

# Appropriators not Position Takers: The Distorting Effects of Electoral Incentives on Congressional Representation

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*Congressional districts create two levels of representation. Studies of representation focus on a disaggregated level: the electoral connection between representatives and constituents. But there is a collective level of representation—the result of aggregating across representatives. This article uses new measures of home styles to demonstrate that responsiveness to constituents can have negative consequences for collective representation. The electoral connection causes marginal representatives—legislators with districts composed of the other party’s partisans—to emphasize appropriations in their home styles. But it causes aligned representatives—those with districts filled with copartisans—to build their home styles around position taking. Aggregated across representatives, this results in an artificial polarization in stated party positions: aligned representatives, who tend to be ideologically extreme, dominate policy debates. The logic and evidence in this article provide an explanation for the apparent rise in vitriolic debate, and the new measures facilitate a literature on home styles.*

Congressional districts create a dyadic relationship between representative and constituents. This *electoral connection* is the focus of most studies of representation. These studies ask whether legislators adopt the views of constituents (e.g., Achen 1978; Miller and Stokes 1963) or if constituents sanction legislators who adopt discordant views (e.g., Canes-Wrone, Brady, and Cogan 2002; Carson et al. 2010; Ensley, Tofias, and de Marchi 2009).

But aggregating across representatives and districts creates a second, *collective* level of representation (Weissberg 1978). What constitutes this collective level of representation depends on the congressional activity considered. We may consider the policy outputs of government, aggregated measures of roll-call voting decisions (Weissberg 1978), or discourse (Mansbridge 2003). The electoral connection’s influence on dyadic representation is well studied, with mixed evidence that electoral sanction induces legislators to be responsive to constituents (Canes-Wrone, Brady, and Cogan 2002; Ensley,

Tofias, and de Marchi 2009). While it is regularly—and implicitly—assumed that the electoral connection is sufficient to induce responsiveness at the collective level, little is known about how the electoral connection affects the aggregative outputs of Congress.

This article demonstrates that responsiveness to constituents can negatively affect the quality of one component of collective representation: the positions parties articulate during policy debates. Using new and systematic measures of senators’ home styles, I show that the electoral connection causes a systematic ideological distortion in how representatives present and explain their work to constituents. The electoral incentive creates this bias because it affects both the positions legislators take and how legislators present their work to constituents—legislators’ home styles. The logic of building support in primary and general elections leads to the prediction that *marginal* representatives—representatives of districts with a large share of the other party’s partisans—will adopt moderate positions and avoid articulating

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positions, instead claiming credit for appropriations. *Aligned* representatives—those representing districts with a large share of their own party’s partisans—have incentive to adopt more extreme positions and to articulate those positions, allocating less attention to credit claiming. I show that this expectation manifests in legislators’ home styles, both in an aggregate measure and in an issue-by-issue analysis.

This intuitive relationship between partisan composition and home style exacerbates polarization in articulated positions. When marginal representatives avoid articulating positions, they allow ideologically extreme representatives to dominate policy debates. The consequence is artificially polarized discourse. Using debate about the Iraq war as a quantitative case study, I show that marginal senators, who tend to be moderates, avoid taking positions when the conflict is salient, while aligned senators, who tend to be more extreme, regularly articulate positions. Building on this case study, I show that artificially polarized discourse is a general property of articulated positions in Senate home styles. Across policy debates, the most conservative Republicans and most liberal Democrats articulate positions much more often than their more moderate colleagues.

The effect of the electoral connection on legislators’ home styles suggests an explanation for the apparent rise in polarized and caustic debates: representatives have greater electoral incentive to participate in vitriolic exchanges. Whatever the cause, members of Congress now represent districts with a larger concentration of copartisans than 30 years ago (see Abramowitz, Alexander, and Gunning 2006; Levendusky, Pope, and Jackman 2008; McCarty, Poole, and Rosenthal 2009; and the supplemental information [SI] for evidence). If the logic and evidence in this article are correct, then the increase in fit between representative and district incentivizes the adoption of policy-focused home styles and the abandonment of nonpartisan, appropriations-focused styles. Not only are members of Congress more polarized (Poole and Rosenthal 1997), but they also now have greater electoral incentive to articulate their increasingly polarized positions. The result is increasingly polarized and vitriolic debate.

Throughout this article, I analyze senators’ *home styles* (Fenno 1978). While Fenno (1978) initially developed home style for House members, he later applied it to senators (e.g., Fenno 1982, 43, and Fenno 1991, 178). And while home style is a regularly cited concept, it remains understudied. Few studies describe *how* representatives present their work to constituents. Still fewer studies explain *why* legislators present their work that way. There are important exceptions to this pattern (e.g., Groeling

2010; Lipinski 2004; Sellers 2010; Yiannakis 1982). But the costs of collecting and then analyzing large collections of texts limits the focus to samples of the House or Senate.

To overcome the limitations of these previous studies, I introduce new measures of Senate home styles. To measure senators’ home styles, I employ a comprehensive collection of every press release from each Senate office from 2005, 2006, and 2007. I show that press releases are an important component of senators’ home styles, and they are indicative of senators’ broader communication strategies. I then apply a new statistical model for political texts to measure the priorities senators express in their press releases. The result is comprehensive, systematic, and verifiable measures of legislators’ home styles.

## The Electoral Connection and Home Style Choice

How the electoral connection affects legislators and the policy output of legislatures constitutes the central question in the study of representation. The representation literature has largely focused on measuring the relationship between constituents’ views and legislators’ positions. Several studies show this relationship is reasonably strong, particularly for Democrats: moderate representatives tend to represent marginal districts, and extreme representatives represent aligned and homogeneous districts (see Abramowitz, Alexander, and Gunning 2006; McCarty, Poole, and Rosenthal 2009; and the SI for evidence). But whom legislators represent affects more than just the way they vote in Washington: it will also affect how legislators present and explain their work to constituents. The need to compete for votes in both a primary and general election leads to the prediction that marginal representatives—legislators from districts with many opposing partisans—will avoid articulating their moderate views. Instead, marginal representatives will attempt to build support through claiming credit for federal funds. Aligned representatives—legislators from districts composed of copartisans—will emphasize their more extreme positions to constituents. The result is a systematic distortion in the positions parties articulate to the public.

One reason legislators develop home styles is to bolster their chance of reelection (Mayhew 1974). When developing home styles for electoral gains, legislators must decide how to balance appeals for votes based on policy stances and partisan affiliation and appeals based on

personal characteristics (Groseclose 2001; Serra 2010).<sup>1</sup> To compete on policy and partisanship, senators articulate positions to constituents. This clarifies a senator's preferred policy and reminds constituents of their senator's party affiliation (Franklin 1991). To compete on personal characteristics, legislators cultivate a personal vote or *valence* characteristics (Cain, Ferejohn, and Fiorina 1987; Fenno 1978). One way to cultivate this personal vote is to claim credit for distributive spending in the district—either through earmarks or federal grants (Stein and Bickers 1994; Wichowsky 2012).<sup>2</sup>

The relative incentive to cultivate support through credit claiming or articulating positions depends on the positions a legislator takes, her party, and the composition of her constituency. For aligned senators, the primary and general constituency are principally comprised of copartisans (Brady, Han, and Pope 2007; Fenno 1978), so aligned senators can win elections largely through appeals to copartisans. The result is a strong incentive to adopt issue-oriented home styles—to both remind copartisans of in-step positions (Franklin 1991) and affirm to voters that their representative is a member of the same “team,” aligning with the party brand in Washington (Cox and McCubbins 1993; Green, Palmquist, and Schickler 2004). Aligned legislators may still claim credit occasionally, but the ability to cultivate support with positions allows them to allocate less effort to securing earmarks and building the relationships with agencies necessary to regularly announce new grants (Stein and Bickers 1994).

More marginal senators, however, need to win support from two distinct constituencies to be reelected: copartisans in the primary election and opposing partisans in the general election (Brady, Han, and Pope 2007). Competing for votes among different constituencies makes articulating positions less attractive, because the same position will not build support with the primary and general constituencies. Misaligned senators may emphasize bipartisan work or positions out of step with their party to win support with opposing partisans, but articulating too many bipartisan or out-of-line positions undermines support among the party base. Articulating views in step with their party can cultivate support among the primary

electorate but can diminish support among opposing partisans (Fenno 1978; Franklin 1991).<sup>3</sup>

The mixed effects of articulating positions make it more attractive for marginal representatives to use credit-claiming home styles to cultivate *leeway* (Ashworth and Bueno de Mesquita 2006; Fenno 1978). Credit claiming is an effective tool for cultivating leeway because it allows a representative to appear as a nonpartisan advocate for the community, delivering distributive benefits to the state (Wichowsky 2012). Creating the impression of delivering funds to the state allows legislators to cultivate personal support with the distinct constituencies (Lazarus 2009; Stein and Bickers 1994).

Legislators, therefore, are expected to be responsive to the characteristics of constituencies when crafting home styles. The result is an ideological distortion in the positions parties articulate to the public. Aligned representatives—also the most extreme legislators—are predicted to articulate policy positions at a much higher rate than their more marginal, and more moderate, colleagues. The result is that the views that emerge from each party are weighted toward their extreme members.

## Measuring Senators' Home Styles Using Press Releases

Studies of political representation tend to analyze *fit*, measuring the correspondence between what legislators do in Washington and what constituents want them to do (e.g., Achen 1978; Miller and Stokes 1963). The implicit models of politics underlying these theories assume a disconnect between representatives and their constituents. Representatives work in Washington. And subsequently, constituents learn about this work. The strong and implicit assumption is that legislators attempt to exert little influence on how this learning occurs.

