

# Televised Debates and Emotional Appeals in Politics: Evidence from C-SPAN\*

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## Abstract

We study the effect of televised broadcasts of floor debates on the rhetoric and behavior of U.S. Congress Members. First, we show in a differences-in-differences analysis that the introduction of C-SPAN broadcasts in 1979 increased the use of emotional appeals in the House relative to the Senate, where televised floor debates were not introduced until later. Second, we use exogenous variation in C-SPAN channel positioning as an instrument for C-SPAN viewership by Congressional district and show that House Members from districts with exogenously higher C-SPAN viewership are more emotive in floor debates. Contra accountability models of transparency, C-SPAN has no effect on measures of legislative effort on behalf of constituents, and if anything it reduces a politician’s constituency orientation. We find that local news coverage – that is, mediated rather than direct transparency – has the opposite effect of C-SPAN, increasing legislative effort but with no effect on emotional rhetoric. Looking to electoral pressures as a mechanism, we find the emotionality effect of C-SPAN is strongest in competitive districts. Finally, C-SPAN exposure increases the vote share for incumbent Congress Members, and more so among those who speak more emotionally. These results highlight the importance of audience and mediation in the political impacts of higher transparency.

**Key Words:** Political Transparency, Political Rhetoric, U.S. Congress, C-SPAN

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# 1 Introduction

A foundational component of representative government is democratic accountability – that is, the opportunity for citizens to learn about the behavior of elected representatives and to provide feedback through retention voting (Maskin and Tirole, 2004). In turn, learning about and monitoring politician behavior requires some level of transparency on that behavior, for example through coverage by local newspapers in a politician’s constituency (Snyder and Strömberg, 2010; Gentzkow et al., 2011). Notably, local news coverage is *mediated* transparency, in the sense that knowledgeable political journalists try to summarize useful information on policy outcomes for voters. But what can we say about *direct* transparency on politics – for example, via a 24-hour cable television channel that broadcasts Congressional floor debates?

In the U.S. political economy, politics and television are deeply entwined. Yet television is a relatively new invention, and it was less than fifty years ago that Congressional floor speeches began broadcasting live on the cable television network C-SPAN. While the effect of television on politics has been extensively studied (e.g. Gentzkow, 2006; DellaVigna and Kaplan, 2007; Lenz and Lawson, 2011; Martin and Yurukoglu, 2017; Lang and Lang, 2018), relatively little attention has been given to C-SPAN specifically. That gap seems surprising, given recent polls showing that 85 million U.S. adults watch C-SPAN on a regular basis.<sup>1</sup>

In the first C-SPAN broadcast, Rep. Al Gore predicted that “television will change this institution . . . just as it has changed the executive branch,” and that “the good will far outweigh the bad.” Anecdotally, the first part of that prediction has been borne out, in that C-SPAN has transformed the business of Congressional politics. But what of the second part: Has the good outweighed the bad? For Republican House Speaker Newt Gingrich, the answer is undoubtedly yes, as the network gave a direct line to hundreds of thousands of viewers and paved the way for Republicans’ retaking the House in 1994.<sup>2</sup> Gingrich specifically points

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<sup>1</sup>That is, they report having watched in the last six months. See <https://static.c-span.org/files/pressCenter/Ipsos+2021+C-SPAN+Audience+Profile.pdf>. See Section 2.1 below for more detail.

<sup>2</sup>See Newt Gingrich, “C-SPAN’s 40-year mark on our Republic”, *Newsweek* (March 3, 2019).

to the political advantages of televised provocations and publicized personal attacks, which allowed a new cohort of “media savvy mavericks” to unsettle the “old guard thought.” But other assessments are more critical. A commentator in the *Atlantic* retorts: “circumventing the press’s mediation means that politicians can also offer complete hogwash directly to the public without anyone stopping falsehoods. . . the ability to speak live on TV to the nation makes politics less about achieving things directly and more about scoring points.”<sup>3</sup>

This paper takes an empirical approach to these issues. We ask whether, by opening a direct and unmediated window on legislators’ activity, C-SPAN has had a distinct effect on legislators’ behavior compared to other transparency mechanisms, such as newspapers. In standard political agency models, increased transparency improves accountability and disciplines politicians to exert more effort in representing their constituency (e.g. Ferejohn, 1986). Yet a more recent generation of models have pointed to potential political distortions that can be amplified by greater transparency (Stasavage, 2007; Fox and Van Weelden, 2012; Ash et al., 2017; Fehrler and Hughes, 2018; Gradwohl and Feddersen, 2018; Maskin and Tirole, 2019). In particular, when voters observe the deliberation process, rather than its policy outcomes, politicians have incentives to forego actions that would maximize policy utility and use the opportunity to appeal to the electorate instead (Prat, 2005).

The first step is to analyze the rhetorical styles of U.S. politicians. Gennaro and Ash (2021) provided initial descriptive evidence that emotional appeals in Congress increased after the introduction of C-SPAN in the House of Representatives in 1979. We flesh out that evidence with a differences-in-differences design, using as a control group the U.S. Senate (where television broadcasts did not start until seven years later in 1986). We show that the introduction of C-SPAN increased emotional appeals in House speeches. Supporting analysis suggests that the effect comes both by increasing emotionality for incumbent Congressmen, and by selecting for newly elected Congressmen with a higher baseline level of emotionality.

The historical panel-data evidence motivates our main causal analysis of rhetoric in the more recent period. We produce causal estimates by instrumenting for C-SPAN1 viewership at the district level using the exogenous variation in C-SPAN1 channel positioning. Because televisions start at channel 2 and people surf upward until finding something they want to

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<sup>3</sup>See David A. Graham, “C-SPAN isn’t all good”, *Atlantic* (March 19, 2019).

watch, C-SPAN1 viewership increases when it has a lower channel position. We validate the instrument for this purpose, including documenting a strong first stage and providing evidence for exogenous positioning. In reduced-form and two-stage-least-squares regressions, we show that exogenously higher C-SPAN viewership in a constituency increases emotionality of speeches by the respective House Member. That result is robust to a number of identification checks and specification checks.

Next, we compare the effects of transparency achieved through C-SPAN versus transparency achieved through newspapers. For this purpose, we adopt the measure from Snyder and Strömberg (2010) on congruence between congressional districts and local media markets. In that paper, the authors show that congruence exogenously increases media reporting about local politicians who, in turn, exert more effort in their legislative activity. While we confirm the effect of newspaper coverage on measures of effort, we find no effect of newspaper coverage on emotional rhetoric. On the other hand, we find no effect of C-SPAN on concrete measures of effort. If anything, C-SPAN reduces attention to local matters. These results show that not all forms of transparency are equivalent in terms of government accountability. When compared to mediated transparency through newspapers, C-SPAN's unmediated coverage on the legislative process increases emotional rhetoric with no contemporaneous increase in effort on behalf of constituents.

To better understand the mechanisms underlying these effects, we look at how C-SPAN and rhetoric have interacted with the electoral process. First, we show that the effect of C-SPAN on emotionality is only observed for Congressman from electorally competitive districts, suggesting that C-SPAN's effect on emotion is mediated by electoral pressures. Second, we show that C-SPAN increases the incumbency advantage, in the sense of increasing vote shares for the incumbent in the most-exposed districts. Further, this incumbency effect is largest among the most emotive Congressmen. These results are consistent with a role for emotional rhetoric in voter persuasion, which is amplified by C-SPAN. Overall, it seems that C-SPAN has reduced government accountability by allowing Congress Members to persuade voters through emotive rhetoric.

These results contribute to several strands of the literature in political economy on accountability, televised politics, and the electoral use of emotions. First, these results add to

the literature on how public officials respond to greater transparency on their actions and communications. Consistently with the mixed theoretical results, the results from empirical studies also present a mixed picture on how transparency influences the behavior of politicians and public officials. One of the closest papers to ours is again Snyder and Strömberg (2010), who find that higher newspaper coverage improves the effort of House Members on a number of margins. Ash et al. (2017) use Snyder and Stromberg’s newspaper coverage treatment but show that it also increases divisiveness of speech rhetoric. We complement these papers by looking at televised speeches (rather than newspaper coverage) and assessing effects on emotionality (rather than effort measures and partisanship).<sup>4</sup>

Second, insights from this paper enrich our understanding of the effects of television on voters and politicians. A large literature has documented how television affects political knowledge (Prior, 2006; Barabas and Jerit, 2009), participation (Gentzkow, 2006; Sørensen, 2019), polarization (Durante and Knight, 2012; Campante and Hojman, 2013), and vote choice (DellaVigna et al., 2016; Peisakhin and Rozenas, 2018). However, relatively little is known about the effects of television on politicians. Notable exceptions are works by Clinton and Enamorado (2014) and Arceneaux et al. (2016) who observe that Members of Congress take more conservative positions in roll call votes in response to Fox News in their home district. Our work differs significantly from these papers because C-SPAN broadcasts are unfiltered by journalists. Thus we estimate the effect of transparency separately from the confounding effect of news-network ideology.

Third, this work contributes to the growing literature that investigates the use of rhetorical strategies in politics. It has been shown that rhetorical choices respond to changes in the composition of the electorate, as politicians appeal to different sets of voters (Spirling, 2016; Lin and Osnabrügge, 2018; Bischof and Senninger, 2018; Gennaro et al., 2019). In particular, emotionality is increasingly attracting the attention of researchers (Webster and Albertson, 2022). Osnabruegge et al. (2021) show that U.K. parliamentarians use more emotive rhetoric in high-profile debates. Boussalis et al. (2021) find that politicians are rewarded for displaying

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<sup>4</sup>There are a handful of additional related papers looking at transparency in the bureaucracy rather than legislators. Lim et al. (2015) show that higher newspaper coverage of judges increases sentencing harshness when judges are elected. Hansen et al. (2018) show that higher transparency increases conformity in central bank committee discussions.

emotional expressions according to gendered-based expectations. Emotional speech is also more likely to be reported by traditional and new media (Bennett, 2016; Brady et al., 2017). Our results complement this literature showing how politicians resort to emotionality in response to increased transparency due to televised debates.

## 2 Background

### 2.1 C-SPAN

C-SPAN (Cable-Satellite Public Affairs Network) is a cable and satellite television network broadcasting the floor debates of U.S. Congress and related content on Congressional activities. The organization was founded in 1975 as a nonprofit public service. Four years later in 1979, the network began broadcasting the proceedings of the House of Representatives on the C-SPAN1 cable channel. C-SPAN2 started transmitting from the Senate in 1986. C-SPAN’s core programming is live coverage of the U.S. House and Senate, with C-SPAN1 covering the House and C-SPAN2 covering the Senate. When the House or Senate are not in session, C-SPAN channels broadcast other public affairs programming and recordings of previous events. Since 2001, a third channel C-SPAN3 was introduced in relatively few markets, focusing on such public affairs programming rather than the floor debates. Finally, C-SPAN live streams and video archives have been available on the [c-span.org](https://www.c-span.org) web site since 2007.

The audience for C-SPAN is large and growing. The share of regular viewers increased from 8.6% of the U.S. population in 1994, to 12% in 2004, to 14.8% in 2013.<sup>5</sup> According to a 2021 survey, 60 million U.S. adults have watched C-SPAN in the last week, 73 million in the last month, and 85 million in the last 6 months.<sup>6</sup> The audience is 58% male, 72% under-age-45, and ideologically balanced: 32% liberal, 37% moderate, 27% conservative. Nine out of ten survey respondents rate C-SPAN as a valuable source of information about U.S. politics.

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<sup>5</sup>See <https://en.wikipedia.org/wiki/C-SPAN>.

<sup>6</sup>See <https://static.c-span.org/files/pressCenter/Ipsos+2021+C-SPAN+Audience+Profile.pdf>.

## 2.2 Related Literature

Against the backdrop of a large theoretical literature underlining the consequences of transparency, relatively little is known about its empirical effects on politicians' behavior. There is even less work comparing the distinctive effects of transparency through different media technologies. This section reviews some of that literature to situate our paper's empirical analysis and contribution.

**Theory.** A rich theoretical literature has explored the ways that transparency can influence the choices of politicians. In the standard political agency models, transparency affects politicians' behavior through stronger electoral accountability (e.g. Ashworth, 2012). To the extent that transparency reduces the cost of monitoring politicians, classical principal-agent models predict that transparency should increase voters' ability to hold politicians accountable, ultimately leading to more effort on behalf of constituents (Ferejohn, 1986). Correspondingly, higher transparency – and the associated expectation of greater accountability – could influence the types of candidates who run for office (e.g. Downs, 1957). Politicians who have a lower cost of effort for constituents would be more likely to run under higher transparency.

More recently, a number of theoretical approaches have highlighted the limitations of the pure accountability model by showing that the welfare effects of transparency may be context-dependent. For example, in the model by Prat (2005), transparency is beneficial when it allows voters to observe the outputs of politicians' actions. However, transparency on the actions themselves – i.e., on the legislative process – can create distortions. In particular, transparency on actions can introduce incentives for politicians to conform to the a priori preferred action, rather than to use private information (see also Stasavage, 2007). Similarly, the model in Ash et al. (2017) highlights that transparency can increase the signaling value of taking divisive policy positions. In Patty (2016), transparency increases the incentives to obfuscate public debate by obstructing already approved policies.

**Evidence.** Some of the best evidence on transparency and accountability is Snyder and Strömberg (2010), who show that U.S. Congressmen respond to more newspaper coverage in their home districts. Consistent with accountability models, legislators increase legislative

effort and performance on a number of margins, particularly in activities that bring direct benefits to the constituency. Similarly, Gentzkow et al. (2011) find that more newspaper coverage leads to higher political knowledge and voter participation in U.S. localities, which are necessary conditions for accountability. For television (as opposed to newspapers), however, there is not much evidence for an accountability effect. This difference could be explained by television having less of a focus on political news (e.g. Gentzkow, 2006; Sørensen, 2019).

Empirical evidence on the potential costs of transparency includes Ash et al. (2017), who show that in districts with higher news coverage, the associated House Member uses more divisive, partisan rhetoric. Hansen et al. (2018) shows in the context of a central bank committee that higher transparency increases conformity in discussions. Similarly, in Benesch et al. (2018), higher transparency on Swiss parliament increased party conformity. Finally, Harden and Kirkland (2021) find that transparency laws in U.S. states had no effect on state legislative outcomes such as productivity, polarization, and delay.

**Emotional appeals versus rational deliberation.** The empirical focus of this paper is on the quality of legislative debate, as indexed by the use of emotional rhetoric rather than a more deliberative, fact-based style. There is substantial evidence that eliciting emotions affects voters’ political preferences and behavior, including political participation, vigilance, and information acquisition (e.g. Sullivan and Masters, 1988; Marcus and MacKuen, 1993; Marcus et al., 2000; Brader, 2005; Valentino et al., 2011). Emotional framing can inform voters’ opinions on policy issues (Gross, 2008; Brader et al., 2008; Renshon et al., 2015), can be used strategically to target specific subgroups in the wider audience of voters (Gault and Sabini, 2000; Loewen et al., 2017), and can serve to communicate major consensual values (Jerit, 2004). In our domain, Dietrich et al. (2018) show that more emotive Congressional speeches are more likely to be reported on by cable news shows. Thus, political persuasion of voters likely entails emotive language.

**The case of C-SPAN.** There are two main models for how higher transparency due to C-SPAN would influence legislative behavior. On the one hand, C-SPAN could increase accountability and improve legislator performance on behalf of constituents, as in Ferejohn (1986) or Snyder and Strömberg (2010). Alternatively, C-SPAN might introduce the “wrong”



kind of transparency by providing information on the policy-making process rather than on outcomes (Prat, 2005), or otherwise amplifying pressures for politicians to pander or posture (Fox, 2006; Stasavage, 2007; Patty, 2016; Ash et al., 2017).<sup>7</sup>

To distinguish these models, our empirical analysis is guided by two questions. First, what is the audience for C-SPAN? That is, we must ask *who* is getting more access on a politician’s actions. That audience might be other politicians, other public officials like inspectors or bureaucrats, lobbyists, policy experts, campaign donors, advocates, journalists, or voters. When looking at the impacts of transparency on actions or rhetoric, the associated audience will make a big difference.

C-SPAN establishes a direct communication line between politicians and voters. This changes the composition of the audience for floor speeches, which is no longer reserved to fellow Members of Congress, government actors, and political journalists. While voters could always learn about speech content indirectly through news media reports about the speeches, it was only after the introduction of C-SPAN that voters could directly and easily observe the speeches of their congressional representatives. With the change of audience, congressional speeches became a device for appealing to voters directly through the television. In particular, if voters respond to emotionality more positively than the traditional pre-television audience, then politicians might respond to increased television exposure of speeches with increased emotionality in their speeches.

The second main question is, does C-SPAN provide information on policy inputs or policy outputs? C-SPAN provides programming on both. In terms of outputs, they report on roll call votes and the outcomes of those votes in terms of enacted bills. In terms of inputs, they show the floor debates about legislation. The latter takes up more time, by construction.

This focus on inputs is amplified by the lack of mediation (unlike newspapers, where journalists focus on newsworthy content). C-SPAN offers complete coverage on the congressional debates, without content editing or selective coverage. This choice delivers lengthy

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<sup>7</sup>See David A. Graham, “C-SPAN isn’t all good”, *Atlantic* (March 19, 2019), noting “the ability to speak to the public live on camera, without mediation. . . to speak without any editorial intervention and create a ruckus . . . circumventing the press’s mediation means that politicians can also offer complete hogwash directly to the public without anyone stopping falsehoods.” Graham describes this dynamic exactly: “well-meaning reforms have in fact weakened some parts of the American political system. That includes greater transparency for legislation, of which C-SPAN is a part. . . the ability to speak live on TV to the nation makes politics less about achieving things directly and more about scoring points.”

floor discussions that are generally disregarded by other news sources, and an editorial focus that privileges the decision-making process over its results.

Based on the discussion above, the transparency achieved through C-SPAN differs significantly from transparency achieved through newspapers. In the case of C-SPAN, the extensive coverage of the political process limits focus on outcomes, coupled with the substantial change in audience tilt the balance of incentives in favor of emotive rather than deliberative rhetoric. In the case of newspapers, the mediated nature of communication strikes the balance in favor of effort.

