Dormant Delegation:

Evidence on the Conflicting Findings of Research on Legislative Representation

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ABSTRACT

Empirical studies of legislative representation often reach conflicting conclusions about the degree to which legislators reflect the voters' preferences. Given the importance of representation as a keystone of democracy, these results demand explanation. I argue that these conflicting results stem from scholars' failure to adequately account for the complexity of the representation process. Specifically, scholars generally account for neither the indirect influences on legislator behavior nor control for obvious rival hypotheses when evaluating the efficacy of the representation process. The results demonstrate that personal, party and constituent preferences all influence legislators' decisions either directly or indirectly.

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Introduction

A central question of legislative scholarship examines why quantitative studies of representation often reach contradictory results.[1] In many studies the results appear to turn on the specification of the model and the operationalization of the variables.[2] Generally, models that omit proxies for legislator ideology find that constituency drives legislator voting.[3] Conversely, models that include roll call vote based measures of ideology tend to find that legislators act on them.[4]

These conflicting results lead Congress watchers to question the methods by which representation scholars test their hypotheses.[5] Conflicting conclusions about legislator responsiveness may stem from failure to adequately account for rival hypotheses.[6] In particular, representation studies often omit important variables or measure them poorly. Additionally, few studies account for indirect influences on legislator behavior.

The lack of consensus on this question can be largely attributed to problems operationalizing and specifying the relationship among variables and an inability to accurately measure variables such as legislator ideology.[7] Further, scholars seldom account for indirect influences on legislator behavior.[8] These problems lead to results that exaggerate the role of legislator ideology relative to the influence of constituency on legislator behavior. In the process, the richness of the representation process is overlooked.

I argue that studies of Congressional representation reach inconsistent results because scholars use overly simplistic models. I address these specification and measurement problems in two ways. First, problems of model specification are addressed using a Structural Equation Modeling (SEM) framework. SEM allows for both development of a causal model and analysis of latent variables (via factor analysis) in a system of equations. Using a regression format, it also overcomes the correlation related problems that plague path analysis in this field of research.[9] Thus, SEM allows for the

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simultaneous evaluation of the various influences on legislative representation.[10] Second, I address measurement problems and incorporate rival hypotheses into the representation model. The results show that both constituent and personal preferences influence legislator behavior.

This research examines legislative representation to develop a conceptual model reflecting these several hypotheses. Then I operationalize these variables to develop a statistical model. The results show that failure to account for the relationships among independent variables, and measurement of latent variables leads to incomplete results. These incomplete results are consistent with the conflicting findings observed in past research. I conclude that constituent and legislator ideological preferences as well as the influence of political party affect legislator decision-making.

Literature Review

The overwhelming majority of research on Congress shows that the preferences of constituents are important to legislators.[11] However, these results are not unanimous. While the largest body of research finds that legislators are influenced primarily by their constituents, many find that legislators' votes are most often driven by their personal ideology.[12]

The vast majority of representation scholarship supports the assertion that constituent preferences drive Congressional roll call voting. Miller and Stokes's[13] seminal work finds that on highly salient issues legislators vote the preferences of their constituents. Similarly, Cnudde and McCrone[14] find that the independent constituency effect cited by Miller and Stokes is understated. Further, replication and simulation of Miller and Stokes work suggests that constituency effects are larger than the original authors assert.[15] More recently, legislators have been found to respond to the opinion[16], ideological[17] and economic[18] preferences of constituents. However, a large literature questions these findings. Chris Achen[19] disputes the Miller and Stokes findings, arguing

that use of correlation coefficients in path analysis distorts the results. Kau and Rubin[20] consistently find that legislator ideology rather than constituent economic interest drives legislators' roll call votes. Ironically, even the seminal work of Miller and Stokes also supports this finding. While they find a large role for constituency on highly salient issues, they find little or no influence on non-salient issues.

These conflicting results may stem from incomplete representation models. Scholars seldom account for the direct and indirect influences on legislator behavior for several reasons.[21] First, it is very difficult to get the data necessary to adequately test representation models. For instance, public opinion data relevant to the bill of interest are seldom available for all states and districts. Additionally, measures of legislator and party preferences are seldom independent. Second, the lack of consensus among scholars studying basic models has implicitly precluded adding layers of complexity to this research. However, these methods are beginning to be applied to examine the influence legislators have on constituents.[22]

Constituents' influence is perhaps most noticeably absent when ideological measures are included in models of legislators' voting. Attempts to improve measures of ideology to allow for the natural variation of constituency effects through both simultaneous equations[23] and residualization processes[24] usually fail to demonstrate an increased role for constituency effects.[25]

Critics respond to these studies by noting the problems inherent in operationalizing legislator ideology[26]. Poor operationalization of legislator ideology, since it cannot be directly measured, frequently results in an increased finding for ideology and a decreased finding for constituency.[27] Efforts to improve roll call based ideology measures have yet to overcome the basic problems identified by Jackson and Kingdon.[28]

Measurement problems also afflict measures of party influence.[29] Party is commonly measured using a dummy variable. This is so common that scholars seldom

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provide any theoretical justification for their use of this measure. The development of measures of party influence has not kept pace with the recognition of the several ways party can influence legislators' decisions. However, when used along with measures of legislator ideology this measure produces severe regression inconsistency.[30] Use of the party dummy also confounds standard constituency measures even when there is no party effect.[31]

In combination, the conflicting results seen in the representation literature are puzzling. Indeed, they lead Arnold to state: "....the effects of these electoral calculations will never show up in a study of representation that searches for correlations between measures of constituent opinion and legislators actual decisions."[32]

In this paper I argue that the conflicting findings observed in the representation literature have three main sources. First, scholars disagree about how to specify representation models. Scholars often omit measures of legislator ideology when examining the role of constituency on votes. When the role of personal ideology is considered, the proxy used biases the results of the study against a finding for constituency.[33] A similar problem applies to the evaluation of the influence the political party has on a legislator. The omission of party ignores a theoretically accepted alternative hypothesis by artificially restricting it to zero. The estimation of a Structural Equation Model in combination with the application of new measures permit these problems to be addressed.

