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Why does the influence of Congressional parties fluctuate over time? Building on prevailing answers, we develop a model, Strategic Party Government, which highlights the electoral motives of legislative parties and the strategic interaction between parties. We test this theory using the entire range of House and Senate party behavior from 1789 to 2000 and find that the strategic behavior of parties complements members' preferences as an explanation for variation in party influence. Specifically, the strongest predictors of one party's voting unity are the unity of the opposing party and the difference between the parties in the preceding year. Moreover, we find strong links between party behavior in Congress and electoral outcomes: an increase in partisan influence on legislative voting has adverse electoral costs, while winning contested votes has electoral benefits.

Over the last three decades, Congress has become increasingly polarized as the two major parties compete for policy change and public support (e.g., Jacobson 2004; Lowry and Shipan 2002; McCarty, Poole, and Rosenthal 2006; Roberts and Smith 2003; Sinclair 2006; Theriault 2004). This polarization is part of a broader pattern of dynamic party strength in Congress. During some eras, parties dominate the agenda and dictate votes, but at other times they are diverse clusters of members in a committee-dominated chamber (Cooper and Brady 1981). Why does Congressional party influence wax and wane? This article accounts for variation in party influence by tying legislative behavior to the strategic incentives of Congressional elections.

The dominant explanation for variation in legislative party influence is *conditional party government* (CPG; Rohde 1991; Smith 2000) in which party strength is tied to legislators' electorally induced preferences. Parties are strongest when the members of each party agree with each other and disagree with the members of the opposing party. If so, party members delegate powers to party leaders who strive to sway policy toward their party's preferred outcomes (Aldrich 1995; Aldrich and Rohde 2001; Rohde 1991). Skeptics have questioned both the general relevance of parties in the legislative process (Krehbiel 1993) and the theoretical coherence of the CPG framework (Krehbiel 1999). Cox and McCubbins (2005) provide an alternative account of party influence in Congress. In their agenda cartel model, party leaders manipulate the chamber agenda to maximize party reputation, particularly by vetoing legislation that would divide party members.

We build on the insights of the CPG and cartel models with a unified framework—"strategic party government"—which highlights the *electoral* incentives for legislators to cooperate as parties and the role of *competition* between the two major parties. We assume that parties improve their reputation by winning legislative battles, but that influencing legislative outcomes requires costly effort. Parties thus choose a level of party influence that maximizes the electoral gains of legislative victory while minimizing the electoral costs of partisan influence.

We test this model with a macroanalysis of elections and voting in the House and Senate from 1789 to 2000. Our results suggest that strategic competition is a primary cause of Congressional partisanship; the strongest determinants of party unity in voting are the opposing party's level of party unity and the previous gap between the parties' unity levels. Second, we find that partisan voting and legislative success influence subsequent Congressional elections. Winning legislative votes helps win elections, but the price of unity can be high: a 1% increase in party unity costs about one seat in the House and six-tenths of a seat in the Senate. We use the Senate's transition from indirect to direct elections as a natural experiment: party unity in Senate voting does not seem to cost seats before the adoption of direct elections in 1913, but afterward there is a steep cost for partisan unity. The sections that follow provide the theoretical foundation for these analyses, our research design, and our results.

The Conditional Party Government Debate

From the earliest days of political science, scholars have noted (and lamented) that Congressional parties lack the unity and discipline of stereotypical parliamentary parties (APSA Committee on Political Parties 1950; Wilson 1885). Scholars have attributed this disunity to the diversity of the American electorate—any national coalition is composed of legislators representing a complex array of local interests and preferences, and parties can neither build perfectly homogenous coalitions nor override legislators' fidelity to their constituents. While Congressional parties are never perfectly cohesive, they sometimes exert significant influence on the structure, behavior, and output of Congress. Some scholars credit these periods of relatively high partisanship to variation in constituency preferences (e.g., Cooper and Brady 1981). In this view, "strong" parties are the result—not the cause—of similar policy views among members of each party (Krehbiel 1999).

John Aldrich and David Rohde propose a more active role for parties in their theory of *conditional party government* (Aldrich 1995; Aldrich, Berger, and Rohde 2002; Aldrich and Rohde 2000, 2001; Aldrich, Rohde, and Tofias 2007; Rohde 1991). Aldrich and Rohde stress the (dis)similarity of legislators' electoral constituencies as the source of party strength. If members of a party share similar primary and general electorates, they will have common electoral incentives and thus similar pref-

erences. Furthermore, if there are significant policy differences between the two parties, there are significant policy costs for losing legislative battles. To the extent these two conditions are met, legislators will delegate power to their party leaders. Leaders then use their scheduling and vote-buying powers to advance the shared policy goals of their caucuses.[1]

In response, Krehbiel (1993) questioned whether the efforts of parties and their leaders have a significant net effect on policy outcomes. Party labels may be correlated with members' preferences, in this view, but parties do not alter legislative behavior. Later, Krehbiel expanded this critique to the CPG model. If members already agree with each other on a given issue, Krehbiel asks, what is the marginal influence of party effort? He concludes, "When the condition for CPG is met, behavior of partisans and nonpartisans is observationally equivalent" (1999, 35).

The first challenge provoked a torrent of research demonstrating significant "party effects" in voting (e.g., Ansolahebere, Snyder, and Stewart 2001; Cox and Poole 2002; King and Zeckhauser 2003; Sinclair 2002), agenda setting (e.g., Covington and Bargen 2004; Cox and McCubbins 1993, 2005; Marshall 2002; Sinclair 1994, 2002), and outcomes (Cox and McCubbins 2005; Lawrence, Maltzman, and Smith 2006; Snyder and Groseclose 2000). Altogether, this work suggests that parties can influence legislators' votes but party leaders minimize the extent to which members vote against their own electoral interests. Instead, House majority leaders carefully structure debates to minimize difficult choices between collective party interests and the induced preferences of party members. When difficult votes are inescapable, majority party leaders convert just enough "if you need me" votes to carry the day.[2] Party leaders are thus most active when the majority party is internally divided and extra effort is necessary to overcome intraparty disagreement.

Cox and McCubbins (1993, 2005) provide a partial response to Krehbiel's concerns. They concur that party leaders will advance a positive agenda when their members are united and parties disagree on policy issues. They stress, however, that parties strive for *electoral* victory, not policy change per se. Party members share a brand name,

[1]Rohde stresses that policy goals motivate the choice of party rules but notes that members also consider their electoral and career interests (1991, 20). Some authors include additional conditions for party effort, e.g., slender party ratios, inefficiency, or a rival president (Sinclair 1995), or conflicts between members' electoral and policy goals (Aldrich and Rohde 2000).

[2]Conversely, on close votes minority party leaders have an incentive to minimize members' defections as long as it forces additional members of the majority party to make costly decisions.

and they cooperate and delegate to enhance the value of their common label. To that end, the majority party in the House cooperates as a *procedural cartel* to veto bills that divide the party or harm its reputation.

Conditional party government and the cartel model provide a useful foundation for research on legislative parties. Rather than criticize these models, we seek to synthesize and develop their insights. One ambiguity is whether we should think of parties as policymaking machines or as reputation-protecting electoral cartels. Both are probably correct to some degree, and there is much overlap in the behavior one can explain with either premise. We focus on the electoral goals of party organizations but recognize that parties sometimes pursue policy outcomes for their own sake.

Strategic Party Government

The central claim of our theory, which we label Strategic Party Government (SPG), is that legislative partisanship has a direct negative impact on a party's electoral fortunes but a positive indirect effect—through legislative victories—on electoral success. Thus, parties seek to maximize their legislative seat share by deploying the minimum amount of party effort to achieve a maximum level of legislative success relative to the opposing party. We conceptualize the two parties (i.e., party conferences guided by party leaders) as actors who strive to maximize their share of the chamber.[3] Seat maximization motivates party interest in agenda setting, candidate recruitment, fundraising, and media relations to enhance party reputation. Most important here, parties strive to win legislative victories by crafting strategies, polling members, structuring debates, and buying votes. Following convention, we refer to these activities as party "effort" that yields party "influence" (relative to a baseline of no effort) on legislative choices. We use party unity in voting as a tangible metric of party influence.

