Extreme Leaders as Negotiation Anchors
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Extreme Leaders As Negotiation Anchors

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Abstract

Legislative leaders tend to be ideologically more extreme than their median members. Why? This paper shows that party members select extreme leaders as a strategic measure to anchor negotiations. Anchoring succeeds because the opposition understands that such leaders will not compromise on moderate legislation. Hence, rank-and-file members balance their own ideologies, and their assessments of political feasibility and institutional conditions, to select leaders who will pull agreements towards the ideal point of their median party member. Congressional voting data since 1900 confirms this account. When parties have selected extreme leaders, passed legislation aligns more closely with the preferences of the median caucus member. Party members also acknowledge the benefits of extreme leaders, referring to them more positively in newsletters sent to constituents. Such extremeness has the consequence, however, that less legislation gets passed. Additional comparative statics align with an account where institutional conditions can constrain the extremeness of leaders selected.

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Introduction

Legislative leaders are often more extreme than their median party members (Peabody 1976; Grofman, Koetzle, and McGann 2002; Heberlig, Hetherington, and Larson 2006; Jessee and Malhotra 2010). The tendency for leaders to emerge from the more extreme wing of their party runs counter to a simple spatial voting logic (which would predict a leader at the party median), and so presents a puzzle for political scientists and other analysts of legislative politics. In this paper, we explore a counterintuitive explanation for this pattern: selecting extreme leaders can yield better negotiated outcomes from the perspective of moderate rank-and-file party members. If a political leader's ideology serves as an anchor for negotiation over legislation, it will reinforce a party's stand in bargaining situations (Raiffa 1982). The anchor's heft is enhanced because the rival party knows the leader will reject a moderate compromise. The surprising implication is that party members anticipating negotiated outcomes will strategically choose a leader whose ideology is more extreme than their own. Doing so increases the likelihood that the ultimate bargains struck will be closer to those members' preferences. The downside is that such extremeness reduces the likelihood that legislation passes. Our prime assertion is that consideration of negotiated outcomes – balancing the benefit of improved negotiation outcomes with the drawback of reduced probability of a negotiated agreement – strongly influences the selection of leaders. It leads to more extreme leadership selections that diverge from the ideological position of a party's median member. A battery of empirical tests yields results consistent with our theory.

Political leaders are immersed in ongoing negotiations with the opposing party over the substance of legislation and the broader legislative agenda. In the contemporary Congress and historically, legislative leaders have played a central role influencing the policies that emerge or fail to emerge. For example, in the 115th and 116th Congresses, House Speaker Nancy Pelosi (D-CA) and Senate Minority Leader Chuck Schumer (D-NY) engaged in high-stakes negotiations with the Republican leadership and President Donald Trump on issues ranging from immigration and

Deferred Action for Childhood Arrivals (DACA), to infrastructure and conflict in Syria. And, more than 50 years ago, passage of the Civil Rights Act hinged on efforts by Senate Majority Whip Hubert Humphrey (D-MN) to negotiate with and ultimately persuade Senate Minority Leader Everett Dirksen (R-IL) to deliver the votes that enabled that landmark legislation to pass (Purdum 2014).

In the context of a legislative chamber, the leader is the agent; the rank-and-file members are the usually more moderate principals. In general, congressional leaders will not support legislation they would oppose. If the leader plays a major role negotiating on behalf of the principals (the rank-and-file members), then the agent's own ideology (or preferences) will influence the final outcome. In the terminology of Thomas Schelling, appointing an extreme leader creates a credible threat that negotiations will break down unless a settlement acceptable to the agent is reached (Schelling 1968, p. 123-131).

No matter one's view on how best to explain the behavior of congressional leaders – whether as agents acting on behalf of a procedural cartel (Cox and McCubbins 2005), or as more individualistic and entrepreneurial lawmakers pursuing their own ends (Schickler 2001) – leaders must gain and maintain the support of party members to secure their position. Rank-and-file members near the party median have ideological reasons to support more extreme leaders, but even the most moderate party members may support an extreme leader if success bargaining also enhances the party brand. This unique dynamic between congressional leaders and party members distinguishes our case, leading it to depart from several other principal-agent relationships in political contexts, such as the one between the president and bureaucratic officials. To our knowledge, no other account of the selection process for party leaders focuses on negotiation strategy as an explanation for why members might pick more extreme leaders.

Our account of leaders as negotiation anchors squares with a wide range of empirical results we establish about the behavior of leaders and party members in the U.S. Congress from 1900–2017. First, and in line with past research (Peabody 1976; Jessee and Malhotra 2010), leaders tend to be located towards the extreme wing of their party as opposed to near the median. (We

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consider Democrats more extreme if they are more liberal, and Republicans more extreme if more conservative.) Second, this tendency is not explained by differences between the electoral dynamics faced by extreme and moderate members of Congress (MCs), such as the possibility that extreme leaders originate in safe districts, gain seniority, and enter leadership at higher rates.

Third, we show that extreme leaders get deals more in line with the preferences of rank-and-file members, but do so at the expense of overall legislative output. Using data on non-consensus votes for final passage of legislation, we show that more extreme leadership moves bill cutpoints to the majority party side of the policy space – consistent with bills that cater to the party rather than the floor (e.g., chamber-side) median – but fewer bills are passed (in terms of both total legislation and significant legislation).

Fourth, our account highlighting the importance of negotiation concerns provides one explanation why moderate members of Congress might support extreme leaders. In line with this account, we show that rank-and-file members appear to assess leaders who are more extreme more positively than those who are more moderate. Studying all newsletters sent to constituents by members between 2009 and 2017, we show that MCs use significantly more favorable terms when referring to leaders who are more extreme.

Finally, we analyze how the institutional context in Congress matters for leadership selection; this context can add to or reduce selection of extreme leaders depending on how it interacts with negotiation concerns. The degree of extremeness for a leader is greater for majority than minority parties, and for the majority party the greater is its majority. The filibuster threat, which raises the probability of failure in the Senate, inhibits choosing a Senate majority leader as relatively extreme as the speaker of the House.

While we highlight an array of empirical evidence that supports the role of extreme ideology and bargaining in leadership selection, we do not claim that concern about negotiation is the only criterion for leadership selection. Indeed, many other characteristics play important roles, including personal connections to a leader, skill in fundraising, communication, and strategic

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skills. Indeed, any attribute that would promote the reelection of rank-and-file members would enhance the attractiveness of a candidate for party leadership. Our contribution is to show how extremeness of leadership relates to bargaining and, in turn, why self-interested rank-and-file members may elect more extreme leaders due in part to bargaining concerns.

Our paper proceeds as follows. We begin by describing existing work on the selection of party leaders in Congress, which has identified the tendency towards extreme leadership but has not focused on a leader's role as a negotiator. We then describe our theory and proceed to establish a set of baseline results on the relative extremeness of congressional leaders using congressional roll-call data from 1900–2017. Next, we investigate the observable implications of the theory by examining the relationship between extremeness of leaders and the quantity and ideological location of bills passed, and we check whether rank-and-file members prefer extreme leaders in observable ways, such as in communications to constituents. Finally, we ask: do other characteristics of the chamber, characteristics that influence calculations about bargaining, play a role in the process of leadership selection? We conclude by noting how our theoretical explanation, and the empirical support for it, illustrate an additional way in which even moderate members can have incentives to select increasingly extreme leadership; thus, our findings illuminate another in a list of challenges for those seeking to reduce polarization at elite levels.

Selecting Legislative Leaders

Scholars of Congress have long recognized that leaders have objectives apart from setting policy based on the position of the median voter or median legislator. Cox and McCubbins (2005), for example, highlight how party leaders serve the interests of the party by protecting incumbents and preserving or achieving legislative majorities. In some accounts, purely ideological concerns give way to still other partisan objectives such as confrontation, messaging, and finding visible "wins" for the party (Lee 2016).

Party caucuses in Congress elect leaders when an opening arises naturally or when some

member contests a position. Months of behind-the-scenes lobbying on behalf of the candidates of different factions often precede such elections (Rohde 1991). For decades, "The most common view [was] the 'middleman theory' of party leadership, which assert[ed] that party leaders come from the (ideological) center of their respective parties" (Grofman, Koetzle, and McGann 2002, p. 88). David Truman articulated this theory in 1959, arguing that "the likelihood of getting elected and of performing effectively as an agent of the party both [hinge] on being a 'middleman' ...not only in the sense of a negotiator but also in a literal structural sense. One would not expect that he could attract the support necessary for election unless his voting record placed him somewhere near the center in an evenly divided party" (Truman 1959; Patterson 1963; Sullivan 1975). Similarly, when Roderick and McCubbins (1991, p. 51) looked at the ideological positions of party leaders, they found precisely what the median voter model would predict, namely that party leaders "have clearly tended toward the caucus median. Indeed, in 1979, then majority leader Jim Wright's [ideology ranking] indicated that he was the median Democrat in the House of Representatives."

Since this early work, scholars have refined and revised the middleman theory of party leadership. Grofman, Koetzle, and McGann (2002) study the shapes of ideological distributions within parties and note that the mode rather than the mean or median appears most important for explaining leadership selection. Finding that leaders tend to have a slightly more extreme ideology relative to their party's median, the authors note that a concentrated number of party members often tend to cluster to the right of the party median for Republicans and to the left for Democrats.

Subsequent scholarship has tipped more heavily towards the extreme leaders finding. Narrowing their study to congressional leadership since the early 1990s, Heberlig, Hetherington, and Larson (2006) note that parties have increasingly selected leaders more extreme than their party's median rather than "middlemen." The authors argue that changing campaign dynamics, and particularly increasing costs due to advertising, have led members to welcome more extreme leaders if they bring strong fundraising skills: "Members may be willing to accept the risk of extreme leaders, and the potential for non-median policy outcomes, in exchange for the collective

benefit of electoral resources and the individual career benefits that accrue from majority status" (Heberlig, Hetherington, and Larson 2006, p. 995). The authors hold up examples such as Dick Armey (R-TX), Tom DeLay (R-TX) and Nancy Pelosi (D-CA), describing them as "all ideologues and aggressive fundraisers."

Harris and Nelson (2008) assess the role of leaders in a polarized contemporary Congress. They emphasize leaders' many roles, which include media and public relations in addition to fundraising. In an era of bi-partisan cooperation, the authors note, middlemen may be more appropriate – but extreme leaders fit with an increasingly polarized Congress. And, even those leaders who are ideologically moderate, such as former Senate Majority Leader Harry Reid (D-NV), may assume combative personas: "In the contemporary partisan-polarized Congress, even the middle-men counterpunch" (Harris and Nelson 2008, p. 54).

The strongly polarized Congress of today presents numerous challenges to completing any successful negotiations. Though races for individual seats are rarely competitive, control of the House and Senate themselves is subject to stiff competition between the parties. (This situation is in stark contrast to the Democrats near-permanent majorities in the House in the second half of the 20th Century.) Given such competition between the parties, party leaders and their members now have the incentive to allow negotiations to break down thereby sending partisan messages that magnify differences for their supporters (Lee 2016). That said, while polarized partisan considerations hinder deal-making, some institutional arrangements including the use of secrecy, deadlines and repeated interactions between leaders can help lead to successful cross-party negotiations (Binder et al. 2015).

An alternative theory is that the structure of leadership elections leads to conditions favoring extreme leaders. Such elections sequentially eliminate multiple candidates. McGann, Koetzle, and Grofman (2002) deploy simulations and game theory to show that a cohesive minority around the mode of the distribution can influence candidate selection. Jessee and Malhotra (2010) show that although leaders are closer to the party median than would happen by chance, majority leaders

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tend to be more extreme than the median member.

Finally, recent work looks at the potential for reverse causality. That is, entry into leadership may push leaders toward extremes. Hatcher (2010) focuses on this explanation for the ideological positions of Senate majority leaders. (Unlike House speakers, they continue to vote and thus have roll-call voting records after ascending into leadership not merely before.) Hatcher finds that Senate leaders appear to begin their terms close to the median position in the party, but over time drift toward the party's extreme. Consistent with our discussion of the position of leaders serving as negotiation anchors, a leader's drift toward extremeness could represent a strategic shift as opposed to actual movement in the leader's ideology.

A quite different strand of work rejects ideology as a primary basis for the selection of leaders. Green and Harris (2019) employ a broader framework, viewing ideology and personal relationships as two aspects affecting leadership elections, but far from the most important ones. By contrast, the authors advance a "mixed motives" hypothesis that takes party members' self-interest seriously – members of Congress ask "what can the leader do for me?" They also vote for people they have worked with in the past.

The existing research on selection of legislative leaders is deep and broad, and provides a variety of explanations for what drives leadership selection. Our paper adds to this tradition by providing an account of why leaders tend to be located ideologically between the median and extreme wing of the party. Our account is related to the actual day-to-day (lawmaking) work of Congress. Concern about negotiated outcomes, we will demonstrate, not only provides a plausible explanation for this aspect of leadership selection, but also aligns with a host of empirical evidence on the behavior of members of Congress.