This neglects the activities that constitute central components of the representation process. The same legislators who anticipate constituent reaction to work in Washington also work proactively and reactively framing events and decisions in Washington to bolster support among constituents (Arnold 1990; Fenno 1978; Mayhew 2000). To attempt to exert this influence on constituents, legislators work outside their official capacity as

<sup>1</sup>Senators have to balance because Senate offices produce a large, though limited, number of press releases. This is due to the limited time of press secretaries and a reluctance to flood newspapers and other outlets with too many messages (Cook 1988).

<sup>2</sup>Even though legislators have limited control over total money directed to their state (Berry, Burden, and Howell 2010), I show in the SI that senators regularly claim credit for grants allocated through executive agencies.

<sup>3</sup>I show in the SI an implication of this argument holds: aligned senators almost exclusively endorse their party position and party affiliation when articulating positions about Iraq. Marginal senators adopt a more mixed strategy—articulating bipartisan and partisan positions at about the same rate, though articulating any position less often than aligned senators.

representatives and interact with constituents outside of Washington (Fenno 1978). When interacting with constituents, legislators use tools of communication to explain to constituents why their representative is effective. Legislators use this communication to *define* the type of representation they provide, through the creation of a home style.

This article analyzes how legislators use a central component of their home style: the topics they emphasize and the priorities they express to their constituents (Fenno 1978). This conceptualization of home style shares many important characteristics with the original conceptualization advanced in Fenno (1978). But the conceptualization that I introduce also addresses a limitation in the original study of home style. Legislators not only create the personal (and in-person) styles that Fenno (1978) describes, but representatives also create public image through impersonal means (Fenno 1978, 136). It is this impersonal style that I analyze here.

To measure legislators' home styles systematically, I employ a new collection of 64,033 press releases: every press release from each Senate office in 2005, 2006, and 2007. Press releases constitute a particularly useful medium to measure senators' communication strategies. First, they are used by nearly every Senate office, with the average senator issuing 212 press releases *per year*. Further, press releases are likely to capture the day-to-day debates that occur in the Senate, with over 58 press releases issued *per day* (and not just days that the Senate is in session). And press releases provide distinct and politically important content from floor speeches, a form of political speech that is more regularly studied (e.g., Quinn et al. 2010). Senators are much more willing to claim credit for appropriations in their press releases than in floor speeches. About 36% of press releases contain credit claiming about appropriations, whereas only 4% of Senate floor speeches contain credit claiming about appropriations.<sup>4</sup> The three years of press releases ensures that I analyze senators before and after an election and that we observe home styles while Republicans (2005–2006) and Democrats (2007) control the Senate.

To provide a comprehensive measure of senators' home styles in press releases, I introduce a new statistical model for political text.<sup>5</sup> The model is constructed around

<sup>4</sup>I made this comparison using a set of contemporaneous floor speeches from the Senate. A research assistant then classified a subset of the floor speeches and press releases into a simple typology (similar to the typology in Mayhew 1974). To classify the remaining press releases, I employed a supervised-learning algorithm (Hopkins and King 2010).

<sup>5</sup>I discuss the model heuristically here and defer technical details to the SI.

a crucial property of home styles: differences are determined by *what* legislators discuss, rather than the positions legislators take when discussing issues. That is, two senators with very different preferred policy outcomes could still articulate the same, policy-focused home style (Fenno 1978). With this property of home style in mind, the model that I introduce focuses on identifying the *topics* legislators discuss in press releases and the attention each legislator allocates to those topics. To do this, the model expands upon the well-established idea that topics in texts are expressed with a distinctive set of words (e.g., see Blei, Ng, and Jordan 2003 or Quinn et al. 2010) and extends this idea to include information about the authors of the texts. This additional structure in the model facilitates the estimation of the key quantities of interest for exploring senators' home styles.

The Bayesian statistical model simultaneously estimates four quantities of interest, all of which are useful for understanding how legislators engage constituents outside of Congress. The first quantity of interest is a set of *topics*: politically relevant concepts discussed in press releases. The estimated model in this article assumes that there are 44 topics in the press releases, a number that was determined using substantive and statistical criteria. A second quantity of interest is the topic of each press release: every press release is assigned to its most likely topic.

As a measure of senators' home styles, the model measures the proportion of press releases senators allocate to each of the topics. This provides a measure of how senators divide their attention, or senators' *expressed priorities*. Consider, for example, Richard Shelby (R-AL) in 2005. The key assumption is that Shelby will divide his attention over the 44 topics assumed in the press releases. For notational purposes, call the proportion of press releases Shelby allocates to topic  $k$  in 2005,  $\text{Priority}_{\text{Shelby},2005,k}$ . Collecting this allocation across all 44 topics, we have our measure of Shelby's home style in 2005:

$$\text{Priorities}_{\text{Shelby},2005} = (\text{Priority}_{\text{Shelby},2005,1}, \text{Priority}_{\text{Shelby},2005,2}, \dots, \text{Priority}_{\text{Shelby},2005,44}). \quad (2.1)$$

The model obtains the proportion of press releases senators allocate to the topics across all senators and all three years of the press release data. Together, these estimates constitute a comprehensive measure of how members of Congress present their work to constituents.

The final quantity of interest is a typology of senators' home styles: each senator, in each year served, is classified into a home style type based on her expressed priorities. This typology provides a high-level summary of how senators differ in how they explain their work to

constituents and facilitates coarse (but useful) descriptions in differences in home styles.<sup>6</sup>

To reiterate, the Bayesian statistical model estimates all four of these quantities of interest *simultaneously*. Further, the model *discovers* the quantities of interest in the data set, in a way similar to other machine-learning algorithms in political science, such as Quinn et al. (2010) and Poole and Rosenthal (1997). To estimate the model, I employ a variational approximation—a fast and deterministic algorithm suitable for complicated posteriors (Grimmer 2011).

## The Types of Home Styles in the Senate

This section demonstrates that underlying senators' home styles is a systematic pattern in how they present their work to constituents. Senators' home styles align on a spectrum, ranging from senators who focus on broad public policy, *issue-oriented* senators, to senators who focus on distributive spending, *appropriators*. This spectrum reveals that the measures of home styles are politically interesting—it parallels a spectrum originally considered in Fenno (1978), described in other studies (Wichowsky 2012), and expected from formal models (Ashworth and Bueno de Mesquita 2006; Weingast, Shepsle, and Johnsen 1981).

Reliable topic labels are necessary to identify this spectrum. To perform this labeling, I use previously established methods (see Grimmer 2010 and Quinn et al. 2010) and place the labels for each topic in Table 1. The first column in Table 1 is a summary label that I constructed after reading a sample of 10–15 press releases from the topic. The second column presents a set of identifying words: words that distinguish the documents in each topic from the other topics, identified using a statistical method. The final column is the percentage of press releases assigned to each topic.

The topics, displayed in Table 1, reveal that the model identifies major debates and issues in the Senate and American politics from 2005 to 2007. One of the largest categories identified is a set of press releases that discuss the Iraq war, one of the most salient policy disputes at the time. The model also identified a set of press releases that *honor* constituents or memorialize major national holidays (Mayhew 1974). And the model also identifies topics

that legislators use to claim credit for money allocated to the state, such as *transportation grants*. These appropriations topics are in bold in Table 1, while topics used to articulate positions on national debates are italicized.<sup>7</sup>

The labeled topics facilitate the interpretation of the estimated priorities: how senators divide their attention over the topics. Directly using the estimated expressed priorities is one possibility. But the expressed priorities are high dimensional, so a topic-by-topic analysis tends to obscure the most interesting differences in senators' home styles. Instead, I use an aggregated, or low-dimensional, summary of senators' high-dimensional expressed priorities. For visualization purposes, I first focus on a two-dimensional summary of the overall variation in senators' expressed priorities. To obtain this summary, I apply the classic multidimensional scaling algorithm (MDS) to the estimated expressed priorities for the 301 senator-years (Cox and Cox 2000). Classic MDS obtains this low-dimensional summary by identifying a positioning in two dimensions that best preserves the overall variation across the expressed priorities in higher dimensions. Classic MDS is appropriate because it prioritizes preserving this overall variation, while other scaling methods—such as Sammon MDS—prioritize other features of the data, potentially distorting the summary of the overall variation (Cox and Cox 2000). In the SI, I show that the choice of classic MDS is inconsequential—several other methods provide the same scaling of the expressed priorities. To label the dimensions, I identified the topics that best predicted a senator's location on the dimensions.

Figure 1 visualizes the low-dimensional summaries of senators' expressed priorities after applying MDS. The horizontal dimension in Figure 1 captures how senators balance position taking and credit claiming, and the vertical axis in Figure 1 measures senators' attention to regional issues.<sup>8</sup> The different point-types in the plot and gray-scale colors represent the different types of senators the model automatically identifies. The individual points represent the location of the 301 senator-years after

<sup>7</sup>To identify the position taking and credit claiming for expenditure topics, I worked with a group of research assistants. We read several press releases from each category and then assessed whether it was position taking, credit claiming, or another category based on Mayhew (1974).

<sup>8</sup>Regional issues tend to cluster in groups of states—such as farming, ethanol, beef trade, and LIHEAP funding. These topics can be particularistic, but usually do not discuss an explicit outlay of federal dollars—a requirement for my credit-claiming category. In the SI, I validate the regional issues label, and I show that marginal senators, particularly Democrats, allocate more attention to regional issues. If combined with the dependent variable used throughout the article, the results are *stronger*, though the measure is harder to justify theoretically.

