Intra-Party Voting in the House of Representatives and Public Opinion: A Time Series Analysis*

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ABSTRACT

Political scientists have produced numerous intertemporal studies of partisan voting in the House. Despite all of these studies, there is little research on the effect of public opinion of parties in the House on rates of party cohesion on House roll-call votes. We posit that intra-party cohesion on roll-call votes should rise and decline in response to public opinion on the parties in the House. Using a variation of the Rice Index of Cohesion on House roll-call votes, we will examine the changes in party cohesion using time-series analysis on the Index with data from the Gallup Organization. Our model will also include other commonly accepted variables used to explain changes in party cohesion, including economic factors, presidential approval ratings, and majority/minority status.
INTRODUCTION

One area of political science that has been extensively examined is congressional voting decisions. Numerous books and articles are devoted to the subject of the factors that influence the voting decisions of members of Congress. One sub-area of congressional voting is that of party unity in the House of representatives. Many studies have examined the frequency and the conditions of party unity and disunity on floor votes in the House.

Public opinion and its effect on legislators’ voting decisions is another area of political science that has been extensively studied. Due to this research, political scientists know that legislators often pay close attention to public sentiment on salient policy issues. We have also learned that two-thirds of public policy votes reflects public opinion.

It is the intersection of these two areas of political science that has not been explored. What effect does public opinion about political parties have on party unity in the House of Representatives? Do members of the House consult opinion polls about party performance when they are casting floor votes? This paper addresses these questions with an analysis of recent House voting patterns.

LITERATURE

Party Voting

Voting studies often employ different measures of party unity on roll-call votes. The more common measurements are the index of cohesion, the index of likeness, the party vote score, and the party unity score. The first two measures, conceived by Stuart
Rice (1928), are an attempt to tap both intraparty and interparty conflict in Congress. The Rice Index of Cohesion measures the degree to which the members of one party oppose each other roll-call votes, while the index of likeness captures the degree to which both parties differ from each other on roll-call votes. Initially, the party vote score measured the percentage of roll-call votes in which 90% of one party opposed 90% of the other party; however, in recent decades it has measured the percentage of roll-call votes in which 50% of one party opposes 50% of the other. Finally, the party unity score captures the percentage of fellow partisans who vote together on roll-calls in which 50% of one party opposes 50% of the other.

Truman (1959) employed the index of cohesion in his case study of party voting in the 81st Congress. He argued that the evidence showed that the majority party was not very cohesive. Shannon (1968) and Brady (1973) also employed the index of cohesion in their case studies. Shannon examined the 86th and 87th Congresses, and found that parties are cohesively opposed to one another only on small minority of votes. Brady examined two sessions of the House of Representatives, the 55th and the 56th, an era of strong party government in the House. Not surprisingly, he found that party voting was higher in the House during this era than at any other period of American history. Brady attributes this to a polarized electorate that was drawn along industrial-agricultural and rural-urban lines.

Other voting studies take a longitudinal approach, examining trends in roll-call votes over time. Turner and Schneir (1970) employ the party vote score and note that high rates of party voting are evident in the House of Representatives, but they have declined in the 20th century. Cooper, Brady and Hurley (1977) employ all four measures
of party voting mentioned above in a study of roll-call voting in the House that extends from the late 19th century into the late 1960s. In all four measures they find that “over the course of this century there has been a clear and substantial decline in the strength of party as a determinant of voting” in the House (1977, 137). They confirmed this decline in later research (1979) employing regression analysis; the slope for party voting was -.52. Other studies find that the decline in party voting holds for various policy dimensions, such as the budget, social welfare, civil rights and international involvement (Coleman 1996; Sinclair 1981b).

The decline of party voting in the 20th century in the House of Representatives is associated with the rise of various cross-party coalitions (Collie 1988a). Perhaps the best known of these coalitions is the “Conservative Coalition”, which is defined as a majority of southern Democrats and a majority of Republicans voting against a majority of northern Democrats (Brady and Bullock 1980). The Conservative Coalition first emerged in the House as an opposition to organized labor and later coalesced around other issues, such as civil liberties, social welfare and foreign aid (Brady and Bullock 1980). There is a strong correlation (-.53) between the appearance of the Conservative Coalition and the decline in party unity among Democrats (Shelley 1983). Other analyses suggest that voting in Congress can increasingly be described as splits between liberals and conservatives, rather than partisan splits (Clausen 1973; Schneider 1979). Another coalition that appears in roll-call votes is the universalistic coalition, which is defined as one in which “at least 90 percent of the members participating on a given roll-call vote in the same direction” (Collie, 1988b, 867). The rise of the universalistic coalition in the House is also strongly associated with the decline is party voting (Collie
1988b). Does the decline in party voting in the 20th century correspond to declining public approval of political parties? We expect that this research will shed some light on this question.