Legislative Leaders as Negotiators

Party leaders serve an array of diverse principals. They are accountable, of course, to their voters. On a day-to-day basis, however, in addition to discussions (and negotiations) with members

of their own party, they spend significant time in a series of ongoing adversarial negotiations with the opposing party's leadership team. Legislative leaders are ever mindful of the need to produce the best possible outcome for legislative measures, given that a majority must support any measure passed.

In the House of Representatives, the critical party leaders are the speaker, the majority and minority leaders, the majority and minority whips, and the conference or caucus chairs.[1] The Senate leadership structure is the same, except that the majority leader also assumes a role similar to the House speaker. Some of the best-known party leaders – including Robert Dole (R-KS), who served 16 years in various leadership positions, and Sam Rayburn (D-TX), who was speaker for 17 years – enjoyed unusual longevity as leaders. Most serve much shorter terms. In nearly every Congress, parties select new leaders for one of their major positions. For example, in ten recent congresses (from 106th to the 115th Congress), 26 different members held at least one leadership position in the House.

Established research traditions treat leaders as within-party representatives, influencing committee assignments and party agendas (Sinclair 1983; Rohde 1991; Cox and McCubbins 2007). That tradition slights the negotiation role of leaders.

When the House Democratic leadership team for the 108th Congress (2003-2004) was elected by the party caucus, the eventual minority leader, Nancy Pelosi (D-CA) faced a challenge from Harold Ford, Jr. (D-TN). Backed by a coalition of politically moderate (and mostly Southern) "Blue Dog Democrats," Ford's supporters argued that Pelosi was too liberal to represent the party on a national stage. To regain a national majority, Charles Stenholm (D-TX) claimed, "Democrats cannot win merely by rallying the faithful. We need to earn the support of the independent and swing voters as well" (Ferrechio 2002).

Nancy Pelosi won her leadership race handily, with 177 caucus votes; Ford captured just 29.

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[1]Before 1986, House majority whips were appointed rather than elected, and so we exclude them from our study for these years.

She won, however, not for her potential as a national spokesperson for the Democratic Party. Her caucus supporters pointed to the ongoing battles across the aisle, chiefly with new Republican Majority Leader Tom DeLay (R-TX). As Norman Ornstein (2002) observed, given Democrats' minority status in the House, Pelosi would be "limited to counterpunching. The key to the next two years is the punchers – the Republicans, who will set the policy agenda in substance and timing and will be able to frame the debate and priorities in a nearly unfettered way."

Members of party caucuses may rationally choose non-median leaders with an eye to negotiations, given the "punching and counterpunching" across party aisles. The selection of Nancy Pelosi, we argue, represents a general phenomenon. At the same time, parties also may be loathe to choose a leader seen as *too* extreme. When House Speaker Paul Ryan (R-WI) retired as minority leader in 2018, Jim Jordan (R-OH) and Kevin McCarthy (R-CA) vied for his job. Jordan, a leader of the Freedom Caucus, was viewed as an ultra-conservative "legislative bomb-thrower" (Wehrman 2018) with the most extreme record among House Republicans in recent years. McCarthy was known as a solid conservative, with a record more extreme than 56 percent of House Republicans in that term. McCarthy ultimately prevailed.

This logic undergirds our model of selecting leaders for purposes of negotiation. Consider a hypothetical legislature with ideological extremeness arrayed from -1 to 1 and where the median Republican resides at 0.6 and the median Democrat at -0.4. Posit an extreme version of leaders as negotiation anchors, where the negotiated outcome just splits the difference between the ideological positions of opposing leaders. Say the Democrats have selected a negotiator with a -0.4 ideology. Posit that the legislature is evenly divided. If the Republicans select a negotiator at 0.6, we would expect a 0.1 outcome. Then, if the Republicans select a negotiator at 0.7, they would shift that outcome to 0.15 (half of $-0.4+0.7$), a value closer to their party median. Anticipating this, or learning from past losses, the Democrats should counter with a slightly more extreme leader of their own in hopes of tugging the result closer to their party median. The centrifugal force of this escalation game, were that the only factor, would lead to electing the two most

extreme members in the respective party caucuses/conferences.

But there is a strong countervailing centripetal force: An extreme negotiator might refuse or prevent deals that their MCs and constituents would welcome. The more extreme a negotiator, the less likely a deal is to be secured. Thus, a caucus would be unwise to select its most extreme member. Importantly as well, an extreme leader would make their party's stances look unreasonable, costing many a moderate or independent vote. The optimal balance of these forces (from the perspective of rank-and-file party members) is the focus of our model, which details the optimal choice of a leader. We describe the key intuition here and we formalize it in Appendix Section A.1. We show that, given standard assumptions about legislator preferences, a party will choose a more extreme leader (1) the more it affects the quality (e.g., ideological location) of a deal, (2) the better is the no-deal outcome, and (3) the less extremeness diminishes the probability of a deal.

To summarize: Party members – expecting more favorable bills – should select and show more support for extreme leaders because they expect to achieve more favorable legislative outcomes that way; extreme leaders should secure bills passed closer to the preferences of the party median; and, fewer bills should be passed when leaders are extreme.

Empirical Evidence on Leader Ideology Relative to Party

We first establish whether, in line with past findings, congressional leadership was extreme over the course of the time period that we study.

Hypothesis 1. *Party leaders tend to be more extreme than the median member of the party caucus.*[2]

We find evidence consistent with Hypothesis 1 in the ideologies of the leadership teams (two per two-year Congress) elected by the party caucuses from 1900 through 2017 (the 56th through the 115th Congresses).[3] These scores were computed from an analysis of all recorded House and

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[2]Since a Congress lasts for two years, each observation consists of a Congress-chamber-party combination.

[3]For leadership data, we rely on Heitshusen (2017). This report from the Congressional Research

Senate votes in a given Congress. They allow us to measure extremeness relative to the positions of other members of Congress (MCs) (Nokken and Poole 2004).[4]

We begin by calculating the percent of party caucus members whose ideology scores are more moderate than those of each leader and report the average for each leadership team. For example, following the November 1994 elections, Republicans took control of the House of Representatives in January 1995 and elected as Speaker Newt Gingrich (GA) to complement an existing leadership team (elected at the end of 1994) of Majority Leader Dick Armey (TX), Whip Tom Delay (TX), and Conference Chair John Boehner (OH). (The median members of the Republican party in that Congress were Elton Gallegly (R-CA) and Charles Bass (R-NH), who did not play pivotal roles in the Republican party.) That year, 62.7 percent of the Republican caucus was more moderate than Newt Gingrich, 86 percent was more moderate than Dick Armey, 80.9 percent was more moderate than Tom Delay, and 69.9 percent was more moderate than John Boehner. The Republican leadership team was on average more conservative than nearly 74.8 percent of the members of their party. On the other side of the aisle, Richard Gephardt (MO) led a team that on average was more liberal than 72.6 percent of the Democratic party caucus.[5]

If MCs voted for leaders whose preferences reflected their own, leaders would tend to be located near the median MC, and the extremism scores for leadership teams would cluster around 50 percent. Results for the majority and minority party leadership teams for 1900–2017 are shown in Figure 1, and the pattern tips decidedly toward the extremes. For the majority and minority

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Service lists leaders for the following positions and years (starting year in parentheses): House speakers (1789), House floor leaders (1899), House whips (R: 1897; D: 1901), House conference chairs (R: 1863, D: 1849), Senate president pro tempore (1789), Senate floor leaders (R: 1919; D: 1893), Senate conference chairs (1893), Senate whips (R: 1915; D: 1913). Given this pattern of leadership data, we elected to begin our study in 1900.

[4]The estimates from Nokken and Poole (2004) are allowed to vary by congress.

[5]These percentages indicate how many members of a party, in that Congress, were less extreme than each leader mentioned based on voting records from that Congress.

parties in the House and Senate, the share of MCs with ideologies less extreme than the leadership team tends to be greater than 50 percent in most congresses. In fact, the mean value for the House is 64%, and the mean value for the Senate is 60%.

Across the House leadership teams included in our sample, 86.2 percent were more extreme on average than their party's median. The majority party has had a leadership team with extremeness at or below the party's ideological median just five times in almost 120 years.

The minority party's strategies differ from those for the majority. That, in turn, affects whom those parties select as leaders. The minority party cannot hope to pass legislation on its own. But it can hope to build a coalition attracting moderates from the majority party and thereby temper legislation that gets passed. This hope reduces the incentive to select an extreme leader. Hence, we should expect that minority party leaders will generally be less extreme among their members than majority party leaders. This phenomenon is clearly shown in Figure 1, where the curve for the minority party lies substantially to the left of that for the majority party. The minority party in the House has had leadership teams at or below the party median 11 times since 1900. Turning to Congress as a whole, the ideological gap between the party's median member in a chamber and the average leader is substantial. On average, 63 percent of MCs are more moderate than their leaders (pooling across both Chambers). The hypothesis that leaders' ideologies reflect the preferences of the median MC in their caucus is strongly rejected ($p < 0.001$). While both the majority and minority party leadership teams tend to be more extreme than their party medians, minority-party leadership teams are significantly less extreme than their majority-party counterparts ($p < 0.001$).

We examine the same phenomena using individual-level data and a regression framework. The results are consistent with our previous findings. Table 1 presents the results. Since extremeness of a member is measured in relative terms as the percentage of members less extreme than a member within a party / chamber, covariates that are not measured at the individual-level will not affect our estimates. The regression estimates show that leaders had significantly more extreme ideologies than rank-and-file members. For example, in a specification with Congress fixed effects, we show

Figure 1 – Leadership Teams & Extremism

(a) *House*
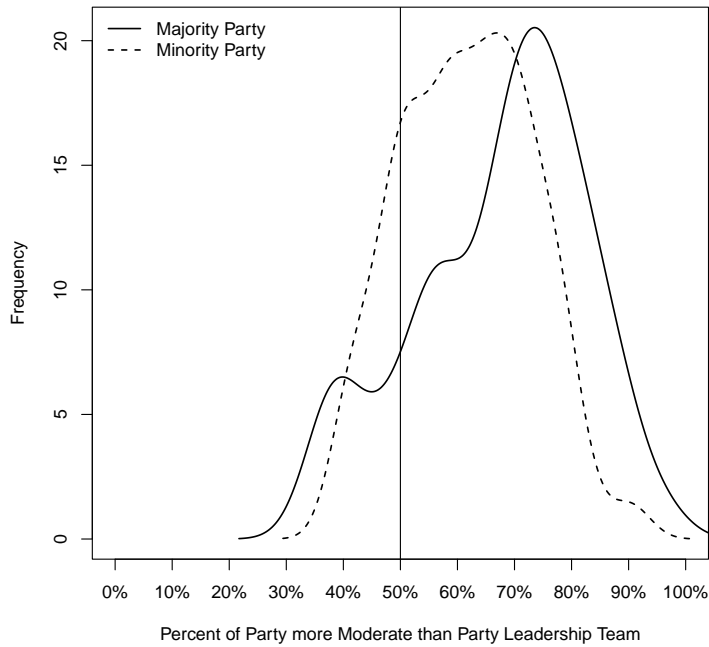
(b) *Senate*
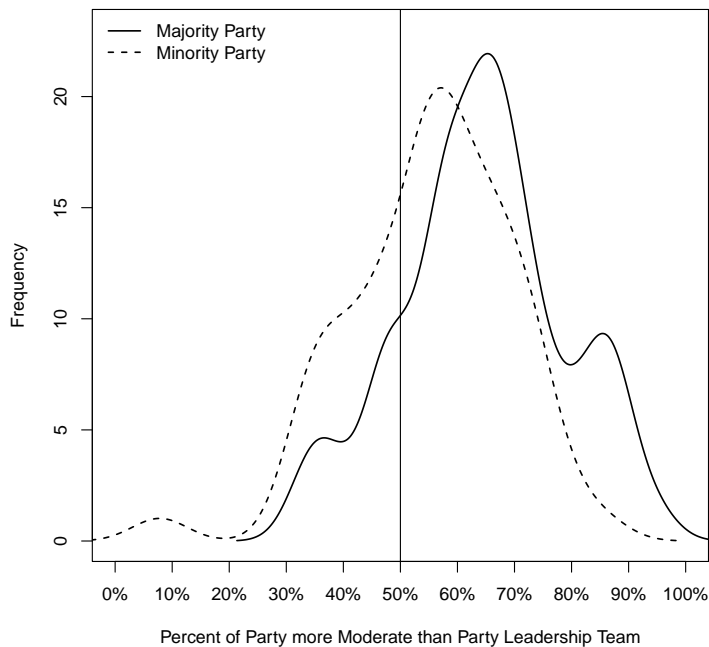
Notes: These figures display the percent of the majority and minority parties that are more moderate (less extreme) than the party's leadership team. On average, majority parties appear to select more extreme leadership, and leadership teams in the House have been slightly more extreme than in the Senate.