Data and Methods

Representation studies often overlook the complexity of the legislative process.[34] While some authors use simultaneous equation models[35] to clarify problems of measuring ideology, few scholars recognize the need to operationalize complex relationships to more completely describe the process.[36] One consequence is that the inter-relationship

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among the various influences on legislator behavior—the *independent* variables—is largely ignored.

--Figure 1a-c About Here--

The conceptual models shown in Figures 1a-c summarize the role and relationship of the variables that influence legislator behavior according to the disparate literatures. Figure 1a shows a typical representation model most commonly used by political scientists. Omitting ideology, constituent preferences drive legislator behavior. In contrast, Figure 1b shows a model commonly seen in the economics literature. Here, constituent (non-economic) preferences are omitted while legislator ideology is included. A synthesized model, shown in Figure 1c, accounts for both the relationships hypothesized by previous research, and the mediating relationships often ignored in traditional models.[37]

This paper operationalizes the synthesized model in order to more fully examine the nature of representation. This synthesized model shows that measures of constituent preference affect legislator behavior both directly and indirectly, through legislator ideology.[38] Legislator ideology is influenced by constituent preferences because legislators live in and are socialized by the districts they represent. Legislator ideology affects both their behavior and the susceptibility of the legislator to the pressure from party leaders since ideology is closely associated with party affect.[39] Party also directly influences legislators' roll call voting behavior. The level of contributions by special interests is hypothesized to affect legislators' roll call behavior. Controlling for these rival hypotheses allows a more complete and accurate evaluation of the influences on legislator behavior.

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The hypothesis tests performed herein are strongly influenced by data availability. The 102nd Senate is selected because data are available for this year and institution at the level of analysis and numbers large enough to evaluate these hypotheses. The 102nd does not seem atypical in any meaningful respect.[40]

The main source of data used to evaluate these hypotheses is the *American National Election Study: Pooled Senate Election Study 1988, 1990, 1992*. The Pooled Senate Study is unique in that it alone samples respondents in each of the 50 states in numbers large enough to draw valid inference. For each wave of the study, approximately 70-100 respondents are surveyed in each state. The specific source for each of the variables is outlined in the section that follows.

The Statistical Model

The standard method for depicting the statistical relationship among variables in a structural equation model is through the use of a diagram. Lines show the paths between variables, and a star identifies the relationship as one that is to be estimated by the model. The statistical model identifies the operationalization and specification of each of the variables included in the model and is shown in Figure 2.[41] The covariance matrix needed to replicate these results is seen in Appendix A.[42]

<div align="center">**--Insert Figure 2--**</div>

Legislator behavior is measured using DW NOMINATE scores for the 102nd Senate—a commonly used measure of legislator behavior. As opposed to other measures of legislator preferences, this measure has the advantage of being based on virtually all votes cast.[43] Higher scores on DW NOMINATE reflect increased support for conservative legislation. As the primary variable of interest, legislator behavior is directly influenced by: constituent ideology, union, race, PAC spending, ideology and party. This measure is commonly used in the literature and is selected because

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aggregated measures of behavior provide increased power and reliability to statistical tests. In addition, structural equation models do not allow for inclusion of dichotomous dependent variables, which occurs when using individual roll call votes.[44]

The measure of party influence is controversial. Most commonly, party is measured using a dummy variable. However this operationalization fails to substantively capture the nature of party influence on roll call votes.[45] Including a party dummy in regression type models not only biases results but also may lead to incorrect signs on statistically significant coefficients.[46] Indeed, so severe is this problem that Fiorina recommends omitting measures of party from representation models—an exceedingly strong statement given its substantive implications.[47]

Party is constructed from two variables. Party unity scores are multiplied by -1 for Republicans and 1 for Democrats. Party unity scores reflect the percentage of times a legislator votes in agreement with the position of the majority of fellow party members. The result is a scale that ranges from -100, perfect Republican unity, to 100, perfect Democratic unity.[48] Party is held to be influenced by legislator ideology. In addition, party directly affects legislator behavior. Party unity scores for 1992 are taken from *CQ Weekly Reports*.

The derived party variable scores are desirable for two reasons. Substantively, these scores provide more information about the strength of a legislator's party identification than does the traditional dichotomous measure of party. This concept better captures the variability of influence party leaders have in their ability to persuade members across votes-- a feature ignored in the dichotomous measure.[49] Methodologically, estimates used in SEM do not provide robust estimates when the dependent variables are dichotomous.[50]

One of the advantages of SEM is the ability to account for latent variables in the system of equations. Legislator ideology is a latent variable since it cannot be directly observed. To overcome this problem, ideology is operationalized as a factor with four

indicators. The indicators of ideology used are: legislator behavior, legislator scores on both the *National Journal's* economic and social liberalism indices for 1992, and party.[51] Thus, legislator ideology influences behavior both directly and through party. In order to fix the scale of the factor (ideology), the path from legislator ideology to the economic liberalism index is fixed at 1.0.[52]

The influence of special interests reflects the percentage of contributions a legislator raises from PACs divided by the amount spent on re-election. This simple measure is designed to account for the degree to which legislators are dependent on PACS. Higher scores reflect increased sensitivity to the concerns of special interests. Special interests influence legislator behavior directly. This measure is used because more specific measures of the effects of particular interests on specific votes are both impossible to measure and unlikely to play a role across all of the votes included in the dependent variable. The contribution and spending data used to construct this measure are taken from *The Almanac of American Politics* 1992.