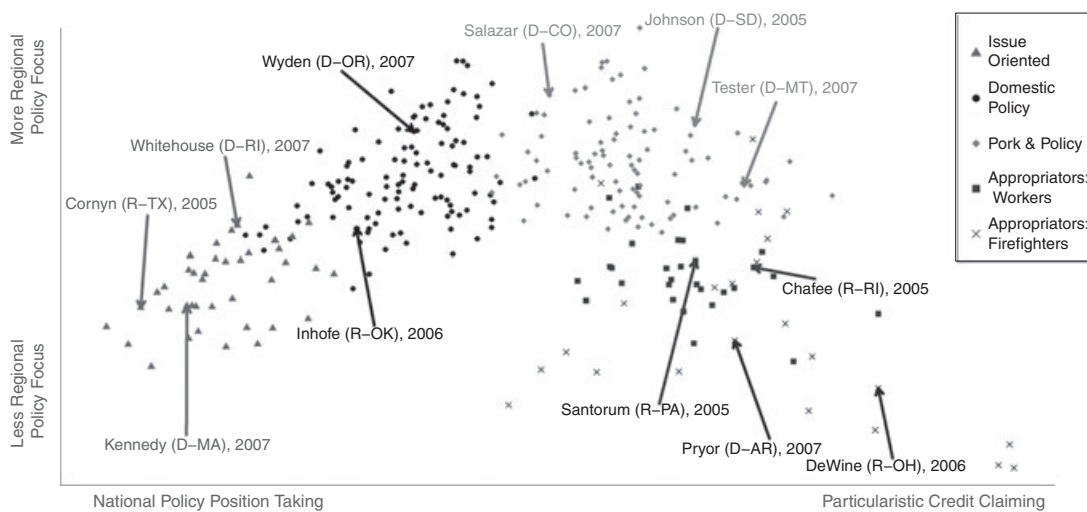
<sup>6</sup>The model employed assumes that there are five styles in the press releases chosen using two different statistical criteria I describe in the SI.

TABLE 1 Topics in Press Releases

Description	Stems	%
Honorary	honor, prayer, remember, fund, tribute	5.0
<b>Transp. Grants</b>	airport, transport, announce, urban, hud	4.8
<i>Iraq</i>	iraq, iraqi, troop, war, sectarian	4.7
DHS Policy	homeland, port, terrorist, dh, fema	4.1
History/Heritage	heritage, park, historic, culture, visitor	3.8
Judicial Nom.	judge, court, supreme, nominate, nominee	3.8
<b>Fire Dept. Grant</b>	firefight, homeland, afgp, award, equipment	3.7
<b>WRDA</b>	water, river, corps, wrda, habitat	3.7
<b>Education Fund.</b>	student, education, school, teacher, college	3.6
<i>Budget</i>	tax, deficit, budget, cut, wage	3.5
<i>Consum. Safety</i>	consumer, fda, internet, food, broadcast	3.2
<i>Health Care Access</i>	care, patient, health, medical, hospital	3.0
<b>Science Research</b>	university, research, science, center, laboratory	2.9
<b>Justice Grants</b>	crime, justice, enforce, methamphetamin, meth	2.8
<i>Environment</i>	epa, environment, pollute, fish, clean	2.8
Biofuel	fuel, energy, ethanol, renew, oil	2.8
<i>Immigration</i>	immigration, border, illegal, reform, alien	2.6
Farm	farmer, farm, agriculture, crop, rancher	2.6
<b>Defense Const.</b>	defense, military, navy, army, aircraft	2.5
<i>Energy/Gas</i>	oil, price, energy, gasoline, consumer	2.4
<i>Justice Dept.</i>	intelligence, detainee, cia, surveillance, gonzales	2.4
National Guard	military, soldier, guard, iraq, troop	2.2
Worker's Rights	worker, airline, employee, flight, faa	2.0
<i>Mortgage Crisis</i>	mortgage, lender, bank, loan, lend	1.9
Veteran's Affairs	veteran, affair, traumatize, wound, care	1.9
BRAC	brac, realign, closure, air, defense	1.9
Beef Imports	trade, beef, export, japan, cattle	1.8
<i>Gov. Transp.</i>	transparency, earmark, taxpayer, lobbyist, lobby	1.7
<i>Foreign Affairs</i>	darfur, peace, passport, intern, humanitarian	1.7
Education	student, school, academy, young, attendee	1.6
<i>Tax Policy</i>	tax, deduct, relief, taxpayer, income	1.5
<b>Transp. Approp.</b>	transport, congest, rail, road, transit	1.5
Medicare/Liheap	prescript, liheap, medicare, beneficiary, senior	1.4
Disasters	fema, disaster, declare, storm, damage	1.2
Child Safety	crime, criminal, theft, internet, identify	1.1
<i>SCHIP</i>	schip, insured, coverage, uninsured, chip	1.1
Prev. Medicine	disease, diagnose, cancer, breast, cure	0.9
<i>Stem Cells</i>	stem, cell, cure, research, disease	0.9
Katrina Recovery	louisiana, hurricane, gulf, coast, coastal	0.9
Infect. Disease	flu, pandemic, vaccine, outbreak, stockpile	0.5
<i>FDA</i>	fda, drug, prescript, pharmaceutical, medicine	0.5
<i>Social Sec.</i>	social, retire, private, terrorist, retire	0.5
<i>Justice Oversight</i>	gonzales, alberto, interim, resign, dismiss	0.4
<i>Worker Safety</i>	miner, accident, safety, tragedy, coal	0.4

Note: The topics identified by the model. Appropriations topics are in bold, while position-taking topics are italicized.

**FIGURE 1 A Typology of Home Styles in the U.S. Senate**



*Note:* This plot represents the typology of home styles. To create the plot, I use classic multidimensional scaling to identify the two primary dimensions underlying the higher-dimensional expressed priorities. The horizontal dimension captures how senators balance position taking and credit claiming in their press releases, while the vertical dimension measures how much attention senators allocate to regional issues.

applying the MDS and 12 senator-years are identified for illustrative purposes. Two points will be close together on this plot if the senators adopt similar home styles, whereas two points will be far apart if those senators articulate very different priorities to their constituents.

Moving from left to right in Figure 1 reveals how senators with different types of home styles balance position taking and credit claiming. At the far left of Figure 1 is a group of senators who are *issue oriented*: senators who focus on broad international and national issues and avoid claiming credit for appropriations. Moving to the right is a group of *domestic policy* senators who also tend to articulate positions on broad policy issues, but focus on more domestic issues, such as the environment, than issues like the Iraq war. The group immediately to the right of the domestic policy senators, the *pork and policy* senators, adopt home styles that more evenly balance claiming credit for money delivered to the state and articulating positions on broad policy disputes. The final two groups, the *appropriators* at the far right of the spectrum, allocate the plurality of their press releases to claiming credit for expenditures and largely avoid issuing press releases about broad policy.

To validate that the horizontal dimension in Figure 1 measures how senators balance credit claiming and position taking in their press releases, Figure 2 plots senators' location on the horizontal axis in Figure 1 against a direct measure of how senators balance credit claiming and position taking. To create this aggregated measure, I use the

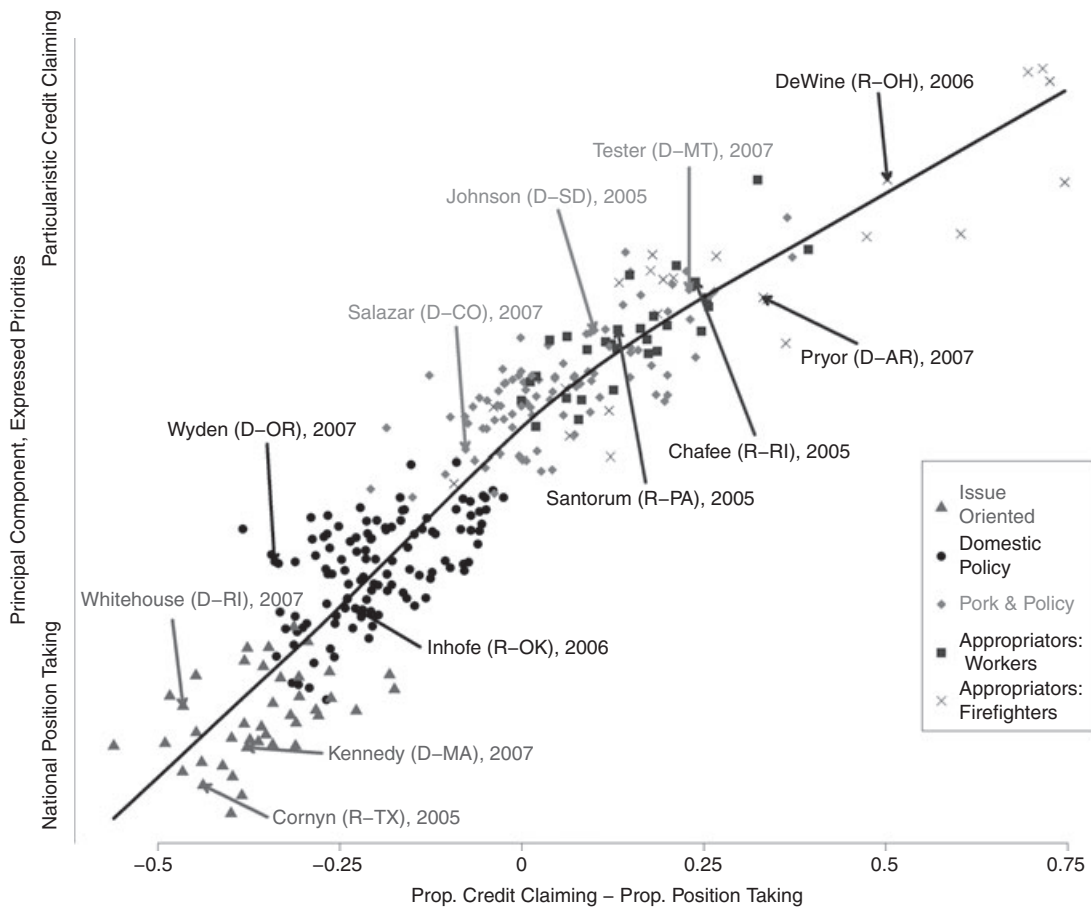
output of the statistical model to first create measures of credit claiming and position taking for each senator  $i$ , in each year,  $t$ : (1) the proportion of press releases a senator dedicates to position taking,  $Prop. Pos. Taking_{i,t}$  and (2) the proportion of press releases dedicated to credit claiming,  $Prop. Credit_{i,t}$ . To create the final measure,  $Balance_{i,t}$ , I take the difference of these two proportions:

$$Balance_{i,t} = Prop. Credit_{i,t} - Prop. Pos. Taking_{i,t}. \quad (3.1)$$

The more negative  $Balance_{i,t}$ , the more relative attention senator  $i$  in year  $t$  allocates to position taking. The more positive, the more relative attention she allocates to claiming credit for federal funds.