**Public Opinion**

Do legislators pay attention to public opinion? Much economic theory suggests that they do (Downs 1957; Enelow and Hinich 1984). So does considerable empirical evidence. On salient national issues, public policy follows public opinion about two-thirds of the time, and significant changes in public policy also correspond to significant changes in public opinion about two-thirds of the time (Monroe 1979 and 1983; Page and Shapiro 1983 and 1992; Shapiro and Jacobs 1989.) Other research demonstrates that the ideological composition of a particular state strongly impacts the types of policies enacted by that state (Wright, Erikson, and McIver 1987; Erikson, Wright, and McIver 1989). It appears that public opinion does affect the policy decision of legislators. Whether it affects legislators’ decisions to support party their legislative party remains to be seen.

**THEORY**

We posit that the party unity in the House of Representatives will increase when public approval of political parties increases. Conversely, party unity should decline when public approval declines. Our argument is based on two of three well established goals of members of the House, re-election and influence within the House (Fenno 1973; Mayhew 1974).
When public approval of a political party is high, members of that party in the House should have little to fear in supporting party colleagues and party leaders. Such support will not endanger their reelection chances because the voters are not likely to be angered by a representative who supports his or her party. Further, opposing their party when public approval is high may harm both their electoral prospects and their status within the House. Voting against a popular party may not be well received by the voters. By opposing the party, a member may also get a reputation in the House as a “maverick” or “trouble-maker,” thereby endangering their future chances for appointment to plumb committees or leadership positions. Thus, when public approval of a party is high, we will expect that party members are more likely to vote in unison.

By contrast, when public approval of a party is low, members have much more to fear in voting with party colleagues and party leaders. A member may get the reputation as being a “party shill,” or in the lingo of the new millennium, “partisan.” The opposition will try to tie him or her to the unpopular aspects of the party. Witness the attempt by Democrats in 1996 to link as many Congressional Republicans as possible to the visage of the unpopular Newt Gingrich. Obviously, this will not play well with the voters and will harm the member’s reelection prospects. By voting against his or her party when public approval is low, the member is more likely to obtain a reputation as “independent-minded,” “principled,” as someone who does not follow the marching orders of the party leadership. The member can use these votes as an issue with the voters, showing that he is willing to oppose his party. This is likely to help the member’s reelection chances.

From the above theory, we derive two hypotheses:
H1. Party unity among Republicans in the House of Representatives will increase when public approval of the Republican Party increases.

H2. Party unity among Democrats in the House of Representatives will increase when public approval of the Democratic Party increases.

We will test these hypotheses by employing a multivariate regression model.

MODEL

Dependent Variable

The dependent variable is a variation of the Rice Index of Cohesion. It is a percentage based on the number of times that at least ninety percent of the members of each party vote together in a given month. We obtain this percentage by counting the number of roll-call votes in which at least ninety percent of the members of each party voted the same way in a given month and then dividing that number by the total number of roll-call votes in that month. One possible objection to this measure is that it does not distinguish between controversial roll-call votes, where inter-party division is high, and non-controversial votes (i.e., a motion to establish National Milk Week) where support (or opposition) is near universal on both sides. However, we do not think that this matters. We assume that the non-controversial votes create a “baseline” because members of both parties will support such measures regardless of public approval ratings of political parties. If our theory is correct, then we should expect the percentage to increase when public approval of a party is high because members of that party will be more willing to vote in unison on controversial votes. When public approval is low, the percentage should retreat toward the baseline of non-controversial votes.
Independent Variables

**Congressional Party Approval Rating.** The primary independent variable of interest for this study is the public approval rating of the Democratic and Republican Parties in Congress. We capture this effect by employing the poll question which asks the respondent if he/she would vote for the Democrat or Republican candidate for Congress if the election were held tomorrow. We posit that this measure not only reflects the degree to which the public is satisfied with the performance of each party in Congress, but also the degree to which the public is willing to support them in the next election. We further posit that members of the House will employ this rating as a guide when deciding whether to support their party colleagues on a roll-call vote. We employ the approval rating of the month prior to the month of roll-call votes in the dependent variable. Thus, the form of this variable is \( X_{it-1} \).