A vast literature examines the degree to which legislators are responsive to their constituents' economic interests.[53] The economic interests of constituents are reflected in two ways. First, the percentage of the state that belongs to a union reflects the socio-economic makeup of each state. Second, the percentage of each state that is non-white accounts for race based economic cleavages within states. The influence of state economic conditions affect behavior only directly. Economic interest variables correlate with each other and with constituent ideology. Both the paths and variances of race and union are unrestricted. Legislators are expected to behave more liberally as the levels of racial diversity and unionism increase. All constituency variables are taken from the *NES Congressional Election Study: 1988, 1990, 1992.*[54]

The measure of constituents' preferences is also controversial. Research shows that studies employing average district data are misspecified.[55] To overcome this problem, I employ the Prospective Constituency measure developed in Bishin.[56]

Research shows that same state senators see their states differently[57] and try to develop distinctive reputations.[58] This measure more closely reflects the preferences of the subconstituency to whom legislators actually appeal. Within subconstituencies, constituent ideology is measured using state mean self-placement on a seven point ideological scale. The Prospective subconstituency identifies subconstituencies according to the party of the incumbent legislator. Democrats consider the preferences of all constituents except strong Republicans. Similarly, Republicans consider the views of all constituents except strong Democrats.[59] Higher scores denote increased conservatism. Constituent ideology is held to influence legislators both directly and through legislator ideology.

Results

The results of the model, depicted in Figure 3, show that both legislator ideology and party significantly and directly influence legislator behavior.[60] Constituent ideology, PAC spending, union and race all fail to achieve direct statistical significance. The covariance between constituent preferences and economic measures are insignificant.

--Insert Figure 3--

However, there is also a large, indirect role for constituency. Constituent ideology is a significant predictor of legislator ideology. Decomposition of the variance demonstrates that the indirect effects of constituent ideology (through both legislator ideology and party) is also highly statistically significant (p<.001).[61] In addition, constituent ideology is indirectly a highly significant predictor of party (p<.001). As expected, legislator ideology has a significant influence on party. Examination of the fit indices suggest the model fits the data quite well.[62] Both the CFI at .924 and the IFI at .926, commonly used fit indices for small sample SEM models, exceed the .9 threshold for model fit.

Discussion and Analysis

The direct, statistically significant influence of legislator ideology and party concurrent with the significance of constituent ideology indirectly, go a long way toward explaining the contradictory results of past research. While legislators may not look directly toward constituents on any particular issue, their own attitudes and beliefs as well as their susceptibility to the arm twisting of party leaders is influenced by constituents. This finding is consistent with a theory of representation offered by Arnold where legislators represent constituents when they avoid activating them.[63] Arnold develops this theory to explain how legislators can be responsive to an inattentive citizenry. Inasmuch as legislators incorporate constituents' preferences into their own ideological outlook and use these preferences to moderate the influence of party, their behavior is consistent with this theory.

It appears that the conflict within the literature results at least partly from model mis-specification. In particular, legislator behavior is influenced by both constituent and party pressures along with legislator ideology. Substantively, this finding is consistent with the diverse nature of representation observed by Miller and Stokes.[64] Clearly, additional research is needed to determine when legislators act consistently with different theories of representation.

More broadly, however, legislator behavior may best be described as 'dormant delegation' since only indirectly is constituent ideology a statistically significant influence on legislator behavior. This finding is important because few studies show a role for constituency after controlling for both party and ideology. These results suggest that constituent preferences condition these more direct influences on legislator behavior. This work also speaks to the role of political party, narrowly defined.

The important role of party is also interesting. Indeed an entire subfield seems to have developed in an attempt to specify the role of party in studies of representation.[65] The implications of this study are twofold. First, these results suggest that the failure to

find a role for party may stem from mismeasure. To the extent that the commonly used party dummy contains random measurement error, party effects are attenuated in regression models.[66] Second and consequently, these results suggest that scholars need to think more carefully about what they mean by party before throwing a dummy variable into a regression model. Most importantly, this finding suggests that the role of party should not be overlooked.

Parenthetically, this research poses a difficult problem for economists searching for legislator responsiveness to constituents' economic concerns. While studies of any single vote might vary, this study suggests that legislators do not rely on the economic characteristics of constituents directly. Neither of the economic indicators used in this study comes close to achieving statistical significance. This is not surprising as researchers find both that legislators are very good at predicting voter opinion and that voters behave sociotropically.[67]

Conclusion

This study examines the complex interaction among elements that affect legislator behavior. The results suggest that the findings of past research are not incorrect-- just incomplete. The failure to account for indirect influences on legislator behavior leads to the mistaken conclusion that constituency doesn't matter. These partial results have conflicting implications and are thus consistent with the conflicting results seen in the literature.

The results are consistent with the theory of representation outlined by Arnold-- a theory explaining how and why legislators might be responsive to inattentive constituents. Constituents indirectly affect legislators' decisions. Clearly, scholars arguing against constituent influence are incorrect. Importantly, I find a role for party independent of legislator ideology. However, measures of constituents' economic interests fail to achieve statistical significance.