We assume legislative success (e.g., winning contested votes) is electorally beneficial. Majority parties that lose contested votes appear inept and unable to address national problems or follow through on campaign promises. Conversely, a minority party that defeats the majority enhances its reputation and may compel the majority party

to try harder to win. Legislative victories may also help solidify or expand party coalitions, provide campaign resources to party members and candidates, or reshape electoral rules in the majority party's favor.

Parties use several tactics to increase their chances of winning legislative contests. The most obvious is vote buying, i.e., offering party members favors to vote with their party and against their personal and political inclinations. Party leaders can also influence members' preferences by earning positive media coverage of party goals or holding party meetings to discuss issues (Sinclair 2002). More subtly, majority party leaders can screen the legislative agenda to prioritize bills that unite their party, or they can regulate the amendment process to shield party members from amendments that force politically awkward choices or splinter party coalitions (Sinclair 1995; Cox and McCubbins 2005). Recent research demonstrates that the combined influence of intraparty communication and leaders' vote buying has a significant influence on legislators' voting behavior (Burden and Frisby 2004; Cann 2004; Forgette 2004; Green 2002; Snyder and Groseclose 2000) which in turn influences policy outcomes.[4]

Party influence on voting behavior is constrained by electoral costs. When party leaders induce their members to side with the national party position against their personal electoral interests, they increase electoral risk for those conflicted members. Carson (2005), for example, finds a positive correlation between an incumbent's party unity in voting and the probability that a quality challenger emerges in the next election, while Canes-Wrone, Brady, and Cogan (2002) find that incumbents' vote share and probability of reelection decline with the extent to which they vote with the ideologically extreme wing of their party. Carson, Koger, and Lebo (2006) specifically test the relationship between individual legislators' party unity and vote share, finding that higher party unity is correlated with decreased electoral vote share. Party unity is thus a double-edged sword; while unity may increase the likelihood of party victories on key issues, it also exposes members to electoral defeat. To a lesser extent, we might expect that there are electoral costs to the extreme use of procedural advantages, e.g., preventing the minority party from speaking, since these tactics might harm a party's image.

If party unity offers both benefits and costs, the straightforward implication is that each party chooses

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[3]An alternative assumption is that parties maximize their probability of being the majority party. We retain "seat maximization" to be consistent with the empirical analyses below. These assumptions are almost observationally equivalent, but we recognize that parties sometimes seem more interested in obtaining majority status than winning seats.

[4]In the online appendix we test the claim that party unity in voting influences vote outcomes. See Table S3 at http://ms.cc.sunysb.edu/~mlebo/index.htm. Not surprisingly, the likelihood of Democratic victory on "party" votes increases with Democratic unity and decreases with Republican unity.

a level of party influence that balances the *marginal costs* and *marginal benefits* of additional party unity. The "marginal costs" are the negative impact of the nth unit of party unity on a party's share of the chamber's seats. Similarly, "marginal benefits" are the electoral gains that accrue from the increased legislative success provided by the nth unit of party unity. Party members choose a level of party influence on voting by deciding how much vote buying and agenda-setting power to delegate to their leaders and by selecting leaders who are more or less inclined to use their powers to advance the electoral interests of party members.[5]

We make the weak assumption that the benefits exceed the costs up to some level of party unity, after which the costs exceed the benefits for additional increments of party unity. If this assumption were not true, we would observe either zero party influence (costs always exceed benefits) or absolute party influence (benefits always exceed costs).[6] Congressional parties typically exert some influence but do not control every choice, suggesting that the equilibrium lies in between the extremes of zero and absolute influence.

For clarity, we can state the key relationships as formulae. The Democratic party chooses Party Unity (PU) to maximize seat share: $Seats_D = f(PU_D\ (-), PU_R\ (+), Win_D\ (+))$, where the Democratic win share formula is $Win_D = f(PU_D\ (+), PU_R\ (-), X)$; X is a set of variables (some listed below) that affect the translation of party voting into legislative success. The signs in the formulae indicate our expectations about the marginal relationships between each choice variable and outcome. For this presentation, we avoid unnecessary (and substantively strong) claims about the precise shape of these functions, except that we expect that they generate a single "intersection" point where the benefits of additional party unity match the costs.

We illustrate these relationships in Figure 1. Figure 1 depicts the strategic choice faced by the Democratic party as it chooses its level of party unity (the vertical axis), resulting in a distribution of legislative success (the horizontal axis) between the Democrats (left side) and Republicans (right side); below we explain how these figures incorporate Republican strategy. The diagonal lines represent the marginal costs and benefits of each unit of party unity. The marginal electoral costs line represents the direct and negative effects of having additional party unity pull legislators away from their districts' preferences. The marginal electoral gains line represents the indirect and positive effect of having additional party unity lead to legislative victories that help the party win seats. These are portrayed as 45° lines, but they may also be concave or convex, tilted at different angles, or they may shift over time; the key feature is that their intersection represents the optimal strategy. Each choice along the vertical axis represents a marginal payoff on the cost and benefit lines. In Figure 1, the Democrats choose the equilibrium value, PU_D^*. By choosing the level of party unity such that the marginal costs match the marginal benefits, the Democrats maximize their net gain from the legislative game. Any level of Democratic party unity higher than PU_D^* costs the Democrats more than it benefits them, while party unity lower than PU_D^* would mean that the Democrats are settling for less than the ideal combination of party unity and winning.[7]

This approach provides an easy way to incorporate the classic claims of CPG and other party research. First, we would expect each party's marginal cost function to depend, in part, on the heterogeneity of its members' constituencies. The more diverse the electoral settings of a party's members, the steeper the cost curve since each increment of party unity entails a large and growing divergence between national party positions and local preferences. Furthermore, the cost line will vary with citizens' preferences. If citizens are antipartisan in general (i.e., opposed to a prominent role for parties and party leaders) then the cost curve will be steep. An increase in voter loyalty toward one party would move the cost curve to the left.

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[5]One extension of this work is to test whether members choose party leaders and party rules to advance electoral goals. Gamm and Smith (2006), e.g., stress that Senate party leaders are expected to advance senators' electoral interests and the party's public reputation and that electoral considerations motivate innovation in party structure.

[6]We ignore here the possibility that there are multiple levels of party influence that yield the same optimal level of net benefit. Space constraints prevent a more thorough discussion of internal party dynamics, but we expect that (given a fixed level of influence at a particular point in time) parties allocate influence across issues to maximize net benefits such that the benefits of the nth unit of influence will be less than or equal to the benefits of the $(n\text{-}1)^{th}$ unit. This selection process would imply the decreasing benefit and increasing cost functions assumed in the text.

[7]In Figure 1 the costs and benefits of PU_D correspond to specific areas, so we can think of the Democrats' goal as maximizing the benefits region minus the cost region. The gain from PU_D is a quadrilateral demarcated by the x-axis, y-axis, the "marginal electoral gain" line, and a horizontal line extending from PU_D on the y-axis to the benefits line. The cost region is everything above the marginal electoral cost line and below a horizontal line extending from PU_D to the "cost" line. In Figure 1, PU_D^* maximizes the net difference between the costs of and benefits of opposition.