### 3 Data

We draw from registry data and other relevant studies to compile two rich datasets of elected representatives’ rhetoric features, legislative effort, and personal/district characteristics. The first dataset covers all speeches delivered in the Senate and the House around the first introduction of C-SPAN (1974-1985). The second dataset covers all speeches delivered in the House of Representatives between 1998 and 2014, as well as measures of legislative effort between 1998 and 2004. The paragraphs below provide additional detail.

**C-SPAN channel position.** We have information on local channel positions for C-SPAN1 and C-SPAN2 from Nielsen. The data include information about the area served by each cable system at the zip-code level between 1998 and 2004. Adapting the approach from Galletta and Ash (2020), which aggregates the data by county, we aggregate the data by Congressional election district. Specifically, we take the district-level average channel positions across zip codes, weighting zip codes by population size. To better isolate cross-sectional (rather than time-varying) variation in the channel position, we produce a time-invariant channel *Position* by Congressional district by averaging over the available years 1998-2004. To assist interpretation of coefficients, we standardize the channel position by subtracting the mean and dividing by the standard deviation.

**C-SPAN Viewership.** Next, we have zipcode-level viewership of C-SPAN1, also provided by Nielsen. *Viewership* is measured as the average share of television-watching time in a

zip code tuned into C-SPAN1. In our regressions, we use viewership from 2004, aggregated by election district in the same way as channel positions. For interpretability, we again standardize viewership to mean zero and standard deviation one.

**Congruence.** We obtain a district-level measure of transparency based on newspaper reporting from Snyder and Strömberg (2010). In particular, *Congruence* measures the geographical overlap between newspaper markets and U.S. congressional districts. In their paper, they demonstrate that higher congruence corresponds to exogenously higher newspaper coverage of the local Member of Congress. We adapt the congruence measure to our analysis by replicating the same aggregation rules that we use for C-SPAN – i.e., we produce a time-invariant congruence measure by Congressional district by averaging over the years 1998-2004. We standardize the congruence measure by subtracting the mean and dividing by the standard deviation.

**Emotionality vs. Rationality.** The measure of *Emotionality* in congressional floor speeches comes from Gennaro and Ash (2021). This approach uses word embedding, a tool from natural language processing which represents semantic dimensions in language as geometric dimensions in a vector space. The method transforms words to vectors, where similar words tend to co-locate and directions in the space (dimensions) correspond to semantically meaningful concepts (Collobert and Weston, 2008; Mikolov et al., 2013; Pennington et al., 2014). In brief, the method works by taking validated word lists for emotion and rationality and constructing the poles as the average vectors for these semantically coherent word groups. The relative emotionality of a word or a document is the proximity to the emotion pole, relative to the rationality pole. It indexes the use of emotional appeals, including reference to feelings, sentiments, and moods, relative to more rational appeals, including deliberative reasoning and more fact-based discussion.

Gennaro and Ash (2021) compute scores for 6 million floor speeches reported in the *U.S. Congressional Record* for the years 1858 through 2014 and extensively validate those scores. For the current paper, we extract two subsets with speech observations from the periods 1974-1985 and 1998-2014, respectively. For each subset, we standardize the emotionality measure by subtracting the mean and dividing by the standard deviation.

An advantage of the emotionality metric from Gennaro and Ash (2021) is that it provides consistent scoring of floor speeches across both time spans. Hence, we can confidently compare speeches across time, for example before/after the arrival of C-SPAN cameras. That would not be possible for other modalities such as video or audio, which were not available before the cameras were installed. Still, a potential downside of the text-based metric is that it misses some pivotal multi-modal aspects of emotionality, for example though vocal modulations (Dietrich et al., 2019), facial expressions (Knox and Lucas, 2021), or gestures (Boussalis et al., 2021). In Appendix Table A.1, we report the correlation of Gennaro and Ash’s (2021) text-based emotionality metric with Dietrich et al’s (2019) audio-based emotionality metric, based on voice modulations. The correlation is positive and significant, yet proportionally low (Pearson correlation coefficient = 0.1), reflecting that the measures capture different yet overlapping features of emotional expression. Further, the text/vocals relationship holds with speaker fixed effects, showing that the text-based measure captures subtle variation in emotionality, both across and within individuals.

**Legislator Behavior and Characteristics.** We obtain measures of legislators’ behavior from Snyder and Strömberg (2010), for the period 1998-2004. In particular, we borrow their measures of party loyalty, effort, and committee membership. *Party Loyalty* is defined at the politician-session level as the percentage of roll call votes where the representative votes with the party majority. *Effort* is measured as the number of witness appearances before a congressional hearing (*Witnesses Appearances*). Snyder and Strömberg (2010) distinguish committee membership between participation in *Constituency-oriented* committees and *Policy-oriented* committees; we take the difference between these two measures to build an index of *Constituency-Orientation* in committee participation.

We combined these data with additional detailed information about U.S. House Members and Senators from Gennaro and Ash (2021). This dataset includes personal characteristics such as demographics and variables related to the political career. As a measure of partisanship of voting for each Congress Member and year, we include DW-NOMINATE scores. We derive politician’s *Extremism* as the square of the session-level DW-NOMINATE score.

**Other text measures.** We collect a number of other measurements from the text for use in the analysis from Gennaro and Ash (2021). In particular, we collect information on speech topics (obtained with latent dirichlet allocation or LDA, see e.g. Blei 2012). For ease of interpretation, we inspected the individual topics and aggregated them into eleven larger categories. Further, we have measures of readability by speech: average number of words per sentence, and characters per word.

## 4 Effect of C-SPAN’s Introduction in the House

This section investigates the effect of television on the emotionality in Congress using a differences-in-differences design. We exploit the staggered timing in the introduction of C-SPAN in the House (1979) and in the Senate (1986). We ask whether House members increased the use of emotional appeals relative to their colleagues in the Senate in the period after they were exposed to television.

We estimate the following event-study model:

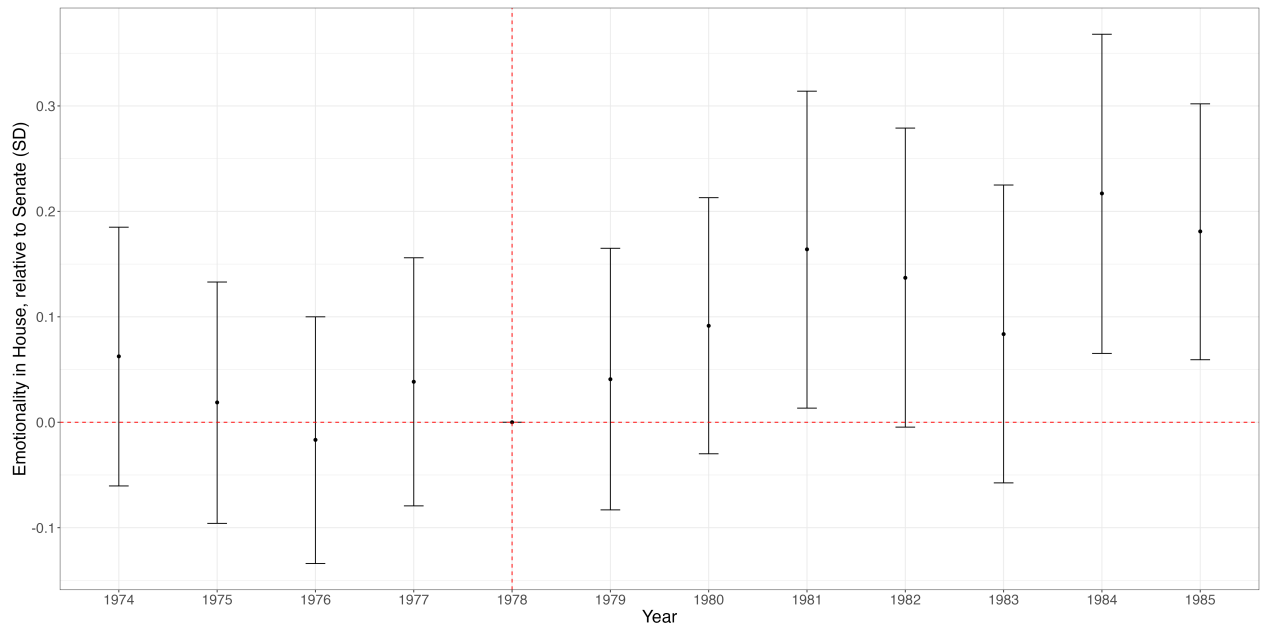
$$Y_{ijt} = \alpha + \sum_{m=-5}^6 \beta_m H_j \times L_{1979+m} + H_j + \tau_t + \epsilon_{ijt} \quad (1)$$

where  $Y_{ijt}$  is emotionality in speech  $i$ , chamber  $j$ , year  $t$ .  $H_j$  is a dummy equal to one if the speech is in the House, zero in the Senate.  $L_{1979+m}$  are dummies for leads and lags around 1979, the year C-SPAN was introduced in the House. The year 1978 is the left-out category.  $\tau_t$  are year fixed effects, capturing Senate averages for the leads and lags. Standard errors are clustered at the speaker level.

Figure 1 reports the coefficient estimates and 95% confidence intervals from equation (1). In years preceding C-SPAN1, there is no effect, suggesting that the House and the Senate were on parallel trends in rhetorical style. In the years after, however, and especially starting in 1981 (when the first Congress elected in the post C-SPAN period begins), a difference between the chambers opens up and becomes statistically significant. The introduction of televised debates increased emotionality of debates in the House of Representatives.

Supporting differences-in-differences regression results are reported in Appendix Table

Figure 1: EMOTIONAL APPEALS AND C-SPAN1 INTRODUCTION



Dynamic event-study estimates of the effect of C-SPAN on Emotionality (equation 1). The horizontal axis indicates Years around the first introduction of C-SPAN1 in the House of Representatives (1979); the vertical axis reports the difference in emotionality between the House and the Senate. Vertical lines give 95% confidence intervals.

A.3. The estimated coefficient suggests that the introduction of C-SPAN increased the use of emotionality by 7 to 10% of a standard deviation in the House relative to the Senate.

Next, we compare the within-member incentive effects for incumbent politicians to the across-member selection effects of new versus incumbent politicians. Appendix Figures A.1 and A.2 show that the effect of the introduction of C-SPAN on emotionality is mostly driven by the election of new representatives who use more emotive rhetoric on average, while representative who were elected before the introduction of C-SPAN only marginally adapted their rhetoric to the new context.

Appendix Table A.4 further clarifies that the introduction of C-SPAN did not affect ideology or extremism as expressed in roll-call votes. C-SPAN did appear to shrink the length of speeches, but it did not systematically shift other rhetorical choices such as sentiment, word length, or sentence length.

## 5 Effect of C-SPAN Viewership Across Districts

While the introduction of C-SPAN1 seems to drive a diverging rhetorical trend in the House relative to the Senate, this effect may be confounded by other contemporaneous changes affecting the House. For example, it could be that the presence of cameras affects rhetoric directly, regardless of whether voters are watching.

As an alternative approach to identify the effect of television exposure on Congress, we use an instrument for local viewership of C-SPAN1 by congressional district. This section outlines this second identification strategy and reports the associated results.

**C-SPAN channel position as an instrument for viewership.** Our second identification strategy is instrumental variables. We instrument for local viewership of C-SPAN1 by congressional district using the channel position. As first introduced in Martin and Yurukoglu (2017) for cable news networks, variation in cable channel positioning significantly shifts viewership because viewers tend to start at the bottom of the lineup and surf upward until finding something to watch.

Due to the arbitrary and localized process of selecting channel positions, those positions

are exogenous to relevant district and politician characteristics. The lineup position assigned to each channel depends on the time in which the national media producer joined the local cable system. New channels are most of the time positioned sequentially, and further, when networks are dropped then newly open positions can be filled. Therefore, the numerical order of the channels varies depending on the cable system considered. Once set at the introduction of the channel into a cable system, the positioning rarely changes over time. In addition, viewers cannot set personalized channel positions in their individual TV sets.

We adapt the channel position instrument approach to the case of C-SPAN and U.S. Congress. As discussed in more detail in Section 3, we calculate average C-SPAN channel positions and viewership by Congressional District using data starting in 1998. We then estimate causal effects using cross-sectional variation in the channel position within the same state and same year. That is, we compare outcomes for House Members from the same state in the same year, but differing in the average channel position of C-SPAN1 in their home district.

The emotionality analysis includes all speeches pronounced by Democratic or Republican House Members, between 1998 and 2014. Senators are not a part of this analysis because they are elected at the state level, and hence we cannot exploit variation of the instrument across locally contingent areas. The main summary statistics for all variables included in this analysis are reported in Appendix Table A.2.

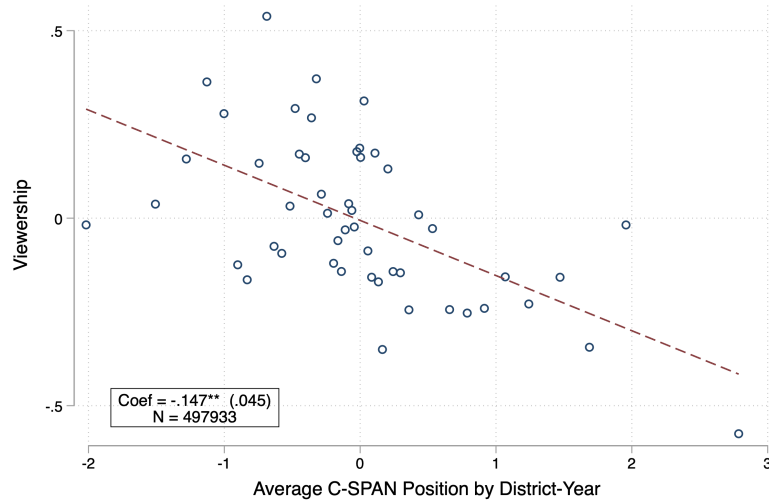
**First stage.** We begin with the first stage effect of C-SPAN channel position on C-SPAN viewership. While channel position has been used as an instrument for cable news viewership (Martin and Yurukoglu, 2017), it has not been used to analyze C-SPAN. It is not obvious that the first stage should hold, given that C-SPAN is a public broadcaster with lower viewership than the cable news channels. Formally, we estimate:

$$V_{js} = \alpha + \psi Z_{js} + \tau_{st} + X'_{ijst}\beta + \epsilon_{ijst} \quad (2)$$

where  $V_{js}$  is C-SPAN viewership in district  $j$  and state  $s$ ,  $Z_{js}$  is the C-SPAN channel position number in district  $j$ ,  $\tau_{st}$  is a state-year fixed effect, and  $X_{ijst}$  includes additional covariates to be enumerated below. Standard errors are clustered by House member, although they are



Figure 2: FIRST STAGE: VIEWERSHIP AND C-SPAN1 CHANNEL POSITION



Binned scatter plot of C-SPAN1 viewership and C-SPAN1 channel position. The horizontal axis reports the average C-SPAN1 channel position in the speaker’s district-year (standardized); the vertical axis reports the average viewership in the speaker’s district (standardized). State-year fixed effects absorbed.

similar with other clustering levels such as district.

The first stage has a causal interpretation under conditional exogeneity of the channel position  $Z_{js}$  with regard to viewership  $V_{js}$ . In that case, the estimate  $\hat{\psi}$  gives the counterfactual prediction for how much viewership changes (in standard deviations) in response to a one-standard-deviation increase in the channel position. Given that a lower channel position makes a network easier to watch, we expect  $\hat{\psi} < 0$ .

Figure 2 shows a binned scatter plot for the relationship between viewership and the C-SPAN1 channel position in the associated electoral district, residualized on state-year fixed effects. As the channel position increases, viewership of C-SPAN in the district decreases with  $\hat{\psi} = -0.147$ . These estimates are reported in more detail in Table 1, Columns 5 through 8. Additional first-stage specifications are shown in Appendix Table A.5. In the 2SLS regressions below, we will report Kleinbergen-Paap cluster-robust first-stage F-statistics and they are consistently above 10.

The Appendix reports more background information about the instrumental variable analysis. Intuitively, Appendix Table A.10 reveals that C-SPAN1 has higher ratings in dis-

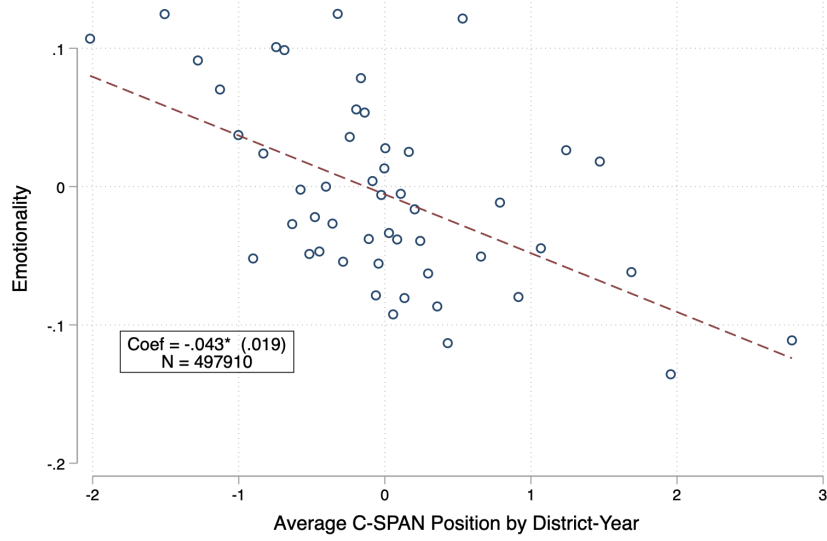
districts with higher college education rates. The instrument allows then to estimate the effect of viewership for compliers, i.e. for those districts where people watch more C-SPAN1 due to its exogenous positioning in the channel lineup. Appendix Table A.14 shows that the biggest complier difference is in working age: retired population is more responsive to the instrument.

**Balance Tests.** The main threat to identification is that the instrument is endogenous with emotional speech and other outcomes. It could be that speaking style across Representatives correlates with other unobserved local characteristics that are endogenous with the instrument. To address this possibility, we test the balance of the channel position across a number of district observables, as well as average demographic characteristics of the members of Congress elected in those districts.

Appendix Table A.9 reports the main balance checks, where we iteratively regress the instrument on each local covariate. We see that, consistent with an exogenous channel position, the coefficients on almost all covariates are statistically insignificant. A handful of covariates are significant at the 5 percent level, as one would expect due to chance. However, we include all those controls in the main regression specification (e.g. Table 2), individually and interacted with time trends, and results do not change. Further, none of these variables are selected when we run lasso with emotionality as the outcome.