Table 1 – Leadership and Extremeness (Pct. Less Extreme in Party/Chamber), All Members

	Extremeness of MC			Previous Congress Extremeness of MC (for leaders)		
	(1)	(2)	(3)	(4)	(5)	(6)
Leader	0.131***	0.131***	0.131***	0.135***	0.135***	0.135***
	(0.010)	(0.010)	(0.010)	(0.010)	(0.010)	(0.010)
Constant	0.498***	0.499***		0.498***	0.496***	
	(0.0004)	(0.002)		(0.0004)	(0.002)	
Congress Trend	no	yes	no	no	yes	no
Congress FE	no	no	yes	no	no	yes
N	32,222	32,222	32,222	32,201	32,201	32,201
R^2	0.004	0.004	0.004	0.004	0.004	0.004

$^*p < .1; ^{**}p < .05; ^{***}p < .01$

Notes: Standard Errors are clustered by Party/Congress/Chamber. Extremeness is measured as the share of party members less extreme than a given member. Columns 1 and 4 do not control for time period; Columns 2 and 5 include a linear Congress trend; Columns 3 and 6 include a Congress Fixed Effect. Columns 1-3 measure ideological extremity for all members based on their behavior in a given congress. By contrast, Columns 4-6 measure the ideological extremity for leaders based on their behavior in the Congress immediately preceding when they joined leadership.

that being a leader suggests an MC is more extreme than an additional 13 percent of the party members in the chamber, holding all else equal. This difference is equivalent to about half of a standard deviation in the measure of ideological extremeness, and the result holds up across all specifications in Table 1, whether we measure extremeness by the percentage of MCs who are more moderate than a leader in the current term (Columns 1-3), or from the Congress *before* they joined the leadership ranks (Columns 4-6). This second "before" approach guards against the concern that a leader's extremeness might be due to changes in behavior after joining leadership. Tables A4 and A5 in the Appendix replicate these findings employing alternate data that: (1) entirely excludes leaders' voting records after their first term, or (2) uses DW-Nominate scores to measure ideology directly rather than by the percentage of members less extreme in the party/chamber. We include controls for party, chamber, and majority in this second approach in order to control for contextual differences in DW-Nominate score across congresses. Taken together, these results confirm that party

leaders tend to be more ideologically extreme than the median member in their caucus. Furthermore, in Appendix Section A.3 we examine the evolution of the ideology of leaders over time. That analysis helps rule out the possibility that leaders become more extreme *after* entering leadership.

Accounting for Seniority

Ascending into congressional leadership generally requires some seniority in Congress. Polsby, Gallaher, and Rundquist (1969), for example, note that to rise to leadership "a member must have served long enough to be well known." Extreme ideology would correlate with seniority if MCs from strong red or strong blue districts, with strong ideological predispositions themselves, faced fewer competitive general elections, thus giving them a greater chance of becoming more senior and thus favored in ascending to a leadership position. If so, then sample selection might explain extreme leadership, as a complement to or in place of the possibility that choosing extreme leaders is due to strategic choices to improve negotiated outcomes.

First we establish that leaders tend to be long-serving. Consider the sample of non-leaders and MCs in their first term of leadership. New House leaders had longer average tenure than non-leaders 82 percent of the time, 68 percent of the time for first-term Senate leaders. Furthermore, seniority is also correlated with extremeness. Appendix Table A3 estimates a Cox proportional hazard model of the relationship between seniority and extremeness. It finds, particularly in the House, that more extreme MCs are less likely to exit Congress. The direction of the relationship holds in the Senate as well, though the result there is not statistically significant.

However, when we estimate a duration model that models exit from Congress (for any reason) and entry into leadership as competing risks facing every member, we find that more extreme members are still more likely to ascend into leadership, even after accounting for differential tenures. Appendix Section A.5 describes and fully analyzes this model and the associated results. Appendix Figures A4a and A4b present the probabilities over time that MCs holding low (10th percentile) and high extreme (90th percentile) ideologies join leadership, and they illustrate that

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MCs with more extreme ideologies are more likely to be elected to leadership in both the House and Senate – even after accounting for differential rates of exit from congress. By themselves, differential seniority rates do not explain the selection of extreme leaders.

Leaders as Ideological Anchors for Negotiation: Legislative Outcomes as Indicators

Our model posits that more extreme leaders move the ideological location of agreements closer to the median party member. It also posits that more extreme leaders reduce the probability of coming to agreement with the opposing party. We now set out to test these two predictions by examining legislative outcomes in relation to the extremeness of leaders.

We gathered data capturing two different elements related to legislation considered and passed by Congress: the number of bills passed and the ideological position of the legislation considered and passed. Each of these elements can be tracked using existing data on voting and legislation in Congress. Specifically, we measured the passage of bills by identifying the number of public acts as well as significant acts passed for each Congress (Mayhew 1991; Ansolabehere, Palmer, and Schneer 2018). We indirectly measured the ideological location of legislation based on bill cutpoints for final passage votes. That location is tracked in the VoteView database (Lewis et al. 2019).[6] A cutpoint is the point at which a hypothetical legislator would be indifferent between the status quo policy and the policy on which there is a roll-call vote. Changes in the ideological locations of a bill's cutpoint provide information about concurrent changes in the location of a proposed bill. When we observe that cutpoints for bills are moving toward the majority party in ideological space, it suggests that the party median is being favored rather than the floor median.[7]

Because a key part of the analysis in this Section examines bill cutpoints, we measure extremeness based on ideological scoring (i.e., using the same units as the cutpoints), rather than as the percentage of members less extreme than a leader. Define x as an MC's ideology (Nokken-Poole

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[6]We restrict to non-consensus votes as coded in Crespin and Rohde (2018); Jason Roberts and Crespin (2018), which is recorded for the 83rd Congress onwards.

[7]Monroe and Robinson (2008), for example, similarly use the location of bill cutpoints in ideological space to test whether bill proposals are favoring the party median or the floor median.

DW-Nominate score), where x ranges from -1 to 1, with a negative value representing a more liberal ideology. MCs belong to either the Democratic or Republican party ($party \in \{D,R\}$). Then,

$$Extremeness = \begin{cases} -x, & \text{if } party = D \\ x, & \text{if } party = R. \end{cases} \tag{1}$$

Since the most extreme Republican MCs have a positive DW-Nominate score (and the most extreme Democratic MCs have a negative DW-Nominate score), we measure their extremeness based on the magnitude rather than the sign.

With this measure of extremeness, we can turn to evaluating our predictions. Given our account of leaders as anchoring party negotiating positions, we predict that leaders who are more extreme will tend to preside over congresses with lower levels of legislative productivity:

Hypothesis 2. *Less legislation is passed when leaders are extreme.*

We begin by regressing the number of total public bills and significant bills passed on the extremeness of party leadership, along with a host of control variables. In addition to a baseline specification that includes extremeness of the chamber median member, majority party status, the chamber and the party, we also estimate a specification that adds extremeness of the party median (column 2), that separately estimates the effects of extreme leaders by majority/minority party (column 3), and that combines both of these approaches (column 4).

For both public bills and significant bills, we find that more extreme leaders are associated with fewer bills passed. The specifics vary slightly based on the specification chosen, but across all four specifications the effects of extreme leadership on bills passed is shown to be negative. The magnitude of the decline due to extremeness is smaller for the majority party than the minority party; the effect also weakens somewhat when we control for the location of the party medians (though this is not unexpected since this variable is highly correlated with the location of the party leadership).

To probe the magnitude of the effects overall and by party, we calculate changes in bills passed

due to a one standard deviation increase in extremeness of leadership. On average, each Congress passed 622 bills. A one standard deviation increase in leadership extremeness for the majority party is associated with a decline of 76 bills ($p < 0.001$). When examining the effects by party, we find a decline of 61 bills ($p = 0.011$) on average for the majority party and a decline of 92 bills ($p < 0.001$) on average for the minority party. The effect sizes are substantively meaningful, considering that they represent an over ten percent decline in bills passed. When estimating the effects by party and controlling for the location of the median party member, we again find a negative effect, larger in magnitude and more robust for the minority party as compared to the majority.

We observe similar results for changes in significant bills. The average number of significant bills per Congress is 11, and a one standard deviation change in extremeness for a majority party leader is associated with a decrease of 1.6 significant bills overall ($p < 0.001$). When parcelling out the effects by majority status, we find there is a decrease of 0.98 significant bills ($p = 0.098$) for the majority party and a decrease of 2.3 significant bills for the minority party ($p < 0.001$). The effects, particularly for the majority party, are still negative though slightly weaker when also controlling for position of the median party member. Taken altogether, these results provide evidence that fewer bills (both overall and significant bills) pass when leadership teams are more extreme. This finding is broadly consistent with the predictions of our model that rank-and-file members will be willing to reduce the odds of bill passage in order to get a better deal on legislation that does pass.

What about the characteristics of legislation considered and passed? The prime hypothesis implied by our theory is that extreme leaders move the outcomes for bills that pass in the direction of the median member of their party.

Hypothesis 3. *For bills that pass, extreme leaders move outcomes favorably for the median party member.*

We regress the location of the bill cutpoint on our explanatory variables tracking extremeness. Scaling gives a positive (negative) value for a party when the cutpoint is more extreme. The results are compelling: More extreme leadership teams are associated with moving the ideological orientation of bills that pass in the hypothesized direction. Among bills that had a non-consensus

final passage vote, a one standard deviation increase in extremeness of the leadership team correlated with a 0.038 unit shift of the cutpoint toward the party with the extreme leader. This translates to a 0.19 standard deviation shift in ideological space (because the standard deviation of the cutpoints in this sample is 0.2). Interestingly, the effect appears stronger for the minority party: a one standard deviation shift in the extremeness of the minority leadership team correlates with a 0.07 unit shift in the cutpoint. This represents a 0.35 standard deviation change. The effects for the majority party amount to a 0.016 shift for a one standard deviation increase in leader extremeness; this amounts to about one tenth of a standard deviation, so it is a considerably smaller magnitude.

When restricting to legislation that passed Congress, we observe generally similar results as when considering all legislation – confirming that these patterns obtain for legislation actually produced by Congress, which is an important output for members considering the performance of leadership.

Another issue to consider carefully when examining bill locations and their relationship to leader extremeness is the role of agenda control (Cox and McCubbins 2005). The majority party, particularly in the House, controls what legislation is considered and voted on before Congress. This potentially leads to sample selection in the bills that come up for a vote for final passage. We argue, however, that this form of selection bias should not affect our conclusions regarding the effects of extreme leadership. In fact, we can view agenda control exercised by leaders as simply part of the the decision-making processes of leadership. If part of the correlation between extremeness and bill locations is explained by agenda control, then it suggests that extreme leaders are more likely to kill more moderate legislation before it reaches a vote – in short, exercising this form of agenda control aligns with our theory of extreme leaders.[8]

The overall pattern of results for bill locations matches well with the predictions from our

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[8]Regardless of agenda control, the chamber median (or, in the Senate, the filibuster pivot in some cases) determines whether legislation will pass. By controlling for the location of this member, we can separate the chamber-level effects of member ideology from the effects for leaders.

simple model of extreme leadership. More extreme leadership teams are associated with fewer total bills passed and fewer landmark bills. That consequence reflects the downside of staking out a more extreme position when bargaining on key legislation. In return, however, the legislation considered and passed was more likely to be more favorable to the median member of the leaders' party, as represented by a move in the direction of the party in power. The strongest evidence for this dynamic arises for minority parties with extreme leadership, though we observe a smaller but still meaningful effect for majority parties as well.[9]

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[9]In line with these core findings, we also observe that top leaders, who are most responsible for setting the tone in negotiations, appear to be more extreme than those in lower rank leadership positions. Appendix A.4 reports these results showing increasing extremeness by rank of leadership position.