FIGURE 1 Strategic Party Calculus: Democrats
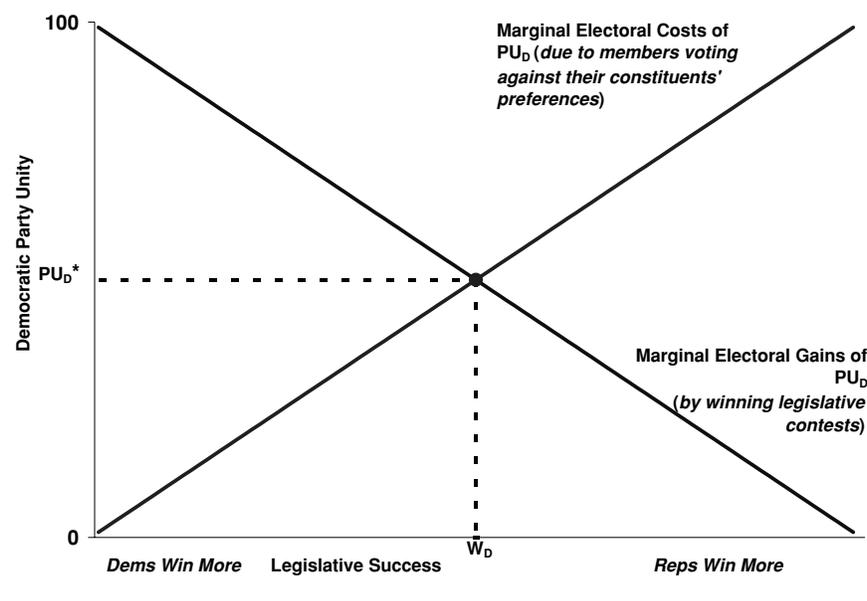
The marginal gain curve will vary with each party's ability to translate partisan unity into legislative victories. First, marginal gain should vary with party size; the larger the party, the easier it is to win with lower levels of effort. In part, this is simply mathematical: larger parties have more votes, so (all else equal) increasing party unity yields more votes in large parties. Large parties also may be better able to win without buying votes by building cohesive majorities based simply on members' personal preferences and electoral interests. Second, the greater the difference in induced policy preferences between the two parties, the greater the gain from winning; this is a conventional CPG claim. Third, chamber rules may influence the slope of the line. The greater the procedural advantages of the chamber majority, the steeper (flatter) the gain curve for the majority (minority) party.
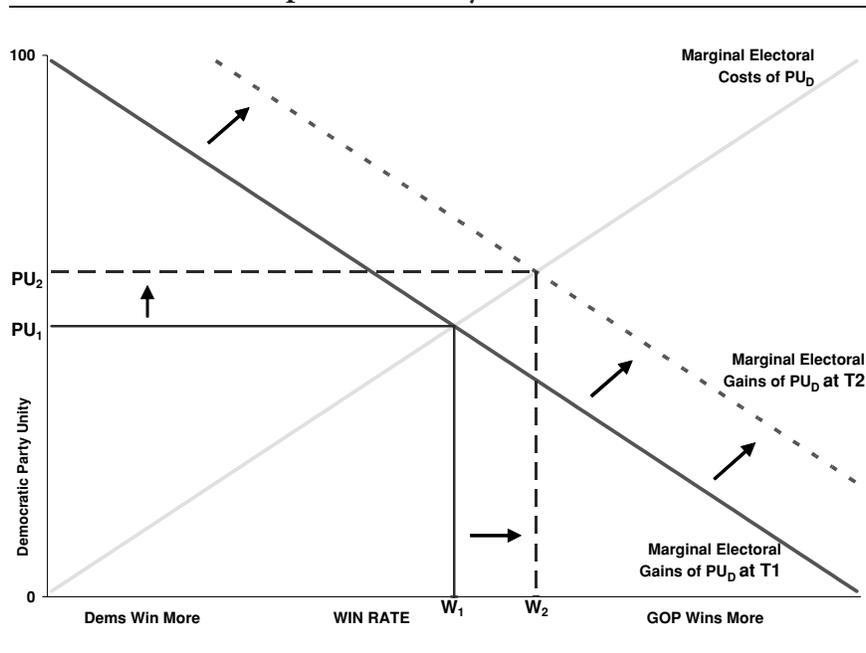
Most important, we expect that the party unity of one party will affect the marginal gain function of the opposing party.[8] If the Republicans are completely inactive as a party, then the Democrats (ceteris paribus) can reap large gains with small increases in party influence. One implication of this interaction is that we expect that shifts in one party's unity will be mirrored by shifts in the opposing party's unity. The logic of this claim is displayed in Figure 2.

An increase in the Republicans' optimal level of unity is portrayed as a rightward shift in the Democrats' marginal gain line from T_1 to T_2. If the Democrats maintained their T_1 level of party unity then the win distribution would shift markedly in the Republicans' favor. If, on the other hand, Democrats sought to maintain their win share from T_1, they would have to dramatically increase their party unity. Both these responses are more costly than a "partial" matching strategy, in which Democrats shift from PU_1 to PU_2 and allow their win share to decline from W_1 to W_2; this is the Democrats' new equilibrium strategy.

We expect that the transition from one equilibrium to another is smooth and swift in theory but tentative and imprecise in practice. Party members may be slow to revise their voting patterns (since voters expect some degree of consistency), to replace party leaders, or to reform party rules as swiftly as the strategic setting requires. Also, each election provides opaque feedback on the parties' strategies while altering the parameters of the strategic setting. This constant evolution and uncertain signaling makes it difficult for each party to discern its best legislative strategy for each session. Nonetheless, parties adjust their strategies to reflect new information and context. A party that realizes it lost too many votes in the previous Congress will attempt to increase its level of unity. Simultaneously, the opposing party may remain the same or it may lament the electoral costs of its high level of unity and reduce its level of effort. Thus we expect that party strategies will partially reflect the party competition seen

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[8]Rohde (1991, 120–61) anticipates this claim in his account of the Republicans' response to the strengthening Democratic party. Also, Volden and Bergman (2006) predicts symmetric party pressure in a modified pivot model.

FIGURE 2   Strategic Party Calculus—Democrats Respond to a Shift in Republican Unity

in previous time periods. If the parties' choices result in a significant gap in party unity, we expect the parties to correct for it the next period.

This implies that we should observe two patterns of strategic interaction:

H1:   Party influence will vary with the effort level of the opposing party. Thus Democratic party unity should increase as Republican party unity increases.

H2:   Parties will quickly correct differences in party influence. Thus parties will each move to reduce differences in party unity seen in the previous period.

Hypothesis 1 states that parties will engage in "real-time" corrections: they observe the unity level of the opposing party and respond accordingly. We expect that interparty gaps will nonetheless occur due to incomplete information, inflexible party structures, or legislators' reluctance to change their voting patterns. If so, Hypothesis 2 suggests that parties correct gaps in party influence by moving toward the level of the opposing party in the previous time period.

While our primary interest is in testing Hypotheses 1 and 2, we also test the core hypotheses of CPG: party unity increases with the homogeneity of intraparty preferences and with policy disagreement between the two major parties. We also examine whether party unity trades off with party size so larger parties can afford to allow their members greater latitude in voting. Additionally, we test our key assumptions by estimating the effects of party unity

and legislative outcomes on electoral success in both the House and Senate. Testing these claims requires a broad range of data and sophisticated time-series methods, to which we turn next.

Data and Methods

This section explains our strategy for measuring the influence of preferences and strategic interaction on party strength and the relationship between partisan legislative behavior and electoral success. We test our hypotheses with macrolevel analyses of Congressional voting and elections in the House and Senate from 1789 to 2000. The broad scope of our study reflects our interest in identifying general patterns of legislative behavior.[9] Next, we describe our strategy for measuring party strength, preferences, and size and then explain the statistical techniques we use to deal with the temporal nature of our data.

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[9]Obviously, this span includes wide variation in legislative rules, membership, electoral contexts, and issue agendas. This diversity poses a challenge; general patterns of partisan behavior must be especially pronounced to stand out amidst this flux. Studying variation over time in these relationships is an important area for further research. A specific concern is that antebellum Senate parties lacked formal structure and thus seem "weak." In our view, the essence of parties is cooperation, not organization. Senators who shared party labels could cooperate by meeting casually or following the cues of informal leaders without electing official leaders or devising rules.

Variables

We use party unity in voting as a historically continuous measure of party influence. Specifically, the dependent variable in our first analysis is the yearly[10] level of *Democratic Unity*, defined as the average of Democratic unity scores across all "party" votes that pit most of one party against most of the other. The key independent variable, *Republican Unity*, is constructed similarly. Like Krehbiel (2000), we understand party unity scores as the product of both legislators' preferences and party influence. Once we control for legislators' preferences we can meaningfully evaluate how, ceteris paribus, party influence varies with party size and the behavior of an opposing party.

Of course, the "Democratic" and "Republican" labels were not used throughout the 1789–2000 time span. By "Democratic" we mean opponents of the Washington administration, the (Jeffersonian) Republican party, supporters of Andrew Jackson, and members labeled "Democrat" or "Independent Democrat," all identified using Martis' (1989) party affiliation coding. By "Republican" we mean supporters of the Washington administration, Federalists, pro-Adams and anti-Jackson factions, Whigs, and members labeled "Republicans" and "Independent Republicans."[11] We do not imply that these labels signify two constant coalitions. Rather, we merely assume that the coalitions we identify are similar to the group of legislators with the same label in adjacent years. Basically, we are interested in explaining how parties respond to their opponent and we expect similar behavior from the modern Democrats facing the Republicans as we do from the nineteenth-century Democrats facing the Whigs.