**Presidential Approval Rating.** We posit that members of the president’s party will be more inclined to vote in unison if the approval rating of the president is high. A popular president is likely to boost the public’s perception of his party. He is also likely to win support for crucial pieces of legislation when his popularity is high. By contrast, when the president is unpopular, members of his party in the House will be less likely to be unified. They do not want to be seen as supporting an unpopular president for fear that it might damage their electoral prospects.

The opposition party, on the other hand, will be less likely to be unified when the president has a high public approval rating. They will be concerned that opposing a popular president will harm their reelection chances. When the president is unpopular, the opposition party will be more likely to be unified as they will have little to fear in
opposing the president. Again, we employ the approval rating of the month $prior$ to the month of roll-call votes in the dependent variable. Thus, the form of this variable is $X_{it-1}$.

We assume that the when the opposition party controls the presidential approval will have a negative effect on the opposition party in the House. Thus, when the president is of the opposition party, we code that observation negative.

Majority/Minority Status. The party’s status in the House may also have an effect on party unity. If the party is in the majority, it is more likely to be unified. Members of the majority will wish to hang on to majority status, as it is the majority party which has most of the power and perks in the House. Thus, by staying unified, they can more easily pass legislation that will benefit their constituents and thereby improve their electoral prospects.

We assume that a party that is in the minority may be more likely to be is disarray. It may be more plagued with infighting and power struggles over how to achieve majority. Thus, we expect that when a party is in the minority it is less likely to be unified on roll-call votes. To capture this effect, we include a dummy variable for majority/minority status in the House, coded one if the party is in the majority, zero otherwise.

Unemployment Rate. To capture the effect that economic factors may have on congressional voting, we include a measure of monthly unemployment. We hypothesize that members of each party will be less likely to vote along with party colleagues when the unemployment rate is high. When economic times are bad, as reflected by the unemployment rate, members of the House may feel that they have less flexibility in voting along with their party colleagues. They may feel that they need to appear
cooperative and bipartisan by voting along with members of the opposition party. Thus, we expect that party voting will decline when the unemployment rate increases. We employ the average unemployment rate of the six months prior to the month of roll-call votes in the dependent variable.

RESULTS

Given the relatively short period of time in which the party approval questions have been asked and the availability of Congressional voting data, the data pool was limited to seven years, from 1990 through 1996. In addition, the approval question was not consistently asked every month during these years, thus further limiting the available data pool. The approval questions were asked in only 29 of 84 possible months (34.5%), including a period fourteen months from December of 1992 through January of 1994 in which the question was never asked.

Despite these potential limitations in available data, we believe that there was enough remaining data to proceed the analysis. In our regression models, we used the Rice Index as the dependent variable and the full set of listed dependent variables. The results are listed in tables 1a and 1b by party.
Table 1a. Regression of Rice Index for the Republican Party

Dependent Variable: Republican Congressional Cohesion (90% level)

N=29  \quad F=3.54  \quad P(F)=0.021  \quad Adjusted R^2=0.2659

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>St. Error</th>
<th>T-Score</th>
<th>P-Score</th>
</tr>
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<tbody>
<tr>
<td>Party Approval Rate</td>
<td>0.024</td>
<td>0.932</td>
<td>0.026</td>
<td>0.980</td>
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<td>Presidential Approval Rate</td>
<td>-0.180</td>
<td>0.069</td>
<td>-2.59</td>
<td>0.016</td>
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<td>Majority/Minority Status</td>
<td>2.683</td>
<td>8.220</td>
<td>0.326</td>
<td>0.747</td>
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<tr>
<td>6-Month Unemployment Rate</td>
<td>-0.391</td>
<td>5.286</td>
<td>-0.074</td>
<td>0.942</td>
</tr>
<tr>
<td>Constant</td>
<td>45.124</td>
<td>60.667</td>
<td>0.744</td>
<td>0.464</td>
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</tbody>
</table>

Table 1b. Regression of Rice Index for the Democratic Party

Dependent Variable: Democratic Congressional Cohesion (90% level)