While these results provide theoretical purchase on the conflict observed in the empirical representation literature, they must be viewed as preliminary. This work examines the nature of representation in the senate during only one Congress. Future work should inquire as to the degree to which these results are both generalizable over time and robust to changes in measures. Past work suggests that the finding of a significant role for party and constituency may depend either on the manner in which these variables are operationalized or on the substantive nature of the legislation being considered. Representation scholarship should examine the robustness of results to various measures and specifications.

This work suggests that the conflicting results of the empirical representation literature stem from the oversimplification of the nature of representation. Simply put, model mis-specification precludes a thorough understanding of the complex relationship among the influences on Congressional representation. These results show that when this process is more fully considered, constituent and legislator ideology as well as political party are important influences on legislator decision-making.

Figure 1a. A Conceptual Model of Representation as Commonly seen in the Political Science Literature.
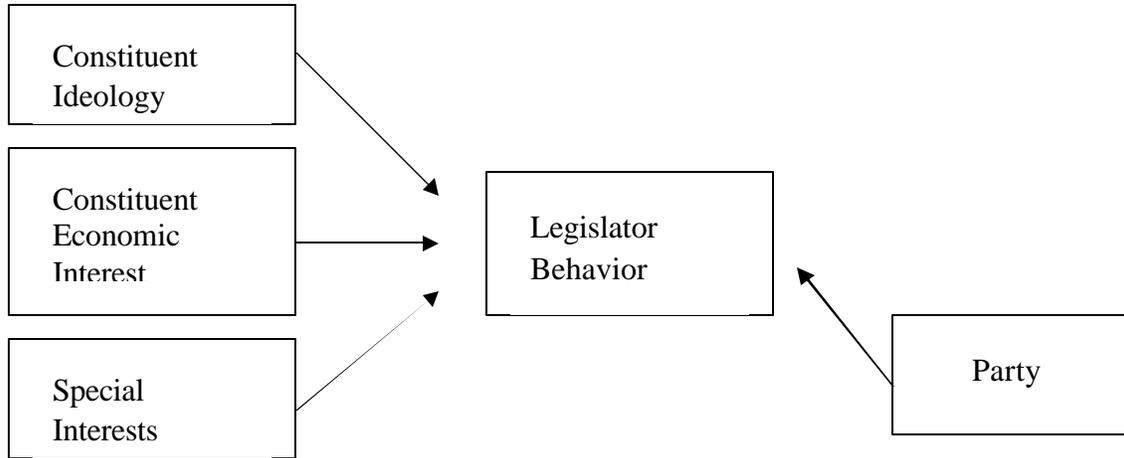
Figure 1b. A Conceptual Model of Representation as Commonly seen in the Political Economics Literature.
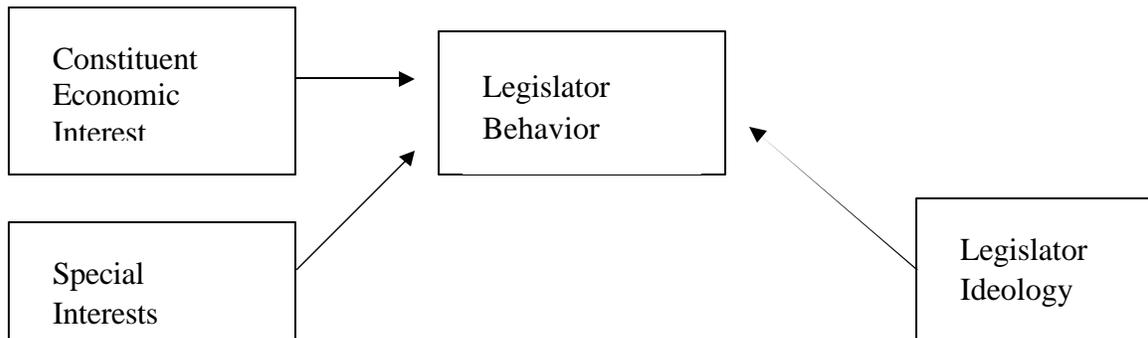

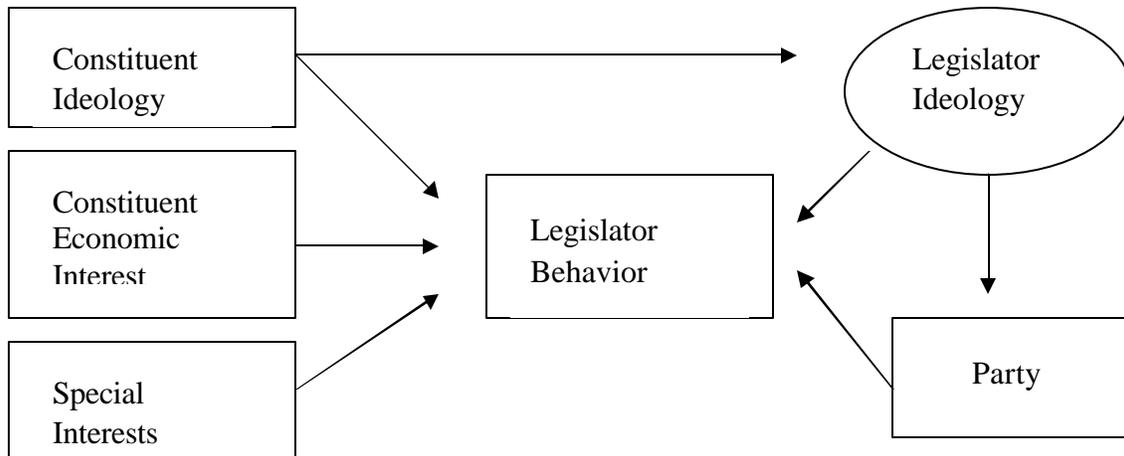Figure 1c. A Conceptual Model of Representation Incorporating Rival Hypotheses (Tested Herein).