Table 2 – Extreme Leaders and Legislative Outcomes: Extreme Leaders Decrease Legislative Output

	Public Acts				Significant Acts			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Extremeness of Party Leadership	−737.181***	−189.263	−886.111***	−394.993*	−15.803***	−6.910	−22.340***	−12.308*
	(139.174)	(183.367)	(173.369)	(234.380)	(4.141)	(5.073)	(6.167)	(6.899)
Extremeness of Party Median		−1,452.930***		210.581		−23.583***		−22.233***
		(259.951)		(273.915)		(8.386)		(8.273)
Extremeness of Chamber Median	157.710	110.045	110.701	223.390	3.413	2.640	1.350	1.141
	(149.893)	(138.271)	(169.618)	(146.033)	(4.315)	(4.347)	(4.830)	(4.778)
Majority Party	25.460	26.713	−76.968	−139.575	0.547	0.567	−3.949	−2.796
	(51.909)	(49.917)	(113.815)	(130.748)	(1.472)	(1.488)	(3.259)	(3.188)
Majority Party × Extremeness of Party Leadership			293.711	37.410			12.892	9.641
			(303.781)	(312.219)			(8.805)	(8.464)
Senate	−16.051	−20.820	−17.263	−3.108	−0.577	−0.654	−0.630	−0.690
	(25.746)	(23.925)	(25.699)	(27.044)	(0.871)	(0.854)	(0.869)	(0.858)
Republican	27.567	68.673***	23.346	1,229.719***	0.527	1.194	0.342	1.018
	(25.890)	(24.550)	(26.192)	(29.324)	(0.896)	(0.927)	(0.888)	(0.917)
Constant	1,051.682***	1,291.291***	1,093.697***	−405.286***	0.861	4.750	2.705	5.907*
	(112.547)	(102.388)	(108.306)	(121.154)	(2.841)	(3.017)	(3.062)	(3.151)
Congress Trend	yes	yes	yes	yes	yes	yes		
Wald Tests:								
Δ Y for 1 SD shift Ldr. Extremeness	-76.246 (p < 0.001)	-19.575 (p = 0.302)			-1.635 (p < 0.001)	-0.715 (p = 0.173)		
Majority Party: Δ Y for 1 SD shift Ldr. Extremeness			-61.272 (p = 0.011)	-36.985 (p = 0.18)			-0.977 (p = 0.098)	-0.276 (p = 0.666)
Minority Party: Δ Y for 1 SD shift Ldr. Extremeness			-91.65 (p < 0.001)	-40.854 (p = 0.092)			-2.311 (p < 0.001)	-1.273 (p = 0.074)
N	215	215	215	215	215	215	215	215
R²	0.143	0.268	0.148	0.923	0.266	0.290	0.273	0.294

*p < .1; **p < .05; ***p < .01

Notes: This table relates legislative productivity to leadership extremeness. The legislative productivity measures are from Ansolabehere, Palmer, and Schneer (2018). The prime independent variable, leadership extremeness, is determined in Equation 1 for all members of the leadership team, and then averaged across members of each leadership team. The Wald test for majority party determines significance for the sum of the coefficients estimated for extremeness and its interaction with majority party status. Conditional means are also reported. For the minority party, the Wald test is simply based on the coefficient on the extremeness of party leadership variable.

Table 3 – Extreme Leaders and Legislative Outcomes: Extreme Leaders Get Better Deals

	Bill Cutpoint				Bill Cutpoint, Passed Legislation			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Extremeness of Party Leadership	0.372***	0.271**	0.674***	0.597**	0.397***	0.280**	0.706***	0.580**
	(0.118)	(0.136)	(0.162)	(0.260)	(0.117)	(0.136)	(0.160)	(0.262)
Extremeness of Party Median		0.493		0.167		0.576*		0.276
		(0.321)		(0.410)		(0.322)		(0.416)
Extremeness of Chamber Median	−0.749***	−0.786***	−0.662***	−0.686***	−0.767***	−0.810***	−0.678***	−0.719***
	(0.151)	(0.139)	(0.151)	(0.140)	(0.150)	(0.138)	(0.150)	(0.138)
Majority Party	−0.161***	−0.159***	0.018	−0.006	−0.168***	−0.165***	0.015	−0.025
	(0.041)	(0.039)	(0.066)	(0.095)	(0.041)	(0.038)	(0.067)	(0.096)
Majority Party × Extremeness of Party Leadership			−0.520***	−0.447*			−0.531***	−0.410
			(0.177)	(0.249)			(0.178)	(0.250)
Senate	0.017	0.026	0.019	0.022	0.018	0.029	0.020	0.025
	(0.019)	(0.018)	(0.018)	(0.017)	(0.019)	(0.018)	(0.018)	(0.017)
Republican	0.011	0.005	0.018	0.015	0.012	0.005	0.020	0.015
	(0.018)	(0.017)	(0.018)	(0.018)	(0.018)	(0.017)	(0.018)	(0.018)
Constant	0.122	0.206	0.116	0.145	0.128	0.226*	0.121	0.170
	(0.126)	(0.125)	(0.124)	(0.126)	(0.125)	(0.123)	(0.124)	(0.125)
Congress Trend	yes	yes	yes	yes	yes	yes		
Wald Tests:								
ΔY for 1 SD shift Ldr. Extremeness	0.038 (p = 0.002)	0.028 (p = 0.046)			0.041 (p = 0.001)	0.029 (p = 0.04)		
Majority Party: ΔY for 1 SD shift Ldr. Extremeness			0.016 (p = 0.204)	0.016 (p = 0.224)			0.018 (p = 0.151)	0.017 (p = 0.175)
Minority Party: ΔY for 1 SD shift Ldr. Extremeness			0.07 (p < 0.001)	0.062 (p = 0.022)			0.073 (p < 0.001)	0.06 (p = 0.027)
N	114	114	114	114	114	114	114	114
R²	0.825	0.830	0.834	0.834	0.832	0.838	0.840	0.841

$^*p < .1$; $^{**}p < .05$; $^{***}p < .01$

Notes: This table relates extremeness of passed bills (i.e., bill cutpoint) to leadership extremeness. The outcome variables for are based on roll-call votes coded in the PIPC data set as non-consensus votes for final passage of legislation (Crespin and Rohde 2018; Jason Roberts and Crespin 2018). The bill cutpoint measure comes from (Lewis et al. 2019). The prime independent variable, leadership extremeness, is determined in Equation 1 for all members of the leadership team, and then averaged across members of each leadership team. The Wald test for majority party determines significance for the sum of the coefficients estimated for extremeness and its interaction with majority party status. Conditional means are also reported. For the minority party, the Wald test is simply based on the coefficient on the extremeness of party leadership variable.

Sentiments Expressed Toward Leaders

Extreme leaders move legislative outcomes in a favorable direction for the median party member – a legislative benefit that members accrue by selecting extremes to leadership roles. To help confirm this account, we now turn to check whether there is evidence that members actually have a preference for extreme leadership – that is, do rank-and-file members appear to actually support extreme leadership more than moderate leadership? If so, we think it provides another piece of evidence consistent with an account where members consciously select extreme members to fill leadership roles due to the perceived benefits. As a result, we ask: do rank-and-file members openly support extreme leadership? Or, do they downplay connections to these leaders given their extreme views?

To answer these questions, we examine written communications from rank-and-file members to their constituents. We seek to determine whether members refer to more extreme leaders differently, in terms of either sentiment or frequency. We use data drawn from a database of electronic newsletters sent by MCs to constituents' e-mail addresses from 2009 to 2017 (Cormack 2021, 2016). These newsletters report on legislators' activities, ranging from detailed accounts of why a member supported or opposed a particular bill, to a reminder of an upcoming district visit, to critical remarks directed to leaders of the opposing party. Such granular records of member communications provides an invaluable look at comments made by members about leaders. Most members use newsletters, and the frequency of communication is not dominated by members from a particular party or chamber (Vishwanath 2021).[10]

Members' sentiments toward leaders vary widely. For example, in a message explaining her support for Nancy Pelosi as speaker, Representative Ann Kuster (D-NH) wrote in her November 11, 2018 newsletter: "We have an array of candidates who will diversify the leadership of the House and help us pursue an agenda that will benefit hardworking families in New Hampshire

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[10]Due to the available time span for this data set, our study period here represents only a brief part of the full period considered in this paper.

and across the country. I also voted for Nancy Pelosi for Speaker of the House because of her proven effectiveness as a leader and experience advancing meaningful legislation through the House of Representatives."

Statements from the opposition usually range from moderately positive to decidedly negative. Note the words of opposition Representative Sam Groves (R-MO), for example, when reporting back to his constituents on March 13, 2017, on legislative efforts to strike down Obamacare: "But the process of repeal and replace must be executed through multiple avenues, including a comprehensive repeal bill, actions taken at the Department of Health & Human Services, and individual laws that replace specific failed policies within Obamacare. Unlike Nancy Pelosi and her liberal allies, we're not going to rush this process through Congress in the middle of the night. And we're going to read and know what's in each bill before we pass them – not the other way around."

These two examples reveal the varied sentiments expressed toward leadership present in newsletters. To proceed beyond anecdote, we analyze how positively or negatively members refer to leadership, and whether this varies with extremeness.

We first pre-process the data as described in Appendix Section A.6, producing a data set that records for each rank-and-file member in each Congress the number of newsletter mentions of both parties' leaders, along with a measure of the sentiment of the newsletter text referring to the leaders. That measure scores each mention from 1 (strong positive) to -1 (strong negative) based on the surrounding text.[11]

Table 4 reports summary statistics that show general trends in how members refer to their leaders in newsletters. Overall, rank-and-file members refer to their own members more as compared to opposing members (3.76 mentions versus 2.97 mentions in the House), though this gap appears driven primarily by Republican members. Looking across parties more generally, Republicans mention their own and opposition leaders more than Democrats. House members

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[11]LSD2015 (Young and Soroka 2012) ranges between -1 and 1, with terms not in the dictionary assigned a value of 0.

Table 4 – Frequency and Sentiment of Rank-and-File Members References to Party Leadership in Member Newsletters, 2009–2017

	House (All)	House (D)	House (R)	Senate (All)	Senate (D)	Senate (R)
Own Leader Mention	3.756	0.972	6.281	2.808	0.399	5.430
Opp Leader Mention	2.968	1.980	3.864	2.008	0.655	3.481
Own Leader Sentiment (LSD2015)	0.022	0.026	0.020	0.025	0.028	0.025
Opp Leader Sentiment (LSD2015)	0.011	0.017	0.008	0.015	0.017	0.014

Notes: The table reports summary statistics derived from Cormack (2021), a database of member newsletters. We track the number of times per Congress that members mention their own party leadership and opposing party leadership, as well as two different measures of sentiment expressed in the text referring to party leaders.

refer to leaders more than do Senate members, which is not surprising since House members also send more newsletters.

Sentiment is more favorable toward leaders in one's own party, as would be expected. While it might appear slightly surprising that overall sentiment for mentions of opposing leaders is positive on the sentiment scale, this result reflects the scaling of the LSD2015 dictionary more than anything noteworthy about how members refer to the opposing party leadership.[12] The pattern for sentiment expressed towards one's own versus opposing leadership holds within parties: Both Democrats and Republicans refer to their own leadership more positively than to the opposing party leadership.

How does a leader's extremeness affect how MCs talk about them – both the number of mentions and sentiment? Table 5 investigates. Table 5, Columns 1 and 2, show that extremeness has no systematic relationship to the number of times a leader is mentioned. Had there been such a relationship, it might have biased inferences on sentiments because the frequency of mentions could influence their content. Other results in those columns reinforce findings from Table 4: Senators mention leaders less, and Republicans mention them more. Members of the majority party mention their own leadership relatively more, and opposing leadership relatively less.

[12]Specifically, while the line demarcating positive from negative sentiment is somewhat arbitrary, the relative positions of two phrases (e.g., more positive versus more negative sentiment) should not be sensitive to the dictionary used.

A prime question of this paper is why MCs select leaders more extreme than themselves. When they write to constituents, what do they say about such leaders? Columns 3 and 4 test the key question: Does the sentiment expressed toward MCs' own leaders reflect the extremeness of leaders themselves? To ease interpretation, we transformed the sentiment outcome measure into standard deviations. When regressing sentiment on extremeness of the leadership team, extremeness of the MC, and controls, we observe a strong positive relationship between sentiment and extremeness for own-party leaders. A unit shift in extremeness corresponds with a shift towards positive sentiment of roughly half a standard deviation. In the time period available, the extremeness of leadership teams ranged from 0.31 on the low end to 0.58 on the high end, a difference of 0.27. As a result, going from the least to the most extreme leadership team in the sample would lead us to predict a shift towards positive sentiments directed at own party leadership of about 0.15 standard deviations.

On the other hand, sentiments directed towards leaders of the opposite party show no statistically significant relationship to extremeness. We think this finding is consistent with members referring to opposing party leaders more negatively no matter their ideological position. Opposing party leadership is part of the opposing party, and thus subject to the teamsmanship that characterizes this time period. That said, the ideology of the MC penning the newsletter does matter. Holding all else equal, more extreme MCs are significantly more likely to refer to opposing leadership in more negative terms.