Figure 3 shows the yearly level of party unity in the U.S. House of Representatives (top panel) and U.S. Senate (third panel) for the Democrat and Republican series for the 1789 to 2000 period. The most evident patterns are the close relationship between the unity level of the parties in each chamber and the recent trend in both chambers towards higher levels of unity for both parties. In the Senate, unity levels of the parties never stray too far apart

with the exception of three noticeable periods: the years prior to the 1824 election when the parties underwent unique transformations, the Civil War to Reconstruction period, and, to a lesser extent, the New Deal period of the 1930s. The second and fourth panels of Figure 3 illustrate the Unity Gap, the yearly difference between the unity levels of the two parties. While this gap deviates from zero, it is a *mean reverting* process—it oscillates around zero as the two series tend back towards equilibrium. This pattern is common when actors are engaged in an action-reaction process, a relationship we describe in greater detail below.[12]

To evaluate the effect of members' preferences on partisan voting patterns, we rely on DW-NOMINATE scores on two dimensions to operationalize preference cohesion within parties and disagreement between the parties (Aldrich, Berger, and Rohde 2002; Aldrich, Rohde, and Tofias 2007). These scores are generated by treating every contested roll call as a choice between two alternatives and every vote as a choice between those alternatives; the more any two legislators vote together, the more we assume they have similar preferences. The first dimension is liberal-conservative and predicts most Congressional voting. The second deals mostly with slavery in the nineteenth century but has "no consistent pattern" for most of the twentieth century (Poole and Rosenthal 1997). We use the standard deviation of each NOMINATE dimension for each party and the absolute difference between the scores of the median members of each major party as measures of intraparty unity and interparty differences, respectively. This leads to the creation of six time series for each chamber: *Democratic Cohesion—Nominate 1st*, *Democratic Cohesion—Nominate 2nd*, *Republican Cohesion—Nominate 1st*, *Republican Cohesion—Nominate 2nd*, *Ideological Distance—Nominate 1st*, and *Ideological Distance—Nominate 2nd*.[13]

One drawback of using NOMINATE scores as measures of induced preferences is that we are using variables derived from roll-call votes to predict party unity, a measure also based on roll-call votes. This is especially troublesome to the extent that parties directly influence members' votes and induce stable voting coalitions (Poole and Rosenthal 1997, 227). If so, our use of aggregated NOMINATE variables may *overstate* the role of constituency and personal preferences and *understate* the importance of strategic partisanship. Nonetheless, we agree with Cooper

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[10]Using sessions would give too much weight to special sessions. Studying the 106 Congresses would halve our sample and eliminate interesting within-Congress variation. Votes were excluded if a supermajority threshold was required (e.g., ratifying a treaty) or if most of one party voted while most of the other party did not, suggesting the strategic use of abstention (see Koger, forthcoming, on the use of "disappearing quorums" as a form of filibustering).

[11]For the 34th House (1855–57), we use the final vote for Speaker (pro-Banks = Republican) to define coalitions. Party factions, e.g., Van Buren Democrats, are reunited with their parent parties for our analyses. Independents and members of third parties are dropped from the analyses.

[12]The level of aggregation plays a role here as well. Parties may respond to each other sequentially, but the yearly aggregation makes such moves appear contemporaneous.

[13]Scores are by Congress, so these series change only every other year.

FIGURE 3   Democratic and Republican Party Voting Unity
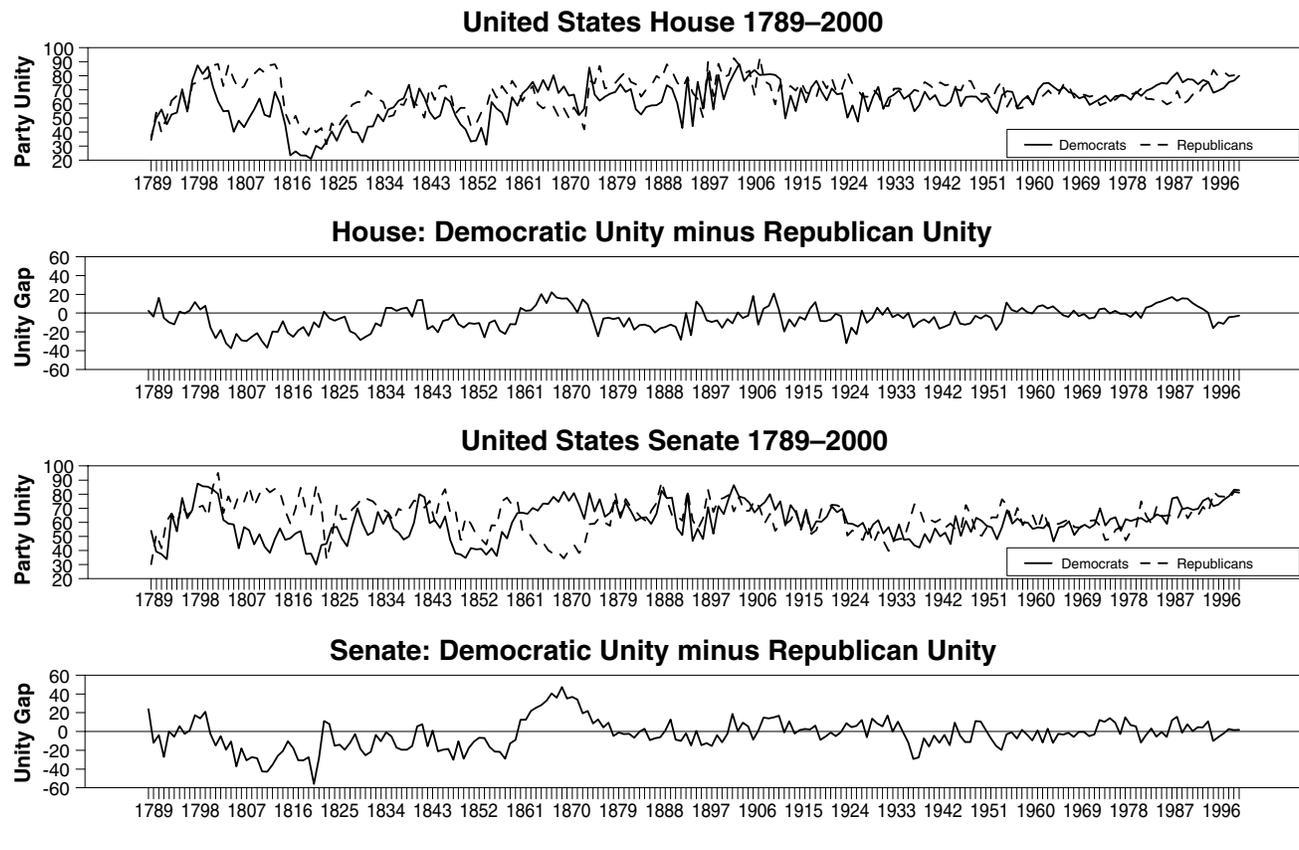
and Young (2002) that DW-NOMINATE scores may not accurately represent *party* voting behavior since differences in DW-NOMINATE party medians between Congresses are often unrelated to differences in unity over the same period. Further, the methods used to compare member behavior over time often involve using data from previous Congresses to explain behavior in current periods, "with the result that votes in a particular Congress are discounted if they do not meet certain parameters. Hence, the full impact of party in structuring voting patterns in particular Congresses may not be captured" (Schickler 2000, 272). Cooper and Young's thorough examination of measurement issues in examining party behavior supports our claim that DW-NOMINATE scores and party unity scores measure two different phenomena and do not create any methodological dilemmas for our analysis.[14] We also include a variable measuring the

percentage of the chamber held by the Democrats, *Democratic Size*, based on opening day tallies obtained from clerk.house.gov and www.senate.gov.

An additional concern is this: what if the observed variation in party unity is actually the product of significant shifts in the legislative agenda? As discussed below, we tested whether the values of our parameters fluctuate significantly over time and found that the key relationships are reasonably stable. In addition, we included a variable, Democratic Majority, for shifts in party control in each chamber. This variable is coded "1" for years in which the Democrats became the majority party, "−1" for the first year of Republican control, and zero otherwise. To be sure, this is an imprecise measure of issue variation, but it is sensitive to the historical variation in the relationship between issues and party coalitions.