To complement these checks more synthetically, we run a single linear regression with district-level characteristics and state fixed effects as covariates with emotionality as the outcome. We use the learned coefficients to form a predicted value that summarizes the variation in emotional rhetoric due to pre-existing observable economic and demographic characteristics. When we regress this predicted value of emotionality on C-SPAN channel position, the estimate is very small in magnitude and not statistically significant ( $\hat{\beta} = 0.003$ ,  $\hat{se} = 0.006$ ). Thus, the component of local observables that is linearly related to emotionality is linearly unrelated to the instrument, providing additional support for the exogeneity assumption in our 2SLS regressions.

Figure 3: REDUCED FORM: EMOTIONALITY AND C-SPAN1 CHANNEL POSITION



Binned scatter plot of emotionality and channel position. The horizontal axis is the average C-SPAN1 channel position in the speaker's district-year (standardized); the vertical axis is the average emotionality score by bin (standardized). State-year fixed effects absorbed.

**Reduced-form effect of channel position on emotionality.** Next, we estimate the reduced form model, regressing emotionality on the exogenous instrument:

$$Y_{ijst} = \alpha + \phi Z_{js} + \tau_{st} + X'_{ijst} \beta + \epsilon_{ijst} \quad (3)$$

where the emotion outcome  $Y_{ijst}$  is for speech  $i$ , district  $j$ , state  $s$ , time  $t$ . The other items are the same as with the first stage. Again, standard errors are clustered by member.

Under conditional exogeneity of the channel position  $Z_{js}$  with regard to speech emotionality  $Y_{ijst}$ ,  $\hat{\phi}$  estimates the change in emotionality (in standard deviations) due to a one-standard-deviation increase in the channel position. Based on the differences-in-differences estimates from Section 4, we expect higher C-SPAN viewership to increase emotionality. Given the negative first stage, then, we also expect a negative reduced-form estimate,  $\hat{\phi} < 0$ .

To visualize the reduced-form relationship, Figure 3 shows a binned scatter plot for the relationship between emotionality in speeches and the C-SPAN1 channel position in the associated speaker's electoral district, with both residualized on state-year fixed effects. As

the district’s channel position increases, speeches pronounced by the respective Member of Congress display lower emotionality ( $\hat{\phi} = -0.043$ ). Combined with the negative first stage, we thus have some initial evidence for a causal effect of C-SPAN viewership increasing the use of emotional appeals rather than more rational, fact-based arguments.

Table 1: REDUCED FORM AND FIRST STAGE: EMOTIONALITY, VIEWERSHIP AND C-SPAN1 POSITION

	Reduced Form DV: Emotionality				First Stage DV: Viewership			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
C-SPAN Position	-0.043** [0.019]	-0.045** [0.018]	-0.051*** [0.018]	-0.042*** [0.016]	-0.154*** [0.036]	-0.149*** [0.037]	-0.149*** [0.037]	-0.149*** [0.037]
State-Year	✓	✓	✓	✓	✓	✓	✓	✓
Urban		✓	✓	✓		✓	✓	✓
Income-Educ			✓	✓			✓	✓
Individual				✓				✓
Observations	497910	497910	497910	497910	497910	497910	497910	497910

*Notes.* Columns 1 to 4 show the OLS regression of the emotionality score in a given speech (standardized) on the average C-SPAN1 channel position in the speaker’s district (standardized). Columns 5 to 8 show the OLS regression of C-SPAN viewership on the average C-SPAN1 channel position in the speaker’s district (standardized). The sample is composed of all speeches pronounced by Democrat and Republican Members of the House of Representatives between 1998 and 2014. All columns include State-year fixed effects. *Urban* indicates the inclusion of controls for population (log), density (log), the share of urban population, of Hispanic, Asian, black and white population, of women, and of working age population. *Income-Educ* includes the share of college educated, high-school dropouts, food stamp recipients, and median household income (log). *Individual* includes dummy variables for speaker’s gender, religion (Catholic, Jewish), party, race (Black, Hispanic, Asian, Native), and controls for age and age squared. Standard errors are clustered at the politician level. \*, \*\*, \*\*\* denote significance at the 10%, 5%, and 1% levels, respectively.

The visual reduced-form relationship is confirmed by regression estimates reported in columns 1 to 4 of Table 1. A simple regression of emotionality on C-SPAN1 channel position and state-year fixed effects shows a negative relationship, similar to the binscatter. A one-standard-deviation decrease in the channel position corresponds to a .05-standard-deviation increase in emotionality. The estimated coefficient is robust in magnitude and significance to adding district controls for population and demographics (Column 2) or education and income (Column 3). Adding member-level covariates for gender, race, religion, age, and party (Column 4) shrinks the coefficients but only slightly, meaning that selection for observable member characteristics does not significantly explain the C-SPAN effect. See Appendix Table A.6 for additional specifications of the reduced-form.

**Two stage least squares specification.** Next, we estimate the two-stage-least-square specification. We regress emotionality of a speech on C-SPAN1 viewership in the speaker’s home district:

$$Y_{ijst} = \alpha + \rho \hat{V}_{js} + \tau_{st} + X'_{ijst} \beta + \epsilon_{ijst} \quad (4)$$

where viewership  $\hat{V}_{js}$  is instrumented by the channel position in the congressional district, as shown in the first stage equation (2). To assist interpretability, the outcome, the endogenous treatment variable, and the instrument are all standardized. Standard errors are clustered by speaker. The estimate  $\hat{\rho}$  gives the local average treatment effect of higher viewership on emotionality due to exogenous shifts in the channel position.

Table 2: 2SLS: EMOTIONALITY AND C-SPAN1 VIEWERSHIP

Emotionality	(1) OLS	(2) 2SLS	(3) 2SLS	(4) 2SLS	(5) 2SLS	(6) 2SLS	(7) 2SLS	(8) 2SLS
C-SPAN Viewership	0.024 [0.015]	0.289** [0.143]	0.366** [0.164]	0.351*** [0.135]	0.274** [0.108]	0.267** [0.112]	0.258*** [0.094]	0.159*** [0.058]
State-Year	✓	✓	✓	✓	✓	✓	✓	✓
Urban			✓	✓	✓	✓	✓	✓
Income-Educ				✓	✓	✓	✓	✓
Individual					✓	✓	✓	✓
Cable News						✓	✓	✓
Speech							✓	✓
Topics								✓
KP F-stat		10.480	10.111	15.954	17.940	16.428	16.403	16.651
Observations	497910	497910	497910	497910	497910	497910	497910	497910

*Notes.* Each column shows the regression of the emotionality score in a given speech (standardized) on the C-SPAN1 viewership in the speaker’s district (standardized). Column 1 reports the OLS estimates; columns 2 to 8 report 2SLS estimates, where viewership is instrumented with C-SPAN1 channel position in the same district (standardized). The sample is composed of all speeches pronounced by Democrat and Republican Members of the House of Representatives, between 1998 and 2014. All columns include state-year fixed effects. *Urban* indicates the inclusion of controls for population (log), density (log), the share of urban population, of Hispanic, Asian, black and white population, of women, and of working age population. *Income-Educ* includes the share of college educated, high-school dropouts, food stamp recipients, and median household income (log). *Individual* includes dummy variables for speaker’s gender, religion (Catholic, Jewish), party, race (Black, Hispanic, Asian, Native) and control for age and age squared. *Cable News* includes the minimum channel position among other cable news networks. *Speech* indicates controls for speech length (log), word length (log), sentence length (log). *Topics* indicates topic fixed effects. Standard errors are clustered at the politician level. \*, \*\*, \*\*\* denote significance at the 10%, 5%, and 1% levels, respectively.

The 2SLS estimates are reported in Table 2. Column 1 reports the simple OLS estimates, with state-year fixed effects. The correlation between C-SPAN viewership and emotionality is positive, yet small in magnitude and not statistically significant. Columns 2 to 9 report the

2SLS estimates. In the baseline regressions of emotionality on viewership and state-year fixed effects (Column 2), population controls (Column 3), or education/income controls (Column 4), we see a positive and significant estimate. A one standard-deviation increase in viewership corresponds to a 0.29 to 0.35 standard-deviation increase in emotionality. Including individual characteristics in column 5 leave the estimates almost unaffected. In Column 6 we include a control for exposure to cable news networks, as the minimum channel position among CNN, Fox News and MSNBC; the coefficient does not change, indicating C-SPAN effect on emotionality is not driven by exposure to other news channels. As shown in Columns 7 and 8, adding the mediator covariates (speech text characteristics and speech topics) shrink the coefficient magnitude but the estimate remains positive and significant. Meanwhile, there is a strong and growing first stage F-statistic.

Notably, the OLS estimates for emotionality and viewership are negatively biased – they underestimate the effect of C-SPAN on House Member emotionality. There could be many reasons for such a bias. For instance, it could be that districts with more experienced Congressmen tend to watch C-SPAN more because the politician is more popular, yet more experienced Congressmen are less emotive. Further, it could be due to a local average treatment effect where the districts that respond to the channel position also have Congressmen that are more sensitive in their rhetorical choices to television visibility. Or there could be measurement error in the endogenous regressor (viewership), and 2SLS mitigates the resulting attenuation bias.

While there are multiple valid explanations behind the negative bias in the OLS, we highlight that this is consistent with standard political accountability models. In the OLS estimates, C-SPAN viewership captures latent constituency characteristics, such as interest in politics. Politically interested constituencies not only watch C-SPAN more, but they are also more likely to hold their representatives accountable for their policy decisions. These factors should lead to positive selection and a disciplining effect on politicians. To the extent that emotionality is used as a substitute to effort in achieving political persuasion, we would expect that higher constituency political interest correlates with lower use of emotionality, and hence a downward bias in the main results. Emotionality hence increases when C-SPAN viewership is driven by conditions that are exogenous to local political interest such as,

indeed, the channel position.

**Robustness Checks.** In the Appendix, we provide further supporting evidence on the exogeneity of the instrument by performing two placebo analyses. First, in Appendix Figure A.3 and Appendix Table A.7, we show that there is no effect when regressing emotionality in the two decades before the introduction of C-SPAN1 on C-SPAN1 channel position. The resulting reduced-form estimate is positive (flipped sign) and not statistically significant. This means that the instrument is not selected with pre-existing trends in the use of emotional rhetoric across electoral districts. Second, we run the reduced form specification using the channel position for C-SPAN2 (rather than C-SPAN1) as the instrument. As C-SPAN2 broadcasts floor debates from the Senate, we should expect no effect on emotionality for House members. Estimates reported in Appendix Table A.8 show that there is indeed no effect of C-SPAN2 on emotionality in the House.

Next, we provide a number of further specification checks. First, we replicate the analysis using congressional districts as the unit of analysis, collapsing all our variables as averages at the district-year level. Appendix Figure A.5 and Appendix Table A.11 show that results are substantially unchanged, even though less precisely estimated. Second, given the skewed distribution of the C-SPAN channel positions and viewership, we apply the inverse hyperbolic sine transformation to both variables and replicate the main results in Appendix Figure A.6 and Table A.12. Third, Appendix Figure A.4 replicates the main result, dropping observations from each state and each year; results are not driven by any specific state or year.

Finally, we explore the effects of other TV channel positions on emotional rhetoric. Appendix Table A.17 reports the estimated effect of other cable news channels (MSNBC, Fox News, CNN, and the minimum among those). The results suggest that cable news viewership among constituents might also increase a Congressman’s emotional rhetoric, but not as much as C-SPAN. Appendix Table A.18 displays the same analysis for general broadcast channels, and there are no consistent results. Overall, these additional results support our interpretation that unmediated transparency through C-SPAN encourages the use of emotional appeals to voters.

**Other outcomes.** To further elaborate on the instrumental-variables results, we estimate the same specification with a number of additional outcomes. First, we estimate the same results using an alternative measure of emotionality, proposed in Gennaro and Ash (2021), that more directly indexes the tradeoff between emotionality and rationality. This measure is calculated as the cosine similarity between each speech document vector, and an emotionality-rationality dimension. Estimates reported in Appendix Table A.13 shows that the results are virtually unchanged.

Second, we assess effects on other dimensions of language besides emotionality. In particular, linguistic sophistication may be affected by the need to address a new public (Benoit et al., 2019). For instance, Spirling (2016) has shown that enfranchisement led elected politicians to use simpler language in the UK parliament, with the intent of addressing the masses. Correspondingly, we test whether C-SPAN has a broader effect on language. Appendix Table A.15 shows that television exposure has no effect on sentiment, speech length, and average word length (a measure of linguistic complexity). However, more visibility does increase the number of speeches given and the average length of sentences within speeches. The effect on number of speeches is perhaps not surprising, as higher C-SPAN viewership would increase the electoral returns to floor speaking time.

Next, we look at the effects on the topics of speeches, as learned by the LDA topic model. In our 2SLS analysis, we saw that part of the C-SPAN effect on emotionality is due to shifts in speech topics. Unpacking this shift, Appendix Table A.16 shows that more C-SPAN viewership decreases the number of speeches dedicated to commemorating colleagues (Tribute), while it increases the probability that a politician talks about nationalistic topics (National Narrative), such as the American history and heritage, and party politics. These results have an intuitive interpretation: that C-SPAN increases the weight that House Members put on voters as a potential audience, rather than other House Member colleagues.<sup>8</sup>

Finally, we look for selection effects of C-SPAN on the type of politician elected. While it seems to increase the probability of electing more left-wing and more educated politicians (Appendix Table A.22), there is no effect on other demographic variables such as age, gender,

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<sup>8</sup>Appendix Table A.16 Panel 2 reports heterogeneous effects of C-SPAN on emotionality by topic. The effects are broadly distributed with no clear patterns.



race, or religion (Appendix Table A.23).

## 6 Direct versus Mediated Transparency

In Section 2, we made a distinction between direct transparency – that is, increasing direct access of voters to politician activities – and mediated transparency – that is, increased access to politician activities via journalists. In this section, we compare the effect of C-SPAN – an increase in direct transparency – to higher local newspaper coverage – an increase in mediated transparency. To examine the latter, we draw on Snyder and Strömberg (2010), which showed that congruence between media markets and electoral districts exogenously increases the newspaper coverage of the local Member of Congress. The local representative, in turn, exerts more effort in promoting the interests of her constituency. In this sense, newspaper coverage achieves the positive effects of monitoring as laid out in classical political accountability models. We show that newspaper coverage primarily affects effort, while C-SPAN primarily affects rhetoric.

### 6.1 Media-Market Congruence and Emotionality

First, we ask if more newspaper coverage, measured as congruence, pushes the local representative to use more emotionality in Congress. To do that, we estimate the reduced form model (equation 5) while substituting the C-SPAN channel position with Snyder and Strömberg’s (2010) measure of Congruence, described in Section 3. As shown in Appendix Figure A.7 and Appendix Table A.24, there is no effect. Unlike the direct transparency from C-SPAN, the mediated transparency from local news coverage does not change emotionality of House Members. Appendix Table A.26 shows that media market congruence does not systematically affect the topics discussed in Congress.<sup>9</sup>

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<sup>9</sup>We observe a small increase in discussions about Economic Policy, and a similar reduction in discussions about Immigration

## 6.2 C-SPAN, Congruence, and Politicians' Behavior

Next we explore the effects of both newspaper coverage and C-SPAN on the behavior of politicians. As done in Snyder and Strömberg (2010), we look at party loyalty, effort, and committee choices. We estimate the following equation, at the politician-session level:

$$Y_{ijst} = \alpha + \phi T_{js} + \psi Z_{js} + \tau_{st} + X'_{ijst}\beta + \epsilon_{ijst} \quad (5)$$

where  $Y_{ijst}$  is the outcome for representative  $i$ , in district  $j$ , state  $s$ , and congress session  $t$ ;  $T_{js}$  is *Congruence* in district  $j$  state  $s$ ;  $Z_{js}$  is C-SPAN channel *Position* in  $j$  and  $s$ ;  $\tau_{st}$  is a state-year fixed effect; and  $X'_{ijst}$  includes additional covariates to be enumerated below. Standard errors are clustered by House member.

Table 3 reports the results for the first set of outcomes on legislator effort and independence. Panel A looks at the number of representatives' *Witnesses* in front of Congress committees, a measure of costly effort by politicians. This measure and the others are described in Section 3. Congruence has a positive effect on effort, as shown by the significant positive effect on the number of Witnesses (Columns 1,2, 5,6). Meanwhile, we find no effect of C-SPAN on effort (Columns 3-6).

Panel B looks at the alignment of representatives' roll call votes with party leadership, a direct measure of *Party Loyalty*. Congruence negatively affects party loyalty, consistent with more independence and alignment with constituents (Columns 7, 8, 11, 12). Here again we find no effect of C-SPAN on party loyalty (Columns 9-12).<sup>10</sup> Overall, we have evidence that more local news coverage increases legislator effort and independence (as in Snyder and Stromberg), while more visibility on parliamentary debates does not.

One interpretation of the local-news effect on party loyalty is that it reflects a greater responsiveness to a Congress Member's local constituency. To explore this more directly, Table 4 reports additional results with outcomes indicating a localist/constituency-focused orientation. First, in Panel A, we report results for participation in committees oriented

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<sup>10</sup> As an alternative measure of partisan loyalty, Appendix Table A.25 looks at the effect of congruence and C-SPAN on partisan voting, as measured by DW-NOMINATE. We find a weak but negative effect of congruence on political extremism, consistent with an alignment to the relatively moderate median constituent. We find instead no effect of C-SPAN.