The strong relationship in Figure 2 between  $Balance_{i,t}$  and the horizontal dimension in Figure 1 validates that the primary variation underlying senators' home styles is the trade-off between position taking and credit claiming. Figure 2 shows that the legislators who allocate relatively more of their press releases to position taking are located to the far left of Figure 1 and particularistic-focused senators are grouped together on the far right of Figure 1. This relationship is found across all five types of home styles, resulting in a strong correlation of 0.94. The conclusion: the types of home styles are separated primarily by how they balance position taking and credit claiming.

The remainder of this article will focus on modeling how senators balance credit claiming and position taking in each year and the implications for policy debates.

**FIGURE 2 Validating the Issue-Oriented Appropriator Spectrum**

*Note:* This figure shows that the primary variation in senators' home styles describes where senators fall on a statesmen, appropriators spectrum. This figure plots the horizontal dimension from Figure 1 against the proportion of press releases senators claim credit for appropriations, less the proportion of press releases senators take positions, or the  $Balance_{i,t}$  scores from equation (4.1). The strong correlation between the two, 0.94, indicates that this dimension captures this trade-off.

I focus on this balance for two reasons. First, it explains 64% of the variation in senators' home styles and therefore constitutes a large portion of the differences found in senators' home styles. It is also theoretically relevant. Part of its relevance is due to correspondence with spectra from previous work. For example, Fenno describes a group of legislators "along a spectrum ranging from a style that is heavily weighted toward the cultivation of personal relationships to a style that is heavily weighted toward the discussion of policy issues" (1978, 61). Wichowsky (2012) suggests a similar trade-off in congressional activity. The balance of position taking and credit claiming is also theoretically relevant because it corresponds with trade-offs predicted in formal models of Congress and congressional elections (Ashworth and Bueno de Mesquita 2006; Weingast, Shepsle, and Johnsen 1981).

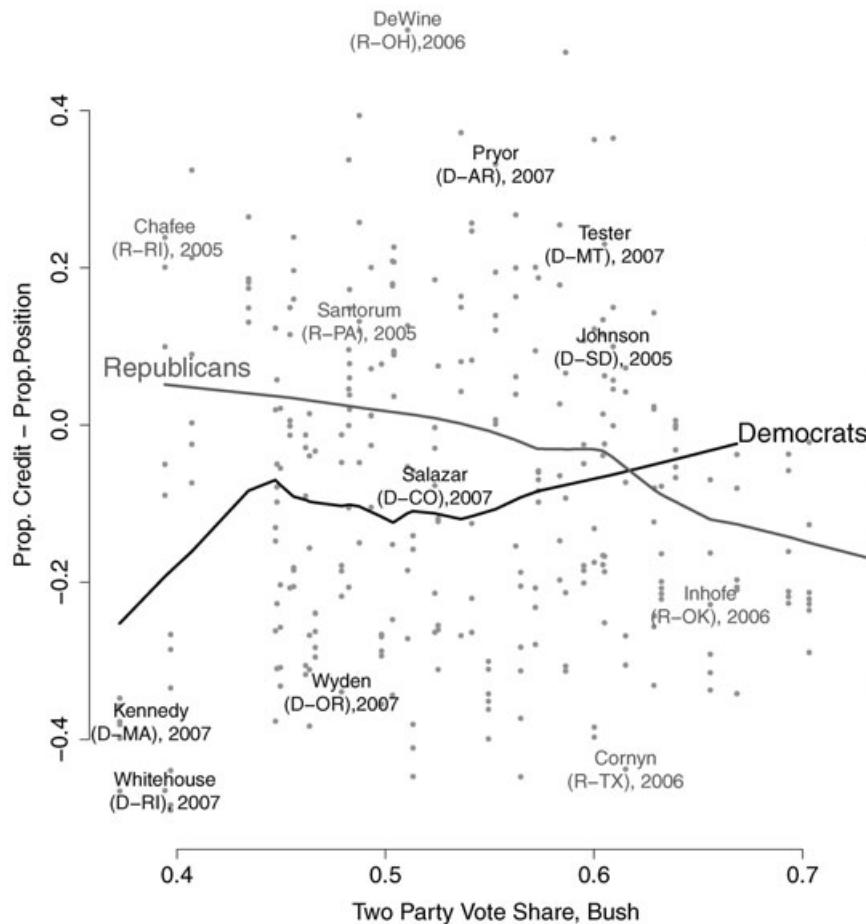
## The Electoral Connection's Influence on Home Style

I argue above that the electoral connection causes marginal representatives to avoid positions and aligned representatives to embrace them. In this section, I show that this pattern manifests in the measures of home styles. Marginal senators allocate less space to position taking than their more aligned colleagues.

To measure a legislator's marginality, I rely on two measures of the partisan composition of a state. For the first measure, I follow a long tradition in the study of Congress and representation and use the share of the two-party vote for the Republican presidential candidate in each state (for examples in recent studies, see Canes-Wrone, Brady, and Cogan 2002; Carson et al. 2010).



**FIGURE 3 Marginal Legislators Systematically Emphasize Appropriations and Avoid Policy**



Note: This figure shows that marginal legislators allocate more attention to appropriations and less attention to position taking in their press releases. For both Democrats (the black line) and Republicans (the gray line), senators from states concentrated with the other party’s partisans avoid position taking, instead allocating attention to appropriations.

Specifically, I use the 2004 share of the two-party vote for George W. Bush in each state. Presidential vote share is an appealing measure because it is highly correlated with a voter’s partisan identification, senators use it to describe their own marginality, and it avoids the endogeneity of a senator’s past election results. As a second measure of the partisan composition of a state, I employ survey-based estimates of the Republican share of self-identified partisans. To calculate these estimates, I use a multilevel-regression, poststratification approach using the 2004 National Annenberg Election Study, as outlined in Lax and Phillips (2009).

Using the two-party share of the presidential vote to measure the partisan composition of each state, Figure 3 shows that legislators who represent different constituen-

cies articulate distinctive home styles. I measure the relative rates of credit claiming and position taking using  $Balance_{i,t}$ , from equation (3.1). Senators who are lower in the plot allocate more attention to articulating positions; senators who are higher allocate more attention to claiming credit. The thick dark line is a lowess regression of  $Balance_{i,t}$  against Bush vote share for Democratic senators; the gray line is the relationship between  $Balance_{i,t}$  and Bush vote share for Republicans (Cleveland 1979).

Figure 3 demonstrates that marginal legislators avoid position taking and instead emphasize credit claiming. The dark line shows that Democratic senators from heavily Democratic states are expected to allocate a large proportion of their press releases to position taking. Consider Sheldon Whitehouse, a Democratic freshman

senator from Rhode Island, a state known for its consistent support for Democrats. Whitehouse allocated 54% of his press releases to position taking and only 7% of press releases to credit claiming. But marginal Democrats adopt a strikingly different strategy. John Tester, a freshman Democrat from Republican-friendly Montana, dedicates 27 percentage points more of press releases to credit claiming than position taking.

The gray line in Figure 3 shows that this same relationship is observed among Republicans. Republican senators who represent states composed largely of Republicans do more position taking than credit claiming. For example, Orrin Hatch, a Republican senator from heavily Republican Utah, allocates 23 more percentage points to position taking than credit claiming in his press releases. In contrast, Mike DeWine, a more marginal senator from swing-state Ohio, focuses almost exclusively on credit claiming in his press releases. He dedicates 64 percentage points more to credit claiming than position taking. The generally higher level of credit claiming among Republicans could be due to more time in majority status (Lazarus 2009) or the result of a copartisan president (Berry, Burden, and Howell 2010). Figure 3 also exhibits other variation in senators' home styles that could confound the relationship between marginality and home style. I attempt to limit this confounding in the next section.

### The Robust Relationship between the Electoral Connection and Home Style Choice

Given the challenges in identifying the causal effect of a state's partisan composition on home styles (e.g., see Caughey and Sekhon 2012), I use a regression framework to demonstrate a robust relationship between the party composition of a district and senators' home styles. Using a multilevel regression model (Gelman and Hill 2007), I demonstrate that the relationship between state partisan composition and senators' home styles is not attributable to a large set of confounders common in other studies of congressional behavior. While this design requires stringent assumptions to identify a causal effect, it does demonstrate that the relationship is robust. To provide further evidence for the relationship, I test several implications of the electoral connection affecting home styles. Together this provides strong evidence of a relationship between constituencies and home styles.