[14] Poole and Rosenthal (1997) and Londregan (2000) argue that any bias in NOMINATE scores is minimized by pooling a large sample of legislators. Bishin states, "Examination of general ideological trends in Congress are best described using NOMINATE scores" (2004, 212). To test whether our results were driven by our use of

NOMINATE measures, we also estimated our equations for shorter time spans using Americans for Democratic Action vote scores and preference scores based only on lopsided votes (see Snyder and Groseclose 2000). These replications confirmed our findings that measures of aggregate preferences play a limited role in explaining patterns of party unity, while strategic interaction is a key factor. See Tables S6, S7, and S8 of the online appendix for these results.

Our second analysis examines the linkages between legislative behavior and electoral outcomes. The SPG model claims that winning votes is electorally beneficial but party unity costs seats. To test these claims, we use Democratic size as our dependent variable.[15] In each chamber, we explain the change in the percentage of seats held by the Democrats using the change in the level of Democratic unity in the previous Congress as well as the change in the Democratic "win" rate—the percentage of votes on which the position preferred by a majority of Democrats prevails.[16] Thus, our first set of models estimates the causes of party unity and the second set of models estimates its effects.

Methods

To avoid threats to inference, we must ensure that our time series are stationary (i.e., have a stable mean and variance), and if they are not, we must transform them to be so (Enders 2004; Granger and Newbold 1974). We expect our data to fall between the traditional dichotomy of stationarity and nonstationarity since our party-level variables are created by aggregating a heterogeneous group of legislators. In fact, each legislator's voting pattern may evolve in a unique manner. Likewise, each election relies to a varying extent on the previous election, e.g., last year's election results are more informative for upcoming elections in seats held by incumbents than they are for open seats.

More formally, series Y, made up of legislators $j = 1 \ldots n$ each of whom exhibits unique autoregressive behavior gives us: $Y_{j,t} = \alpha_j Y_{j,t-1} + \varepsilon_t$ where $\alpha_j \sim \beta(0, 1)$ and $\varepsilon_{j,t} \sim N(0, \sigma^2)$. Such series are described by Granger (1980) as *fractionally integrated* (FI) and can be made stationary through fractional differencing.[17] Accordingly, we test for FI and use ARFIMA (autoregressive fractionally integrated moving average; see Box-Steffensmeier and Smith 1996; Lebo, Walker, and Clarke 2000) tech-

niques for our models.[18] Testing confirms that our series are indeed FI.[19] For example, Robinson's (1995) estimator gives $d = 0.69$ and $d = 0.78$ for yearly House Democratic and Republican Unity, respectively, with s.e. $= 0.06$ for each. Since we can reject the possibility of both strict stationarity and nonstationarity for every series with $p < .001$, each series is filtered by its own value of Robinson's d prior to inclusion in our models below.

Hypothesis 2 states that parties will approximate each other's level of party unity over time by reducing past differences between the parties. This implies that party unity scores are *cointegrated*, i.e., the variables maintain an equilibrium relationship over time and the distance between the two is closed through *error correction* (Banerjee et al. 1993). The concept of cointegration has been generalized to allow for the possibility of fractional cointegration (FCI). FCI is a general approach where the original series are I (d_v) and the combination of series need only have a lower level of integration, i.e., d' such that $d' < d_v$ for all v (Clarke and Lebo 2003).

Fractional cointegration is an especially useful tool for studying action-reaction processes where one actor responds with similar behavior to either hostile or cooperative behavior from another actor (Lebo and Moore 2003). Iteration between the actors produces a long-run equilibrium and error-correction mechanisms (ECMs) can be used to estimate the return to balance following a shift.[20] This is precisely the type of relationship we expect to find between levels of Democratic and Republican unity. Not only do we expect the unity of each party to drive the other, but we also expect that parties will strive to close any difference in unity evident from the previous period. This brings us to our empirical analyses.

Partisan Interaction and Party Unity

We begin with our analysis of party unity in voting. Hypothesis 1 and Figures 1 and 2 assert that opposition party unity is a major determinant of party influence.

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[15]Our sample here is the first 106 Congresses. Yearly variables are averaged over each Congress.

[16]By using the win rate on all party votes, we combine salient image-defining votes with less important votes that also divided the parties. This aggregation makes it less likely we will observe any significant effect. Further research may extend this analysis by focusing on subsets of salient votes for particular eras.

[17]An FI series is described as $(Y_t - Y_{t-1})^d = \frac{\varphi_q}{\phi_p} \varepsilon_t$ where φ and ϕ consist of qth-order moving average and p^{th}-order autoregressive components, respectively. The d term may hold any real value rather than only integers as in traditional ARIMA models.

[18]See Table S1 of the online appendix for tests of stationarity and descriptive statistics and Table S2 for estimates of d using two estimators (http://ms.cc.sunysb.edu/~mlebo/index.htm).

[19]Also, our data are fractionally integrated when aggregated to either sessions or Congresses.

[20]Two-step error correction uses lagged errors from a level-form regression. For example, from $Y_t = \alpha + \beta X_t + \varepsilon_t$, we get: $ECM_{t-1} = Y_{t-1} - \alpha - \beta X_{t-1}$. The lagged ECM is then included in a model of ΔY: $\Delta Y_t = \alpha_0 + \beta_1 \Delta X_t + \beta_2 ECM_{t-1} + e_t$, and it is expected that $-1 < \beta_2 < 0$ so that any distance that Y and X move apart at time t will eventually be closed.

Hypothesis 2 and Figure 2 imply that gaps that open in the relative unity of the two parties will be closed over later periods. We test these claims while controlling for legislators' preferences. We also test if party unity varies with the relative size of the parties, which would suggest that partisanship in voting is affected by strategic need. Since we believe that the two parties each respond to the other, we have two endogenous variables that simultaneously affect each other. Hence, for each chamber, we use three-stage least squares to model two equations—one estimates the determinants of Democratic party unity and the other the determinants of Republican unity (Kmenta 1997).[21]

Tables 1 and 2 show the results of our models explaining Democratic and Republican Unity in the House and Senate, respectively.[22] Included as independent variables are opposition party unity, the fractional ECM,[23]

Democratic Size, a dummy for new majorities, ideological distances in the two NOMINATE dimensions, and Democratic Cohesion (Republican Cohesion in the Republican equations) in the two dimensions.[24] Additionally, two of the equations include opposition party cohesion as an independent variable.[25] We explain the two models together.

Our most important finding is the strong support for Hypothesis 1—Republican behavior is a major determinant of Democratic Unity and vice versa. Figure 4 shows the substantive impact on unity. In both the House and Senate and for both Democrats and Republicans, we see clearly that *opposition unity is the strongest determinant of party unity*—of far greater importance than any measure of individual preferences. Indeed, as the four scenarios of Figure 4 show, if nothing else changes, when the opposition's unity level moves from its 5th percentile value to its median, House Democrats' unity jumps 18.87%, House Republicans' 22.19%, Senate Democrats' 11.61%, and Senate Republicans' 12.75%. Table 1 shows that in the House, when Republican (Democrat) Unity goes up by 1%, the Democrats (Republicans) counter with a 0.802% (0.711%) increase ($p < .001$). In the Senate, the effects are a bit lower, 0.534 for Democrats and 0.589 for Republicans, but are still substantial ($p < .001$). Hence, legislators who are confronted with a more unified opposition party will more frequently forgo their induced preferences on roll-call votes to help their party achieve legislative victories. Of course, this works in both directions. Seeing a less unified opposition, legislators are more free to break from their party if it helps them get reelected.

As predicted by Hypothesis 2, legislators look for cues for their strategic behavior not only from this year's opposition but from the relative influence of the parties in the previous year. This action-reaction behavior ensures that the unity levels of the parties rise and fall to meet one another in a long-run equilibrium. This is apparent in two ways. First, tests for fractional cointegration suggest that the difference between the unity levels of the two parties naturally tends to some consistent level. For each chamber, combining Democratic Unity, Republican Unity, and Democratic Size yields a series with faster mean reversion than any of those three variables. Thus, any widening of the unity gap between the parties is quickly erased by strategic party behavior and ECMs can estimate the speed with which the gap is closed.