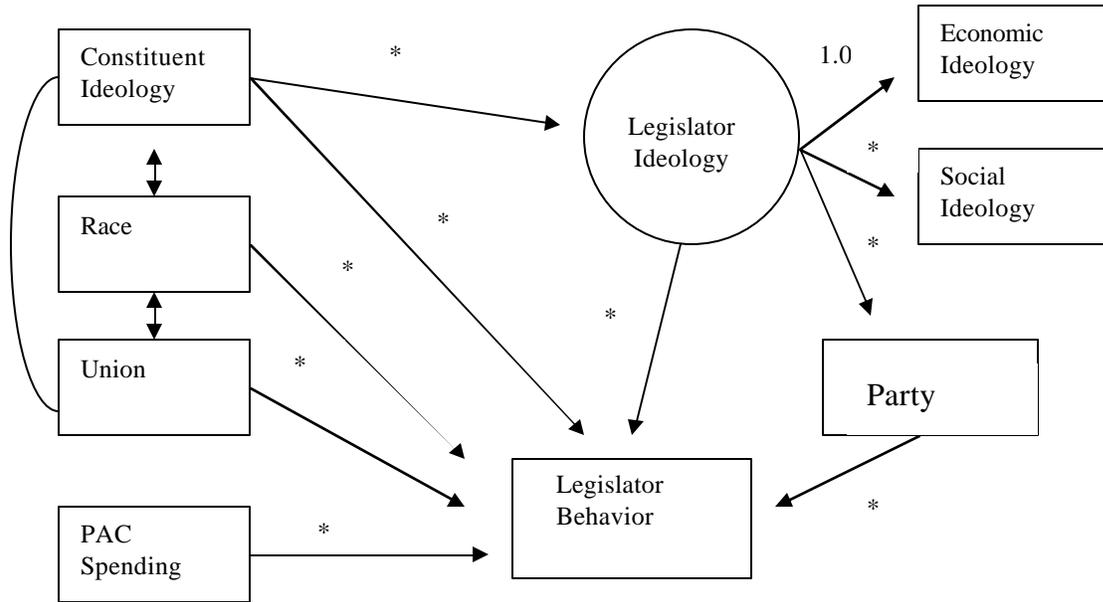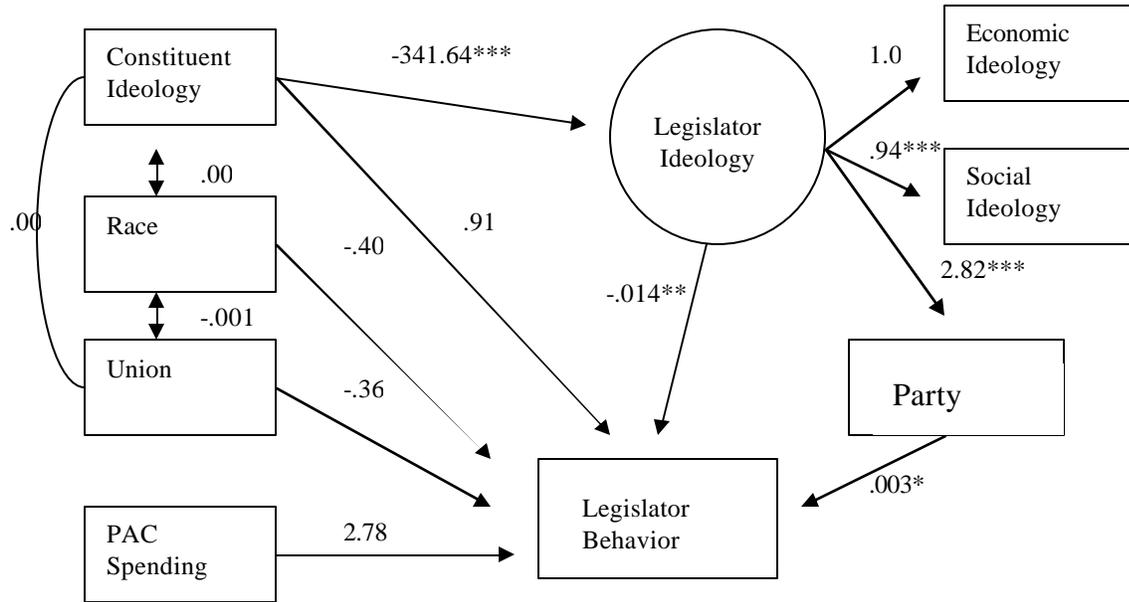Figure 2. Statistical Model of Representation.

Figure 3. Parameter Estimates--Unstandardized Coefficients and Covariances.

* p<.05
**p<.01
***<.001

Appendix A. Covariance Matrix for Representation Model.

	NOMINATE	C. Ideology	Race	Union	PAC Spending	NJ Economic	NJ Social	Party
NOMINATE	.125							
C. Ideology	.004	.002						
Race	-.003	.000	.01					
Union	-.004	.000	-.001	.004				
PAC Spending	.013	.001	-.003	-.002	.029			
NJ Economic	-4.222	-.591	.049	.17	-.217	874.00		
NJ Social	-4.936	-.554	-.114	.387	-.749	720.939	830.535	
Party	-10.712	-1.910	1.06	-.017	-1.128	2143.153	1986.542	6841.293

Appendix B. Functional Form of the Statistical Model.