I first consider the relationship between constituencies and how senators balance credit claiming and position taking in their home styles in each year—measured

using the  $\text{Balance}_{i,t}$  scores from equation (3.1), I regress the measures of home style choice on a measure of legislators' alignment with their constituency (Canes-Wrone, Brady, and Cogan 2002). For Democrats, this measure captures the percentage points over 50% of the two-party vote share John Kerry received in the 2004 election. For Republicans, this measure captures the percentage points over 50% George Bush received. Higher alignment scores imply that legislators are from states with more copartisans. For example, John Tester receives an alignment score of  $-0.105$  because John Kerry received 39.5% of the two-party vote in Montana in 2004, while Conrad Burns, a Republican from Montana, would receive a score of  $0.105$ . To adjust for confounding, I include a set of other covariates that are likely predictors of home styles—including whether a senator is “in cycle” or faces an election in the next two years (Lazarus and Steigerwalt 2009; Shepsle et al. 2009), state size (Oppenheimer 1996), majority party membership (Lazarus 2009), previous House service (Fenno 1978), and tenure in the institution (Fenno 1978). To allow for additional heterogeneity, to improve model fit, and to account for including multiple observations from senators, I model the intercept as a function of senator and state indicators. I then use a normal prior to pool the information across senators and states, creating senator and state random effects (Gelman and Hill 2007).

The results presented in Table 2 demonstrate the robust relationship between the partisan composition of a state and senators' home styles. Consider the estimates from Model 1, which demonstrate that senators who are more aligned with their constituencies dedicate more attention to position taking than their more marginal colleagues. Using the model, a shift from a senator with an alignment score of 0, the 25<sup>th</sup> percentile of alignment, to an alignment score of 0.10, the 75<sup>th</sup> percentile of alignment, decreases the difference between the percentage of press releases dedicated to credit claiming and position taking 6.1 percentage points—indicative of a shift away from appropriations and toward position taking (95% credible interval  $[-0.10, -0.02]$ ).

The relationship between partisan composition of a state and home style choice is robust—even to the inclusion of variables that are also a likely consequence of the partisan characteristics of the state and therefore should technically be excluded from the model. For example, we may expect that members of the Appropriations Committee, who have greater access to funding for their district, will focus more on credit claiming. Technically, this variable is *posttreatment*: Appropriations Committee membership is likely a consequence, at least in part, of the partisan composition of the state (Fenno 1973; Shepsle 1978). But as the estimates in Column 3 indicate, even

**TABLE 2 The Robust Relationship between State Party Composition and Home Style**

Dep. Var.	Bayesian Multilevel Linear Regression					Bayesian Multilevel Poisson Regression		
	App -Pos	App -Pos	App -Pos	App	Pos	No. App - No. Pos	No. App	No. Pos
Intercept	-0.06 (0.06)	-0.04 (0.07)	-0.07 (0.06)	0.20 (0.04)	0.27 (0.03)	14.05 (18.00)	3.30 (0.26)	3.53 (0.19)
Alignment (2004 Vote Share)	-0.68 (0.27)	-0.56 (0.29)	-0.63 (0.26)	-0.31 (0.16)	0.35 (0.12)	-183.62 (76.79)	-1.79 (1.17)	1.16 (0.87)
Democrat	-0.11 (0.04)	-0.12 (0.08)	-0.11 (0.04)	-0.04 (0.03)	0.07 (0.02)	-34.00 (12.60)	0.07 (0.19)	0.52 (0.14)
Years/100	-0.02 (0.22)	-0.03 (0.22)	-0.17 (0.21)	0.05 (0.14)	0.07 (0.10)	-84.67 (66.52)	-0.31 (0.98)	-0.16 (0.70)
Former House Mem.	0.10 (0.04)	0.11 (0.04)	0.09 (0.04)	0.06 (0.02)	-0.04 (0.02)	25.25 (11.26)	0.16 (0.17)	-0.22 (0.11)
Freshman	-0.05 (0.05)	-0.05 (0.05)	-0.04 (0.05)	-0.02 (0.03)	0.03 (0.02)	-19.57 (15.87)	-0.18 (0.23)	0.10 (0.16)
Majority	0.04 (0.02)	0.05 (0.02)	0.04 (0.02)	0.04 (0.01)	-0.01 (0.01)	8.81 (4.29)	0.28 (0.02)	0.10 (0.02)
In Cycle	0.02 (0.02)	0.01 (0.02)	0.02 (0.02)	0.01 (0.01)	-0.00 (0.01)	-3.18 (5.28)	0.16 (0.02)	0.19 (0.02)
State Pop. (Millions)	0.02 (0.03)	0.02 (0.03)	0.01 (0.03)	0.01 (0.02)	-0.00 (0.02)	2.88 (8.82)	0.23 (0.14)	0.14 (0.11)
Ideal point est.	-	-0.01 (0.03)	-	-	-	-	-	-
(Idealpointest.) <sup>2</sup>	-	-0.02 (0.02)	-	-	-	-	-	-
Approp. Mem.	-	-	0.12 (0.04)	-	-	-	-	-
N	301	301	301	301	301	301	301	301
Sen. ran. effects (112)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
State ran. effects (50)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

*Note:* This table demonstrates the robust relationship between party composition in a state and a senator’s home style. For each model, I fit a multilevel regression, where I regressed a measure of credit claiming against a measure of a legislator’s marginality, along with a host of controls and senator and state random effects. Coefficient estimates are presented, with standard errors in parentheses. Across models and operationalizations of the dependent variable, the relationship between constituency characteristics is both substantively and statistically significant.

after including this variable, the robust relationship between partisan composition of the state and home style remains. We may also expect that legislators’ ideological orientations may affect how they present their work to constituents. This is posttreatment as well—whom legislators represent affects how they vote (Kingdon 1989). But Column 2 of Table 2 demonstrates that the relationship between party composition in the state and home style choice remains after conditioning on estimates of legislators’ ideal points.

The dependent variable in the previous regressions measures the difference in proportion of press releases

dedicated to credit claiming and position taking in press releases. But the theoretical discussion predicts that whom legislators represent should affect credit claiming and position taking individually. The results in Columns 4 and 5 confirm this expectation. Marginal legislators allocate more attention to appropriations. A marginal senator with an alignment score of 0 is expected to allocate 2.7 percentage points more of her press releases to appropriations than senators with an alignment score of 0.1 (95% credible interval [0.003, 0.05]). Likewise, aligned senators allocate more space to position taking. An aligned senator with an alignment score of 0.1 is expected to

allocate 3.3 percentage points more of her press releases to substantive issues than a more marginal colleague with an alignment score of 0 (95% credible interval [0.01, 0.05]). One might also be concerned that the use of proportions is accentuating differences that are not present if we examine the number of press releases issued. Using multilevel Poisson regressions to model the number of appropriation and position-taking press releases from each senator reveals that the same relationship remains: marginal senators emphasize claiming credit for expenditures, while aligned senators emphasize position taking.

The results are also robust to the use of a different measure of state partisanship: poststratified estimates of partisanship based on self-reported party identification in a survey. Regression results, presented in the SI, show that this different measure reveals the same relationship: marginal representatives allocate more space to credit claiming, while aligned representatives allocate more space to positions. The SI also shows that it is unlikely that the robust relationship between constituency characteristics and home style choice is a product of moderates having difficulty articulating their more nuanced positions.

### An Issue-by-Issue Account of the Electoral Connection's Influence

One reason the electoral connection affects home styles is that representatives fear they will undermine their electoral support when they articulate incongruous views to constituents (Franklin 1991). While partisanship serves as a useful proxy for these views, a more direct test of this mechanism is a comparison of legislators' positions and the views of constituents. If the theoretical intuition is correct, then legislators with positions discordant with their general election constituents should, on average, avoid discussing those issues. Conversely, legislators with views congruent with general-election constituents should allocate more attention to those topics.

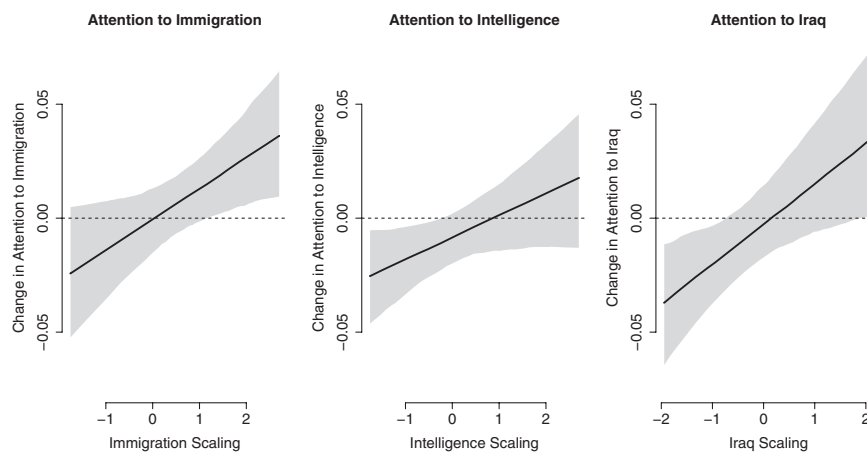
Using issue-specific measures of constituency and legislator opinion, I show that senators with views aligned with their constituents allocate a larger share of press releases to articulating positions, while senators with incongruous views allocate a smaller share. I focus on three salient policy disputes during this study: immigration, domestic surveillance, and the Iraq war. I measure constituent views in each policy area using three questions asked during the 2004 National Annenberg Elections Study. (The specific questions are found in the SI.) I then measure state-level opinion using a multilevel-regression,

poststratification methodology (Lax and Phillips 2009). To measure senators' views on the three issues, I first identified roll-call votes from the 109th and 110th Congress on each of the three issue areas. I then used an item-response model to create three issue-specific one-dimensional scalings of the policy positions of senators based on their roll-call votes (Clinton, Jackman, and Rivers 2004). Each of the scalings captures positions similar to the three questions asked of constituents.