Table 3: POLITICIANS' BEHAVIOR UNDER MEDIA CONGRUENCE AND C-SPAN

**Panel A:** Witness Appearances

	(1)	(2)	(3)	(4)	(5)	(6)
Media Congruence	0.140** [0.066]	0.306*** [0.092]			0.145** [0.068]	0.308*** [0.094]
C-SPAN Position			-0.011 [0.049]	-0.021 [0.053]	0.019 [0.050]	0.009 [0.053]
Observations	1331	1331	1331	1331	1331	1331
R-squared	0.27	0.33	0.26	0.30	0.28	0.33

**Panel B:** Party Loyalty

	(7)	(8)	(9)	(10)	(11)	(12)
Media Congruence	-0.264*** [0.056]	-0.150** [0.074]			-0.267*** [0.057]	-0.148** [0.075]
C-SPAN Position			0.040 [0.055]	0.020 [0.052]	-0.014 [0.054]	0.006 [0.053]
Observations	1331	1331	1331	1331	1331	1331
R-squared	0.15	0.21	0.11	0.20	0.15	0.21
State-Congress	✓	✓	✓	✓	✓	✓
Urban		✓		✓		✓
Income-Educ		✓		✓		✓

*Notes.* Each entry corresponds to a separated OLS regression of the dependent variable (standardized) on media market *Congruence* and C-SPAN Channel *Position* (standardized). The dependent variables are *Witnesses Appearances* in Panel A, and *Party Loyalty* in Panel B. The sample is composed of all Democrat and Republican Members of the House of Representatives, between 1998 to 2004. All columns include State-Congress fixed effects. *Urban* indicates the inclusion of controls for population (log), density (log), the share of urban population, of Hispanic, Asian, black and white population, of women, and of working age population. *Income-Educ* includes the share of college educated, high-school dropouts, food stamp recipients, and median household income (log). Standard errors are clustered at the politician level. \*, \*\*, \*\*\* denote significance at the 10%, 5%, and 1% levels, respectively.

Table 4: CONSTITUENCY ORIENTATION, BY MEDIA CONGRUENCE AND C-SPAN

**Panel A:** Constituency-Oriented Hearings

	(1)	(2)	(3)	(4)	(5)	(6)
Media Congruence	0.259*** [0.060]	0.194** [0.078]			0.243*** [0.061]	0.187** [0.078]
C-SPAN Position			-0.111** [0.055]	-0.049 [0.054]	-0.061 [0.055]	-0.030 [0.055]
Observations	1323	1323	1323	1323	1323	1323
R-squared	0.16	0.25	0.13	0.24	0.16	0.25

**Panel B:** Localism

	(7)	(8)	(9)	(10)	(11)	(12)
Media Congruence	-0.014* [0.007]	-0.003 [0.010]			-0.011 [0.008]	0.001 [0.010]
C-SPAN Position			0.012* [0.007]	0.012* [0.007]	0.010 [0.007]	0.012* [0.007]
Observations	506373	506373	497322	497322	497322	497322
R-squared	0.03	0.04	0.03	0.04	0.03	0.04
State-Congress	✓	✓	✓	✓	✓	✓
Urban		✓		✓		✓
Income-Educ		✓		✓		✓

*Notes.* This table reports reduced form regressions of the respective dependent variable (standardized) on the instruments – media market *Congruence* and C-SPAN Channel *Position* (standardized). The dependent variable is *Constituency-Orientation* in Panel A, and *Localism* in Panel B. The sample is composed of all Democrat and Republican Members of the House of Representatives, between 1998 to 2004. All columns include State-Congress fixed effects. *Urban* indicates the inclusion of controls for population (log), density (log), the share of urban population, of Hispanic, Asian, black and white population, of women, and of working age population. *Income-Educ* includes the share of college educated, high-school dropouts, food stamp recipients, and median household income (log). Standard errors are clustered at the politician level. \*, \*\*, \*\*\* denote significance at the 10%, 5%, and 1% levels, respectively.

towards appropriating funds for constituencies rather than broader policy-oriented committees. Congruence has a positive effect on participation in *Constituency-Oriented* committees (Columns 1,2, 5, 6). In Column 3, we see a negative coefficient on C-SPAN; because this is a reduced-form specification (regressing the constituency outcome directly on C-SPAN channel position), a negative coefficient would indicate a positive effect of C-SPAN viewership on constituency-oriented ones. However, the effect in Column 3 is no longer significant with controls or when Congruence is also included (Columns 4-6).

Next, in Panel B we look at a speech-based (rather than behavioral) measure of localism. To proxy for localist rhetoric, we take the frequency of mentions of localities in a Congressman’s district (see Appendix E.4 for details). Here, there is no effect of local news coverage (Media Congruence) on the outcome. Instead, C-SPAN Channel Position has a positive coefficient, indicating that greater C-SPAN viewership reduces localist speech.

Results for alternative measures of localist speech are reported in Appendix Tables A.27 and A.28. Recall, also, that in the topic analysis we saw that C-SPAN increases the discussion of more nationalistic topics related to the American history and heritage, and national party politics (Appendix Table A.16). As shown in Appendix Table A.26 Media Congruence does not affect discussion on those topics.

Media Congruence increases constituency service on committees, while C-SPAN viewership leads to a more nationalized, rather than localized, orientation in Congressional speeches. Overall, they have opposite effects on attention to district constituents. Consistent with the previous results, we find that local news coverage affects behavior, while televised floor debates affect rhetoric.

### 6.3 Discussion

Taken together, these results elaborate the message in Snyder and Strömberg (2010) that higher transparency increases politicians’ effort to represent constituency interests. While that does occur for local newspaper coverage, for transparency achieved through C-SPAN it does not. This difference is likely due to the differences in the audiences for the two treatments. C-SPAN gives direct access to voters to the national policy-making process. Media congruence gives indirect transparency, mediated by local politics journalists who have a

greater understanding/focus on policy outcomes and the implications of those policies for the district. This evidence is consistent with the argument by Prat (2005) that increased direct access on the policy-making process could be the “wrong kind” of transparency. Rather than increasing accountability for good policy decisions that benefit constituents, televising debates encourages politicians to engage in more emotive rhetoric that pushes more nationalized priorities.

These results are also relevant to the literature on party control and nationalization of U.S. politics. In districts where C-SPAN is watched more, parties may push candidates to speak to more encompassing issues or issues of national politics. If those types of issues are also more emotional, that would explain our result on Congress Members from those districts having higher emotionality. In turn, we would also observe less space devoted to local matters and more to national politics. Hence, our evidence is also consistent with a party-centric model where emotionality serves to strengthen voters’ party identity, for example through a common national narrative (Jacobson, 2015). Hence, C-SPAN has accelerated the nationalisation of U.S. politics.

## 7 C-SPAN and the Electoral Process

This section expands on our results to better understand what they say about electoral incentives in U.S. Congress and, in particular, if electoral incentives are a credible mechanism behind our main result. Our conceptual framing suggests that C-SPAN provides a window for politicians to communicate with voters. In this case, congressmen may be using emotional appeals because they want to attract voter attention, with the expectation that the use of emotions is rewarded in the polls. We test this mechanism in two separate analysis. First, we look at whether Congress members’ emotionality responds more to C-SPAN1 where elections are more competitive. If emotionality is used to appeal to voters, we should observe that this behavior is more pronounced when electoral incentives are stronger. Second, we look at whether C-SPAN may provide electoral rewards. We estimate the effect of C-SPAN1 exposure on incumbents’ vote shares, and observe how this effect differs for politicians that engage with more or less emotional rhetoric.

Table 5: EMOTIONALITY AND C-SPAN1 CHANNEL POSITION, BY DISTRICT COMPETITIVENESS

	Competitive Districts				Safe Districts				All
Emotionality	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
C-SPAN Position	-0.054* [0.032]	-0.064** [0.032]	-0.057* [0.031]	-0.058** [0.024]	-0.008 [0.024]	-0.012 [0.023]	-0.015 [0.018]	-0.015 [0.015]	-0.020 [0.013]
Competitive District									0.037 [0.028]
C-SPAN Position $\times$ Comp.									-0.052** [0.025]
State-Year	✓	✓	✓	✓	✓	✓	✓	✓	✓
Urban		✓	✓	✓		✓	✓	✓	✓
Income-Educ		✓	✓	✓		✓	✓	✓	✓
Individual			✓	✓			✓	✓	✓
Cable News				✓				✓	✓
Speech				✓				✓	✓
Observations	244000	244000	244000	244000	250230	250230	250230	250230	494233

*Notes.* Each column shows an OLS regression of the emotionality score in a given speech (standardized) on the average C-SPAN1 channel position in the speaker’s district (standardized). In Columns 1 to 4, the sample is composed of speeches pronounced by Democrat and Republican Members of the House of Representatives who run for re-election in competitive districts at the end of the Congress period. In Columns 5 to 8, the sample is composed of speeches pronounced Representatives who run for re-election in safe districts. Columns 9 reports the analysis on the full sample, including an interaction term between C-SPAN1 channel position and a dummy equal to 1 for competitive districts. All columns include state-year fixed effects. *Urban* indicates the inclusion of controls for population (log), density (log), the share of urban population, of Hispanic, Asian, black and white population, of women, and of working age population. *Income-Educ* includes the share of college educated, high-school dropouts, food stamp recipients, and median household income (log). *Individual* includes dummy variables for speaker’s gender, religion (Catholic, Jewish), party, race (Black, Hispanic, Asian, Native) and control for age and age squared. *Cable News* includes the minimum channel position among other cable news networks. *Speech* indicates controls for speech length (log), word length (log), sentence length (log). Standard errors are clustered at the politician level. \*, \*\*, \*\*\* denote significance at the 10%, 5%, and 1% levels, respectively.

## 7.1 Heterogeneity by District Competitiveness

This section explores whether our results differ by the competitiveness of the Congressional District. We designate a district as *competitive* if neither Democrats nor Republicans have held a strong majority historically. Specifically, we take the average two-party vote shares for 1988-1998 (dropping uncontested elections), and classify a district as safe if the historical vote share is greater or equal to 60% for a single party. Competitive districts are the complement of safe districts. The regression approach is the same as in the main results from Section 5, but with heterogeneity by competitive and safe districts.

The results are reported in Table 5. Columns 1 through 4 show the baseline reduced-form specification for the subset of competitive districts, while Columns 5 through 8 show the same in safe districts. We can see that there is a statistically significant negative effect of

channel position (positive effect of viewership) in competitive districts, but not safe districts. In turn, in Column 9 we pool the sample and interact the instrument with our indicator for competitive district. There is no effect on the channel-position baseline, but a statistically significant interaction with competitiveness.

These estimates show that politicians respond to C-SPAN in emotional rhetoric more in districts where electoral competition is more intense. That result is robust to including other district covariates, suggesting that the competitiveness interaction effect is not proxying for other correlated district characteristics. Hence, we have evidence that higher television exposure influences rhetoric through an electoral pressures mechanism.

## 7.2 Effect of C-SPAN on Electoral Outcomes

We posit that politicians may respond to C-SPAN with emotional rhetoric with the intent of maximizing electoral returns. If this is true, we may observe that C-SPAN increases Representatives' vote shares in the next election, and more so for those who use high emotionality. Here we look for effects of C-SPAN on voting outcomes for Congress Members.

We collapse the data to the politician and session level, with speech-level variables averaged over the congress period. We then regress incumbent vote share on C-SPAN position and on media congruence. The results are reported in Table 6.

First, in Panel A we look at the effect of C-SPAN on incumbent vote share. Across different specifications (Columns 1-5), a lower C-SPAN channel position (hence a higher viewership) corresponds to a larger vote share for the incumbent House member in the next election. Panel A Columns 6 and 7 show the incumbency effect but separately by politicians who use more or less emotions, after controlling for other speech characteristics. Specifically, Low Emotion and High Emotion stand for splitting the sample over the median of emotionality over the whole time period (after collapsing). We find that C-SPAN1 helps incumbents in both samples, but there is more than double the coefficient size in the high-emotion sample (Column 7). This suggests that the electoral rewards of higher visibility obtained through C-SPAN are amplified by the use of emotional rhetoric. Appendix Table A.20 reports the 2SLS estimates of the effect of C-SPAN1 viewership on incumbents' vote shares: a one standard deviation increase in viewership translates into a 0.7 to 0.8 of a standard deviation increase



Table 6: EFFECT OF C-SPAN ON INCUMBENT VOTE SHARE

**Panel A:** Effect of C-SPAN1 on Incumbent Vote Share

	(1)	(2)	(3)	(4)	(5)	Low Emotion (6)	High Emotion (7)
C-SPAN Position	-0.095*** [0.035]	-0.103*** [0.034]	-0.118*** [0.033]	-0.119*** [0.033]	-0.118*** [0.033]	-0.088** [0.042]	-0.196*** [0.047]
Observations	2460	2460	2460	2460	2460	1224	1124

**Panel B:** Effect of Media Congruence on Incumbent Vote Share

	(8)	(9)	(10)	(11)	(12)	Low Emotion (13)	High Emotion (14)
Media Congruence	0.007 [0.054]	-0.020 [0.056]	-0.012 [0.056]	-0.014 [0.056]	-0.016 [0.056]	-0.034 [0.069]	-0.029 [0.076]
Observations	2533	2533	2533	2533	2533	1246	1175
State-Congress	✓	✓	✓	✓	✓	✓	✓
Urban	✓	✓	✓	✓	✓	✓	✓
Income-Educ		✓	✓	✓	✓	✓	✓
Individual			✓	✓	✓	✓	✓
Cable				✓	✓	✓	✓
Speech					✓	✓	✓

*Notes.* Each column shows an OLS regression of the share of votes received by the speaker over total votes cast in the upcoming election (standardized) on the average C-SPAN1 channel position in the speaker's district (standardized) in panel A, or media market congruence in panel B. In Columns 1 to 5 and 8 to 12, the sample is composed of Democrat and Republican Members of the House of Representatives who spoke in the House at least once, and run for re-election at the end of the Congress period. In Columns 6, 7, 13 and 14 the sample is split over the median level of emotionality. All columns include state-Congress fixed effects. *Urban* indicates the inclusion of controls for population (log), density (log), the share of urban population, of Hispanic, Asian, black and white population, of women, and of working age population. *Income-Educ* includes the share of college educated, high-school dropouts, food stamp recipients, and median household income (log). *Individual* includes dummy variables for speaker's gender, religion (Catholic, Jewish), party, race (Black, Hispanic, Asian, Native) and control for age and age squared. *Cable News* includes the minimum channel position among other cable news networks. *Speech* indicates controls for speech length (log), word length (log), sentence length (log), averaged over Congress and District. Standard errors are clustered at the politician level. \*, \*\*, \*\*\* denote significance at the 10%, 5%, and 1% levels, respectively.

in vote shares.

Appendix Table A.19 shows that those effects are not driven by C-SPAN increasing voter turnout. However, Appendix Table A.21 shows that C-SPAN1’s electoral benefits – and their interaction with emotionality – are largest for politicians with a relatively shorter tenure in office. The use of emotionality for more experienced politicians is rewarded with smaller electoral benefits. That provides additional support for an interpretation that our results are due to C-SPAN’s amplification of emotional rhetoric and subsequent voter persuasion.

We contrast those results with the null effects of media market congruence on incumbents’ vote shares, in Panel B. Higher media market congruence, hence higher local news coverage of local House members, does not systematically translate into higher vote share in the next election (Columns 8-12). That null result is consistent with the finding by Gentzkow et al. (2011) that local newspaper entry does not affect incumbent vote share.

This evidence shows that C-SPAN helps incumbents win re-election. That effect is larger for the more emotive politicians. The effect is larger for newer politicians who need more of a boost. There is no evidence for such a mediator in the case of newspapers. Overall, this evidence is consistent with a model where emotional rhetoric can persuade voters, and televised debates make that rhetoric more visible. C-SPAN has therefore motivated politicians to use more rhetoric, and thereby made them safer in their seats.

## 8 Conclusion

Television is an emotional medium. In turn, we find that increased visibility of Congress Members via television is associated with more emotional rhetoric, at the expense of more rational, deliberative discussions. The effect holds for two identification strategies using both panel and cross-sectional variation. Further, we compare direct transparency through televised debates to mediated transparency through news coverage, and the effects are different. While C-SPAN increases emotionality of rhetoric, newspaper coverage increases legislative effort on behalf of constituents. Finally, C-SPAN increases the incumbency advantage.

This work adds to the literature on media coverage and political accountability (Gentzkow, 2006; Snyder and Strömberg, 2010; Strömberg, 2015). We show that transparency through di-

rect television broadcasts affects rhetorical choices. To the extent that emotionality increases polarization, this could be another channel for TV to increase divisiveness in politics.

This paper invites future work in a number of directions. The use of channel position as an instrument for C-SPAN is novel and could be used for other research questions about the effect of televised debates, for example about local knowledge of politics. Further, television exposure might have an interaction effect with the electoral cycle. These are promising areas for future analysis.

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# Emotion and Reason in Political Language

## Supporting Information

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## A Additional Material on Data

### A.1 Text and Vocal Pitch Measures of Emotionality

Table A.1 shows the OLS relationship between Gennaro and Ash (2021)’s text-based measure of emotionality and Dietrich et al. (2019)’s vocal pitch measure, which captures emotionality as reflected in voice modulations. Dietrich et al. (2019) use speech extracts over the period 2009-2014, and include indications of the day and politician name. We aggregate those data at the politician-day level, and match them with aggregates from all speeches by politician-day in Gennaro and Ash (2021).

Column 1 shows that the unconditional correlation between the two measure is positive and significant. Column 2 includes a gender control, and shows that the correlation hold after removing between-gender variation in vocal pitch and semantic choices. Similarly, column 3 shows that the correlation survives the inclusion of party controls. In column 4 we include individual politician fixed effects. The correlation is smaller in magnitude, but still positive and significant. This suggests that the text-based measure of emotionality captures relatively subtle variation in semantic expressions of emotions that correspond to changes in vocal (non semantic) modulations, both across and within individuals.

Table A.1: CORRELATION BETWEEN TEXT AND VOICE BASED EMOTIONALITY

Emotion in Text	(1)	(2)	(3)	(4)
Emotion as Vocal Pitch	0.11*** (0.01)	0.10*** (0.01)	0.10*** (0.01)	0.09*** (0.01)
Male		-0.04 (0.02)		
Republican			-0.08*** (0.01)	
R-squared	0.01	0.01	0.01	0.16
Observations	23796	23796	23796	23796

*Notes.* Each column shows the OLS regression of emotionality by day and speaker as measured in Gennaro and Ash (2021) (standardized), and emotionality as measured in Dietrich et al. (2019) (standardized). Column includes a dummy for gender, column 3 includes a dummy for party, column 4 includes individual fixed effects. \*, \*\*, \*\*\* denote significance at the 10%, 5%, and 1% levels, respectively.