Overall, we find that MCs refer to (their own) more extreme leaders more positively, even when controlling for the MC's ideology. Member communications are clearly highly strategic, but there is not a strong reason to think that such statements should should vary in tandem with the ideology of one's own party leadership. Rather, one might expect relatively uniform sentiments expressed towards leaders of one's own party, regardless of leader ideology – as we observe with references to the opposing party leadership. However, members instead do appear sensitive in their level of approval expressed towards their own more extreme leaders. This finding suggests

Table 5 – Sentiment Towards Party Leadership in Member Newsletters as a Function of Extremeness, 2009-2019

	Own Party	Opp. Party	Own Party	Opp. Party
			Leader Sentiment	
	Leader Mentions		(LSD2015)	
	(1)	(2)	(3)	(4)
Extremeness of Leaders Mentioned			0.538***	0.202
			(0.162)	(0.198)
Extremeness of MC	0.322	0.119	−0.143	−0.363***
	(0.726)	(0.524)	(0.098)	(0.109)
Majority Party	2.216***	−2.621***	0.118	−0.112
	(0.474)	(0.342)	(0.081)	(0.115)
Republican	3.980***	3.272***	−0.135	−0.074
	(0.473)	(0.342)	(0.084)	(0.105)
Senate	−0.720	−0.832**	0.153*	0.077
	(0.543)	(0.392)	(0.079)	(0.093)
Constant	−130.095***	24.886**	−9.707***	−9.410***
	(16.825)	(12.151)	(2.449)	(3.016)
Congress Trend	yes	yes	yes	yes
N	2,685	2,685	1,253	853
R^2	0.081	0.040	0.031	0.043

$^{*}p < .1; ^{**}p < .05; ^{***}p < .01$

Notes: This table reports the results of least squares regressions examining the relationship between extremeness of leaders and the sentiment expressed towards them in newsletters by rank-and-file members. Each observation is an MC-Congress-Leadership team combination. MCs who do not mention a leader are excluded from the sentiment calculations. For those with multiple mentions of leaders from their own or opposing party, we separately calculate sentiment for each mention and each newsletter. We then take the weighted average of sentiment scores across newsletters in a Congress where the weighting is based on the number of mentions made. The outcome variable tracking Leader Sentiment is reported in standard deviations.

to us that members likely do have preferences over their own leadership that are sensitive to the ideological positions of the leaders; in contrast, this seems not to be the case for the opposing party leadership. These findings are consistent with a model where either directly or indirectly the ideological positioning of one's own party leadership registers with rank-and-file members, and plays some role in how they form views towards their leaders.

Leadership Selection and Context

How do changing political conditions in the House and Senate influence who gets chosen as a leader? We find that while parties tend to select extreme leaders regardless of context, the level of extremeness does respond to certain institutional conditions. This is consistent with our model (introduced earlier and formalized in Appendix A.1) in which the probability and quality of a deal influence rank-and-file MCs' preferences about the ideal extremeness for a leader.

Our model predicts that if a party has significant worries about passage of legislation, it will temper the degree of extremeness in who is chosen for the leadership team. Conversely, gains from better deals tug the selection of a leader, toward extremeness. These predictions connect to a variety of institutional conditions in Congress, conditions that also influence likelihood of passage and quality of a deal.

Informally, a party with a less extreme median member will potentially have less support for extreme legislation, reducing the probability of a deal on any given extreme bill (and also reducing the payoff for extreme deals that do pass). Increasing polarization between parties has more ambiguous effects: On the one hand, as the median party member grows more extreme the payoff to selecting extreme leaders increases. On the other hand, as the parties move apart, the reduced probability of a deal from a more extreme leader will be a greater concern. In the House, majority status confers a negotiation advantage since moves to the extremes will not noticeably reduce the probability of a deal, and will increase payoffs from more extreme deals. In the Senate, the frequent need for minority party cooperation due to the filibuster undoubtedly tempers this push to extremism. Finally, divided government (across chambers or with the president) should (potentially) reduce deal probabilities and therefore reduce the benefits of selecting extreme leaders.

Hypothesis 4. *Institutional conditions that increase the payoffs for extreme deals will correlate with selection of more extreme leadership. Institutional conditions that reduce the probability of passage will correlate with selection of less extreme leadership.*

Table 6 tests Hypothesis 4 directly by examining the relationships between extremeness of leadership and a variety of institutional factors that vary over time and across chambers. It examines the selection of extreme leaders in relation to changes in the party median, partisan polarization, majority status, size of majority, chamber and unified or divided government (across chambers and the executive branch).[13]

To examine how these political conditions influence selection of leaders, we narrow our sample from all MCs to party leaders. Our departure point is a model developed to study representation in congressional elections (Achen 1978). The model takes the form:

$$Extremeness\ of\ Ideology_{it} = \alpha + \beta Extremeness\ of\ Party\ Median_{it} + X_{it} \cdot \theta + \varepsilon_{it}. \qquad (2)$$

In equation 2, i indexes leaders, t indexes congresses, α estimates the "bias" of the electoral system, the coefficient β on the variable *Party Median$_{it}$* estimates the "responsiveness", and X_{it} includes covariates measuring the institutional conditions in Congress and other leader-level controls.

Table 6 reports results from this straightforward empirical model. Column 1 shows a "bias" (i.e., $\hat{\alpha}$) toward extremeness of 0.165. It shows a responsiveness to the party median (i.e., $\hat{\beta}$) of 0.885. Each result is highly significant.

These positive and significant values are consistent with our theoretical model. First, leadership selection is indeed responsive to the location of the party median. As the median voter within a party shifts, so too does the leader chosen (in an almost one-to-one fashion). Second, beyond this median-party-member effect, the ideology of party leaders remains more extreme than the median party member's ideology. That is, $\hat{\alpha} > 0$, a result significant at the 0.001 level for all

[13]Since this analysis studies polarization, our measure of extremeness should allow for comparisons of relative magnitude across time. Accordingly, we use the measure of extremeness detailed in Equation 1. Also, note that the location of the "zero" in DW-Nominate scores is somewhat arbitrary. Hence, we also present Tables replicating the following empirical exercise for each party on its own in the Appendix.

formulations but Column 5.

How does polarization affect the selection of leaders? Polarization, defined as the distance (based on DW-Nominate scores) between the mean Democratic member and the mean Republican member, has varied considerably since 1900. In the first half of the twentieth century, ideological divisions between the parties narrowed significantly (Poole 2005). That trend reversed since the mid-1960s passage of the Voting Rights Act and Civil Rights Act. Those acts led to a long, slow realignment of Southern Democrats. For simplicity, our formal theoretical framework focuses only on the extremeness of a single party's leadership. But the intuition of the model readily extends to incorporate polarization. Specifically, our theoretical framework suggests that an increase in polarization should exert two opposing forces on the selection of extreme leaders. As the parties move apart, legislators react to (1) changes in the elasticity of the probability of reaching a deal and (2) changes in the negative elasticity of the benefit from reaching an agreement. For any level of extremeness, the probability of reaching a deal matters, but so does the *marginal* probability (that is, the change in probability as a more extreme leader is selected). At an already high level of extremeness, the marginal probability of reaching a deal may be low, implying that even further moves towards the extreme could be rational if the marginal benefits are large. Given these cross-cutting effects, whether heightened polarization leads to more or less extreme leaders is an empirical question.

Column 2 looks at polarization. As polarization increases, leadership extremeness increases as well. But polarization should have an ambiguous effect on extremeness given the details of our theoretical model. That is because polarization captures two distinct factors – the location of the mean or median party member along with the distance to the mean or median of the opposing party.

To gain greater insight, we therefore separate polarization into its two components: the locations of the medians of the two parties. This empirical approach reveals a more subtle dynamic at play (See Columns 3–8 of Table 6). When the opposing party grows more extreme, one's own party tends to respond by moderating. Intuitively, increases in polarization due entirely to the opposing party reduce the deal probability, thus creating incentives for one's party to select a more

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Table 6 – Leadership and Extremeness $(DW-N)$, Leaders Only

	House and Senate					Senate Only
	(1)	(2)	(3)	(4)	(5)	(6)
Party Median Extremeness	0.885***		0.936***	0.966***	1.067***	0.757***
	(0.101)		(0.100)	(0.098)	(0.101)	(0.162)
Polarization		0.396***				
		(0.058)				
Opposing Party Median Extremeness			−0.109	−0.130	0.034	−0.169
			(0.084)	(0.084)	(0.095)	(0.121)
Majority	0.050***	0.075***	0.046***	0.039***	0.007	0.040**
	(0.011)	(0.011)	(0.012)	(0.012)	(0.015)	(0.016)
Pres. Party Mismatch				−0.023**	−0.001	−0.022
				(0.011)	(0.010)	(0.014)
Cong. Party Mismatch				−0.004	0.017	0.001
				(0.013)	(0.013)	(0.016)
Size of Party Split					−0.111	
					(0.100)	
Supermajority						0.076**
						(0.037)
Size of Party Split X Majority					0.725***	
					(0.188)	
Republican	−0.015*	0.023**	−0.023**	−0.027**	0.012	−0.009
	(0.009)	(0.011)	(0.011)	(0.011)	(0.013)	(0.019)
Senate	−0.025**	−0.025**	−0.027**	−0.027**	−0.022*	
	(0.011)	(0.012)	(0.011)	(0.011)	(0.011)	
Constant	0.165***	0.151***	0.189***	0.202***	0.038	0.164***
	(0.042)	(0.047)	(0.047)	(0.047)	(0.056)	(0.062)
Congress Trend	yes	yes	yes	yes	yes	yes
N	595	595	595	595	549	211
R^2	0.225	0.178	0.226	0.232	0.287	0.244

*p < .1; **p < .05; ***p < .01

Notes: Standard Errors clustered by party/congress/chamber. The unit of observation is an individual Party Leader/Congress combination. This table regresses extremeness of leaders on key institutional variables. Extremeness is measured as a rescaled DW-N score. Regardless of party a higher value corresponds to more extreme ideology. Polarization is measured as the distance between the average ideology for each party within a chamber.

moderate leader. The extremeness of party leadership responds positively to the extremeness of the party median member. As is evident from Columns 2 and 3, this median-member effect outweighs but is tempered by the position of the opposing party's median member. That pattern of influence aligns well with key insights from our model. MCs ultimately must balance their preference for an extreme leader as a means to get a preferred policy outcome against the concern that extreme leaders reduce the probability of striking a deal. When the deal probability is low, the return to getting a more favorable deal is also lower. MCs will find it desirable to select slightly more moderate leaders.

Our focus has been on negotiations within a single congressional chamber. However, there are also negotiations across chambers, as well as with the president. Unified government – when one party holds the presidency and a majority in both chambers of Congress – might be expected to reduce the returns to extreme leadership. Negotiations across chambers, being intra-party, would be greatly eased, suggesting that the incentives to select extreme leaders would be reduced. Nevertheless, even under unified government a majority party may still need to engage in significant negotiations with the minority party within its chamber.

We measure two aspects of divided/unified government – whether the party of the president matches the party of leadership under study and whether the party of the other chamber matches. In Column 4, we include indicators for when a mismatch in parties along these two dimensions occurs. We find a small but significant negative effect of a presidential party mismatch.

How does majority status affect the selection of leaders? On average, majority parties select leaders who are five to seven percentage points more extreme than those of minority parties. Interestingly, as the seat share of the majority party increases, the majority party appears to have less need for minority support should it suffer defectors. Accordingly, it can select a more extreme leader, deviating further from a moderate path. These results all accord with our model.

In the Senate, where a filibuster looms, less extreme leaders should be expected. Our estimates show that leaders in the Senate tend to be less extreme than their counterparts in the House.

To isolate the role of the filibuster within the Senate, in specification 6 of Table 6, we restrict the sample to the Senate only, and we include a variable capturing whether a party holds a supermajority – that is, a filibuster-proof majority. We observe a roughly eight-point increase in extremeness for parties that hold a supermajority. A party free from a filibuster threat has loose reins for selecting more extreme leadership.

Tables in the Appendix address several key methodological concerns. First, we have also estimated the models separately by party to check whether our conclusions hold within as well as across each of the two parties. Tables A7 and A8 present the results.[14] The conclusions remain essentially unchanged, though are sometimes noisier than when estimating the effects for both parties jointly. Another concern is that the effects might be driven by tactical behavior that makes leaders appear ideologically extreme subsequent to entering office, rather than before their selection. To address this concern, we estimate a model based only on extremeness scores from the term before leaders joined the leadership ranks. Table A6 confirms that the effects are generally unchanged, except that the sign on the effect of the extremeness of the opposing party's median member flips. It appears as if a more extreme opposing party contributes to MCs selecting leaders who had more extreme positions in the term before joining leadership.

Summary and Conclusion

The tug-and-haul of negotiation shapes our laws, and legislative leaders are the prime negotiators. At every level of government, negotiation is a regular task. As negotiators, legislative leaders act as agents for themselves and their constituents, and more directly for their fellow party members.