NOMINATE = b1* party + b2* legislator ideology + b3* constituency + b4*PAC Spending + b5*race + b6*union + e

NJ Economic Index = b1* legislator ideology + e

NJ Social Index = b1* legislator ideology + e

Party = b1* legislator ideology + e

Legislator Ideology = b1*constituency + e

Note: Legislator Ideology is a factor.

Appendix C. Complete Results (with Standard Errors) for Model depicted in Figures 2 and 3.

	Model 1 Legislator Behavior	Model 2 Party	Equation 3 Legislator Ideology	Equation 4 NJ Social
NOMINATE				
Party	.003 (.0015)			
Legislator Ideology	-.014 (.005)	2.819 (.169)		.944 (.062)
Constituent Ideology	.908 (.869)		-341.64 (58.34)	
Race	-.404 (.308)			
Union	-.364 (.473)			
PAC Spending	.278 (.179)			

Appendix D. Covariances estimated in the model (and standard errors).

	Race	Union
Race	.00 (.56)	
Constituent Ideology		.00 (.724)
Union	-.001 (-1.321)	

Appendix E. Range of Variables

Variable	Minimum	Maximum	Mean
C. Ideology	.26	.47	.33
NOMINATE	-.64	.74	-.05
Party	-99	97	10.9
E. Ideology	0	95	47.9
S. Ideology	0	96	48.4
PAC	0	.95	.37
Union	.02	.29	.14
Race	0	.43	.12

[1] Morris P. Fiorina, *Representatives, Roll Calls and Constituencies* (Lexington, MA: Lexington Books), 1974; Keith Krehbiel, "Constituency Characteristics and Legislative Preferences," *Public Choice* 76 (1993): 21-37.

[2] Vincent L. Hutchings, "Issue Salience and Support for Civil Rights Legislation among Southern Democrats," *Legislative Studies Quarterly* 23 (1998): 521-544.

[3] Larry Bartels, "Constituency Opinion and Congressional Policymaking: The Reagan Defense Buildup," *American Political Science Review* 85 (1991): 456-474; Gregory B. Markus, "Electoral Coalitions and Senate Roll Call Behavior: An Ecological Analysis," *American Journal of Political Science* 18 (1974): 595-607; Catherine R. Shapiro, David W. Brady, Richard Brody and John A. Ferejohn, "Linking Constituency Opinion and Senate Voting Scores: A Hybrid Explanation," *Legislative Studies Quarterly* 15 (1990): 599-621; Gerald Wright, "Policy Voting in the U.S. Senate: Who is Represented?," *Legislative Studies Quarterly* 14 (1989): 465-486.

[4] Robert A. Bernstein, and William Anthony, "ABM Issue In the Senate, 1968-1970: The Importance of Ideology," *American Political Science Review* 68 (1974): 1198-206; Joseph P. Kalt, and Mark A. Zupan, "Capture and Ideology in the Economic Theory of Politics," *American Economic Review* 74 (1984): 279-300; James B. Kau, and Paul H. Rubin, "Self-Interest, Ideology, and Logrolling in Congressional Voting," *Journal of Law and Economics* 22 (1979): 365-384; James B. Kau, and Paul H. Rubin, "Ideology, Voting and Shirking," *Public Choice* 76 (1993): 151-172; Sam Peltzman, "Constituent Interest and Congressional Voting," *Journal of Law and Economics* 27 (1984): 181-210; Keith T. Poole, and Howard Rosenthal, *Congress,* (New York: Oxford University Press), 1998; Christopher D. Dennis, Marshall Medoff and Michele Gagnier, "The Impact of Racially Disproportionate Outcomes on Public Policy: The US Senate and the Death Penalty," *Social Science Journal* 35 (1998): 165-181.

[5] Morris P. Fiorina, "Constituency Influence: A Generalized Model and Its Implications for Statistical Studies of Roll Call Behavior," *Political Methodology* 2 (1975): 249-66; R. Douglas. Arnold, *The Logic of Congressional Action* (New Haven: Yale University Press), 1990; John E. Jackson, and John W. Kingdon, "Ideology, Interest Group Scores, and Legislative Votes," *American Journal of Political Science* 36 (1992): 805-823; Brian F. Goff and Kevin B. Grier, "On the (Mis)Measurement of Legislator Ideology and Shirking," *Public Choice* 76 (1993): 5-20; Benjamin G. Bishin, "Constituency Influence in Congress: Do Subconstituencies Matter?," *Legislative Studies Quarterly* 25 (2000): 389-413; Michael Herron, "Interest Group Ratings and Regression Inconsistency," *Political Analysis* 9 (2001): 260-274.

[6] For a discussion of the importance of accounting for rival hypotheses see Donald P. Green and Ian Shapiro, *Pathologies of Rational Choice Theory* (New Haven: Yale University Press), 1994.

[7] Fiorina, *Representatives, Roll Calls and Constituencies*; Wright, "Policy,"; Goff and Grier, "On,"; Jackson and Kingdon, "Ideology,"; Bishin, Constituency."

[8] Early work explicitly accounted for such effects using path analysis (Miller and Stokes, "Constituency,"; Cnudde and McCrone, "The Linkage," However, problems applying this method to the study of representation lead to its abandonment in this area of research. See Christopher H. Achen, "Measuring Representation: The Perils of the Correlation Coefficient," *American Journal of Political Science* 22 (1977): 475-510.

[9] Achen, "Measuring."

[10] In particular, the data are run using *EQS for Windows* since it (as opposed to LISREL) uniquely provides the widest range of available diagnostic statistics combined with ease of use. The model handles all of the linear data structures of LISREL and related models. See Peter M. Bentler, *EQS Structural Equations Program Manual* (Encino, CA: Multivariate Software), 1995.