Using these measures of constituency opinion and legislator positions, Figure 4 shows that senators with views incongruous with their constituents avoid taking positions on those issues. Consider the left-hand plot. For immigration, I measure the proportion of constituents in a state who favor a more restrictive immigration policy. And the positions measured from roll-call votes capture whether senators want to liberalize immigration restrictions (more negative positions on horizontal axis) or favor imposing more stringent restrictions on the border (more positive positions on horizontal axis). To generate the plot, I use a multilevel model to regress the proportion of press releases senators allocate to immigration in each year on the measure of state-level opinion, the senator's position in the immigration scaling, and an interaction of the two measures. I also included state- and senator-level random effects. For each point in the scaling, the plot presents the expected percentage point change in a senator's attention to immigration after a 10-percentage-point increase in support for restricting immigration, or a conservative shift in opinion. The thick line is the *expected change*, and the gray area is a 95% credible envelope around that expected change. If the line is below the dashed line at zero, then legislators are responding to the conservative shift in opinion with a decrease in attention to immigration. If the line is above the dashed line, then the response is an increase in attention to immigration.

Figure 4 shows that how senators respond to shifts in constituent opinion depends on the senators' positions. In response to a conservative shift, liberal senators discuss immigration *less often*. The most liberal senator on immigration (located at the far left of the plot) responds to a 10-percentage-point increase in support for more restrictive immigration policies by *decreasing* attention to immigration 2.4 percentage points. But the same shift results in conservative senators allocating *more* attention to immigration: conservative senators *increase* attention to immigration 3.5 percentage points. This same pattern is replicated with senators' attention to domestic surveillance and the Iraq war. When opinion shifts in a conservative direction, liberals allocate less attention to each topic, but conservatives allocate more attention.

**FIGURE 4 The Electoral Connection and Attention to Three Salient Policy Debates**



*Note:* This figure shows that senators allocate less attention to topics when they adopt out-of-step positions. Each plot shows the expected change in attention to a topic after a 10-percentage-point shift in the conservative direction. In each plot, liberal senators respond to the conservative shift by allocating *less* attention to the topic, while conservative senators respond to the conservative shift by allocating *more* attention.

## The Electoral Connection and Artificial Polarization in Debate

The previous section demonstrates that how senators present their work depends on whom they represent. The recurring pattern that results—marginal senators avoiding issues and aligned senators articulating positions—leads to artificially polarized discourse. This constitutes one instance where responsiveness to the electoral connection has negative consequences for collective representation. This polarization in discourse occurs because legislators' marginality is strongly related to the positions they take and the votes they cast in Washington. Legislators from districts concentrated with copartisans not only have incentive to articulate positions, but they also tend to be ideologically extreme. Marginal representatives tend to be more moderate (Levendusky, Pope, and Jackman 2008), but have incentive to avoid articulating positions. As a result, the senators who take public positions on issues constitute an ideologically extreme subset of each party.

To show that the artificial polarization occurs as marginal senators avoid participating in prominent debates, I first use the debate on the Iraq war as a quantitative case study. I show that when the Iraq war is salient, extremists are much more likely to offer positions than moderates. I then show that this artificial polarization occurs generally across issues, with liberal Democrats and

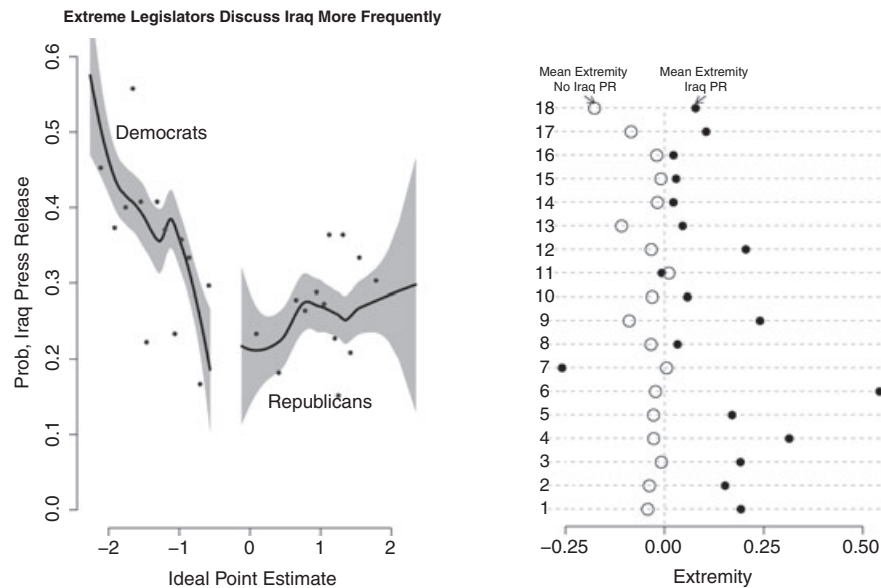
conservative Republicans dominating the positions articulated in press releases.

### Press Releases on Iraq: A Quantitative Case Study

The Iraq war is an ideal case study to demonstrate how the artificial polarization in discourse occurs. From 2005 to 2007, it was one of the most contested issues in the Senate. And how senators thought the war should proceed correlated strongly with estimates of their ideal points from roll-call voting data. As conditions in Iraq deteriorated, liberal Democrats—such as Ted Kennedy (D-MA), Barbara Boxer (D-CA), and Russ Feingold (D-WI)—advocated for a fast and targeted withdrawal date, rather than withdrawal based on benchmarks. Moderate Democrats and Republicans—such as Ben Nelson (D-NE), Mark Pryor (D-AR), Olympia Snow (R-ME), and John Warner (R-VA)—favored a withdrawal, but one that was more gradual and based on achievements on the ground, rather than predetermined dates. But conservative Republicans, such as Lindsey Graham (R-SC) and Jon Kyl (R-AZ), rallied behind President Bush's plans.

To characterize who articulates a position on the war, I first examine senators' press releases during 18 weeks when the Iraq war was salient—either due to events in Iraq or prominent policy decisions in the United States. I focus on salient weeks because this is when policy debates

**FIGURE 5 Senators Who Take Positions Are More Extreme Than Senators Who Do Not**



*Note:* This figure shows that the senators who take positions on the Iraq war are more extreme than the senators who avoid offering a position. The left-hand plot shows that ideological extremity is a strong predictor of whether senators comment on the war. For both Democrats (the left-hand lowest regression line) and Republicans (the right-hand lowest regression line), senators who are ideologically extreme are more likely to articulate a stance on the war. The right-hand plot shows that each week the Iraq war is salient, position-taking senators are more extreme than their silent colleagues.

actually occur. Quinn et al. (2010) show that attention to topics in Congress increases drastically when a vote or event renders a topic relevant. This same pattern is observed in the Senate press releases: over 50% of all press releases about Iraq occur on less than 10% of days. Thus, issue salience provides the opportunity to examine who participates in policy discussions when those discussions actually occur.<sup>9</sup>

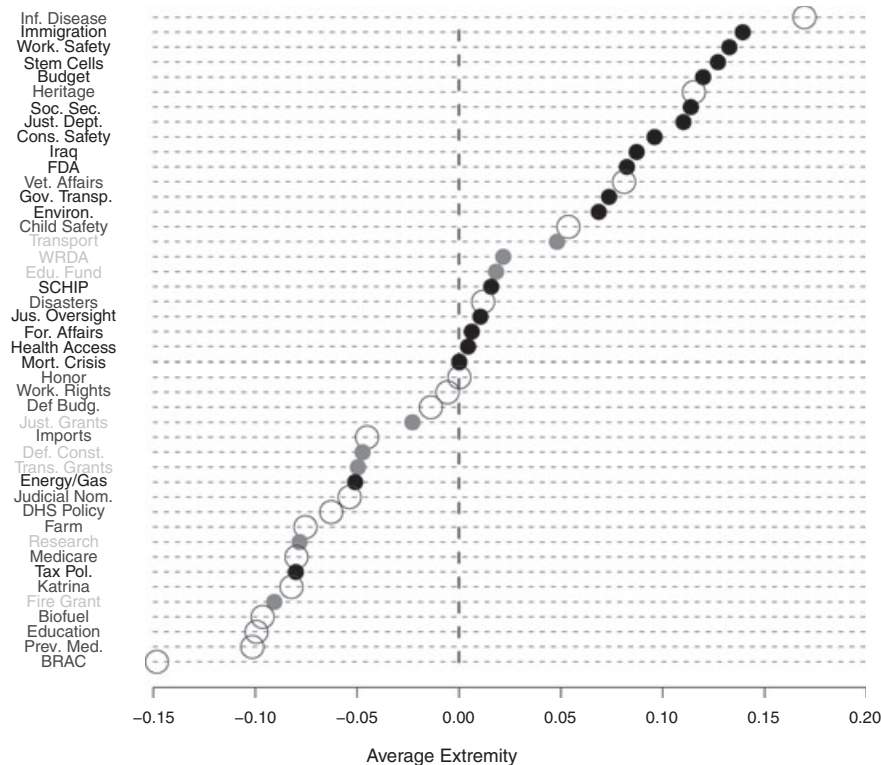
When the Iraq war is salient, it provides representatives the opportunity to articulate a position. Democratic senators from states with the heaviest concentrations of Democrats—senators such as Joe Biden (D-DE), Ted Kennedy (D-MA), and John Kerry (D-MA)—take positions in over half of the weeks the war was salient. But marginal Democrats—such as Blanche Lincoln (D-AR) and Mark Pryor (D-AR)—articulate positions on the war at about half that rate. The same variation was observed among Senate Republicans: aligned Republicans

articulate positions on the Iraq war more often than misaligned colleagues. To confirm this relationship is not an artifact of confounding covariates, I regressed an indicator of whether a senator issues a press release on the Iraq war during a salient week on the alignment measure, control covariates, and senator and week random effects (the numerical estimates are in the SI). For Democrats, a 5-percentage-point decrease in vote share for Bush in 2004 is associated with a 5-percentage-point increase in the likelihood of issuing a press release about Iraq when the war is salient (95% credible interval [0.03, 0.08]). For Republicans, a 5-percentage-point increase in Bush support in 2004 is associated with a 2-percentage-point increase in probability of taking a position on Iraq (95% credible interval [-0.006, 0.04]).