## A.2 Summary Statistics

Table A.2: SUMMARY STATISTICS: IV VARIABLES

	Count	Mean	SD	Min	Max
<b>Main Variables</b>					
Standardized values of score	497910	-0.006	0.998	-2.957	3.492
C-SPAN1 Share 2004	497910	0.086	0.061	0.000	0.525
C-SPAN1 Share 1998-2004	497910	33.509	10.281	6.073	76.937
<b>Speech Variables</b>					
Speech Length	497910	96.004	170.343	1	10289
Avg Word Length	497910	5.666	0.705	2.000	15.000
Avg Sentence Length	497910	16.581	8.136	1.000	277.500
<b>Individual Variables</b>					
Female	497910	0.125	0.330	0	1
Catholic	497910	0.294	0.456	0	1
Jewish	497910	0.069	0.254	0	1
Republican	497910	0.510	0.500	0	1
Black	497910	0.107	0.309	0	1
Hispanic	497910	0.025	0.155	0	1
Asian	497910	0.008	0.092	0	1
Native	497910	0.002	0.042	0	1
Age	497910	57.801	10.062	27	91
<b>District Variables</b>					
Population	497910	638668.553	87402.803	395349	1030361
Population Density	497910	1443.789	3013.071	19.156	33783.345
% Urban	497910	0.712	0.288	0.000	1.000
% Hispanic	497910	0.149	0.145	0.008	0.822
% Black	497910	0.141	0.158	0.004	0.838
% Asian	497910	0.045	0.051	0.003	0.412
% White	497910	0.716	0.178	0.099	0.970
% Female	497910	0.509	0.009	0.484	0.553
% Working Age Population	497910	0.641	0.025	0.574	0.769
% High-School Dropouts	497910	0.147	0.061	0.036	0.500
% College Graduates	497910	0.281	0.101	0.071	0.656
Median Households Income	497910	56563.065	15533.456	25655.431	113044.365
(mean) med value	497910	235083.189	145072.067	68893.325	869927.488
% Households on Food Stamps	497910	0.114	0.054	0.021	0.448

*Notes.* Main summary statistics for all variables included in the IV analysis.

## B Additional Difference-in-Differences results

### B.1 Difference-in-Differences Regression

Table A.3 reports the results of a simple difference-in-differences model. In particular, we estimate

$$Y_{ijt} = \alpha + \beta_m H_j \times Post_{jt} + H_j + Post_{jt} + \tau_t + \epsilon_{ijt} \quad (6)$$

where  $Post_{jt}$  is a dummy equal to 1 for speeches pronounced during or after 1979, and all other variables are described in Equation 1. Standard errors are clustered by speaker.

Table A.3: DIFFERENCE-IN-DIFFERENCES

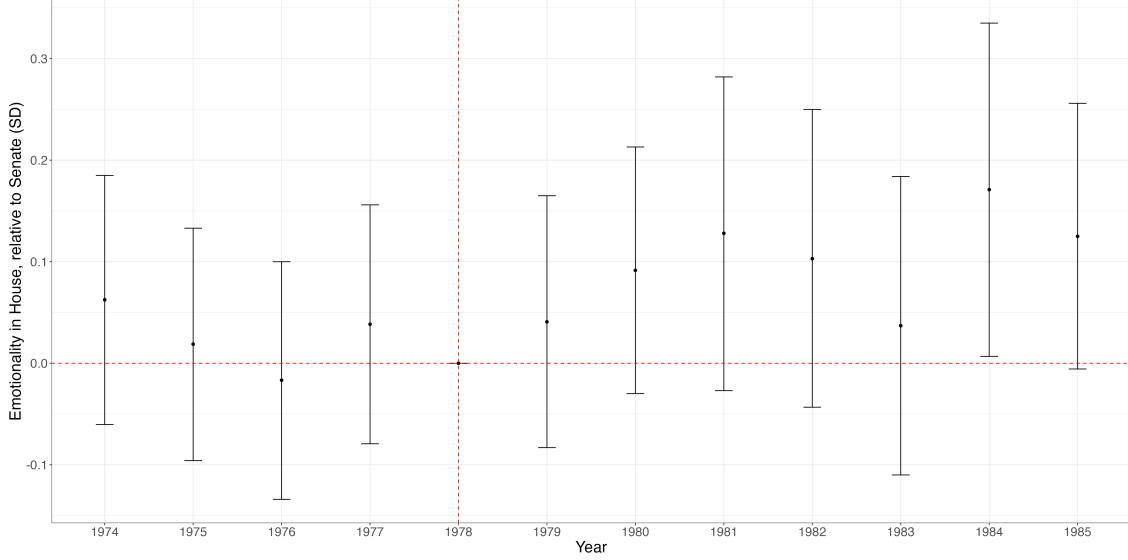
	1977-1981		1975-1983		1973-1985	
	(1)	(2)	(3)	(4)	(5)	(6)
House	0.108*** [0.030]	0.075*** [0.023]	0.100*** [0.021]	0.064*** [0.017]	0.110*** [0.019]	0.068*** [0.016]
House $\times$ Post	0.073* [0.042]	0.079** [0.031]	0.088*** [0.032]	0.096*** [0.026]	0.105*** [0.028]	0.109*** [0.023]
Year FE	✓	✓	✓	✓	✓	✓
Individual		✓		✓		✓
Mean DV	-0.03	-0.03	-0.02	-0.02	-0.00	-0.00
Observations	390631	390631	689579	689579	892694	892694
R2	0.01	0.02	0.01	0.01	0.01	0.02

*Notes.* Each column shows the regression of emotionality on indicator variables for the House of Representatives, the period after C-SPAN, and their interaction. The sample is composed of all speeches pronounced by Democrat and Republican Members of the House of Representatives, between 1977 and 1981 in columns 1-2, 1975 and 1983 in columns 3-4, and 1973 and 1985 in columns 5-6. All columns include year fixed effects. *Individual* includes dummy variables for speaker's gender, religion (Catholic, Jewish), party, race (Black, Hispanic, Asian, Native) and control for age and age squared. Standard errors are clustered at the politician level. \*, \*\*, \*\*\* denote significance at the 10%, 5%, and 1% levels, respectively.

### B.2 Selection versus Incentives in C-SPAN Introduction

The C-SPAN effect on emotionality could come from two sources. For one, it may be driven by Members of Congress changing their behavior in response to the introduction of C-SPAN. Alternatively, it could be due to the selection of more emotive members as a consequence of the new environment. To disentangle these two effects, we use an alternative

Figure A.1: EMOTIONALITY AND C-SPAN1 INTRODUCTION: SELECTION EFFECT



Difference -in-Differences estimates of the effect of C-SPAN on Emotionality (equation 7). The horizontal axis indicates Congresses around the first introduction of C-SPAN1 in the House of Representatives (during the 96th Congress); the vertical axis reports the difference in emotionality between the House and the Senate. Vertical lines give 95% confidence intervals.

difference-in-differences model to get at the selection channel based on member starting year.

In particular, the first post-C-SPAN1 election occurred in 1980. Hence, the 97th Congress taking office in 1981 is the first one containing new politicians that ran and won under the new information environment. To get at the selection effect, we compare House Members first elected in a given year to Senators first elected in the same year.<sup>11</sup> Formally, we estimate:

$$Y_{ijt} = \alpha + \sum_{m=-3}^2 \beta_m H_j \times C_{97th+m} + H_j + \sum_{m=-3}^2 C_{97th+m} + \tau_t + \epsilon_{ijt} \quad (7)$$

where now  $C_{97th+m}$  are dummies for leads and lags in the politician's first Congress session, relative to the 97th Congress. The 95th Congress is the left-out category.

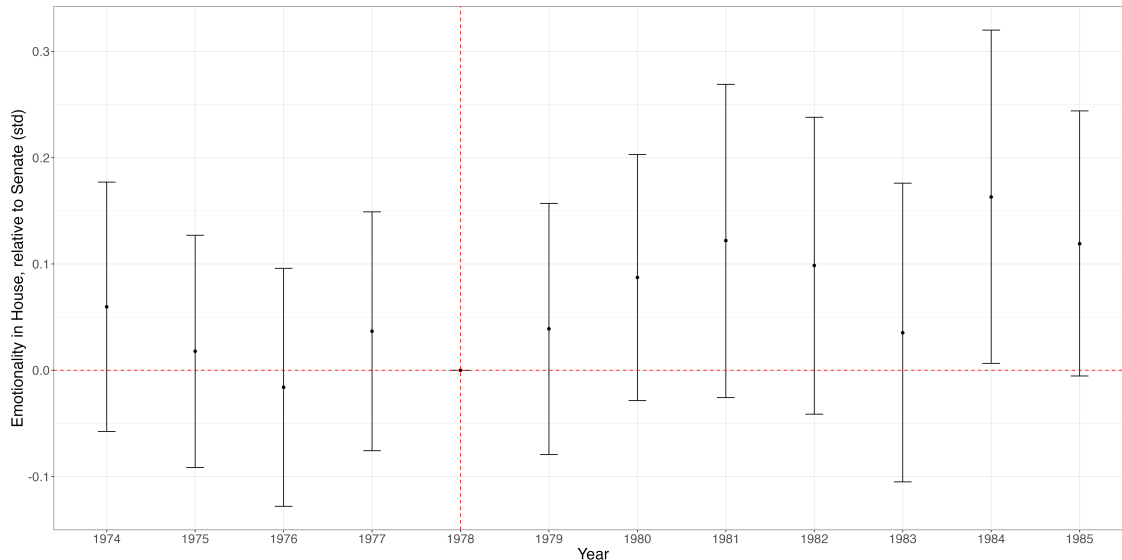
The selection results are reported in Figure A.1. For representatives first joining in the pre-C-SPAN Congresses (96th and before), there is no difference between the House and the Senate, consistent with parallel trends in starting year. However, House Members who are

<sup>11</sup>We only include people whose tenure start in the year after the election, i.e. those who have been elected in the general congressional election. We exclude cases of special elections.

first elected after C-SPAN1 was introduced (in the 97th Congress) use significantly more emotionality than Senators first elected in that same election cycle.

Meanwhile, to look for an incentive effect that changes the emotionality of incumbent politicians, Appendix Figure A.2 shows the first event-study specification from equation 1 but limited to the sub-sample of Congress Members elected in 1978 or earlier. While we still get positive coefficients, they are noisier and not all significant.

Figure A.2: EMOTIONALITY AND C-SPAN1 – FOR POLITICIANS ELECTED BEFORE 1980



Difference -in-Differences estimates of the effect of C-SPAN on Emotionality (equation 1). The sample includes all Republican and Democrats elected for the first time 1970, 1972, 1974, 1976, 1978. The horizontal axis indicates Years around the first introduction of C-SPAN1 in the House of Representatives (1979); the vertical axis reports the difference in emotionality between the House and the Senate. Vertical lines are 95% confidence intervals.

Overall, this analysis suggests that C-SPAN increased emotionality through both selection and incentive effects. First, it selected for more emotive Congressmen. Second, the incumbents became more emotive.

### B.3 Effect on Other Outcomes

Table A.4 reports the difference-in-differences estimates for the effect of C-SPAN on additional outcome variables. While the House and Senate differ in some rhetorical aspects, these are mostly not systematically affected by the introduction of C-SPAN in the House.



The exception is speech length. With the introduction of C-SPAN, speeches become shorter.

Table A.4: EFFECT OF C-SPAN INTRODUCTION ON OTHER OUTCOMES

	(1) DW-NOM	(2) Extremism	(3) Sentiment	(4) Speech Length	(5) Word Length	(6) Sentence Length
House	0.161 [0.127]	-0.001 [0.013]	0.166*** [0.030]	0.233*** [0.025]	0.039** [0.017]	0.170*** [0.021]
House $\times$ Post	-0.114 [0.174]	0.022 [0.017]	0.035 [0.039]	-0.073** [0.034]	0.015 [0.025]	-0.025 [0.030]
Year FE	✓	✓	✓	✓	✓	✓
Mean DV	-0.05	0.13	-0.01	-0.04	-0.00	-0.02
Observations	388568	388568	390665	390665	390665	390665
R2	0.01	0.01	0.01	0.01	0.00	0.01

*Notes.* Each column shows the regression of a different dependent variable on indicator variables for the House of Representatives, the period after C-SPAN, and their interaction. The sample is composed of all speeches pronounced by Democrat and Republican Members of the House of Representatives, between 1977 and 1981. All columns include year fixed effects. Standard errors are clustered at the politician level. \*, \*\*, \*\*\* denote significance at the 10%, 5%, and 1% levels, respectively.

## C Robustness on the IV Analysis

### C.1 First stage

Table A.5: FIRST STAGE EFFECT OF C-SPAN1 CHANNEL POSITION ON VIEWERSHIP

Viewership	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Position	-0.147*** [0.045]	-0.124*** [0.039]	-0.144*** [0.036]	-0.154*** [0.036]	-0.149*** [0.037]	-0.149*** [0.037]	-0.149*** [0.037]
State-Year	✓	✓	✓	✓	✓	✓	✓
Urban		✓	✓	✓	✓	✓	✓
Income-Educ			✓	✓	✓	✓	✓
Individual				✓	✓	✓	✓
Cable News					✓	✓	✓
Speech						✓	✓
Topics							✓
Mean DV	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01
Observations	497910	497910	497910	497910	497910	497910	497910

*Notes.* Each column shows the first stage that correspond to the 2-stage-least-squares specifications in Table 2. The endogenous variable, i.e. Viewership, is regressed on the instrument, i.e. C-SPAN1 channel position in the speaker's district. The sample is composed of all speeches pronounced by Democrat and Republican Members of the House of Representatives, between 1998 and 2014. All columns include State-year fixed effects. *Urban* indicates the inclusion of controls for population (log), density (log), the share of urban population, of Hispanic, Asian, black and white population, of women, and of working age population. *Income-Educ* includes the share of college educated, high-school dropouts, food stamp recipients, and median household income (log). *Individual* includes dummy variables for speaker's gender, religion (Catholic, Jewish), party, race (Black, Hispanic, Asian, Native) and control for age and age squared. *Cable News* indicates the minimum channel position among other cable news channels. *Speech* indicates controls for speech length (log), word length (log), sentence length (log). *Topics* indicates topic fixed effects. Standard errors are clustered at the politician level. \*, \*\*, \*\*\* denote significance at the 10%, 5%, and 1% levels, respectively.

## C.2 Reduced form

Table A.6: REDUCED FORM: EMOTIONALITY AND C-SPAN1 POSITION

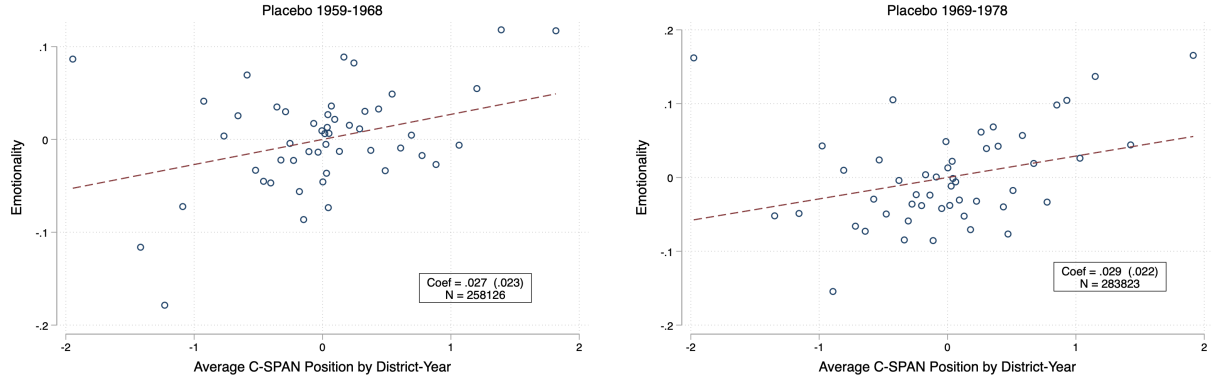
Emotionality	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Position	-0.043** [0.019]	-0.045** [0.018]	-0.051*** [0.018]	-0.042*** [0.016]	-0.040** [0.016]	-0.038*** [0.013]	-0.024*** [0.008]
State-Year	✓	✓	✓	✓	✓	✓	✓
Urban		✓	✓	✓	✓	✓	✓
Income-Educ			✓	✓	✓	✓	✓
Individual				✓	✓	✓	✓
Cable News					✓	✓	✓
Speech						✓	✓
Topics							✓
Mean DV	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01
Observations	497910	497910	497910	497910	497910	497910	497910

*Notes.* Each column shows the OLS regression of the emotionality score in a given speech (standardized) on the average C-SPAN1 channel position in the speaker's district (standardized). The sample is composed of all speeches pronounced by Democrat and Republican Members of the House of Representatives between 1998 and 2014. All columns include State-year fixed effects. *Urban* indicates the inclusion of controls for population (log), density (log), the share of urban population, of Hispanic, Asian, black and white population, of women, and of working age population. *Income-Educ* includes the share of college educated, high-school dropouts, food stamp recipients, and median household income (log). *Individual* includes dummy variables for speaker's gender, religion (Catholic, Jewish), party, race (Black, Hispanic, Asian, Native), and controls for age and age squared. *Cable News* indicates the minimum channel position among other cable news channels. *Speech* indicates controls for speech length (log), word length (log), and sentence length (log). *Topics* indicates topic fixed effects. Standard errors are clustered at the politician level. \*, \*\*, \*\*\* denote significance at the 10%, 5%, and 1% levels, respectively.

## C.3 Pre-C-SPAN Placebo for IV Analysis

In this section, we report a placebo analysis that adds confidence in the exogeneity of the instrument. In particular, we regress emotionality in the two decades before the introduction of C-SPAN, on C-SPAN channel position. A non-significant association indicates that C-SPAN channel position does not depend on pre-CSPAN emotionality levels. Figure A.3 plots the main associations. Table A.7 reports the estimates when including different sets of controls.

Figure A.3: PLACEBO: REDUCED FORM EFFECT ON PRE-C-SPAN EMOTIONALITY



Binned scatter plot of emotionality in two decades before the introduction of C-SPAN1 (1959-1968 and 1969-1978), and C-SPAN1 channel position. The horizontal axis reports the average C-SPAN1 channel position in the speaker's district-year; the vertical axis reports the average emotionality score by bin.