[21]An extra stage is included to gain efficiency in the presence of correlations between the error terms of the two equations. Coefficients from this method can be interpreted in the same fashion as are OLS coefficients. Our list of instruments and the results of Hansen-Sargan (H-S) tests for overidentification and Anderson likelihood-ratio identification tests are as follows: House Democrat equation: lagged Democrat Unity and Democratic Cohesion (first dimension, second dimension, and second dimension lagged) with H-S of ($\chi^2(3)$) = 0.49 ($p = .92$) and Anderson ($\chi^2(4)$) = 19.30 ($p = .00$); House Republican: Republican Cohesion (first dimension, second dimension, and second dimension lagged) with H-S of ($\chi^2(3)$) = 5.01 ($p = .17$) and Anderson ($\chi^2(4)$) = 41.67 ($p = .00$); Senate Democrat: lagged Democratic Unity and Democratic Cohesion (first dimension, first dimension lagged, and second dimensions) with H-S of ($\chi^2(1)$) = 1.88 ($p = .17$) and Anderson ($\chi^2(2)$) = 38.14 ($p = .00$); Senate Republican: Republican Cohesion (first and second dimensions) with H-S of ($\chi^2(5)$) = 6.22 ($p = .29$) and Anderson ($\chi^2(6)$) = 50.23 ($p = .000$). The null of the H-S test is that instruments are valid, that is, correctly excluded and uncorrelated with the error term (Hayashi 2000, 227–28). The null of the Anderson test is that the equation is underidentified (Hall, Rudebusch, and Wilcox 1996).

[22]Prior to estimation, each variable is differenced by its level of FI shown in Table S2. Several major changes in specification yield robust results: using single equation models and traditional ARIMA and ECM techniques (see Tables S4 and S5 of the online appendix at http://ms.cc.sunysb.edu/~mlebo/index.htm); treating our data as majority versus minority party rather than as Democrats versus Republicans; using ADA scores instead of NOMINATE for the period they are available, 1947–2000 (see Tables S6 and S7); using Snyder and Groseclose's (2000) estimates of revealed preferences on lopsided votes in the House instead of NOMINATE for the period they are available, 1868–1998 (see Table S8); and aggregating data by session and by Congress.

[23]We use a two-step format (Clarke and Lebo 2003). For each equation, the dependent variable is first regressed on opposition unity and Democratic size. In each case a residual series with a d value below that of any of the original series is created. These residuals (lagged and fractionally differenced) become our ECMs in Tables 1 and 2. For example, in the Senate, Democratic Unity ($d = 0.69$) was regressed on Republican Unity ($d = 0.70$) and Democratic Size ($d = 0.91$), creating a series of residuals with $d = 0.34$.

[24]Lags of right-hand-side variables are included where significant and of left-hand-side variables to account for autoregression still present after differencing.

[25]This was tried in every equation for both NOMINATE dimensions and was dropped when not significant. Substantively, it means that unity rises when opposition cohesion rises.

TABLE 1   Strategic Party Voting in the House 1789–2000 — Model of Yearly Data

Independent Variable	Dependent Variable: Democrats		Dependent Variable: Republicans	
	Coef. (s.e.)	p	Coef. (s.e.)	p
Constant	0.492	.290	0.056	.900
	(0.465)		(0.445)	
Opposition Unity	0.802	.000***	0.711	.000***
	(0.055)		(0.048)	
ECM_{t-1}	−0.309	.000***	−0.284	.000***
	(0.059)		(0.061)	
Democratic Size	−0.440	.000***	0.505	.000***
	(0.082)		(0.076)	
New Majority	1.348	.199	−3.434	.011*
	(1.595)		(1.515)	
Ideological Distance N. 1st	−9.395	.883	20.019	.024*
	(10.767)		(10.111)	
Ideological Distance N. 2nd	−12.187	.990	12.723	.003**
	(4.741)		(4.552)	
Intraparty Cohesion NOMINATE 1	−15.656	.256	−27.892	.043*
	(23.910)		(16.319)	
Intraparty Cohesion NOMINATE 2	−22.977	.076	1.652	.917
	(16.045)		(15.828)	
Intraparty Cohesion NOMINATE 2 $_{t-1}$	−73.804	.000***	−5.923	.338
	(16.026)		(14.235)	
Party Unity$_{t-2}$	0.098	.036*	—	—
	(0.047)			
Opposition Party Cohesion NOMINATE 2 $_{t-1}$	—	—	58.957	.000***
			(15.823)	
Durbin Watson Statistic	2.01		2.07	
Centered R^2	0.47		0.38	
S.E.E.	6.85		6.54	
Hausman Specification Test	$p = .575$		$p = .413$	
N = 209				

*Significant at .05 level, **Significant at.01 level, ***Significant at .001 level (all one-tailed tests).

Hypothesis 2 is supported further by the statistically significant ECM coefficients in Tables 1 and 2. While error correction is strong for both parties in both chambers, it is noticeably stronger for Senate Democrats. This is evident in two ways. First, mean reversion in the Senate's ECM is fastest ($d = 0.34$). Second, the ECM coefficient is more negative for Senate Democrats (−0.530) than it is for Senate Republicans (−0.240), House Democrats (−0.309), or House Republicans (−0.284). This means that, when the two parties' unity differs, 52% of the unity gap is corrected in the first year by Senate Democrats and 28% is corrected by House Democrats. Subsequently, 52% of the remaining Unity Gap in the Senate will be corrected by Democrats in each following

year. The Senate's smaller size and the leeway afforded by longer terms may explain why Senate Democrats can adapt to the opposition more quickly than their House counterparts, but it is not clear why Democrats would be more active gap closers than Republicans in both chambers. Other results of these models are as expected.

Democratic Size has a large negative impact on Democratic Unity and a large positive impact on Republican unity. This supports the claim that party unity is costly and decreases when larger party size makes it easier to win without pressuring party members. As Figure 4 shows, with one exception, Democratic Size is the second strongest independent variable in terms of effect

TABLE 2 Strategic Party Voting in the Senate 1789–2000 — Model of Yearly Data

Independent Variable	Democrats		Republicans	
	Coef. (s.e.)	p	Coef. (s.e.)	p
Constant	0.514	.255	0.363	.459
	(0.451)		(0.490)	
Opposition Unity	0.534	.000***	0.589	.000***
	(0.052)		(0.060)	
ECM_{t-1}	−0.530	.000***	−0.240	.000***
	(0.094)		(0.059)	
Democratic Size	−0.411	.000***	0.331	.000***
	(0.080)		(0.091)	
New Majority	5.629	.000**	−4.086	.009**
	(1.544)		(1.722)	
Ideological Distance N. 1st	4.872	.260	5.283	.265
	(7.577)		(8.397)	
Ideological Distance N. 1st$_{t-2}$	16.917	.009**	—	—
	(7.179)			
Ideological Distance N. 2nd	1.942	.318	−3.022	.502
	(4.116)		(4.498)	
Intraparty Cohesion NOMINATE 1	0.907	.963	−90.755	.000***
	(19.324)		(17.057)	
Intraparty Cohesion NOMINATE 1 $_{t-3}$	−46.650	.005**	—	—
	(18.145)			
Intraparty Cohesion NOMINATE 2	−40.704	.000***	−39.276	.000***
	(10.984)		(10.688)	
Opposition Party Cohesion NOMINATE 2	31.101	.001*	—	—
	(9.796)			
Party Unity $_{t-1}$	0.173	.028*	—	—
	(0.079)			
Party Unity $_{t-2}$	0.113	.030*	—	—
	(0.052)			
Durbin Watson Statistic	2.11		2.15	
Centered R^2	0.47		0.40	
S.E.E.	6.35		6.72	
Hausman Specification Test	$p = .998$		$p = .329$	
N = 208				

*Significant at .05 level, **Significant at .01 level, ***Significant at .001 level (all one-tailed tests).

size for both chambers (−10.29 and +11.81 for House Democrats and Republicans, respectively, and −8.14 and +6.55 for Senate Democrats and Republicans, respectively, $p < .001$). Only among Senate Republicans is this effect (marginally) below that of any of the preference variables (absolute value of 6.55 versus 8.89 for the effect of Republican Cohesion in the first dimension and 6.77 for Republican Cohesion in the second dimension).

