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Abstract: This paper considers a model of political two-party competition over multiple policies when each policy is the domain of a particular legislative committee. Each party is composed of members who differ in their ideological preferences over policies but who have similar weightings of the importance of particular policies. Each committee acts to select policies in its own domain, subject to approval by the floor. The parties select committee memberships to maximize the density-weighted joint utility of its members, subject to institutional restrictions on committee compositions. Parties may choose either to accommodate or confront one another in committee assignments. For issues of importance to only one party, accommodation is shown to be the optimal strategy, and the committee appears as a classical preference outlier. For policies important to both parties, confrontation occurs, and the committee membership will be a bipolar preference outlier. Interest group ratings data from the U.S. House of Representatives are utilized to support this theory.

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Introduction

If asked to describe the most salient feature of the U. S. Congress, the average citizen or reporter might well describe how it is composed of two main political parties, Democrats and Republicans. If pressed further, they might go on to mention that party members spend much of their time in activities designed to help them gain reelection. However, if one were to query most congressional scholars, the emphasis of the response would probably be quite different. Indeed, much of the recent literature on the organization of Congress has focused not on political parties but on the committee system. While the relationship between the committees and the entire legislature is a hotly debated issue, none of the main theories of legislative organization emphasizes the role of competition between the opposing political parties.[1]

One theory of the organization Congress that explicitly ignores the role of political parties is the "preference outlier hypothesis." This theory states that legislative committees are populated by those legislators with the highest level of interest in the policies over which the committee has authority. In this way, "advocacy is concentrated and opposition is diluted," as Niskanen (1971, p. 139) observed. The strongest recent advocates of this theory are Weingast and Marshall (1988).[2] They argue that the committee system is the basis of the "structure induced equilibrium" (e.g., Shepsle 1978) by which the dilemma of the cycling (chaos) theorems, in which the outcome of legislation depends upon the agenda

[1] A comprehensive review of this debate, along with the positions of the major proponents and comments and criticisms, is found in the May, August and November 1994 issues of *Legislative Studies Quarterly*. See also Groseclose (1994a, 1994b) and Adler and Lapinski (1997) for brief reviews of this debate.

rather than on the intrinsic merits of the legislation (McKelvey 1976, Riker 1980), is circumvented. Committees populated by high demand legislators can block legislation they dislike, and this enables legislators to enforce logrolling agreements to pass legislation that committee members do like. This in turn helps the legislators in their quest for reelection, which, Weingast and Marshall, argue is the purpose of the committee system in Congress.

A competing theory is the "informative committees hypothesis" proposed by Gilligan and Krehbiel (1987, 1989, 1990, 1994) and Krehbiel (1990, 1991), which again ignores the role of political parties.[3] Under this theory, the floor, defined as the entire house, selects committees to provide information about the uncertain effects of policy in order to "specialize and to share the benefits of specialization" (1990, p. 531). Committees are not expected to be populated by high demanders, and because higher variance yields greater information, committees should be at least as heterogeneous as the entire floor.

The third main competing theory is the "representative-majority-party hypothesis" (Cox and McCubbins 1993). This is the only contender that emphasizes the role of political parties. Under this theory, the majority party organizes committees to enhance the reelection prospects of the party. Since the majority party has voting control over the committee structure and voting rules, it can stack the committee selection process in its favor.

The implications of the three theories are quite different, and given the differences in these theoretical predictions, it is surprising to find that there is still controversy. The preference outlier hypothesis implies that committees will be formed from high demanders (e.g., Adler and Lapinski 1997): thus the Agriculture Committee will comprise legislators supportive of farming interests, the Judiciary Committee will comprise legislators supportive of legal interests, etc. The informative committees hypothesis suggests that committees will be representative of the committee of the whole, so there should be no difference in between the committee and the floor, though if there is a difference, it will be that committees that are more heterogeneous than the floor are capable of transmitting more information than committees that are more homogeneous than the floor. The

[2] See also Benson (1981, 1983) and Adler and Lapinski (1997).
[3] See also Epstein (1996) and Saving (1997) on the topic of how legislatures deal with the information asymmetry between committees and the floor.

representative majority-party hypothesis suggests that committee membership should be representative of the majority party.