Table A.7: PLACEBO: REDUCED-FORM EFFECT ON PRE-C-SPAN EMOTIONALITY

	1959-1968				1969-1978			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Position	0.027 [0.023]	0.022 [0.018]	0.011 [0.010]	0.015 [0.010]	0.029 [0.022]	0.023 [0.020]	0.016 [0.013]	0.016 [0.012]
State-Year	✓	✓	✓	✓	✓	✓	✓	✓
Individual		✓	✓	✓		✓	✓	✓
Topics			✓	✓			✓	✓
Speech				✓				✓
Observations	258126	258126	258126	258126	283823	283823	283823	283823
R-squared	0.02	0.03	0.40	0.42	0.03	0.03	0.36	0.38

*Notes.* Each column shows the OLS regression of the standardized emotionality score in a given speech on the average C-SPAN1 channel position in the speaker's district. The sample is composed of all speeches pronounced by Democrat and Republican Members of the House of Representatives, between 1959-1968 and 1969-1978. All columns include State-year fixed effects. *Individual* includes dummy variables for speaker's gender, religion (Catholic, Jewish), party, race (Black, Hispanic, Asian, Native) and control for age and age squared. *Speech* indicates the inclusion of controls for speech length (log), word length (log), sentence length (log). *Topic* indicates the inclusion of topic fixed effects. Standard errors are clustered at the politician level. \*, \*\*, \*\*\* denote significance at the 10%, 5%, and 1% levels, respectively.

## C.4 C-SPAN2 IV Placebo

In this section, we report an additional placebo analysis. We regress emotionality for House representatives, on C-SPAN2 channel position, i.e. the channel that transmits from the Senate. Results reported in Table A.8 show that there is no causal effect of C-SPAN2 on emotionality in the House.

Table A.8: EMOTIONALITY AND C-SPAN2 POSITION: PLACEBO

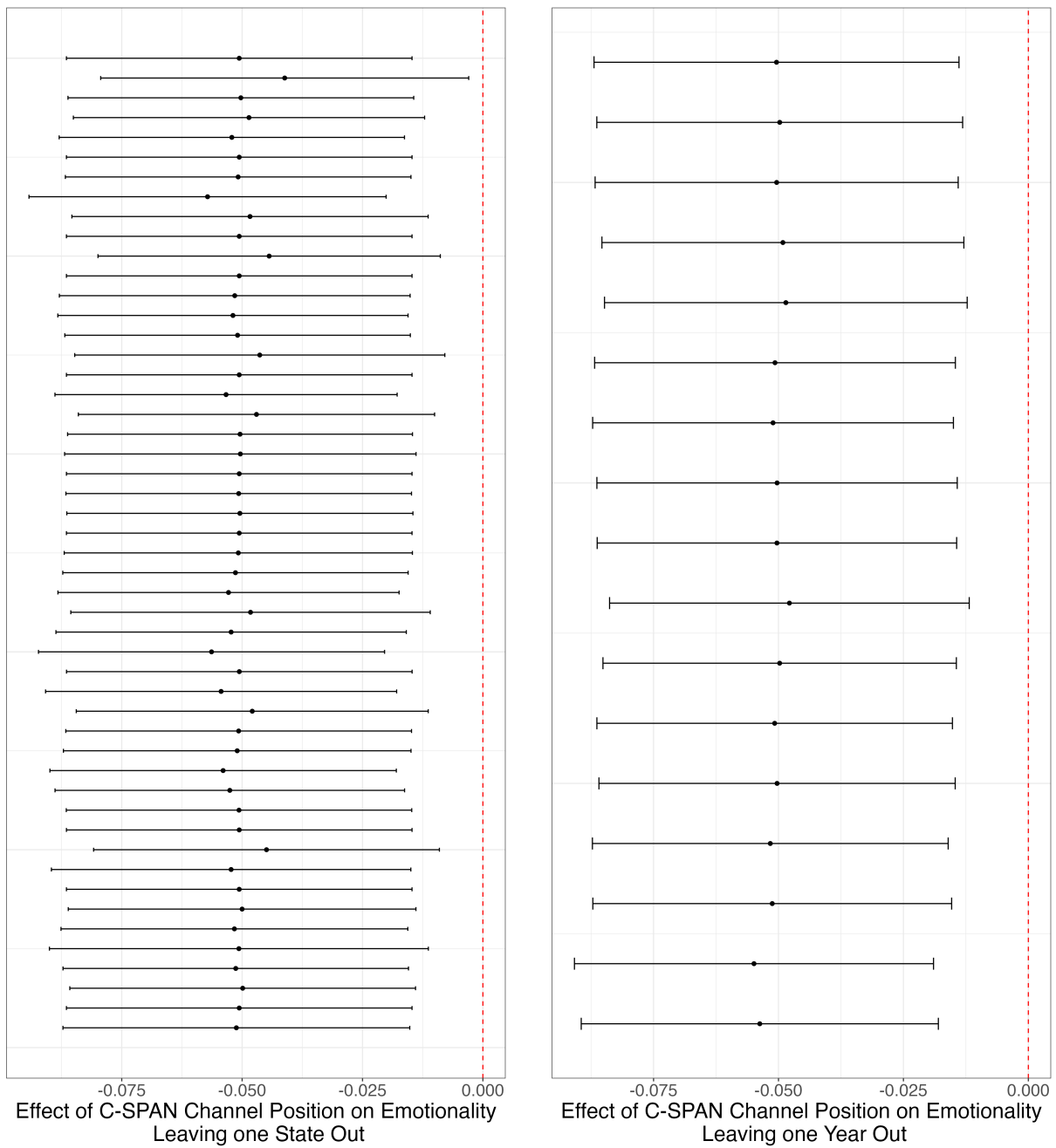
Emotionality	(1)	(2)	(3)	(4)	(5)	(6)	(7)
C-SPAN2 Position	-0.013 [0.023]	-0.013 [0.021]	-0.013 [0.020]	-0.008 [0.018]	-0.008 [0.019]	-0.010 [0.015]	-0.001 [0.010]
State-Year	✓	✓	✓	✓	✓	✓	✓
Urban		✓	✓	✓	✓	✓	✓
Income-Educ			✓	✓	✓	✓	✓
Individual				✓	✓	✓	✓
Cable News					✓	✓	✓
Speech						✓	✓
Topics							✓
Mean DV	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01
Observations	497910	497910	497910	497910	497910	497910	497910
R-squared	0.04	0.05	0.06	0.07	0.07	0.21	0.51

*Notes.* Each column shows placebo specifications, i.e. the OLS regression of the standardized emotionality score in a given speech on the average C-SPAN2 channel position in the speaker's district. The sample is composed of all speeches pronounced by Democrat and Republican Members of the House of Representatives, between 1998 and 2014. All columns include State-year fixed effects. *Urban* indicates the inclusion of controls for population (log), density (log), the share of urban population, of Hispanic, Asian, black and white population, of women, and of working age population. *Income-Educ* includes the share of college educated, high-school dropouts, food stamp recipients, and median household income (log). *Individual* includes dummy variables for speaker's gender, religion (Catholic, Jewish), party, race (Black, Hispanic, Asian, Native), and controls for age and age squared. *Cable News* indicates the minimum channel position among other cable news channels. *Speech* indicates controls for speech length (log), word length (log), and sentence length (log). *Topics* indicates topic fixed effects. Standard errors are clustered at the politician level. \*, \*\*, \*\*\* denote significance at the 10%, 5%, and 1% levels, respectively.

## C.5 Sample Perturbation Checks

Figure A.4 reports the main estimates as in Column 3 of Table 1, while dropping either one state (left panel) or one year (right panel) for each estimate. Results are stable across estimates, suggesting that there is no specific state or year driving the results.

Figure A.4: LEAVE-ONE-OUT: EMOTIONALITY AND C-SPAN1 CHANNEL POSITION,  
DROPPING ONE STATE AND YEAR AT A TIME



Regression of emotionality on C-SPAN1 channel position, leaving one group of observation out. Observations are dropped by State (on the left) and by Year (on the right)

## C.6 Instrument Balance

Table A.9 reports the results of a balance check of the instrument on several pre-C-SPAN characteristics.

Table A.9: INSTRUMENT BALANCE: DISTRICT LEVEL

District characteristics	Beta	SE	P-val
Population (log)	-.0001377	.0037645	.9710074
Population Density (log)	-.0457545	.0190423	.0211275
Urban Population (%)	.0197805	.0060265	.002177
High-school dropouts (%)	.0023935	.0016019	.1431748
College educated (%)	-.0023431	.0018053	.2019572
Hispanic (%)	-.0008908	.0029344	.7630628
Black (%)	.0018865	.0014505	.20104
Asian (%)	.0005813	.000927	.5342503
White (%)	.0020895	.0016981	.2259023
Female (%)	.000285	.0003226	.3824562
Working Age (%)	.0007452	.0008224	.3704205
Median household income (log)	-.0020342	.0029171	.4897445
Median individual income (log)	.0157676	.0102083	.1305227
Use of Food Stamps (%)	-.0026541	.0012158	.0351187
Members of Congress			
Female (avg)	-.0018338	.0174874	.9170195
Catholic (avg)	-.0168963	.0198344	.399489
Jewish (avg)	-.0147417	.0124345	.2429754
Republican (avg)	.0092847	.0201074	.6468219
Black (avg)	.019737	.0175456	.2675092
Hispanic (avg)	-.0058298	.0118566	.6256939
Asian (avg)	-.0057167	.0082667	.493325
Native (avg)	.0006227	.000693	.3743658
Age (avg)	-.0100216	.3693424	.9784915

*Notes.* Each Beta is the estimated coefficient of a separate OLS regression of the indicated variable on the instrument, i.e. the average C-SPAN1 channel position in the speaker's district, and all remaining variables as controls. The sample is composed of all electoral districts in the main sample. All regressions include State fixed effects. Standard errors are clustered at the State level. \*, \*\*, \*\*\* denote significance at the 10%, 5%, and 1% levels, respectively.



## C.7 Determinants of Viewership

Table A.10 reports the results of regressing district characteristics on C-SPAN1 viewership in the same district. C-SPAN has higher ratings in districts with higher college education rates and lower household income.

Table A.10: DETERMINANTS OF C-SPAN1 VIEWERSHIP

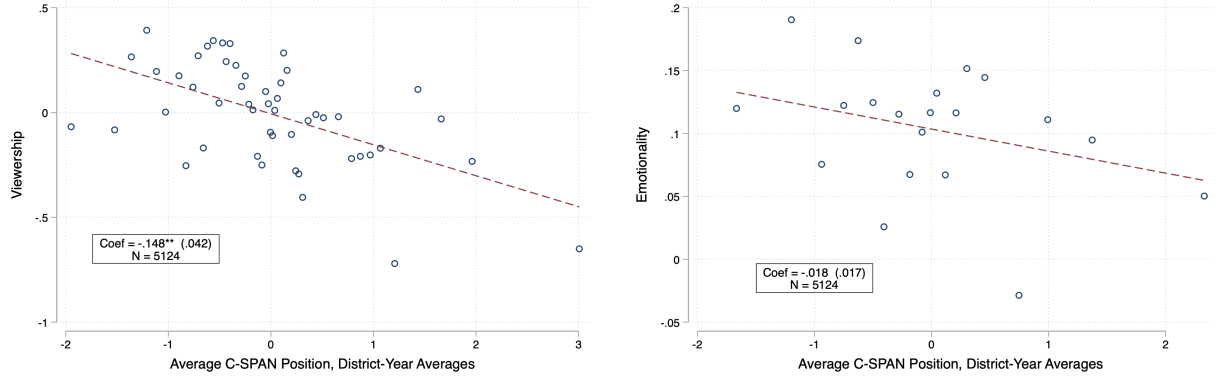
District characteristics	Beta	SE	P-val
Population (log)	-.0050016	.0391799	.8990294
Population Density (log)	-.0214718	.0236482	.3690773
Urban Population (%)	-.0240393	.0277571	.3913781
High-school dropouts (%)	-.0173345	.0208424	.4102865
College educated (%)	.090305	.0234075	.0003871
Hispanic (%)	.0224755	.0166765	.1849694
Black (%)	.0125039	.0096043	.2000441
Asian (%)	.0224306	.0247798	.3705255
Female (%)	.0073703	.0084288	.3868634
White (%)	-.016685	.0392251	.6727421
Working Age (%)	-.0274066	.0466321	.5598678
Median household income (log)	-.0406008	.0114616	.0009868
Median individual income (log)	-.0053188	.0167367	.7522177
Use of Food Stamps (%)	-.0053041	.0206387	.7984338

*Notes.* Each Beta is the estimated coefficient of a separate OLS regression of the indicated variable on C-SPAN1 Viewership at the district level, and all remaining variables as controls. The sample is composed of all electoral districts in the main sample. All regressions include State fixed effects. Standard errors are clustered at the State level. \*, \*\*, \*\*\* denote significance at the 10%, 5%, and 1% levels, respectively.

## C.8 District-level Specification

This section reproduces the main results, at the electoral district level. All variables are collapsed as district-level averages. Figure A.5 reports the main plots of the first stage and reduced form. Table A.11 reports the reduced form results.

Figure A.5: REDUCED FORM: EMOTIONALITY AND C-SPAN1 CHANNEL POSITION, DISTRICT-LEVEL SPECIFICATION



Binned scatter plot of viewership on C-SPAN1 channel position, on the right (first stage), and emotionality on C-SPAN1 channel position, on the left (reduced form). The horizontal axis reports the average C-SPAN1 channel position in the speaker's district-year.

Table A.11: EMOTIONALITY AND C-SPAN1: DISTRICT LEVEL

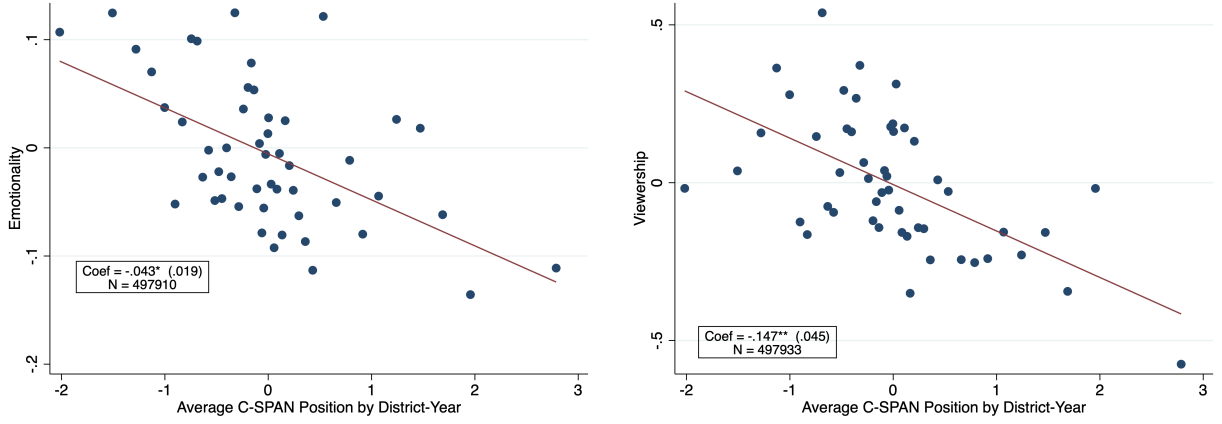
	Reduced Form				2sls			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Position	-0.018 [0.017]	-0.022 [0.016]	-0.030* [0.016]	-0.026* [0.015]				
Viewership					0.119 [0.119]	0.171 [0.127]	0.244* [0.144]	0.201 [0.122]
State	✓	✓	✓	✓	✓	✓	✓	✓
Year	✓	✓	✓	✓	✓	✓	✓	✓
Urban		✓	✓	✓		✓	✓	✓
Income-Educ			✓	✓			✓	✓
Individual				✓				✓
KP F-stat					7.639	10.464	10.644	11.480
Mean	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
Observations	5124	5124	5124	5124	5124	5124	5124	5124
R-squared	0.09	0.11	0.12	0.17	-0.05	-0.07	-0.14	-0.02

*Notes.* Each column shows the OLS regression of the average standardized emotionality score in speeches pronounced by a congressman in a given year, on the average C-SPAN1 channel position in the speaker's district. The sample is composed of all speeches pronounced by Democrat and Republican Members of the House of Representatives, between 1959-1968 and 1969-1978. All columns include State and Year fixed effects. *Urban* indicates the inclusion of controls for population (log), density (log), the share of urban population, of Hispanic, Asian, black and white population, of women, and of working age population. *Income-Educ* includes the share of college educated, high-school dropouts, food stamp recipients, and median household income (log). *Individual* includes dummy variables for speaker's gender, religion (Catholic, Jewish), party, race (Black, Hispanic, Asian, Native), and controls for age and age squared. Standard errors are clustered at the politician level. \*, \*\*, \*\*\* denote significance at the 10%, 5%, and 1% levels, respectively.

## C.9 Main results with i.h.s. transformation

In this section, we test the robustness of our results to the presence of outliers. In particular, we replicate the same results after applying an inverse hyperbolic sine transformation to the C-SPAN Channel Position and C-SPAN Viewership variables. Figure A.6 reproduces the main plots of the first stage and reduced form specifications. Table A.12 reports the reduced form results. All results are unchanged.

Figure A.6: REDUCED FORM AND FIRST STAGE EFFECT WITH I.H.S. TRANSFORMATION



*Notes.* On the left: binned scatter plot of emotionality and channel position. The horizontal axis is the average C-SPAN1 channel position in the speaker's district-year (standardized, i.h.s.); the vertical axis is the average emotionality score by bin (standardized). On the right: binned scatter plot of C-SPAN1 viewership and C-SPAN1 channel position. The horizontal axis reports the average C-SPAN1 channel position in the speaker's district-year (standardized, i.h.s.); the vertical axis reports the average viewership in the speaker's district (standardized). State-year fixed effects absorbed.

Table A.12: REDUCED FORM: EMOTIONALITY AND C-SPAN1 POSITION (I.H.S.)