We also find support for the classic claims of the CPG model. Each of the four key CPG variables—Distance in the first and second dimensions and Cohesion in the first

and second dimensions—is significant in at least one of the four equations shown in Tables 1 and 2. House Republicans significantly increase their level of unity as the parties diverge in either the first ($\beta = 20.019$, $p = .024$) or second ($\beta = 12.723$, $p = .003$) Nominate dimension. Senate Democrats likewise become more unified as interparty distance in the second dimension grows ($\beta = 16.917$, $p = .009$).[26]

[26]The Senate's election of only a third of its members per Congress may be the cause of this effect occurring with a lag, as it takes time for changes in delegations to affect voting behavior.

There is also support for the link between Cohesion, measured by the standard deviation of members' scores in each year, and party Unity—that is, more dispersal leads to less unity. In the House, significant effects are found for Cohesion in the second dimension of NOMINATE lagged on Democratic unity ($p < .001$) and for Cohesion using the first dimension on Republican unity ($p = .043$). As Figure 4 demonstrates, these cohesion variables (the last two bars in each quartile) work best for Senate Republicans whose voting behavior is significantly more unified ($p = .000$) as they become more ideologically cohesive. Senate Democrats' voting unity is likewise affected by their preference cohesion with effects in both the first (lagged, $p = .005$) and second ($p < .001$) dimensions. The importance of the second dimension is consistent with Rohde's (1991) account of the growing homogeneity of the Democratic party since 1970; as southern districts realigned, the preferences of members became similar within both parties.

Since we see the SPG model as an expansion of the CPG model, we are also interested in testing the models in their entirety. Because we can create the CPG model by setting to zero the parameters for opposition unity, Democratic size, and the ECM, the CPG model is clearly nested within the SPG model. Thus, the fact that joint tests of significance on these three variables are significant ($p < .000001$) in each of the four equations establishes that the SPG model empirically encompasses the CPG model (Davidson and MacKinnon 1993). In addition, the forecast Root MSE is improved in each case when we go from forecasts estimated using the CPG model to those estimated using the SPG model. For example, using the House data, the equations of Democratic and Republican unity have Root MSEs of 8.51 and 7.91, respectively, when the SPG variables are excluded. Once SPG variables are included, these errors drop to 8.03 and 7.55.

In sum, we find strong support for the assertion that the strategic behavior of the parties complements preferences as an explanation of variation in party unity. Our analysis explains a substantial portion of the variance in our dependent variable with R^2 between .38 and .47 for our four equations. Durbin-Watson statistics indicate that the FI methods have done a good job of controlling for autocorrelation and tests of the residuals indicate they are white noise. Lastly, our Hausman specification tests all indicate a well-specified model with no evidence of omitted variables or endogeneity. One further issue is parameter constancy. That is, with over 200 years of data, are these relationships always present? We used Tse's (2002) test of constant correlations between the unity levels of the two parties in each of the chambers, and we were unable to

TABLE 3 The Electoral Effects of Party Unity and Party Success on Democratic Chamber Share — U. S. House of Representatives†

Independent Variable	Coefficient (s.e.)	p
Constant	−1.992 (1.731)	.253
Democratic Party Unity in Previous Congress	−0.245 (0.110)	.014*
Democratic Win Rate in Previous Congress	7.507 (4.176)	.038*
Midterm Election with GOP President	9.984 (2.474)	.000***
Midterm Election with Dem. President	−5.760 (2.296)	.007**
Presidential Election with Democratic Win	5.016 (2.348)	.018*
1822 Election	−33.425 (8.720)	.000***

†The dependent variable is the percentage of the House won by Democrats (differenced by 0.54).
*Significant at .05 level, **Significant at .01 level, ***Significant at .001 level (all one-tailed tests).

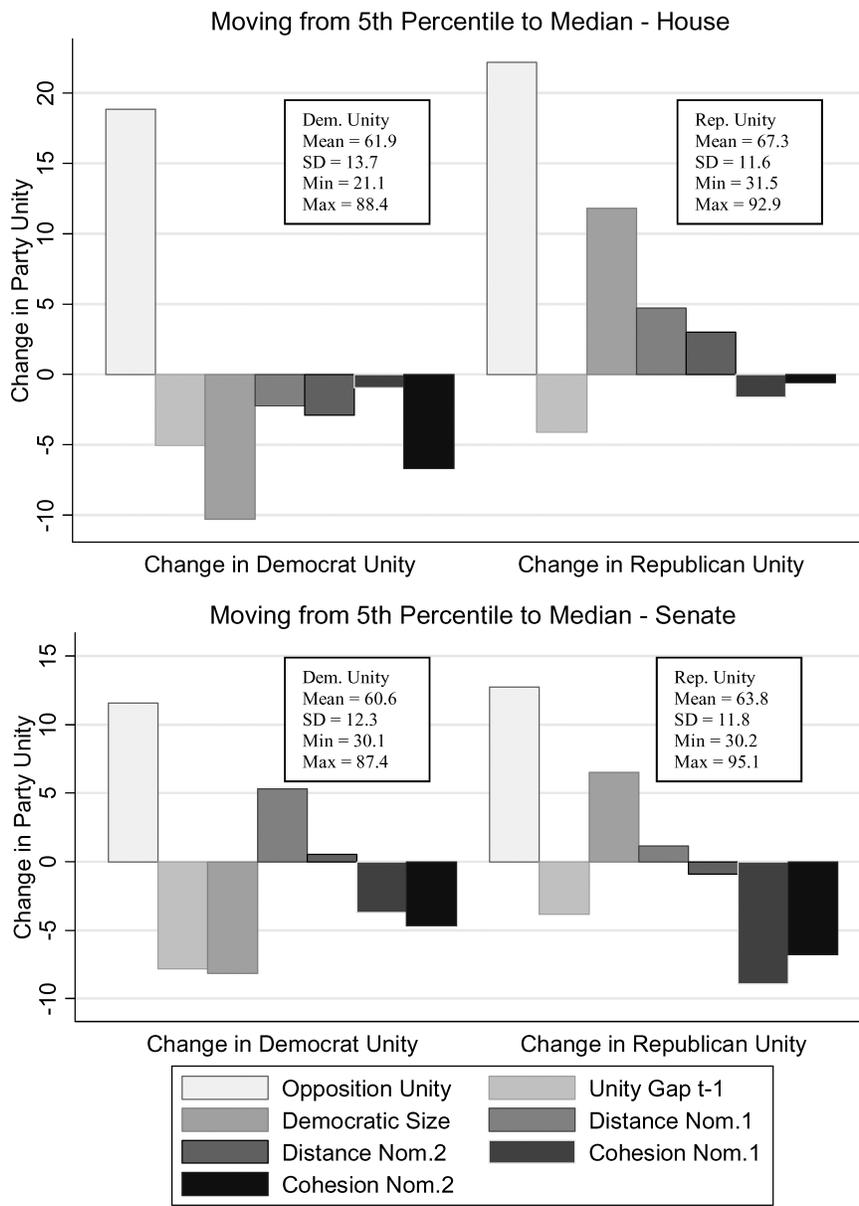|	
Durbin Watson Statistic	1.91
Centered R^2	0.35
S.E.E.	8.56
S. S.R.	7100.94
Significance of F (5,98)	0.00
N = 104	

reject the null hypothesis that the correlations between the variables are constant over our sample period ($p = .18$ for the House and $p = .19$ for the Senate). [27]

Party Influence and Congressional Elections

What are the electoral consequences of party influence? To judge the consequences of party unity and party success, i.e., the Democratic Win Rate, we use the change in the percentage of the House held by the Democrats from one Congress to the next as the dependent variable. There are two counterbalancing expectations here. First, as legislators vote more frequently with their party, they are being pulled away from the wishes of their constituents and thereby risk defeat in their next election. Simultaneously, however, higher unity increases the probability of winning

[27]Koger and Lebo (2006) apply Engle's (2002) Dynamic Conditional Correlation estimator to these data and find that, while the strategic behavior of parties in Congress has always been present, it has fluctuated in its strength over time.