[11] Lewis A. Froman, *Congressmen and their Constituencies* (Rand McNally: Chicago), 1963; John Kingdon, *Congressmen's Voting Decisions* (Univ. of Michigan: Ann Arbor), 1973; David R. Mayhew, *Congress: The Electoral Connection* (New Haven: Yale University Press), 1974; Richard F. Fenno, *Homestyle: Representatives in Their Districts* (Boston: Little Brown), 1978; Arnold, *The Logic of Congressional Action*; William T. Bianco, *Trust: Representatives and Constituents* (Ann Arbor: University of Michigan Press), 1994.

[12] Bernstein and Anthony, "ABM,"; Kau and Rubin, "Self-interest,"; Peltzman, "Constituent,"; Kalt and Zupan, "Capture,"; Dennis, Medoff and Gagnier, "The Impact."

[13] Warren Miller and Donald E. Stokes, "Constituency Influence in Congress," *American Political Science Review* 57(1963): 45-56.

[14] Charles F. Cnudde, and Donald J. McCrone, "The linkage between Constituency Attitudes and Congressional Voting Behavior: A Causal Model," *American Political Science Review* 60 (1966): 66-72.

[15] Robert S. Erikson, "Constituency Opinion and Congressional Behavior: A Re-examination of the Miller-Stokes Data," *American Journal of Political Science* 22 (1978): 511-535. Though Erikson later argues against the method he uses to simulate opinion in his 1978 study: Robert S. Erikson, Gerald Wright and John McIver, "Political Parties, Public Opinion and State Policy in the United States," *American Political Science Review* 83 (1989): 729-750.

[16] Bartels, "Constituency,"; Bianco, *Trust: Representatives and Constituents;* James Kuklinski, "Representativeness and Elections: A Policy Analysis," *American Political Science Review*. 72 (1978): 165-177; Benjamin I. Page, Robert Y. Shapiro, Paul Gronke and Robert M. Rosenberg, "Constituency, Party, and Representation in Congress," *Public Opinion Quarterly* 48(1984): 741-56.

[17] Wright, "Policy."

[18] John E. Jackson, and David C. King, "Public Goods, Private Interests, and Representation," *American Political Science Review* 83(1989): 1143-1164.

[19] Achen, "Measuring."

[20] Kau and Rubin, "Ideology."

[21] For instance, it is methodologically difficult to integrate a system of equations that have dependent variables that are both continuous and dichotomous.

[22] Kim Quaile Hill and Patricia Hurley, "Dyadic Representation Reappraised," *American Journal of Political Science*, 43 (1999): 109-37.

[23] Kau and Rubin, "Self-interest."

[24] Kalt and Zupan, "Capture."

[25] However, Eric M. Uslaner, *The Movers and the Shirkers* (Ann Arbor: University of Michigan Press), 1960 convincingly demonstrates that legislastor and constituency ideology overlap to such a great degree that there is little legislator ideology left to be explained once constituency factors are considered.

[26] Goff and Grier, "On,"; Jackson and Kingdon, "Ideology."

[27] Some scholars refine constituency measures. Shapiro, et. al, "Linking," argue that the failure to find a role for constituency stems from failure to recognize the distinctions between Democratic and Republican constituencies. However, these authors also omit ideology. Bishin, "Constituency," finds that after accounting for sub-constituencies, both constituency and ideological preferences are statistically significant predictors of roll call votes.

[28] Two recent advances are most instructive. Steven D. Levitt, "How Do Senators Vote? Disentangling the Role of Voter Preferences, Party Affiliation, and Senator Ideology," *The American Economic Review* 86 (1996): 425-441, clearly designs an equation that allows for ideology to be solved for as part of a mathmatical identity. However, constituent preferences are held to be reflected by subgroups of legislators' ADA scores (which are the subject of controversy). Alternatively, Kim Quaile Hill, Stephen Hanna and Sahar Shafquat "The Liberal-Conservative Ideology of U.S. Senators: A New Measure," *American Journal of Political Science* 41(1997): 1395-1413, implement a method suggested by Jackson and Kingdon, "Ideology," that codes news articles covering legislators' initial campaigns for their senate seats. However, despite their pursuit of this strategy it appears that these public statements are unlikely to overcome the problems affecting roll call vote based measures. Legislators' public positions are influenced by factors other than personal beliefs and ideology.

[29] Scott W. Desposato, "Comparing Group and Subgroup Cohesion Scores: A Non-Parametric Method with Application to Brazil," *Political Analysis* 11 (2003): 255-274.

[30] Herron, "Interest."

[31] Fiorina, "Constituency."

[32] Arnold, *The Logic of Congressional Action*, 10.

[33] Jackson and Kingdon, "Ideology."

[34] Benjamin I. Page, Robert Y. Shapiro, Paul Gronke and Robert M. Rosenberg, "Constituency, Party, and Representation in Congress," *Public Opinion Quarterly* 48 (1984): 741-56.

[35] Kau and Rubin, "Self-interest,"; Kalt and Zupan, "Capture."

[36] But, see Hill and Hurley, "Dyadic."

[37] This paper follows the SEM format by depicting measured variables as rectangles and latent or unmeasured variables as circles. Thus, legislator ideology is depicted as a rectangle in Figure 1b and a circle in Figure 1c.

[38] Constituents' economic and ideological characteristics are correlated through ideology, race and union membership.