We focus attention on the ideology of legislative negotiators. Traditional wisdom, with some recent modifications, suggested that a party leader's ideology will align well with that of its

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[14]We exclude the party dummy since we now focus only on one party at a time. We exclude the filibuster specification for Republicans since that party never possessed a supermajority in the Senate during our sample period.

median member. However, if leaders are negotiators, and if a negotiator's position anchors negotiations, the median member of a party will find it beneficial to appoint an extreme leader. That extremeness will secure more favorable outcomes for the median member. The rewards to reaching legislative agreements, however, constrains this tug to the extreme. Effective legislative leaders have to be *reasonably tough*; both words in that phrase play a role. We illustrate this logic in our theoretical model; our empirical estimates confirm it.

Empirical analysis of twentieth and twenty-first century congressional leaders finds them, as hypothesized, to be more extreme than their parties. Moreover, that is primarily because they were already more extreme before they were elected to their positions. While extremeness is linked to tenure in the House and longer tenures increase the odds that an MC is selected as a leader, these factors explain little of the tendency towards selecting extreme leaders.

We show that the pattern of legislation passed under extreme leadership accords well with the predictions from our model. Extreme leaders negotiate fewer deals (i.e., the deal probability decreases) but the quality of the deal, from the perspective of the median caucus member, increases substantially. Not only does the empirical evidence on bill passages under extreme leadership accord with our account, but members themselves appear to communicate that they prefer extreme leaders. Examining thousands of newsletters to constituents, rank-and-file members systematically refer to more extreme leaders in more positive language. Taken together, these findings suggest that extreme leaders bring tangible legislative benefits to their members, and members themselves recognize and acknowledge these gains.

Finally, we extended the general logic of our model to predict how a variety of different institutional conditions should influence leadership selection. We find that, while the location of the party median and polarization both matter for selection of leadership, other factors such as whether there is unified government have only small effects. But factors that strongly alter the probability of a deal (overall and on the margin), strongly correlate with patterns of leadership selection. Thus, rank-and-file members select more extreme leaders when in the majority, when

the size of the majority is greater, and, in the Senate, when holding a filibuster-proof majority.

There is a rich literature on the private sector counterpart to the problem studied here: How faithful and effective are private sector leaders such as corporate managers as agents for the stockholders they are supposed to serve (Jensen and Meckling 1976; Pratt and Zeckhauser 1985)? A central lesson from that literature is that stockholders reap substantial benefits when their interests and those of the managers are properly aligned.

A superficial examination of MCs and their leaders might suggest that preferences are poorly aligned. Leaders' policy positions, as revealed through their votes, are considerably more extreme than those of the members they represent. But our intuitive framework and empirical results show that this ideological divergence is directly in the median party member's interest. Voting records differ, yet interests align. To improve negotiation outcomes, it is in the collective interest of the party's members to have an extreme leader. Such a leader – one whose known ideology anchors negotiations – will shift policy outcomes favorably for the party's median member. A superior outcome is achieved, from the perspective of even moderate rank-and-file party members.

This model provides an additional explanation why elite-driven polarization may continue to present an ongoing challenge for those interested in well-functioning legislative systems. Even when a legislature has some number of moderate members, they may still retain strong incentives to select leaders significantly more extreme than themselves.

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A Appendix

A.1 A Model of Leadership Extremism

Members of a party caucus are assumed to select a leader to maximize the expected value of the legislation they produce. To simplify, we assume that the median caucus member (MCM) controls the outcome. However, other plausible assumptions on control would lead to the same analytic process. The median member, at least implicitly, operates by assigning von Neumann-Morgenstern utilities (VN-M) to outcomes, and by using subjective probabilities of passage to calculate their expected value.

Over the relevant range, a more extreme leader raises the utility, u, of a deal if struck but diminishes the probability, p, that a deal will be struck. Denote the leader's extremeness by e. Our model, to simplify, looks at a single piece of potential legislation (but the analysis would be qualitatively the same if a legislative body could pass many pieces of legislation).

Figure A1 lays out this framework and a numerical example. The analysis is conducted for the majority party on an extremeness scale that, for simplicity's sake, ranges from 0 to 1.

Curve A shows the utility of a deal, if struck, from the standpoint of the median caucus member (MCM), whose personal ideal point is at 0.6. The highest utility deal, if one is struck, would be for a leader whose ideal point was at 0.82 and therefore pulled the deal location rightward from the chamber median. However, such a deal is only 38% likely to pass.

If a deal fails, the outcome is No Deal. For simplicity, using standard VN-M methods, we scale utilities so that No Deal is assigned a utility of 0. The best possible deal for the MCM, negotiated by a leader with ideal point A^*, is assigned a utility of 100.

For a leader at a level of extremeness e, let $u = U(e)$ be the utility of a deal if struck, and let $p = P(e)$ be the likelihood that the deal passes. Utility is measured from the standpoint of the MCM, whose ideal point for the legislation is at extremeness 0.6. That is far greater value than the median of the legislature at extremeness 0.5, but far less than the ideal point of the MCM's optimal leader.

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The MCM would choose a leader at e^*, which is the value of e that maximizes the MCM's expected payoff, namely:

$$\overbrace{P(e) \cdot U(e)}^{\text{Deal Struck}} + \overbrace{(1 - P(e)) \cdot 0}^{\text{No Deal}} \tag{3}$$

The MCM maximizes by taking the derivative with respect to e, and setting it equal to 0. The second term in Equation 3 drops out, given the 0 value. The optimal condition[15] is that:

$$P'(e) \cdot U(e) + U'(e) \cdot P(e) = 0 \tag{4}$$

Rearranging terms yields:

$$\frac{P'(e)}{P(e)} = \frac{-U'(e)}{U(e)} \tag{5}$$

The terms on the two sides of the equation are elasticities with respect to e. This expression tells us that the elasticity of the probability must equal the negative of the elasticity of the gain from a deal. Looking at the right-hand side first, this implies that a caucus will choose a more extreme leader the more it affects the quality of a deal, the better is the no-deal outcome, and the less extremeness affects the probability of a deal. These conditions imply that it often will be desirable for a caucus to select a legislative negotiator who is substantially more extreme than its median member. Some extremeness will improve the deal struck; too much cuts the probability of a deal too severely.

The median caucus member (MCM) is located at 0.6. Intuitively, the MCM would like to raise the extremeness of the leader until the percentage gain in utility from further incremental movement just equaled the percentage reduction in probability of passage that movement produced. That point is shown as 0.74 in the figure, where Equation 3 is maximized. Beyond that point,

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[15]Second-order conditions are satisfied in the figure. A sufficient condition for satisfaction is that curves A and B be concave and continuous over the relevant range.

the percentage reduction in passage exceeds the percentage increase in utility for the MCM.

If the leader were at 0.82, a struck deal would offer the maximum utility of 100. But the probability of a deal would be only 38%. The expected utility would be 38. But with a leader at 0.74, the success probability is 50% and a successful deal would yield a utility of 98, for an expected utility of 49.

Figure A1 – Ideal Negotiator for a Conservative Caucus
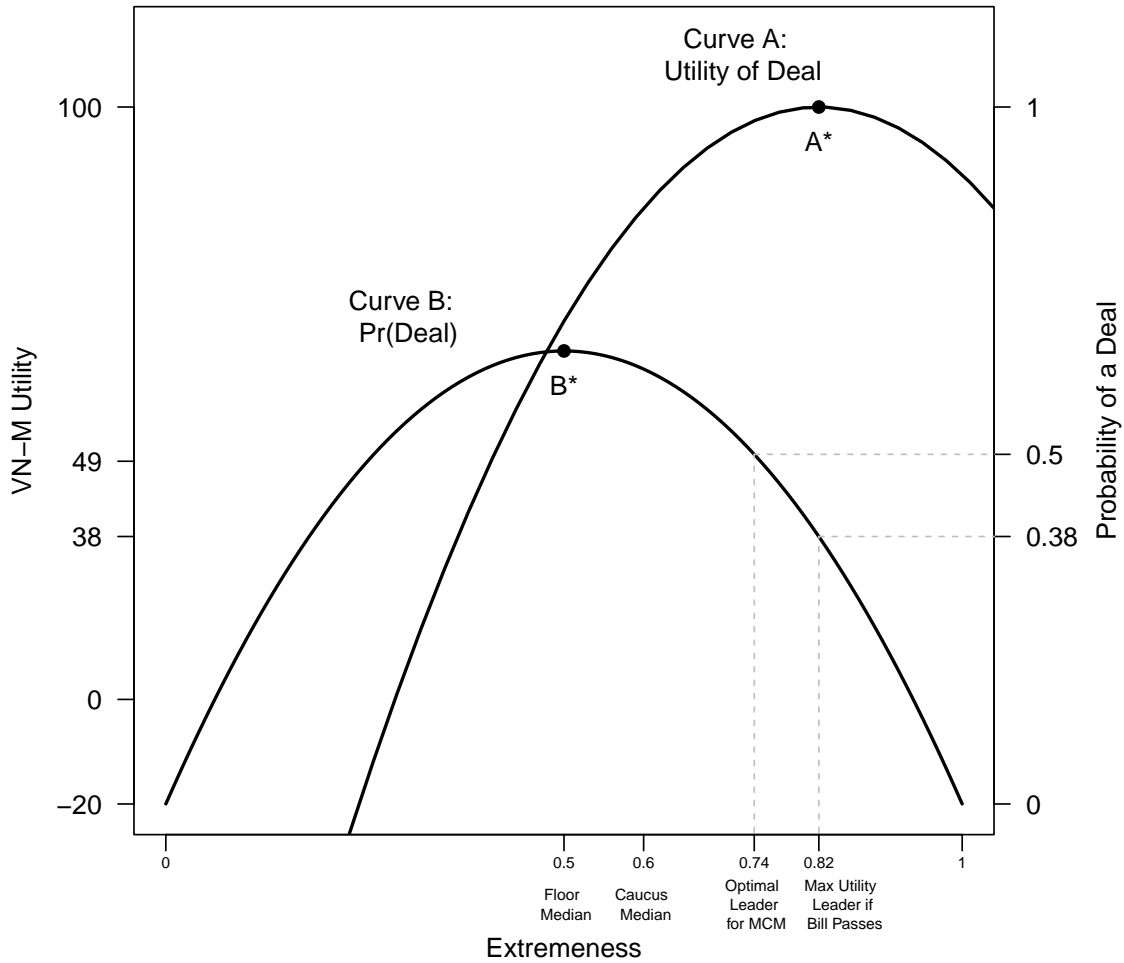
Notes: This figure shows the functions underlying the optimization problem faced by the median caucus member in choosing a leader. It reflects two assumptions about this process. Leader extremeness (1) anchors negotiations, and thereby enables legislation that passes to be more extreme; and, (2) reduces the probability of passage (at least beyond the caucus median). The qualitative features assumed above would seem to characterize most legislatures. If so, it will be optimal for the MCM to select a leader who is substantially more extreme than that member to serve as a negotiation anchor. The optimal choice will maximize the MCM's expected utility. That value is the probability of a deal times the utility of the legislation should a deal be struck.

A.2 Extreme Leaders Over Time

Our extremism results are conclusive. However, at least one era for one party seems ambiguous. From 1936-58 Republican leaders were more moderate than their party median about 30 percent of the time (see Figure A2). In this period, the Democratic party majority was significant, and Republicans were seeking to build temporary coalitions with conservative Southern Democrats. We recognize the dangers of explaining exceptions on a case-by-case basis. However, we should note that this atypical behavior is widely discussed in the literature (Manley 1973; Sinclair 1982; Rohde 1991).

Figure A2 – House Leadership Extremism Over Time
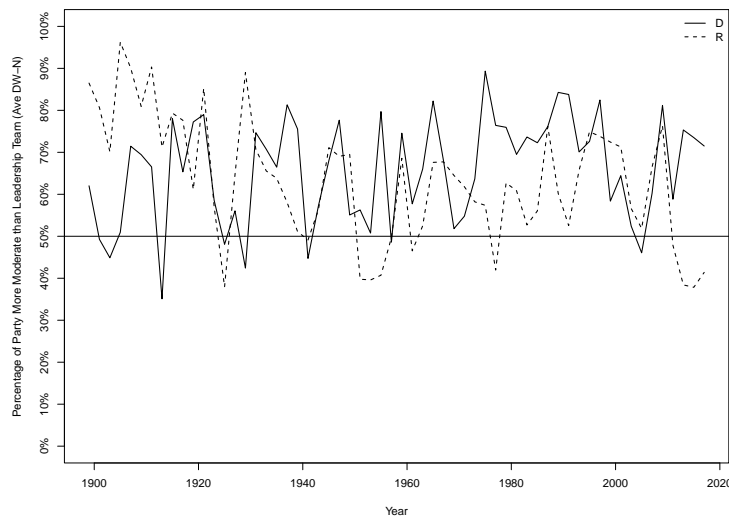
Notes: This figure displays how extreme party leadership teams have been over time, by party, for the House of Representatives. Across time, there have been few congresses where 50 percent or more of the party caucus/conference was more moderate than the party leadership team.

