences regression. Closeness to the electoral period is defined as a dummy of being within 30 days of an upcoming placebo election. Seat Safety is a dummy equal to 1 when the placement of the list of the Speaker has been filled by the Party in all elections since 2005, including seats elected only after recusals. All regressions have month, and PartyxElection fixed effects. Standard Errors are clustered at the Speaker level. The Robustness sample excludes speeches which were transcribed as having been performed by an "orator" whose identification is done with error. The sample in this table is reduced to interventions 6 months before each electoral period between 2005 and 2022.

Table 39: Negative Measure (LEIA)

	Full Sample	Robustness Sample
	(1)	(2)
Safe Seat	0.002	0.002
	(0.003)	(0.003)
Observations	7,637	6,249
Mean of Outcome	0.11	0.11
S.d. of Outcome	0.04	0.05

Notes: this table provides estimates of the coefficient of closeness to an election interacted with the Speaker having a Safe Seat, in a difference-in-differences regression. Closeness to the electoral period is defined as a dummy of being within 30 days of an upcoming placebo election. Seat Safety is a dummy equal to 1 when the placement of the list of the Speaker has been filled by the Party in all elections since 2005, including seats elected only after recusals. All regressions have month, and PartyxElection fixed effects. Standard Errors are clustered at the Speaker level. The Robustness sample excludes speeches which were transcribed as having been performed by an "orator" whose identification is done with error. The sample in this table is reduced to interventions 6 months before each electoral period between 2005 and 2022.