[39] Angus Campbell, Philip Converse, Warren Miller and Donald Stokes, *The American Voter* (Chicago: University of Chicago Press), 1960 describe a non-recursive relationship between these variables.

[40] Substantively, the only noteworthy aspect is an increased focus on national security issues from the preceding Congresses.

[41] The data appear roughly normal as Mardia's Coefficient of multivariate normality (a primary assumption of the structural equation model) is 1.58. Due to the small sample size, the IFI will be reported in addition to the CFI. See Peter M. Bentler, *EQS Structural Equations Program Manual*. These fit indices are analogous to the GFI statistic commonly reported in LISREL. Values exceeding the traditional .9 level are considered successful in evaluation of model fit.

[42] This matrix can be used to replicate the results found herein. The raw data can be obtained from the author. A more traditional version of this specification is seen in Appendix B.

[43] Poole and Rosenthal, "Congress."

[44] The most serious limitation of the method employed herein stems from the fact that both the dependent variable and the legislator ideology variable are based on roll call votes. Two problems may result. First, to the extent the votes used to construct these measures overlap, their relationship is inflated. Second, error between these measures is correlated. While I have selected the dependent variable partly to reduce these problems, since better measures do not exist they cannot be entirely eliminated. In particular, the NOMINATE variable for the 102nd Senate is based on 550 votes cast by legislators in 1991 and 1992. The indicators used to predict ideology are taken only from 1991 and are based on a combined total of about 40 votes. So the overlap is small in percentage terms. Moreover, the party variable, while based on votes, does not use them directly but uses vote percentages, which helps to avoid the error problem identified above. Since the vote results used to calculate the percentages are interchangeable, the fact that they overlap is of no consequence since they are not directly used. Unlike the ideology and NOMINATE measures, every 'yea' vote counts the same regardless of the issue substance.

[45] The substantive phenomenon being accounted for here is the degree to which party leaders pressure legislators to vote the party's preferred position. In contrast, the dummy variable accounts only for whether or not a legislator is a member of a particular party. Of course this assumes that the pressure on such members is constant.

[46] Herron, "Interest."

[47] Fiorina, "Constituency," Omitting a variable is the statistical equivalent of saying both that we know the variable's precise effect and that it is zero. Paradoxically this implies that we have more knowledge about the omitted variable than the included variables.

[48] However, because party unity scores are multiplied by a dichotomous party dummy, the measure correlates at about .99 with the commonly used party dummy.

[49] Importantly, the party dummy does not account for variation of party influence by leaders within parties on an individual vote basis. Clearly the degree to which leaders can successfully exert pressure depends on the electoral circumstance facing the legislator. The unity scores reflect this variation.

[50] Stephen G. West, John F. Finch and Patrick J. Curran, "Structural Equation Models in Non-normal Variables," ed. Rick Hoyle, *Structural Equation Modeling* (Sage: Thousand Oaks, CA), 1995.

[51] These indicators are appropriate as principal components analysis shows only one factor, with an Eigenvalue of 4.58 well above the standard cutoff of 1.0.

[52] Factor analysis shows that each of the indicators loads at .92 or above. The paths to legislator behavior, social liberalism and party are both free to vary.

[53] Keith Krehbiel, "Where's the Party?" *British Journal of Political Science* 23 (1993): 235-266.

[54] Using the NES sample ensures that any systematic bias in the constituency measures resulting from the sample frame is controlled. However, these measures are in practice virtually identical to the census data available from 1990. Since this study requires data from 1992, the NES seems appropriate since the census was dated by that time.

[55] Fiorina, "Constituency,"; Goff and Grier, "On."

[56] Bishin, "Constituency."

[57] Goff and Grier, "On."

[58] Wendy J Schiller, *Partners and Rivals*: *Representation in U.S. Senate Delegations*, (Princeton: Princeton University Press), 2000.

[59]In states where both legislators are from the same party, the ideology variable is identical. However, for split state delegations the estimates differ. For example, California Democrat Alan Cranston's constituency is more liberal than that of Republican John Seymour. For additional details see Bishin, "Constituency."

[60] Parameter estimates with standard errors are seen in Appendix C. One outlying case contributed to extreme kurtosis and was omitted. Extreme kurtosis indicates that the joint distribution is not normal and thus violates the assumptions underlying the estimator.

[61]The total effect of all significant paths is 1.89 for constituent ideology and -.022 for legislator ideology. Unfortunately the use of factor scores and the abstract nature of both the dependent variable and the constituent ideology variable make the substantive significance of the coefficients difficult to interpret.

[62] The chi-square statistic (15, n=99) =42.31, p<.001 is highly statistically significant.

[63] R. Douglas Arnold, "Can Inattentive Citizens Control their Elected Representatives?" in *Congress Reconsidered* Fifth Edition, ed. Lawrence C. Dodd and Bruce I. Oppenheimer (Washington DC: CQ Press), 1993, 401-416.

[64] Miller and Stokes, "Constituency."

[65] Sarah Binder, Eric Lawrence and Forrest Maltzman, "Uncovering the Hidden Effect of Party," *Journal of Politics* 61 (1999): 815-831.

[66] William H.Greene, *Econometric Analysis*, Fourth Edition. (New Jersey: Prentice Hall), 2000.

[67] Robert S. Erikson, Norman Luttbeg and William Holloway, "Knowing One's District: How Legislators Predict Referendum Voting," *American Journal of Political Science* 19 (1975): 231-246; Donald Kinder, and Roderick Kiewiet, "Economic Discontent and Political Behavior: The Role of Personal Grievances and Collective Economic Judgments in Congressional Voting," *American Journal of Political Science* 23 (1979): 495-527.