A.3 Does Leadership Influence Ideology?

A leader secures superior outcomes for his or her party by holding an extreme ideology. However, a candidate for leadership cannot just choose an ideology anew. Reputations are built over years, so a shift to the extreme upon competing for or assuming leadership would likely be interpreted

Table A1 – Extreme Leaders: Before, During and After Leadership

Chamber	Period	Share Less Extreme Than MC	N (Congresses)
House	Pre-Leadership	0.60	687
House	During Leadership	0.64	390
House	Post-Leadership	0.54	226
Senate	Pre-Leadership	0.58	261
Senate	During Leadership	0.60	220
Senate	Post-Leadership	0.58	121

Notes: This table reports our measure of extremeness (e.g., share less extreme than the leader) for leaders in the House and Senate at different stages of their careers. For each individual congress, a member receives a percentile ranking within their chamber and party based on their DW-Nominate score. This assesses their position within the caucus/conference for a given Congress. Note the extremeness measure can fluctuate year to year for an individual member based on their voting record. We calculate and report the mean extremeness within each group.

as "cheap talk" and would undermine its effectiveness as a negotiation tactic (Farrell and Rabin 1996). Nevertheless, might leaders strategically choose to become more extreme once appointed? To answer this question, we looked at leaders' ideologies before, during, and after their leadership careers.

Table A1 shows the record. In both chambers, leaders' extremeness increases slightly during leadership and declines slightly once they leave senior leadership. However, the telling result is that whether before, during or after leadership, leaders were more extreme than their party.

A.4 Levels of Leadership

We start by testing whether top leaders, who are more involved in negotiations than lesser leaders, tend to be more extreme than lesser leaders.

To test the relationship between extremeness and holding a top leadership position, we ranked all members of a party from least influential (not holding a leadership position) to most influential. The latter would be Speaker of the House for the majority party in the House (whose in-office ideology we do not reliably observe, since Speakers rarely vote), Party Leader for the House minority party, and majority leader and minority leader in the Senate. The pattern that emerges (see

Table A2 – Leadership Progressions, Share of Party Caucus more Moderate than Legislator, 1900–2017

	House	Senate
Not Currently Holding a Leadership Position	0.50	0.50
Party Whip	0.62	0.59
Conference or Caucus Chair	0.60	
Majority or Minority Party Leader	0.68	0.62

Notes: The table reports the share of a party within a chamber that is more moderate/less extreme than a designated legislator. For designations with more than one legislator, we take the average ranking across legislators in the group. To calculate this quantity, each member is assessed based on their percentile extremeness ranking within the party in their chamber; then, for each category, we take the mean of that ranking. Note that the speaker of the House does not cast votes under most circumstances and so a measure of ideology based on behavior in the term while serving as speaker would be ill-advised.

Table A2) confirms that the more senior the leader, the more extreme is his or her ideology relative to caucus members. This pattern provides particularly strong evidence for our hypothesis, given a countervailing factor: Top party leaders play a prominent role other leaders do not by representing parties to the electorate at large. Presumably, that role would make closeness to the median of the overall electorate favorable, and that electorate is more moderate than the median of either party.

A.5   Ideology and Leaders as Long-Time Members of Congress

Ascending into congressional leadership requires seniority in Congress. Extreme ideology might correlate with seniority because MCs from consistently strong-conservative or strong-liberal districts face fewer competitive general elections and tend to hold extreme ideology themselves. Thus, we hypothesize that the pool of long-time survivors in Congress, individuals who more frequently assume leadership roles, is disproportionately extreme. That is, extremeness is correlated with longevity, which in turn promotes ascension into leadership positions. If so, sample selection might explain extreme leadership, as a complement to or in place of our key hypothesis that electing extreme leaders is a strategic choice to improve negotiated outcomes.

First, we examine whether leadership positions tend to require seniority. The evidence is clear, though its strength varies across chambers. If we restrict the sample to MCs in their first term

of leadership and non-leaders during that term, then 82 percent of the time the new House leadership has had longer average tenure than the typical non-leader in the House. In the Senate, this is true 68 percent of the time. On average, leaders are much more senior than those they lead.

The next question is whether a longer tenure in Congress is associated with extreme ideology, controlling for other factors. We estimate a Cox Proportional Hazard model, where the hazard is leaving Congress. The departure probability is a function of time already spent in Congress, as well as a function of ideological extremeness (in first term), party, age, and age-squared (in first term).

Table A3 summarizes the results. In the House, ideological extremeness has a strong (and significant) negative association with the probability one leaves Congress. In the Senate, the association is much weaker and not significant. The source of this difference might be that a states' voters are substantially more heterogeneous on average than are those in congressional districts'. As a consequence, senators face a greater risk of losing future elections.

To show how these estimates unfold over the course of a congressional career, we plot the hazard functions in the House and Senate for MCs who have different levels of ideological extremeness. Figures A3a and A3b display the results for MCs in the 10th–90th percentiles of ideological extremeness within their chamber. As the figures illustrate, the gap in hazard rates appears meaningful for the House but is only slight for the Senate. To put the magnitudes for the House in perspective, about half of MCs with ideological extremeness in the 10th percentile of their party have exited the House after 3 terms, whereas it takes 4 terms for someone in the 90th percentile of extremeness to reach the same percentage of exits. This difference is meaningful but not massive.

Thus, it appears that this selection-based hypothesis – that more extreme legislators have longer careers and are thus more likely to ascend to leadership positions – could explain some portion of the difference in ideology observed for leaders versus non-leaders. To know for sure, the ideal experiment would randomly assign seats in the legislature to some extreme and some moderate MCs while holding district characteristics constant. It would then track the rates at which extreme versus moderate legislators became leaders.

Figure A3 – Probability of Exit from Congress by Ideological extremeness

(a) *House*
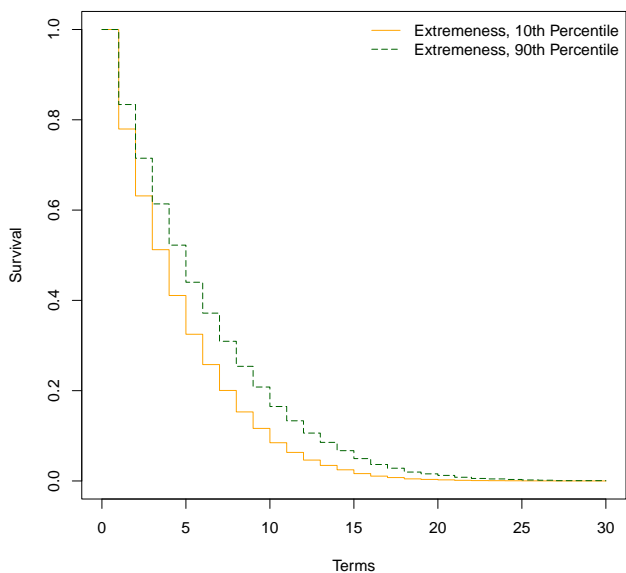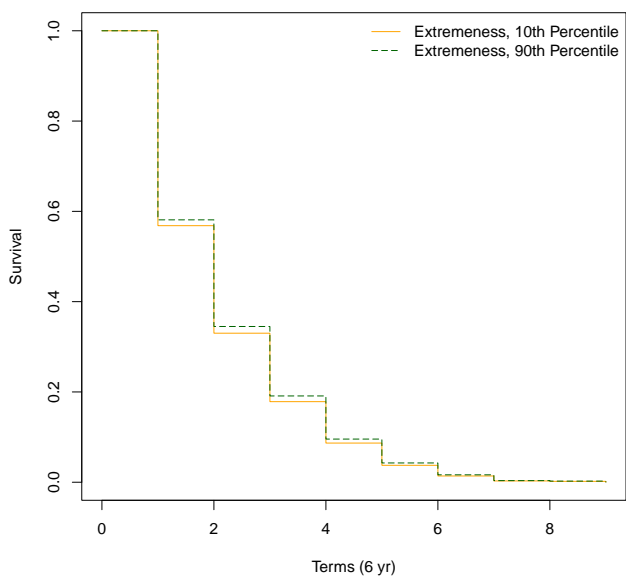
(b) *Senate*

Notes: These figures illustrate the probability of leaving Congress for extreme and non-extreme members, by term, in the House and the Senate. There is no meaningful difference in the Senate; in the House, extreme members serve slightly longer terms than their more moderate counterparts.

Table A3 – Cox Proportional Hazard: Effect of Ideology on MC Tenure

	House	Senate
	(1)	(2)
Extremeness (Share MCs Less Extreme)	−0.393***	−0.051
	(0.050)	(0.115)
Age	−0.050***	−0.026
	(0.013)	(0.028)
Age Square	0.001***	0.001**
	(0.0001)	(0.0003)
Democrat	0.118***	0.036
	(0.029)	(0.065)
N	5,375	1,074
R^2	0.052	0.081
Log Likelihood	−38,096.470	−5,882.154

$^*p < .1; ^{**}p < .05; ^{***}p < .01$

Notes: Standard Errors clustered by party/congress/chamber. The unit of observation is an individual Party Leader/Congress combination. This table regresses extremeness of leaders on key institutional variables. Extremeness is measured as a rescaled DW-N score. Regardless of party a higher value corresponds to more extreme ideology. Polarization is measured as the distance between the average ideology for each party within a chamber.

Fortunately, a more practical empirical strategy is available, one that enables us to estimate the likelihood that a legislator will join the leadership while accounting for how ideology affects tenure in office. Posit a legislature with a tenure system such that, upon election, officials serve a fixed number of years and then leave office. This scenario would eliminate the problem of different exit rates for extreme versus moderate MCs.

We can construct a similar counterfactual scenario that holds constant the length of tenure for everyone (see Figure A4). In this scenario, exit from Congress and joining leadership are *competing risks*. We then re-estimate a duration model. Some MCs leave Congress early, which precludes them from ever joining leadership. Others, despite long careers, will never become leaders. Finally, some observations are censored because members are still serving today (i.e., those MCs in the 115th Congress). A competing risks model estimates the marginal probability of

joining leadership while accounting for the overall probability of having remained in the sample of non-leaders sufficiently long to do so.

Consider the random variable T, which denotes the number of Congresses in an MCs career until they either leave Congress or became a party leader. T is drawn from the CDF $F(\cdot)$ on the interval $[0,\infty)$. The probability of staying in Congress for t Congresses as a non-leader is given by the survival function $S(t) = 1 - F(t)$. In any one Congress, the probability of joining leadership is denoted by $h_L(t)$. Thus, we want to know the probability of joining leadership at time t conditional on having stayed in Congress and not joined leadership up until time $t-1$. That is, we want $H_t = S(t-1) \times h_L(t)$. We can estimate each of these components – for instance, the latter could be estimated by the number of MCs joining leadership at time t divided by the number of non-leader MCs remaining in the sample at the time. Now further suppose that these probability distributions are affected not only by time in Congress t but also by a set of fixed characteristics X for an MC (i.e., age entering Congress, party, gender, etc.) along with *Extremeness*. Then, we want to estimate for all MCs and for all t the quantity $H(t|Extremeness,X,t-1)$.

Figures A4a and A4b present the probabilities over time that MCs holding low (10th percentile) and high extreme (90th percentile) ideologies join leadership, accounting for their differential rates of exiting Congress. As is evident, the overall probability of joining leadership is low across the board. But an MC with a more extreme ideology is much more likely to join leadership in both the House and Senate. (The results are similar for the two parties; hence the figures combine them.) Furthermore, if we calculate the fitted values (i.e., the probability of joining leadership) for each MC by chamber and use those values to calculate the ideological score for leaders, then the estimates do not diverge meaningfully from the ideologies of leadership in the historical sample.