FIGURE 4   Effects of Independent Variables

Moving from 5th Percentile to Median - House

Dem. Unity
Mean = 61.9
SD = 13.7
Min = 21.1
Max = 88.4

Rep. Unity
Mean = 67.3
SD = 11.6
Min = 31.5
Max = 92.9

Change in Democrat Unity   Change in Republican Unity

Moving from 5th Percentile to Median - Senate

Dem. Unity
Mean = 60.6
SD = 12.3
Min = 30.1
Max = 87.4

Rep. Unity
Mean = 63.8
SD = 11.8
Min = 30.2
Max = 95.1

Change in Democrat Unity   Change in Republican Unity

Opposition Unity   Unity Gap t-1
Democratic Size   Distance Nom.1
Distance Nom.2   Cohesion Nom.1
Cohesion Nom.2

votes,[28] which, in turn, is rewarded by electoral gains for the party. Results for the House are shown in Table 3. Each additional point of Unity costs the Democrats just under 0.25% in their share of the House (roughly 1.13 seats out of 435) in the next Congress—as party influence moves legislators away from the interests of constituents to those of party, the consequences are felt at the ballot box. This effect weakens in the twentieth century as incumbency becomes a stronger buffer between performance and accountability. Further, the results support our expectation that legislative success leads to electoral success. For each additional 10% of the votes the Democrats win, they will win a 0.75% greater share (3.4 seats) in the next Congress $(+/- 0.69\%, p < .05)$.

Other results are consistent with our expectations.[29] The Democrats increase their share of the House in midterm elections with a Republican president and lose seats in midterms with a Democratic president. Coattail

[28]For tests of this assumption and a discussion, see Supplementary Materials and Table S3.

[29]While other variables such as economic conditions and campaign financing may be important, it is impossible to collect such data for long enough to make our time-series analyses useful.

effects account for a slight rise in the Democratic House share when a Democrat is elected president, and the 1822 election, which marks the disintegration of the Jeffersonian coalition in our data, was a significant loss for the soon-to-be Democrats. Overall, the model explains 35% of the variance in Democratic House Share and tests of autocorrelation indicate white-noise residuals.

The story of partisan unity, legislative victory, and Congressional elections is even stronger in the modern Senate and shows interesting historical variation. We repeat our analysis for the Senate for three separate periods and the results, shown in Table 4, confirm our expectations.[30] Before the adoption of direct elections in 1913, senators were selected by state legislatures and thus were only indirectly responsible to the voters of their states. During this period (which we extend to 1920) there is no link at all between party unity and electoral fortune. This link becomes evident following the onset of direct elections, 1921 to 2000, and solidifies for the 1931 to 2000 period. Indeed, party unity has an increasingly negative relationship with the Democrats' share of the chamber over these three periods. For the period 1931 to 2000, a 1% increase in party unity is associated with a .593% decrease in chamber seat share (i.e., .593 seats in a 100-seat Senate). Voting with their party may indeed be costly for senators who must be reelected by the voters of their states. State legislators, on the other hand, were either more understanding of party behavior or were beholden to their U.S. senators prior to the 17th Amendment (Rothman 1966).

Winning contested votes, on the other hand, is associated with gaining seat share in all three periods. For example, from 1931 to 2000, a 10% increase in the portion of party votes won by Democrats is followed by a 1.43% gain in seat share. This link is much stronger in the indirectly elected Senate, with a 10% increase in win rate associated with a 2.3% increase in seat share. Overall, it is evident that by the modern age, the effects of party behavior on Congressional elections that we identify are firmly in place.

Conclusion

This article makes three major contributions to the study of parties. First, it links legislative behavior—specifically

[30]In addition to control variables for midterm and presidential swings, our Senate election analysis accounts for variation in the set of senators up for election each year. Since shifts in party composition in one election may be due to exposure (the party balance of senators up for reelection) rather than partisan behavior, we include the value of the dependent variable (again, *change* in party composition) from six years prior as a predictor variable. The negative coefficient shows that a party's success in one election increases exposure and costs them seats in the election six years later. Note, however, that this is only true in the modern era.

voting unity and success rates on "party" votes—to election outcomes. Legislative success is correlated with gaining seats while voting unity is associated with seat loss in the House and the modern Senate. We find no pattern of seat loss due to party unity in the pre-17th Amendment Senate, suggesting that the mechanism at work is that voters punish incumbents for voting with their parties against their constituent preferences. Second, we develop a theory of strategic party competition in which seat-maximizing parties balance their desire for legislative success against the electoral costs of the party unity required to win contested votes. This theory builds on previous models of legislative parties by adding strategic interaction between the parties; we predict that each party will respond to increases in party unity by the other party with a partial increase in its own party unity. Finally, we analyze a long stretch of historical data using sophisticated time-series methods and find that parties do make real-time and lagged responses to each other's behavior.

Our work provides a *partial* answer to the puzzle of recent Congressional polarization. Our contribution is that we highlight the role of interaction; preferences and elections aside, one reason the Democrats are unified and competitive is because the Republicans are, and, in part, the Republicans are unified because the Democrats are. Where does it end? Our theory suggests that the unity of the two parties will wane when either the electoral costs of unity become too high or an exogenous shock reduces the unity of one party, thereby inducing the other party to follow.

By its nature, this study invites further research on the mechanisms of strategic party government. We tested our model at the macro level to identify the major patterns of party behavior across time. Additional work is needed to apply this framework to specific periods of Congressional history. Further research is required to determine how party unity is costly for individual incumbents. Also, while we study aggregated levels of party unity, we expect that party influence is concentrated on close, important votes rather than the broad universe of "party" votes. Additional research on the agenda-setting process and the operation of party whip systems would provide a deeper understanding of how party leaders influence outcomes. Finally, we are interested in the relationship between influencing votes (the focus of this work) and procedural manipulation to avoid tough votes. It would be helpful to measure the electoral costs of extraordinary tactics and to determine when leaders will prefer procedural mischief to a controversial vote.

Our framework can also be applied to a broader range of party-related questions. As noted, the choice of party leaders and caucus rules are key mechanisms for defining

TABLE 4   **The Electoral Effects of Party Unity and Party Success — ARFIMA Models of the U.S. Senate†**

Independent Variable	1st – 66th Congress		67th – 106th Congress		72nd – 106th Congress	
	Coefficient (s.e.)	p	Coefficient (s.e.)	p	Coefficient (s.e.)	p
Constant	−2.343 (2.708)	.391	−4.222 (1.591)	.012*	−2.185 (1.928)	.267
Democratic Party Unity in Previous Congress	0.011 (0.140)	.935	−0.346 (0.163)	.021*	−0.593 (0.193)	.002**
Democratic Win Rate in Previous Congress	23.015 (6.680)	.001***	10.837 (3.897)	.004**	14.347 (4.284)	.001**
Midterm Election with GOP President	5.646 (3.895)	.076	8.880 (2.311)	.000***	6.862 (2.597)	.007**
Midterm Election with Dem. President	−5.480 (3.355)	.054	−8.072 (2.388)	.001***	−8.081 (2.369)	.001***
Presidential Election with Democratic Win	5.536 (3.572)	.063	9.713 (2.395)	.000***	7.723 (2.671)	.004**
Democratic Size$_{t-3}$	0.081 (0.121)	.502	−0.317 (0.128)	.018**	−0.350 (0.137)	.008**
Durbin Watson Statistic	2.16		1.81		1.90	
Centered R^2	0.23		0.55		0.56	
S.E.E.	9.99		4.81		4.72	
S.S.R.	5483.65		763.97		624.45	
Significance of F	0.02 (6,55)		0.00 (6,33)		0.00 (6,28)	
N	62		40		35	

†The dependent variable is the percentage of the Senate won by Democrats (differenced by 0.78).
*Significant at .05 level, **Significant at .01 level, ***Significant at .001 level (all one-tailed tests).

the course of each party; both choices deserve additional research. Another area for research is on party leaders' efforts to manipulate the content and importance of party reputations. Other than winning votes, how do party elites shape the image of their party and the opposing party? How malleable are party reputations and the weight that votes attach to party labels? Which legislative proposals have the most influence on party images? While there has been a fruitful outpouring of research on legislative parties in recent years, many such questions remain. We hope this article has helped by highlighting the role of electoral motivations and strategic interaction in legislative party behavior.

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