N=29  \quad F=324.01  \quad P(F)=0.001  \quad Adjusted R^2=0.8314

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>St. Error</th>
<th>T-Score</th>
<th>P-Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Party Approval Rate</td>
<td>0.220</td>
<td>0.727</td>
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<td>Presidential Approval Rate</td>
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<td>-1.167</td>
<td>0.255</td>
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<td>Majority/Minority Status</td>
<td>41.828</td>
<td>5.143</td>
<td>8.133</td>
<td>0.000</td>
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<tr>
<td>6-Month Unemployment Rate</td>
<td>-4.435</td>
<td>3.137</td>
<td>-1.414</td>
<td>0.170</td>
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<tr>
<td>Constant</td>
<td>35.821</td>
<td>37.691</td>
<td>0.950</td>
<td>0.351</td>
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The results of both models are, at best, mixed. Both models contain only one variable that achieves a 0.05 level of significance. The Democratic model displays an R^2 of 0.83 which suggests a good fit for the model. The Republican model has a more modest R^2 of 0.26, suggesting a decent, but not strong, fit.

In both models, the coefficient for the party approval rate is in the proper direction, suggesting that increases in public approval may increase party cohesion. Yet this conclusion is hampered by the fact that neither variable achieves significance. These
variables might achieve significance with the addition of more observations, although the low t-scores do not leave us very optimistic.

Both unemployment variables are also in the proper direction. An increase in unemployment results in a decrease in party cohesion. Again, however, neither variable achieves significance in the models.

The most interesting finding is that of the presidential approval rating. This variable is significant in the Republican model, and the t-score in the Democratic model is substantial enough that it might achieve significance with added observations. Yet what makes these variables intriguing is that neither is in the expected direction. The negative sign of the coefficients suggest that party cohesion increases when the opposition party occupies the presidency. It appears that a popular president does not intimidate House members of the opposition party. Rather, members apparently feel the need to be more cohesive. We speculate that members of the opposition party may believe that they cannot effectively block the president’s legislative agenda unless they display a high degree of cohesion on roll-call votes.

The only variable to reach the 0.05 level of significance in the Democratic model is the dichotomous majority/minority variable. Gaining majority status apparently did not have nearly the effect on Republican cohesion that having majority status had on Democratic cohesion. We can only speculate as to the reason for this discrepancy. Our best hypothesis is that the Democrats were rather cohesive when they were in the majority and comparatively divided when, in 1995, they found themselves in the minority in the House for the first time in forty years. We suspect that the sudden shift in the
status of the House Democrats created increased infighting within the party, resulting in substantially decreased cohesion on roll-call votes.

Attempts to apply alternative statistical procedures generated essentially similar results—reasonable predictive strength with few (if any) significant variables. Among the statistical alternatives used, we collapsed the approval variables into simple dichotomous increases/decreases and applied multivariate regression, but the results were virtually identical to the original model. We also altered the dependent variable to reflect the change in cohesion from one observation to the next, but the stochastic nature of when the question was used in surveys clearly reduced the accuracy of such a model and the results were non-significant.

CONCLUSIONS

There are clearly serious limitations in the data set at this time. The lack of useable party approval data before 1990 and complete Congressional voting data after 1996 had a significant impact on the results of the pool. In addition, the limited data pool resulted in some variables with minimal variability, particularly the approval rating scores. The Republican approval ratings ranged from 31% to 47%, while the Democratic approval ratings were even more constrained, only ranging from 43% to 53%. The limited level of variability in the data is primarily a consequence of the limited number of times the question was asked.

The fact that the most of the variables in the model, while non-significant, were in the proper direction is a hopeful indicator that the model is properly specified. We believe that public opinion does, in fact, have an impact on the level of party vote
cohesion in Congress. While the data do not confirm this belief, neither do the results disprove our hypotheses. In the final analysis, the results leave us with very few firm conclusions. Given a larger data pool from which to work, we are hope that the model will prove to be far more successful in the future.
REFERENCES


DATA SOURCES

**House Roll-Call Votes:** Data obtained from the Inter-University Consortium for Political and Social Research data archives at the University of Michigan.

**Congressional Approval Rating:** Data obtained from the Washington Post and the Gallup Organization. Poll question: “If the election for Congress were being held today, which party’s candidate would you vote for in your Congressional district—the Democratic party’s candidate or the Republican Party’s candidate?”

**Presidential Approval Rating:** Data obtained from Gallup Organization. Poll Question: “What is your overall opinion of Bill Clinton (George Bush)—is it favorable or unfavorable (or have you never heard of him?)” This data can be found at http://www.ropercenter.uconn.edu/index/html.

**Unemployment Rate:** Data obtained from the Bureau of Labor Statistics. This data can be found at http://146.142.4.24/cgi-bin/surveymost.

**Majority/Minority Status:** Data obtained from Arabic numeral system.