Figure A4 – Probability of Joining Leadership When Accounting for Differential Odds of Exiting Congress Based on Extremeness
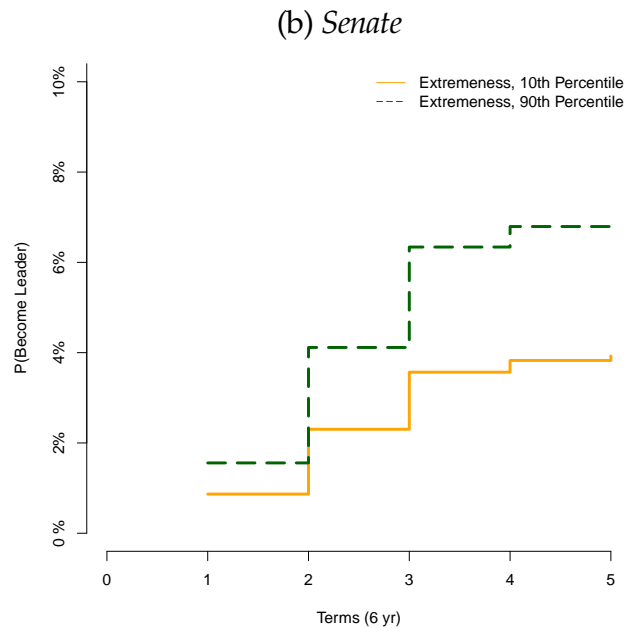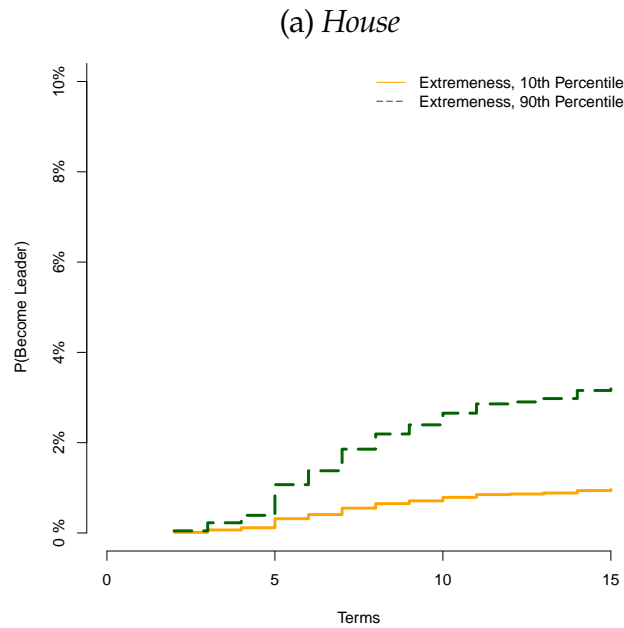
(a) *House*

(b) *Senate*

Notes: These figures illustrate the probability of joining a party's leadership team taking account of the odds of exiting Congress based on extremeness. For both the House and the Senate, extreme leaders appear more likely to join leadership even allowing for their lower exit rates. To illustrate, in the House, the probability of joining leadership is more than twice as large for extreme members after the fifth term in office. In the Senate, the probability of joining leadership is more than twice as large after the third (six-year) term.

A.6 Newsletters Data Processing

We searched of the newsletter database for the all Republican and Democratic leaders during the years covered. The search returned all "hits" in which an MC mentioned a congressional leader somewhere in their newsletter. For each "hit" in a newsletter, we processed the data according to the following steps:

1. Tokenize newsletter text based on sentences.

2. Determine sentence in which a hit occurred; extract this sentence as well as the one directly before and directly after it. Call this triplet a snippet.

3. For each snippet, we apply a well-established algorithm for determining the underlying sentiment in terms of positive or negative associations. We apply sentiment analysis based on LSD2015 (Young and Soroka 2012). LSD2015 (Young and Soroka 2012) identifies words that have either a negative or positive valence based on a pre-established lexicon. We then weight a negative word with a score of -1 and a positive word with a score of 1 (also accounting for double negatives, etc.).

4. Following this process yields a dataset where each row is a snippet in which an MC referred to a leader of their own party or of the opposing party, and where each snippet is also rated based on sentiment. References in which leadership refers to other members of a leadership team are filtered out. The data is then collapsed across each MC and each Congress. Hence, a single row reports a member's number of mentions of their own and opposing leadership, along with the average sentiments expressed towards own and opposing leadership teams.

A.7   Additional Tables

Table A4 – Leadership and Extremeness (Pct. Less Extreme in Party/Chamber), First-Term Leaders and Rank-and-File Members,

	Extremeness of MC			Previous Congress Extremeness of MC (for leaders)		
	(1)	(2)	(3)	(4)	(5)	(6)
Leader	0.129***	0.129***	0.129***	0.115***	0.115***	0.116***
	(0.017)	(0.017)	(0.017)	(0.017)	(0.017)	(0.017)
Constant	0.498***	0.498***		0.498***	0.498***	
	(0.0004)	(0.002)		(0.0004)	(0.002)	
Congress Trend	no	yes	no	no	yes	no
Congress FE	no	no	yes	no	no	yes
N	31,801	31,801	31,801	31,794	31,794	31,794
R^2	0.001	0.001	0.001	0.001	0.001	0.001

$^*p < .1; ^{**}p < .05; ^{***}p < .01$

Notes: Standard Errors are clustered by Party/Congress/Chamber. Extremeness is measured as the share of party members less extreme than a given member. Columns 1 and 4 do not control for time period; Columns 2 and 5 include a linear Congress trend; Columns 3 and 6 include a Congress Fixed Effect. Columns 1-3 measure ideological extremity for all members based on their behavior in a given congress. By contrast, Columns 4-6 measure the ideological extremity for leaders based on their behavior in the Congress immediately preceding when they joined leadership.

Table A5 – Leadership and Extremeness (DW-N), All Members

	Extremeness of MC			Previous Congress Extremeness of MC (for leaders)		
	(1)	(2)	(3)	(4)	(5)	(6)
Leader	0.065***	0.064***	0.065***	0.059***	0.058***	0.063***
	(0.006)	(0.006)	(0.006)	(0.005)	(0.005)	(0.005)
Republican	0.060***	0.061***	0.047***	0.060***	0.061***	0.047***
	(0.010)	(0.010)	(0.003)	(0.010)	(0.010)	(0.003)
Senate	−0.020***	−0.020***	−0.020***	−0.021***	−0.021***	−0.021***
	(0.008)	(0.008)	(0.004)	(0.008)	(0.008)	(0.004)
Majority Party	0.026***	0.026***	0.028***	0.025**	0.025***	0.028***
	(0.010)	(0.010)	(0.003)	(0.010)	(0.010)	(0.003)
Constant	0.300***	0.279***		0.300***	0.278***	
	(0.010)	(0.027)		(0.010)	(0.027)	
Congress Trend	no	yes	no	no	yes	no
Congress FE	no	no	yes	no	no	yes
N	32,222	32,222	32,222	32,201	32,201	32,201
R^2	0.031	0.032	0.122	0.031	0.032	0.123

$^*p < .1; ^{**}p < .05; ^{***}p < .01$

Notes: Standard Errors are clustered by Party/Congress/Chamber. Extremeness is measured by DW-Nominate score for Republican members and DW-Nominate score times −1 for Democratic members. Column 1 does not control for time period; Column 2 includes a linear Congress trend; Column 3 includes a Congress Fixed Effect. The sample is all members of Congress with a voting record and DW-Nominate score in the time period.

Table A6 – Leadership and Extremeness $(DW-N)$ from Term Before Joining Leadership

	House and Senate					Senate Only
	(1)	(2)	(3)	(4)	(5)	(6)
Party Median Extremeness	0.843***		0.732***	0.745***	0.737***	0.804***
	(0.083)		(0.095)	(0.096)	(0.105)	(0.177)
Polarization		0.484***				
		(0.044)				
Opposing Party Median Extremeness			0.258***	0.268***	0.315***	0.240
			(0.092)	(0.090)	(0.101)	(0.149)
Majority	0.032***	0.056***	0.043***	0.043***	0.033**	0.046**
	(0.010)	(0.009)	(0.011)	(0.011)	(0.016)	(0.019)
Pres. Party Mismatch				−0.0004	0.004	0.006
				(0.009)	(0.010)	(0.016)
Cong. Party Mismatch				−0.020	−0.030**	0.006
				(0.012)	(0.014)	(0.020)
Size of Party Split					−0.055	
					(0.100)	
Supermajority						0.048
						(0.043)
Size of Party Split X Majority					0.241	
					(0.186)	
Republican	−0.002	0.031***	0.013	0.013	0.024*	−0.002
	(0.009)	(0.009)	(0.010)	(0.011)	(0.013)	(0.019)
Senate	−0.053***	−0.048***	−0.050***	−0.050***	−0.049***	
	(0.010)	(0.010)	(0.010)	(0.010)	(0.011)	
Constant	0.134***	0.066*	0.084**	0.078**	0.060	0.058
	(0.033)	(0.035)	(0.036)	(0.038)	(0.056)	(0.085)
Congress Trend	yes	yes	yes	yes	yes	yes
N	574	574	574	574	528	198
R^2	0.292	0.296	0.303	0.306	0.278	0.244

$^*p < .1$; $^{**}p < .05$; $^{***}p < .01$

Notes: Standard Errors clustered by Party/Congress/Chamber. The unit of observation is an individual Party Leader/Congress combination. This table regresses extremeness of leaders on key institutional variables. Extremeness is measured as a rescaled DW-N score; regardless of party a higher value corresponds to more extreme ideology. In this Table, the extremeness measure is based on an individual's score from the term before joining leadership. Polarization is measured as the distance between the average ideology for each party within a chamber.

Table A7 – Leadership and Extremeness $(DW-N)$, Leaders Only, D Party

	House and Senate					Senate Only
	(1)	(2)	(3)	(4)	(5)	(6)
Party Median Extremeness	0.546**		0.499**	0.553**	0.480**	0.250
	(0.223)		(0.231)	(0.238)	(0.232)	(0.339)
Polarization		0.200**				
		(0.092)				
Opposing Party Median Extremeness			0.075	0.055	0.220	0.102
			(0.115)	(0.115)	(0.135)	(0.198)
Majority	0.046***	0.052***	0.050***	0.046***	0.005	0.027
	(0.015)	(0.019)	(0.017)	(0.017)	(0.022)	(0.025)
Pres. Party Mismatch				−0.019	−0.007	−0.029
				(0.017)	(0.017)	(0.019)
Cong. Party Mismatch				−0.001	0.028	−0.006
				(0.016)	(0.018)	(0.037)
Size of Party Split					0.270	
					(0.257)	
Supermajority						0.096***
						(0.032)
Size of Party Split X Majority					0.378	
					(0.315)	
Senate	−0.039**	−0.048***	−0.040**	−0.039**	−0.035*	
	(0.019)	(0.017)	(0.019)	(0.019)	(0.018)	
Constant	0.172**	0.167**	0.152**	0.162**	0.033	0.191*
	(0.067)	(0.074)	(0.074)	(0.070)	(0.080)	(0.102)
Congress Trend	yes	yes	yes	yes	yes	yes
N	300	300	300	300	280	111
R^2	0.088	0.079	0.089	0.093	0.135	0.192

$^*p < .1$; $^{**}p < .05$; $^{***}p < .01$

Notes: Standard Errors clustered by Party/Congress/Chamber. The unit of observation is an individual Party Leader/Congress combination. This table regresses extremeness of leaders on key institutional variables. Extremeness is measured as a rescaled DW-N score. Regardless of party a higher value corresponds to more extreme ideology. In this Table, the sample consists only of Democratic members. Polarization is measured as the distance between the average ideology for each party within a chamber.

Table A8 – Leadership and Extremeness $(DW-N)$, Leaders Only, R Party

	House and Senate					
	(1)	(2)	(3)	(4)	(5)	(6)
Party Median Extremeness	1.073***		1.051***	1.083***	1.296***	1.163***
	(0.111)		(0.111)	(0.114)	(0.089)	(0.136)
Polarization		0.751***				
		(0.075)				
Opposing Party Median Extremeness			0.097	0.048	−0.029	−0.926***
			(0.175)	(0.182)	(0.164)	(0.205)
Majority	0.021	0.016	0.019	0.016	−0.003	0.038**
	(0.016)	(0.017)	(0.016)	(0.017)	(0.019)	(0.018)
Pres. Party Mismatch				−0.016	0.009	−0.013
				(0.013)	(0.012)	(0.017)
Cong. Party Mismatch				−0.012	0.012	−0.0003
				(0.019)	(0.019)	(0.017)
Size of Party Split					−0.127	
					(0.095)	
Size of Party Split X Majority					0.643**	
					(0.295)	
Senate	−0.018	0.017	−0.014	−0.016	−0.028**	
	(0.013)	(0.014)	(0.015)	(0.015)	(0.014)	
supermajority						
						(0.000)
Constant	0.175***	0.125**	0.164***	0.168***	0.0001	0.015
	(0.057)	(0.057)	(0.058)	(0.060)	(0.056)	(0.062)
Congress Trend	yes	yes	yes	yes	yes	
N	295	295	295	295	269	100
R^2	0.387	0.379	0.388	0.391	0.469	0.396

$^*p < .1;\ ^{**}p < .05;\ ^{***}p < .01$

Notes: Standard Errors clustered by Party/Congress/Chamber. The unit of observation is an individual Party Leader/Congress combination. This table regresses extremeness of leaders on key institutional variables. Extremeness is measured as a rescaled DW-N score. Regardless of party a higher value corresponds to more extreme ideology. In this Table, the sample consists only of Republican members. Polarization is measured as the distance between the average ideology for each party within a chamber.