The result of this differential propensity to articulate positions when the war is salient is a systematic bias in who articulates public stances on the war. Senators from states with large concentrations of copartisans also tend to be more ideologically extreme. A result of this correlation, as Figure 5 demonstrates, is that the senators who take positions when the war is salient are more extreme than

<sup>9</sup>In the SI, I describe the procedure for selecting the weeks, show that the inferences in this case study are robust to the weeks that are included, and show that the Iraq war is symptomatic of patterns across debates; I show the same pattern in immigration policy debates.

**FIGURE 6 The Systematic Artificial Polarization Across Position-Taking Topics**



*Note:* This figure shows that across substantive topics, the senators who take positions are systematically more extreme than the average senator from their party. Each point measures the average extremity of the senators who articulate positions on a topic. The dark solid points are the average extremity scores for position-taking topics, the gray solid points are credit claiming, and the open circles are other topics. The most salient position-taking topics are to the right of the dashed line at zero, indicating that the extremes of each party dominate the debates. In the SI, I show this difference is statistically significant. There are many negative other topics because marginal legislators also have incentive to focus on more regional issues—an empirical finding I demonstrate in the SI.

their colleagues who stay silent.<sup>10</sup> The left-hand plot in Figure 5 contains a lowess regression of the proportion of weeks a senator took a position on the Iraq war against an estimate of her ideal point, for Democrats (left-hand line) and Republicans (right-hand line). Senators who occupy the ideological extreme of their party—either liberal Democrats or conservative Republicans—are much more likely to discuss the Iraq war than their more moderate colleagues. The relationship is most striking for Democrats, with the most liberal members *five times* more likely to comment on the war than more moderate colleagues, perhaps due to the Bush administration’s extremely low popularity in very liberal states.

<sup>10</sup>The ideal point estimates used here are essentially equivalent to DW-Nominate, though on a different scale. They correlate with DW-Nominate scores at 0.98.

The right-hand plot in Figure 5 shows that in almost each week the war was salient, the senators who articulate positions are more ideologically extreme than the legislators who stay silent. Each line in the plot represents one week when the war was salient. The solid dots represent the average *extremity* of the senators who discussed the war, and the empty circles are the average ideal point for senators who avoided discussing the war. To measure extremity, I centered each senator’s ideal point using the average ideal point of the senator’s party. If this difference is positive, a senator is more extreme than the average member of her party. If it is negative, then the senator is more moderate than the average member of her party.

This plot reveals that, almost uniformly, when the Iraq war is salient, the senators who take positions are more extreme than their colleagues. In all but one instance, the senators who participate in the debate are

substantially more extreme than the senators who remain silent about the war. The bias is evident each week the Iraq war is salient, but aggregating over the salient weeks reveals the scope of this systematic bias in who offers positions about the Iraq war. Overall, the most extreme legislators are almost *twice* as likely to articulate positions on the war than their more moderate colleagues.

### A Systematic and Artificial Polarization in Policy Debates

This section shows that the systematic bias found in articulating positions on the Iraq war manifests across almost all major policy disputes. To show this, Figure 6 exhibits the extent of bias across all 44 estimated topics. Each point in Figure 6 measures the average extremity of the senators who issued the press releases on each topic. The dark solid points are the average extremity scores for position-taking topics, the gray solid points are for credit claiming, and the open circles are other topics. As in the right-hand plot in Figure 5, the dashed line corresponds to the average extremity in a party, with values above zero implying a bias toward the extremes of the party.

Figure 6 shows that the ideological extremes of each party dominate policy debates. As expected from the previous section, debate on the Iraq war is artificially polarized. The average press release on the Iraq war is from an office 0.1 units more extreme than the party average. An artificial polarization of similar magnitude is also found in the debate on immigration. The average immigration press release is from an office 0.15 units more extreme than the party average. And the bias in position taking on immigration is found among Democrats and Republicans: the average press release from Democrats on immigration is 0.13 units more liberal than the party mean, while the average press release from a Republican is 0.14 units more conservative than the party mean. The result is an 11.5% increase in polarization between parties when discussing immigration. Similar levels of extremity are seen on press releases about the budget, domestic surveillance, and the environment. While not all position-taking topics exhibit this artificial polarization, the average position-taking press release is from an office 0.06 units more extreme than the party average. This constitutes a substantively interesting and statistically significant polarization in the positions articulated during debates.<sup>11</sup>

<sup>11</sup> In the SI, I show that the polarization is statistically significant on the majority of position-taking topics.

## Conclusion

Responsiveness to constituents in a district, then, can have negative consequences for collective representation. Using new measures of home styles, I show that how legislators present their work to constituents depends on whom they represent. Senators misaligned with their constituents focus on appropriations and avoid position taking. Senators from states filled with like-minded copartisans allocate more space to taking positions, eschewing credit claiming. Aggregated across states, the effect of the electoral connection is a systematic ideological bias in the positions articulated to the public. Aligned senators are substantially more likely than their more marginal colleagues to participate in policy debates. And because aligned representatives are also more ideologically extreme, the result is that the extremes of both parties dominate policy debates.

This systematic selection in who participates in policy debates suggests a cause for the increasingly vitriolic discourse in American politics. Representatives now have greater incentive to espouse policy-focused home styles than 30 years ago, because they now represent districts with a higher concentration of their own partisans (Abramowitz, Alexander, and Gunning 2006). At the same time, there has been a well-documented growth in the polarization within Congress (Poole and Rosenthal 1997). Therefore, not only is Congress characterized by more ideologically distinctive representatives, if the logic and the evidence in this article are correct, then it is also composed of representatives with greater electoral incentive to articulate those views. The result: an increase in partisan and polarized debate.

While the pattern described here illuminates the need to interrogate how the electoral connection affects aggregative representation, it also demonstrates how representatives attempt to alter how they are evaluated by constituents to create leeway (Fenno 1978). If successful, this alteration is particularly problematic for promissory standards of representation, which are premised on the ability of constituents to evaluate the performance of their representative (Mansbridge 2003). Numerous studies have interpreted this to mean that constituents should sanction representatives who adopt divergent policy views in roll-call votes (Canes-Wrone, Brady, and Cogan 2002; Miller and Stokes 1963). If true, marginal representatives should be especially vulnerable to this sanction, but marginal representatives may be able to use their home styles to generate leeway for their out-of-step views and decrease the information about roll-call votes in Washington (Fenno 1978). This might help explain the loose



connection between legislators' roll-call voting records and constituent sanction (for a review, see Canes-Wrone, Brady, and Cogan 2002; Ensley, Tofias, and de Marchi 2009).

Finally, beyond the implications for representation, the results of this article and the measures introduced demonstrate the need for a new research agenda analyzing home style and a particular focus on the origin of styles. The comprehensive measures make possible hypothesis tests that were previously infeasible. And while a variety of other methods legislators employ to cultivate support have received substantial attention, too little is known about how legislators present their work to constituents and the consequences of these presentations for representation. This article introduces both tools and a data source to extend the measures to many other political actors, time periods, and even in comparative studies of other legislatures. As a result, this article opens the possibility to the systematic study of home styles across representatives, institutions, and over time. This makes possible the examination of one instance where electoral incentives distort congressional representation.