Emotionality	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Position	-0.046** [0.019]	-0.044** [0.018]	-0.050*** [0.019]	-0.041** [0.017]	-0.038** [0.017]	-0.035*** [0.013]	-0.022** [0.009]
State-Year	✓	✓	✓	✓	✓	✓	✓
Urban		✓	✓	✓	✓	✓	✓
Income-Educ			✓	✓	✓	✓	✓
Individual				✓	✓	✓	✓
Cable					✓	✓	✓
Speech						✓	✓
Topics							✓
Mean DV	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01
Observations	497910	497910	497910	497910	497910	497910	497910

*Notes.* Each column shows the OLS regression of the emotionality score in a given speech (standardized), on the average C-SPAN1 channel position in the speaker's district (standardized, i.h.s.). The sample is composed of all speeches pronounced by Democrat and Republican Members of the House of Representatives between 1998 and 2014. All columns include State-year fixed effects. *Urban* indicates the inclusion of controls for population (log), density (log), the share of urban population, of Hispanic, Asian, black and white population, of women, and of working age population. *Income-Educ* includes the share of college educated, high-school dropouts, food stamp recipients, and median household income (log). *Individual* includes dummy variables for speaker's gender, religion (Catholic, Jewish), party, race (Black, Hispanic, Asian, Native) and control for age and age squared. *Cable News* indicates the minimum channel position among other cable news channels. *Speech* indicates controls for speech length (log), word length (log), sentence length (log). *Topics* indicates topic fixed effects. Standard errors are clustered at the politician level. \*, \*\*, \*\*\* denote significance at the 10%, 5%, and 1% levels, respectively.

## C.10 Main results with vector-distance measure

Gennaro and Ash (2021) propose a second measure of emotion and cognition, that is calculated as the cosine similarity between each document vector and an affect-cognition dimension in language. This measure captures variations along a semantic dimension in language, and hence captures any trade-off between emotion and cognition more explicitly. Table A.13 reproduces the main results using this alternative measure.

Table A.13: EMOTIONALITY ALTERNATIVE MEASURE AND C-SPAN1 VIEWERSHIP

	(1) OLS	(2) 2SLS	(3) 2SLS	(4) 2SLS	(5) 2SLS	(6) 2SLS	(7) 2SLS	(8) 2SLS	(9) 2SLS
Viewership	0.019 [0.017]	0.286* [0.146]	0.376** [0.172]	0.367** [0.144]	0.300** [0.119]	0.289** [0.123]	0.276*** [0.101]	0.177*** [0.063]	0.178*** [0.063]
State-Year	✓	✓	✓	✓	✓	✓	✓	✓	✓
Urban			✓	✓	✓	✓	✓	✓	✓
Income-Educ				✓	✓	✓	✓	✓	✓
Individual					✓	✓	✓	✓	✓
Cable					✓	✓	✓	✓	✓
Speech							✓	✓	✓
Topics								✓	✓
Interacted									✓
KP F-stat		10.480	10.111	15.954	17.940	16.428	16.403	16.38	15.842
Mean DV	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Observations	497910	497910	497910	497910	497910	497910	497910	497910	497910

*Notes.* Each column shows the regression of the emotionality score in a given speech (measured as vector distance, and standardized) on the C-SPAN1 viewership in the speaker’s district (standardized). Column 1 reports the OLS estimates; columns 2 to 9 report 2SLS estimates, where viewership is instrumented with C-SPAN1 channel position in the same district (standardized). The sample is composed of all speeches pronounced by Democrat and Republican Members of the House of Representatives, between 1998 and 2014. All columns include state-year fixed effects. *Urban* indicates the inclusion of controls for population (log), density (log), the share of urban population, of Hispanic, Asian, black and white population, of women, and of working age population. *Income-Educ* includes the share of college educated, high-school dropouts, food stamp recipients, and median household income (log). *Individual* includes dummy variables for speaker’s gender, religion (Catholic, Jewish), party, race (Black, Hispanic, Asian, Native) and control for age and age squared. *Cable News* includes the minimum channel position among other cable news networks. *Speech* indicates controls for speech length (log), word length (log), sentence length (log). *Topics* indicates topic fixed effects. *Interacted* indicates that *Urban* and *Income-Educ* controls are interacted with time trends. Standard errors are clustered at the politician level. \*, \*\*, \*\*\* denote significance at the 10%, 5%, and 1% levels, respectively.

## D Additional Results on Channel Position

### D.1 Analysis of compliers

Table A.14 reports the results of regressing C-SPAN1 Viewership on the instrument linearly, and interacted with several pre-C-SPAN1 characteristics of the districts. The interaction terms provide insight on compliers – that is, which types of Congressional districts are being moved most by the instrument. Most characteristics are unrelated to first stage compliance. Districts with more black and white people have a larger complier effect at the 10% level. The biggest complier difference is in working age; the positive coefficient means that non-working-age (that is retired) population is more responsive to the instrument.

Table A.14: COMPLIERS: HETEROGENEITY IN FIRST STAGE

C-SPAN Viewership	Beta	SE
C-SPAN Position	-9.528	[9.064]
C-SPAN Position $\times$ Population (log)	-9.528	[9.064]
C-SPAN Position $\times$ Population Density (log)	-0.161	[0.120]
C-SPAN Position $\times$ Urban Population (%)	0.376	[0.464]
C-SPAN Position $\times$ High-school dropouts (%)	-0.927	[2.087]
C-SPAN Position $\times$ College educated (%)	-0.367	[1.560]
C-SPAN Position $\times$ Hispanic (%)	-0.499	[0.877]
C-SPAN Position $\times$ Black (%)	-3.300*	[1.878]
C-SPAN Position $\times$ Asian (%)	-1.862	[2.341]
C-SPAN Position $\times$ White (%)	-3.174*	[1.779]
C-SPAN Position $\times$ Female (%)	-0.261	[8.936]
C-SPAN Position $\times$ Working Age (%)	9.808**	[4.281]
C-SPAN Position $\times$ Median household income (log)	0.702	[0.581]
C-SPAN Position $\times$ Median individual income (log)	-0.173	[0.170]
C-SPAN Position $\times$ Use of Food Stamps (%)	1.766	[1.748]
Observations	497910	

*Notes.* The table reports the regression of C-SPAN1 viewership on C-SPAN1 channel position, interacted with district characteristics. The sample is composed of all electoral districts in the main sample. All regressions include State fixed effects. Standard errors are clustered at the State level. \*, \*\*, \*\*\* denote significance at the 10%, 5%, and 1% levels, respectively.

## D.2 Effect of C-SPAN on Other Speech Outcomes

This section reports additional results on the effect of C-SPAN on language used in Congress. Table A.15 reports the estimates of OLS regression of different linguistic features on C-SPAN position. Table A.16 reports the effect of C-SPAN position on the prevalence of topics (panel 1) as well as on the use of emotionality by topic (Panel 2). Tables A.22 and A.23 report the effect of C-SPAN on political selection, looking at ideology and demographics.

Table A.15: C-SPAN1 AND OTHER SPEECH CHARACTERISTICS

	(1) Sentiment	(2) Speech Length	(3) Word Length	(4) Sentence Length	(5) Number of Speeches
Position	-0.006 [0.012]	-0.011 [0.016]	-0.011 [0.010]	-0.027* [0.015]	-0.073** [0.031]
State-Year	✓	✓	✓	✓	✓
Urban	✓	✓	✓	✓	✓
Income-Educ	✓	✓	✓	✓	✓
Observations	497910	497910	497910	497910	497910
R-squared	0.03	0.04	0.02	0.03	0.36

*Notes.* Each column shows the OLS regression of the speech characteristic on the average C-SPAN1 channel position in the speaker's district. The sample is composed of all speeches pronounced by Democrat and Republican Members of the House of Representatives, between 1998 and 2014. All columns include State-year fixed effects, Urban controls and Income-Educ Controls (as in Table A.6). Standard errors are clustered at the politician level. \*, \*\*, \*\*\* denote significance at the 10%, 5%, and 1% levels, respectively.



Table A.16: C-SPAN1 AND TOPICS

	(1) Economic Policy	(2) Fiscal Policy	(3) Foreign Policy	(4) Gover- nance	(5) Immi- gration	(6) Monetary Policy	(7) National Narrative	(8) Party Politics	(9) Social Issues	(10) Tribute
<b>Panel 1: Topic Probability</b>										
Position	0.003 [0.003]	0.001 [0.003]	0.000 [0.003]	0.001 [0.001]	0.001 [0.001]	0.000 [0.000]	-0.005*** [0.001]	-0.004*** [0.001]	-0.000 [0.005]	0.008* [0.005]
Mean DV	0.11	0.06	0.09	0.04	0.01	0.00	0.07	0.04	0.16	0.12
Obs	476539	476539	476539	476539	476539	476539	476539	476539	476539	476539
R-squared	0.02	0.02	0.03	0.02	0.02	0.00	0.02	0.01	0.02	0.03
<b>Panel 2: Emotionality by Topic</b>										
Position	-0.073*** [0.019]	-0.006 [0.025]	-0.062*** [0.021]	-0.033 [0.020]	0.010 [0.027]	-0.073* [0.041]	-0.004 [0.013]	-0.064*** [0.018]	-0.039** [0.018]	-0.071*** [0.014]
Mean DV	0.10	0.22	0.39	-0.07	0.25	0.08	1.18	0.22	0.29	-0.49
Obs	50158	29852	42484	18098	4310	1741	31013	18529	77857	55746
R-squared	0.11	0.16	0.11	0.13	0.32	0.39	0.10	0.12	0.08	0.08

*Notes.* In the panel Topic Probability, each column shows the OLS regression of the speech topic on the average C-SPAN1 channel position in the speaker's district. In the panel Emotionality, each column shows the OLS regression of emotionality on the average C-SPAN1 channel position in the speaker's district, for speeches that belong to the same topic. The sample is composed of all speeches pronounced by Democrat and Republican Members of the House of Representatives, between 1998 and 2014. All columns include State-year fixed effects, Urban controls and Income-Educ Controls (as in Table A.6). Standard errors are clustered at the politician level. \*, \*\*, \*\*\* denote significance at the 10%, 5%, and 1% levels, respectively.

### D.3 Effects of other cable TV networks on emotionality

This section explores the effects of other TV channels on Emotionality. We present separately results for News channels (MSNBC, Fox News, CNN) in Table A.17, and generalist channels (ABC, CBS, NBC, Fox) in Table A.18. For each set of channels, we also include the minimum channel position in the batch.

Table A.17 shows that channel position for news channels have a negative effect on emotionality. In other words, congressmen whose home electorate is more likely to watch News TV channels are more likely to use emotional rhetoric in their speeches. The effects are qualitatively similar to those found for C-SPAN, but less precisely estimated and smaller in magnitude. In particular, the effect of Fox News and CNN becomes statistically indistinguishable from zero when including C-SPAN channel position in the same regression.

Table A.18 shows that channel position for generalist channels has mostly no effect on emotionality – with the exception of NBC that seems to have a positive effect. In other words, congressmen whose home electorate is more likely to watch generalist TV channels are not more likely to use emotional rhetoric in their speeches.

Table A.17: EMOTIONALITY AND OTHER NEWS CHANNELS

	MSNBC		Fox News		CNN		Min	
Emotionality	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Position	-0.027 [0.022]	-0.032* [0.018]	-0.022 [0.018]	-0.013 [0.016]	-0.048* [0.026]	-0.033 [0.025]	-0.002* [0.001]	-0.002 [0.001]
C-SPAN Position		-0.039** [0.016]		-0.042** [0.016]		-0.042** [0.019]		-0.048*** [0.018]
State-Year	✓	✓	✓	✓	✓	✓	✓	✓
Urban	✓	✓	✓	✓	✓	✓	✓	✓
Income-Educ	✓	✓	✓	✓	✓	✓	✓	✓
Mean DV	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.00	-0.01
Observations	497910	497910	497767	497767	497910	497910	508343	497910

*Notes.* Each column shows the OLS regression of the emotionality score in a given speech (standardized), on the average channel position in the speaker's district (standardized, i.h.s.). *Min* indicates the minimum value between the channel positions in the previous columns. The sample is composed of all speeches pronounced by Democrat and Republican Members of the House of Representatives between 1998 and 2014. All columns include State-year fixed effects. *Urban* indicates the inclusion of controls for population (log), density (log), the share of urban population, of Hispanic, Asian, black and white population, of women, and of working age population. *Income-Educ* includes the share of college educated, high-school dropouts, food stamp recipients, and median household income (log). Standard errors are clustered at the politician level. \*, \*\*, \*\*\* denote significance at the 10%, 5%, and 1% levels, respectively.

Table A.18: EMOTIONALITY AND GENERAL BROADCAST NETWORKS

	ABC		Fox		NBC		CBS		Min	
Emotionality	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Position	-0.016 [0.020]	0.002 [0.020]	0.019 [0.023]	0.030 [0.022]	0.058*** [0.019]	0.053*** [0.020]	-0.009 [0.017]	-0.011 [0.017]	0.002 [0.009]	0.004 [0.009]
C-SPAN Position		-0.051*** [0.019]		-0.054*** [0.018]		-0.047*** [0.018]		-0.051*** [0.018]		-0.051*** [0.018]
State-Year	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Urban	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Income-Educ	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Mean DV	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01
Observations	497910	497910	497189	497189	497910	497910	497910	497910	497910	497910

*Notes.* Each column shows the OLS regression of the emotionality score in a given speech (standardized), on the average indicated channel position in the speaker's district (standardized, i.h.s.). *Min* indicates the minimum value between the channel positions in the previous columns. The sample is composed of all speeches pronounced by Democrat and Republican Members of the House of Representatives between 1998 and 2014. All columns include State-year fixed effects. *Urban* indicates the inclusion of controls for population (log), density (log), the share of urban population, of Hispanic, Asian, black and white population, of women, and of working age population. *Income-Educ* includes the share of college educated, high-school dropouts, food stamp recipients, and median household income (log). Standard errors are clustered at the politician level. \*, \*\*, \*\*\* denote significance at the 10%, 5%, and 1% levels, respectively.

## D.4 Effect of C-SPAN1 on Turnout

This section explores the effects of C-SPAN1 on voters' turnout. Table A.19 reports the reduced form (columns 1 to 4) and the two-stage least squares specification (columns 5 to 8). Across all specification, higher C-SPAN1 viewership (lower channel position) is weakly associated with more voters' turnout. However, none of those estimates are statistically significant, suggesting that C-SPAN1 is not a main driver of voters' turnout.

Table A.19: TURNOUT AND C-SPAN1

	Reduced Form				2sls			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Position	-0.031 [0.026]	-0.031 [0.019]	-0.021 [0.018]	-0.018 [0.017]				
Viewership					0.210 [0.181]	0.222 [0.157]	0.149 [0.139]	0.119 [0.121]
State-Congress	✓	✓	✓	✓	✓	✓	✓	✓
Urban		✓	✓	✓		✓	✓	✓
Income-Educ			✓	✓			✓	✓
Individual				✓				✓
KP F-stat					11.385	15.533	19.332	16.400
Mean DV	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Observations	2460	2460	2460	2460	2460	2460	2460	2460

*Notes.* Each column shows the reduced-form regression of turnout in House elections (total votes cast over population, standardized), on the average indicated channel position in the speaker's district (standardized, i.h.s.). All columns include State-Congress fixed effects. *Urban* indicates the inclusion of controls for population (log), density (log), the share of urban population, of Hispanic, Asian, black and white population, of women, and of working age population. *Income-Educ* includes the share of college educated, high-school dropouts, food stamp recipients, and median household income (log). *Individual* includes dummy variables for speaker's gender, religion (Catholic, Jewish), party, race (Black, Hispanic, Asian, Native) and control for age and age squared. Standard errors are clustered at the politician level. \*, \*\*, \*\*\* denote significance at the 10%, 5%, and 1% levels, respectively.

## D.5 Effect of C-SPAN1 on Incumbent Vote Share

This section reports the effect of C-SPAN1 viewership on vote shares for the incumbent politicians, in the two-stage least squares specification. Table A.20 reports the the estimated effect, including the same set of controls as in our main specification (in Table 6. Across all specification, higher C-SPAN1 viewership increases the vote share for the incumbent politician. Columns 7 and 8 confirm that C-SPAN1 viewership generates higher electoral returns for politicians that fully engage with emotional speech (above the sample median).

Table A.20: INCUMBENT VOTE SHARE AND C-SPAN1 VIEWERSHIP

	(1)	(2)	(3)	(4)	(5)	(6)	Low Emotions (7)	High Emotions (8)
Viewership	0.684** [0.297]	0.694** [0.308]	0.731** [0.300]	0.796*** [0.293]	0.827*** [0.308]	0.832*** [0.317]	0.488* [0.271]	2.217* [1.210]
State-Congress	✓	✓	✓	✓	✓	✓	✓	✓
Urban		✓	✓	✓	✓	✓	✓	✓
Income-Educ			✓	✓	✓	✓	✓	✓
Individual				✓	✓	✓	✓	✓
Cable News					✓	✓	✓	✓
Speech						✓	✓	✓
KP F-stat	11.385	15.533	19.332	16.400	16.792	16.042	18.394	1.107
Mean DV	0.02	0.02	0.02	0.02	0.02	0.02	-0.00	0.06
Observations	2460	2460	2460	2460	2460	2460	1224	1124

*Notes.* Each column shows the OLS regression of the incumbent vote share (candidate's votes over total cast votes, standardized), on the average indicated channel position in the speaker's district (standardized, i.h.s.). In Columns 1 to 6, the sample is composed of Democrat and Republican Members of the House of Representatives who spoke in the House at least once, and run for re-election at the end of the Congress period. In Columns 7, and 8 the sample is split over the median level of emotionality. All columns include State-Congress fixed effects. *Urban* indicates the inclusion of controls for population (log), density (log), the share of urban population, of Hispanic, Asian, black and white population, of women, and of working age population. *Income-Educ* includes the share of college educated, high-school dropouts, food stamp recipients, and median household income (log). *Individual* includes dummy variables for speaker's gender, religion (Catholic, Jewish), party, race (Black, Hispanic, Asian, Native) and control for age and age squared. Standard errors are clustered at the politician level. \*, \*\*, \*\*\* denote significance at the 10%, 5%, and 1% levels, respectively.

## D.6 The effect of C-SPAN1 on Incumbent Vote Share for Politicians with Short and Long Tenure

This section explores the heterogeneous effect of C-SPAN1 channel position on vote shares for incumbent politicians, for politicians with different tenure in office. In particular, for each speech we measure tenure as the number of years since the speaker was first elected in Congress. Then, we split the sample over the median tenure (around 6 years) and estimate the effect of C-SPAN channel position on vote share for the incumbent, separately for politicians with short and long tenure in office.

Table A.21 reports the the estimated effects. The sample in columns 1 to 3 comprises politicians with short tenure. Among those, a one standard deviation increase in the channel position (hence lower viewership) reduces the vote share for the incumbent politicians by 0.14 standard deviations. The effect is larger in magnitude for politicians who fully engage with emotional rhetoric (column 3) than for those who do not (column 2). Moving to politicians with longer tenure in office, we observe that C-SPAN1 still has a positive effect on vote shares for the incumbent, but this effect is smaller in magnitude (column 4). Among long-tenured politicians, the use of emotional speeches also seems to deliver a smaller electoral advantage.

These results suggest that C-SPAN1 provides for a platform where newly elected politicians can consolidate their tenure, and emotional language is particularly effective in achieving this goal. Yet, C-SPAN1 makes less of a difference for long-course politicians. Those results are consistent with the finding that the introduction of CPSAN1 favoured a new selection of more emotional politicians (Figures A.1 - A.2).

Table A.21: INCUMBENT VOTE SHARE AND C-SPAN1 CHANNEL POSITION, BY POLITICIANS' TENURE

	Short Tenure			Long Tenure		
		Low Emotions	High Emotions		Low Emotions	High Emotions
Incumbent Vote Share	(1)	(2)	(3)	(4)	(5)	(6)
C-SPAN Position	-0.144*** [0.041]	-0.139*** [0.049]	-0.238*** [0.066]	-0.093** [0.040]	-0.064 [0.054]	-0.106* [0.063]
State-Year	✓	✓	✓	✓	✓	✓
Urban	✓	✓	✓	✓	✓	✓
Income-Educ	✓	✓	✓	✓	✓	✓
Individual	✓	✓	✓	✓	✓	✓
Cable	✓	✓	✓	✓	✓	✓
Speech	✓	✓	✓	✓	✓	✓
Observations	1095	503	443	1262	547	581

*Notes.* Each column shows the OLS regression of the incumbent vote share (candidate's votes over total cast votes, standardized), on the average indicated channel position in the speaker's district (standardized, i.h.s.). The sample is composed of Democrat and Republican Members of the House of Representatives who spoke in the House at least once, and run for re-election at the end of the Congress period. The sample includes politicians with short tenure (below the sample median) at the time of the election in columns 1 to 3, and with long tenure (above the sample median) at the time of the election in columns 4 to 6. In columns 2-3 and 5-6 those samples are split over the median level of emotionality. All columns include State-Congress fixed effects. *Urban* indicates the inclusion of controls for population (log), density (log), the share of urban population, of Hispanic, Asian, black and white population, of women, and of working age population. *Income-Educ* includes the share of college educated, high-school dropouts, food stamp recipients, and median household income (log). *Individual* includes dummy variables for speaker's gender, religion (Catholic, Jewish), party, race (Black, Hispanic, Asian, Native) and control for age and age squared. Standard errors are clustered at the politician level. \*, \*\*, \*\*\* denote significance at the 10%, 5%, and 1% levels, respectively.

## D.7 Effect of C-SPAN1 on Types of Politicians Elected

Table A.22: C-SPAN1 AND SELECTION OF POLITICIAN TYPES (1)

	(1) Democrat	(2) DW Nom 1	(3) Extremism	(4) Tenure Start Year	(5) Age	(6) Education
Position	-0.049** [0.023]	0.117** [0.047]	0.009 [0.006]	-0.284 [0.585]	-0.055 [0.495]	-0.076*** [0.026]
Mean DV	0.49	0.01	0.20	1992.31	57.80	2.21
Observations	497910	495588	495588	497910	497910	461377
R-squared	0.49	0.56	0.40	0.43	0.29	0.27

*Notes.* Each column shows the OLS regression of the speaker's ideology and other characteristics on the average C-SPAN1 channel position in the speaker's district. The sample is composed of all speeches pronounced by Democrat and Republican Members of the House of Representatives, between 1998 and 2014. All columns include State-year fixed effects, Urban controls and Income-Educ Controls (as in Table A.6). Standard errors are clustered at the politician level. \*, \*\*, \*\*\* denote significance at the 10%, 5%, and 1% levels, respectively.

Table A.23: C-SPAN1 AND SELECTION OF POLITICIAN TYPES (2)

	(1) Female	(2) Black	(3) Asian	(4) Hispanic	(5) Native	(6) White	(7) Catholic	(8) Jewish
Position	-0.026 [0.017]	0.008 [0.015]	-0.003 [0.005]	-0.006 [0.005]	0.000* [0.000]	0.001 [0.016]	-0.034 [0.025]	-0.012 [0.016]
Mean DV	0.12	0.11	0.01	0.02	0.00	0.86	0.29	0.07
Observations	497910	497910	497910	497910	497910	497910	497910	497910
R-squared	0.31	0.57	0.10	0.36	0.73	0.52	0.34	0.19

*Notes.* Each column shows the OLS regression of the speaker's demographic characteristic on the average C-SPAN1 channel position in the speaker's district. The sample is composed of all speeches pronounced by Democrat and Republican Members of the House of Representatives, between 1998 and 2014. All columns include State-year fixed effects, Urban controls and Income-Educ Controls (as in Table A.6). Standard errors are clustered at the politician level. \*, \*\*, \*\*\* denote significance at the 10%, 5%, and 1% levels, respectively.

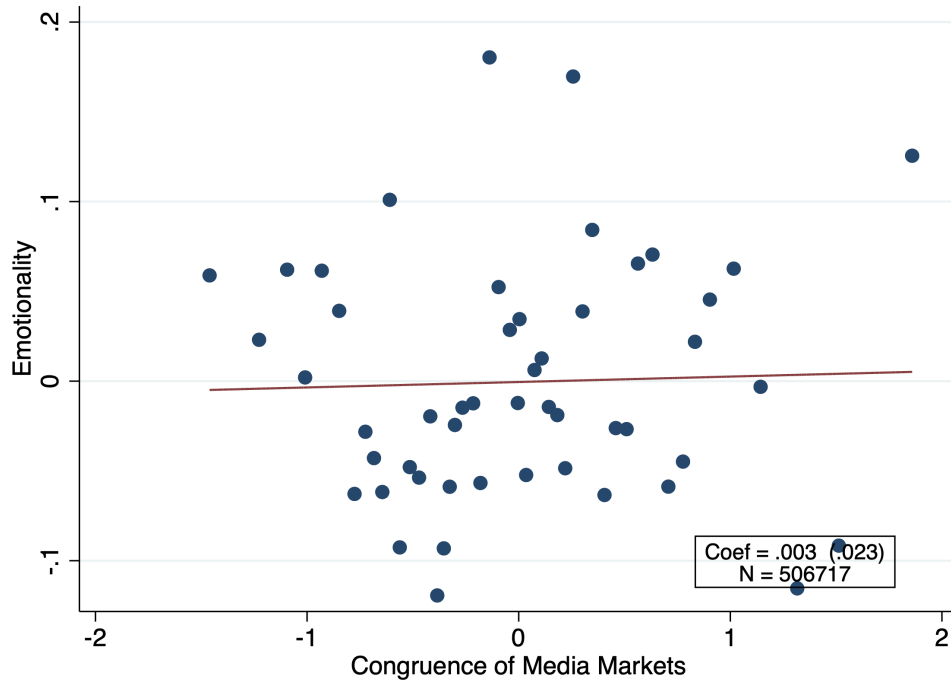


## E Effects of Media-Market Congruence

### E.1 Emotionality

This section documents the effect of media-market congruence on emotionality. Figure A.7 reports the regression of emotionality on congruence with district-level controls for population composition and urbanization. Table A.24 reports the regression results for emotionality on congruence, including the same sets of controls as in our main specification in Table A.6. Across specifications, we find no effect of congruence on emotionality.

Figure A.7: EMOTIONALITY AND CONGRUENCE



Binned scatter plot of Emotionality on Congruence. The horizontal axis reports Congruence between the media market and the electoral district in the speaker's district-year (standardized); the vertical axis reports the average emotionality score by bin (standardized). Includes district-level controls for population composition and urbanization.

Table A.24: EMOTIONALITY AND CONGRUENCE

Emotionality	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Congruence	-0.056*** [0.021]	0.000 [0.027]	0.009 [0.028]	0.024 [0.026]	0.028 [0.026]	0.022 [0.020]	0.018 [0.013]
State-Year	✓	✓	✓	✓	✓	✓	✓
Urban		✓	✓	✓	✓	✓	✓
Income-Educ			✓	✓	✓	✓	✓
Individual					✓	✓	✓
Cable				✓	✓	✓	✓
Speech						✓	✓
Topics							✓
Mean DV	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00
Observations	506717	506717	506717	506717	506717	506717	506717

*Notes.* Each column shows the OLS regression of the emotionality score in a given speech (standardized) on the average Congruence in the speaker's district (standardized). The sample is composed of all speeches pronounced by Democrat and Republican Members of the House of Representatives, between 1998 and 2014. All columns include State-year fixed effects. *Urban* indicates the inclusion of controls for population (log), density (log), the share of urban population, of Hispanic, Asian, black and white population, of women, and of working age population. *Income-Educ* includes the share of college educated, high-school dropouts, food stamp recipients, and median household income (log). *Individual* includes dummy variables for speaker's gender, religion (Catholic, Jewish), party, race (Black, Hispanic, Asian, Native) and control for age and age squared. *Cable News* indicates the minimum channel position among other cable news channels. *Speech* indicates controls for speech length (log), word length (log), sentence length (log). *Topics* indicates topic fixed effects. Standard errors are clustered at the politician level. \*, \*\*, \*\*\* denote significance at the 10%, 5%, and 1% levels, respectively.

## E.2 Political Extremism

Table A.25 reports the effect of congruence and C-SPAN on political extremism of the member of Congress. Extremism is measured as the DW-NOMINATE score (dimension 1) squared. This measure is used by Snyder and Strömberg (2010) as a measure of party loyalty.

Table A.25: POLITICAL EXTREMISM UNDER CONGRUENCE AND C-SPAN

Extremism	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Congruence	-0.137** [0.057]	0.020 [0.072]	0.023 [0.079]	0.017 [0.073]				
Position					0.075 [0.049]	0.071 [0.050]	0.057 [0.050]	0.037 [0.045]
State-Congress	✓	✓	✓	✓	✓	✓	✓	✓
Urban		✓	✓	✓		✓	✓	✓
Income-Educ			✓	✓			✓	✓
Individual				✓				✓
Mean DV	-0.12	-0.12	-0.12	-0.12	-0.12	-0.12	-0.12	-0.12
Observations	1331	1331	1331	1331	1335	1335	1335	1335
R-squared	0.20	0.26	0.27	0.38	0.19	0.26	0.27	0.38

*Notes.* Each entry corresponds to a separated OLS regression of the dependent variable (standardized) media market *Congruence* or C-SPAN channel *Position* (standardized). The dependent variables is *Extremism*. The sample is composed of all Democrat and Republican Members of the House of Representatives, between 1998 and 2014 in Columns 1 to 4. The sample is restricted to 1998 to 2004 in all other columns. All columns include State-Congress fixed effects. *Urban* indicates the inclusion of controls for population (log), density (log), the share of urban population, of Hispanic, Asian, black and white population, of women, and of working age population. *Income-Educ* includes the share of college educated, high-school dropouts, food stamp recipients, and median household income (log). *Individual* includes dummy variables for speaker's gender, religion (Catholic, Jewish), party, race (Black, Hispanic, Asian, Native) and control for age and age squared. Standard errors are clustered at the politician level. \*, \*\*, \*\*\* denote significance at the 10%, 5%, and 1% levels, respectively.

## E.3 Congruence and Topics

Table A.26 reports the effect of media market congruence on the selection of topics discussed in Congress. There is no clear pattern related to topic selection.

Table A.26: CONGRUENCE AND TOPICS

	(1) Economic Policy	(2) Fiscal Policy	(3) Foreign Policy	(4) Gover- nance	(5) Immi- gration	(6) Monetary Policy	(7) National Narrative	(8) Party Politics	(9) Social Issues	(10) Tribute
Congruence	0.011** [0.005]	0.006 [0.005]	-0.005 [0.006]	0.000 [0.002]	-0.005** [0.002]	0.000 [0.000]	0.000 [0.003]	0.001 [0.001]	0.001 [0.008]	-0.008 [0.006]
State-Year	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Urban	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Income-Educ	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Mean DV	0.11	0.06	0.09	0.04	0.01	0.00	0.07	0.04	0.16	0.12
Observations	485160	485160	485160	485160	485160	485160	485160	485160	485160	485160
R-squared	0.02	0.02	0.03	0.02	0.02	0.01	0.02	0.01	0.02	0.03

*Notes.* Each column shows the OLS regression of the speech topic on Congruence in the speaker’s district. The sample is composed of all speeches pronounced by Democrat and Republican Members of the House of Representatives, between 1998 and 2014 . All columns include State-year fixed effects. *Urban* indicates the inclusion of controls for population (log), density (log), the share of urban population, of Hispanic, Asian, black and white population, of women, and of working age population. *Income-Educ* includes the share of college educated, high-school dropouts, food stamp recipients, and median household income (log). Standard errors are clustered at the politician level. \*, \*\*, \*\*\* denote significance at the 10%, 5%, and 1% levels, respectively.

## E.4 Measuring Localism Rhetoric

For each member of congress, we create a specific “localism” dictionary. This dictionary includes the name of the home state, and all cities within the state from the United States Cities Database<sup>12</sup> We also include some generic mentions (i.e. ”my district” and ”my constituents”). We then break all Congress speeches into unigrams and count the number of occurrences of a given locality name/phrase from the dictionary. For each speech, only the localities of the state represented by the speaker are counted. As a final output, we create three groups of variables: (a) the number of cities/town mentions (restricted/non-restricted); (b) the number of generic phrases mentions; (c) the number of state mentions. The measure of localism is the share of “local” mentions over speech length.<sup>13</sup> This ratio is then transformed with inverse hyperbolic sine (to smooth outliers) and standardized to ease interpretation.

Table A.27 reports the results with these different measures. This shows that there is some

<sup>12</sup>the Database includes over 108,000 cities and towns from all 50 states. We take the database that has an update from May 11, 2022.

<sup>13</sup>All city/town/state names and phrases from the dictionary with more than one word, if they occur in speeches, we transform into unigrams by replacing spaces with underscores. That is a necessary step that allows us to avoid double counting. For example, if a speech contains ”New York State”, it can be counted twice: as a city (”New York”), and then as a state (”New York State”). The implementation of unigrams resolves this issue.

Table A.27: LOCALISM AND C-SPAN1

Localism	Reduced Form				2SLS			
	(1) All Mentions	(2) Generic Mentions	(3) State Mentions	(4) City Mentions	(5) All Mentions	(6) Generic Mentions	(7) State Mentions	(8) City Mentions
Position	0.009 [0.007]	0.002 [0.005]	0.000 [0.005]	0.011* [0.007]				
Viewership					-0.053 [0.041]	-0.025 [0.033]	0.007 [0.028]	-0.067* [0.040]
State-Year	✓	✓	✓	✓	✓	✓	✓	✓
Urban	✓	✓	✓	✓	✓	✓	✓	✓
Income-Educ	✓	✓	✓	✓	✓	✓	✓	✓
Individual	✓	✓	✓	✓	✓	✓	✓	✓
Cable News	✓	✓	✓	✓	✓	✓	✓	✓
Speech	✓	✓	✓	✓	✓	✓	✓	✓
KP F-stat					21.958	21.958	21.958	21.958
Mean DV	0	0	0	0	0	0	0	0
Observations	497570	497570	497570	497570	497570	497570	497570	497570

*Notes.* Each column shows an OLS regression of the score of localism in a given speech (standardized) on the average C-SPAN1 channel position in the speaker’s district (standardized). The measure of localism is the share of “local” mentions over speech length. It includes all mentions in columns 1 and 5; only generic references to the home constituency in columns 2 and 6; only mentions of home State in columns 3 and 7; only mentions of cities in the home State in columns 4 and 8. The full sample is composed of all speeches pronounced by Democrat and Republican Members of the House of Representatives between 1998 and 2014. All columns include state-year fixed effects. *Urban* indicates the inclusion of controls for population (log), density (log), the share of urban population, of Hispanic, Asian, black and white population, of women, and of working age population. *Income-Educ* includes the share of college educated, high-school dropouts, food stamp recipients, and median household income (log). *Individual* includes dummy variables for speaker’s gender, religion (Catholic, Jewish), party, race (Black, Hispanic, Asian, Native) and control for age and age squared. *Cable News* includes the minimum channel position among other cable news networks. *Speech* indicates controls for speech length (log), word length (log), sentence length (log). *Topics* indicates topic fixed effects. Standard errors are clustered at the politician level. \*, \*\*, \*\*\* denote significance at the 10%, 5%, and 1% levels, respectively.

limited support to the hypothesis that C-SPAN accelerates the nationalisation of American politics. We find an effect of C-SPAN decreasing mentions of cities in their own states. Yet, this effect is not there for generic and state mentions.

Table A.28 reports the effect of media congruence on measures of localism. Localism is measured as the ratio between “local” mentions and total speech length. “local” mentions are the number of cities/town mentions (restricted/non-restricted) in column 2; the number of generic phrases mentions in column 3; the number of state mentions in column 4; all combined in column 1. We find a mild positive effect of media market congruence on local mentions.

Table A.28: LOCALISM AND CONGRUENCE

	(1)	(2)	(3)	(4)
Congruence	-0.003 [0.009]	0.016* [0.009]	-0.003 [0.007]	-0.003 [0.009]
State-Year	✓	✓	✓	✓
Urban	✓	✓	✓	✓
Income-Educ	✓	✓	✓	✓
Individual	✓	✓	✓	✓
Cable News	✓	✓	✓	✓
Speech	✓	✓	✓	✓
Mean DV	0.00	0.00	0.00	0.00
Observations	506373	506373	506373	506373
R-squared	0.03	0.01	0.01	0.04

*Notes.* Each column shows an OLS regression of a measure of localism (standardized) on Congruence in the speaker’s district (standardized). The measure of localism is the share of “local” mentions over speech length. It includes all mentions in column 1; only generic references to the home constituency in column 2; only mentions of home State in column 3; only mentions of cities in the home State in column 4. Standard errors are clustered at the politician level. \*, \*\*, \*\*\* denote significance at the 10%, 5%, and 1% levels, respectively.