## References

- Abramowitz, Alan I., Brad Alexander, and Matthew Gunning. 2006. "Incumbency, Redistricting, and the Decline of Competition in US House Elections." *Journal of Politics* 68(1): 75–88.
- Achen, Christopher. 1978. "Measuring Representation." *American Journal of Political Science* 22(3): 475–510.
- Arnold, R. Douglas. 1990. *The Logic of Congressional Action*. New Haven, CT: Yale University Press.
- Ashworth, Scott, and Scott Bueno de Mesquita. 2006. "Delivering the Goods: Legislative Particularism in Different Electoral and Institutional Settings." *Journal of Politics* 68(1): 168–79.
- Berry, Christopher R., Barry C. Burden, and William G. Howell. 2010. "The President and the Distribution of Federal Spending." *American Political Science Review* 104(4): 783–99.
- Blei, David, Andrew Ng, and Michael Jordan. 2003. "Latent Dirichlet allocation." *Journal of Machine Learning and Research* 3: 993–1022.
- Brady, David W., Hahrie Han, and Jeremy Pope. 2007. "Primary Elections and Candidate Ideology: Out of Step with the Primary Electorate?" *Legislative Studies Quarterly* 32(1): 79–105.
- Cain, Bruce, John Ferejohn, and Morris Fiorina. 1987. *The Personal Vote: Constituency Service and Electoral Independence*. Cambridge, MA: Harvard University Press.
- Canes-Wrone, Brandice, David Brady, and John Cogan. 2002. "Out of Step, Out of Office: Electoral Accountability and House Members' Voting." *American Political Science Review* 96(1): 127–40.
- Carson, Jamie L., Gregory Koger, Matthew J. Lebo, and Everett Young. 2010. "The Electoral Costs of Party Loyalty in Congress." *American Journal of Political Science* 54(3): 598–616.
- Caughey, Devin, and Jasjeet S. Sekhon. 2012. "Regression Discontinuity Designs and Popular Elections: Implications of Pro-Incumbent Bias in Close US House Races." *Political Analysis* 19(4): 385–408.
- Cleveland, William S. 1979. "Robust Locally Weighted Regression and Scatterplots." *Journal of the American Statistical Association* 74(368): 829–36.
- Clinton, Joshua D., Simon Jackman, and Douglas Rivers. 2004. "The Statistical Analysis of Roll Call Data." *American Political Science Review* 98(2): 355–70.
- Cook, Timothy E. 1988. "Press Secretaries and Media Strategies in the House of Representatives: Deciding Whom to Pursue." *American Journal of Political Science* 32(4): 1047–69.
- Cox, Gary W., and Mathew D. McCubbins. 1993. *Legislative Leviathan*. Berkeley: University of California Press.
- Cox, Trevor, and Michael Cox. 2000. *Multidimensional Scaling*. Boca Raton, FL: CRC Press.
- Ensley, Michael J., Michael W. Tofias, and Scott de Marchi. 2009. "District Complexity as an Advantage in Congressional Elections." *American Journal of Political Science* 53(4): 990–1005.
- Fenno, Richard F. 1973. *Congressmen in Committees*. New York: Little, Brown and Company.
- Fenno, Richard F. 1978. *Home Style: House Members in Their Districts*. Boston: Addison Wesley.
- Fenno, Richard F. 1982. *The United States Senate: A Bicameral Perspective*. Washington, DC: American Enterprise Institute.
- Fenno, Richard F. 1991. *The Emergence of a Senate Leader: Pete Domenici and the Reagan Budget*. Washington, DC: Congressional Quarterly Press.
- Franklin, Charles H. 1991. "Eschewing Obfuscation? Campaigns and the Perception of US Senate Incumbents." *American Political Science Review* 85(4): 1193–1214.
- Gelman, Andrew, and Jennifer Hill. 2007. *Data Analysis Using Regression and Multilevel/Hierarchical Models*. Cambridge, MA: Cambridge University Press.
- Green, Donald, Bradley Palmquist, and Eric Schickler. 2004. *Partisan Hearts and Minds: Political Parties and the Social Identities of Voters*. New Haven, CT: Yale University Press.
- Grimmer, Justin. 2010. "A Bayesian Hierarchical Topic Model for Political Texts: Measuring Expressed Agendas in Senate Press Releases." *Political Analysis* 18(1): 1–35.
- Grimmer, Justin. 2011. "An Introduction to Bayesian Inference via Variational Approximations." *Political Analysis* 19(1): 32–47.
- Groeling, Tim. 2010. *When Politicians Attack Party Cohesion in the Media*. Cambridge, MA: Cambridge University Press.
- Groseclose, Tim. 2001. "A Model of Candidate Location When One Candidate Has a Valence Advantage." *American Journal of Political Science* 45(4): 862–86.
- Hopkins, Daniel J., and Gary King. 2010. "A Method of Automated Nonparametric Content Analysis for Social Science." *American Journal of Political Science* 54(1): 229–47.
- Kingdon, John. 1989. *Congressmen's Voting Decisions*. Ann Arbor: University of Michigan.

- Lax, Jeffrey R., and Justin H. Phillips. 2009. "How Should We Estimate Public Opinion in the States?" *American Journal of Political Science* 53(1): 107–21.
- Lazarus, Jeffrey. 2009. "Party, Electoral Vulnerability, and Earmarks in the US House of Representatives." *Journal of Politics* 71(3): 1050–61.
- Lazarus, Jeffrey, and Amy Steigerwalt. 2009. "Different Houses: The Distribution of Earmarks in the US House and Senate." *Legislative Studies Quarterly* 34(3): 347–73.
- Levendusky, Matthew S., Jeremy C. Pope, and Simon D. Jackman. 2008. "Measuring District Level Partisanship with Implications for the Analysis of U.S. Elections." *Journal of Politics* 70(3): 736–53.
- Lipinski, Daniel. 2004. *Congressional Communication: Content and Consequences*. Ann Arbor: University of Michigan Press.
- Mansbridge, Jane J. 2003. "Rethinking Representation." *American Political Science Review* 97(4): 515–28.
- Mayhew, David R. 1974. *Congress: The Electoral Connection*. New Haven, CT: Yale University Press.
- Mayhew, David R. 2000. *America's Congress: Actions in the Public Sphere, James Madison Through Newt Gingrich*. New Haven, CT: Yale University Press.
- McCarty, Nolan, Keith T. Poole, and Howard Rosenthal. 2009. "Does Gerrymandering Cause Polarization?" *American Journal of Political Science* 53(3): 666–80.
- Miller, Warren E., and Donald E. Stokes. 1963. "Constituency Influence in Congress." *American Political Science Review* 57(1): 45–56.
- Oppenheimer, Bruce I. 1996. "The Representational Experience: The Effect of State Population on Senator-Constituency Linkages." *American Journal of Political Science* 40(4): 1280–99.
- Poole, Keith T., and Howard Rosenthal. 1997. *Congress: A Political-Economic History of Roll Call Voting*. Oxford: Oxford University Press.
- Quinn, Kevin M., Burt L. Monroe, Michael Colaresi, Michael H. Crespin, and Dragomir R. Radev. 2010. "How to Analyze Political Attention with Minimal Assumptions and Costs." *American Journal of Political Science* 54(1): 209–28.
- Sellers, Patrick. 2010. *Cycles of Spin: Strategic Communication in the US Congress*. Cambridge: Cambridge University Press.
- Serra, Gilles. 2010. "Polarization of What? A Model of Elections with Endogenous Valence." *Journal of Politics* 72(2): 426–37.
- Shepsle, Kenneth A. 1978. *The Giant Jigsaw Puzzle: Democratic Committee Assignments in the Modern House*. Chicago: University of Chicago Press.
- Shepsle, Kenneth A., Robert P. Van Houweling, Samuel J. Abrams, and Peter C. Hanson. 2009. "The Senate Electoral Cycle and Bicameral Appropriations Politics." *American Journal of Political Science* 53(2): 343–59.
- Stein, Robert M., and Kenneth N. Bickers. 1994. "Congressional Elections and the Pork Barrel." *Journal of Politics* 56(2): 377–99.
- Weingast, Barry R., Kenneth Shepsle, and Christopher Johnsen. 1981. "The Political Economy of Benefits and Costs: A Neoclassical Approach to Distributive Politics." *Journal of Political Economy* 89(4): 642–64.
- Weissberg, Robert. 1978. "Collective vs. Dyadic Representation in Congress." *American Political Science Review* 72(2): 535–47.
- Wichowsky, Amber. 2012. "District Complexity and the Personal Vote." *Legislative Studies Quarterly* 37(4): 437–63.
- Yiannakis, Diana Evans. 1982. "House Members' Communication Styles: Newsletters and Press Releases." *Journal of Politics* 44(4): 1049–71.

## Supporting Information

Additional Supporting Information may be found in the online version of this article at the publisher's web site:

- Figure S1:** More Aligned With District, House
- Figure S2:** Increasing Polarization in the House
- Figure S3:** Increasing Polarization in the Senate
- Figure S4:** Extremists are More Aligned In House
- Figure S5:** Extremists are More Aligned In Senate
- Figure S6:** Misaligned Senators Still Send Many Press Releases
- Figure S7:** Senators Regularly Credit Claim for Grants
- Figure S8:** Color and Full Names Version of Figure 1
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- Figure S10:** Comparing Identified Dimensions Across Scaling Methods
- Figure S11:** Stable Home Styles: Position on Horizontal Axis in Figure 1
- Figure S12:** Stable Home Styles: Proportion Press Releases Position Taking
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- Figure S14:** Stable Home Styles: Across Issue Stability
- Figure S15:** Stable Home Styles: Similar Changes in Styles Across Classes
- Figure S16:** Stable Home Styles: No Difference Across Classes in Attention to Each Topic
- Figure S17:** The Home Style, Constituency Correlation Remains within Strata of Similar Ideological Senators
- Figure S18:** Validating the Second Dimension
- Figure S19:** Relationship Between Local Issues and State Characteristics
- Figure S20:** Daily Imbalance in Attention to Iraq
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- Figure S22:** Inference Approach to Imbalance
- Table S1:** Aligned Senators Articulate In Step Positions, Marginal Legislators Articulate Out of Step Positions

**Table S2:** Numerical Estimates: No Change Across Classes

**Table S3:** The Robust Relationship Between State Party Composition and Home Style

**Table S4:** Questions from NAES 2004 Survey Used to Measure Constituent Opinion

**Table S5:** Numerical Model Estimates, Figure 4

**Table S6:** Regional Issue Topics

**Table S7:** Numerical Model Estimates, Regional Issues and Marginality

**Table S8:** Salient Iraq Dates

**Table S9:** Numerical Estimates for Model Prediction Participation in Iraq Debates

**Table S10:** Pseudo Code for Variational Approximation