Empirical evidence in support of the preference outlier hypothesis was presented by Weingast and Marshall (1988), who used interest group ratings to look at the composition of a selection of committees and subcommittees in the U.S. House of Representatives.[4] The general nature of Weingast and Marshall's evidence on the preference outlier hypothesis has been challenged by a number of authors (e.g., Krehbiel 1990, Cox and McCubbins 1993, and Groseclose 1994a).[5] Weingast and Marshall's critics' evidence has, in turn, also been criticized (e.g., Hall and Grofman 1990, Groseclose 1994b, Londregan and Snyder 1994, Rhode 1994, Epstein 1996, Saving 1997, and Adler and Lapinski 1997).

The purpose of this paper is to develop and test a theory that we argue to be an advancement on those previously introduced. Our theory combines elements of the preference outlier hypothesis (Weingast and Marshall 1988) and the representative-majority-party hypothesis (Cox and McCubbins 1993). Weingast and Marshall assumed that committee memberships are quasi-property rights in the sense that committee membership is based on seniority, that committees have exclusive rights of policy formation over policies in their domain, and that heterogeneous individual legislators act solely for their own interests in selecting committees. Cox and McCubbins accepted the first two assumptions, but assumed that the *majority* party selected the structure and memberships of committees in order to maximize the joint utility of its members.

We follow Cox and McCubbins in placing parties at the center of our analysis. However, we are

[4] Evidence in support of the preference outlier hypothesis was first presented by Goodwin (1970) and Fenno (1973) using data on the ideological differences between committees and the U. S. House of Representatives. However, neither offered statistical tests of the significance of their results. Hinckley (1983) conducted a similar analysis using conservative index scores for three Congresses, also providing no statistical evidence of the significance of her results. A number of other studies have each examined a small selection of committees. Examples include Fenno (1966), Manley (1970), Stephens (1971) and Ray (1980), Schick (1980), Cowart (1981), Richardson (1990), and Hall and Grofman (1990).

[5] Krehbiel concludes "the results … force us to entertain the possibility that the standard preference outlier story is a stylized fiction" (1990, p. 159). Weingast and Marshall's empirical evidence on the preference outlier hypothesis has been shown to be invalid (Groseclose 1994a). Most other recent empirical evidence has rejected the preference outlier hypothesis except in a few committees in the U. S. House (Cox and McCubbins 1993, Mooney and Duval 1993, Groseclose 1994b), although Londregan and Snyder (1994) and Adler and Lapinski (1997) found evidence in support of the preference outlier hypothesis. See also Epstein (1996) and Saving (1997) for a criticism of the informative committees hypothesis.

not convinced that the majority party is able to get its way in setting up a legislature. Cox and McCubbins assume this is so because the majority party has historically been able to enforce party line voting on setting up the structure for each Congress (1993, p. 2). We show that when the structure variable of choice is committee membership, the majority party is still constrained by the heterogeneity within its own party, and that this constraint grants room for the (similarly heterogeneous) minority party also to affect the structure of the committee system. Thus, unlike Cox and McCubbins, *both* parties actively participate in and affect the committee allocation process.

In particular, we assume that each party has the final say concerning which committee(s) its members serve on, but that parties make these decisions with the objective of maximizing a social welfare function of the utilities of its members. Once on committees, members act to maximize their own utility. The committees possess exclusive policy jurisdictions, though policies must be able to survive challenges on the floor by logrolling, gate-keeping, or simply being satisfactory to the floor. In addition, members are restricted to a maximum number of committee assignments, memberships on committees are treated as quasi-property rights based on seniority, and parties are restricted to membership per committee in proportion to their membership on the floor. These restrictions are shown to provide a framework for testing our hypotheses.

Our theory assumes that the individual parties identify with some policies more than others. Democrats, for example, are generally identified as pro-labor, pro-environment, and pro-social spending. Republicans are often associated with being for free trade, for less regulation of business, for lower taxes, and against abortion. These interests are often, but not always, at odds. Members of both parties, for example, may benefit by being perceived as "tough on crime," by increased government spending on public works, or by having a strong military defense. Thus one would expect the parties to fight on some committees (e.g., on issues such as the committees on environment or the judiciary) and on others, there might appear to be cooperation (e.g., on appropriations or public works committees). Thus our theory implies that not all committees are likely to be preference outliers and that those that are may be preference outliers in different directions.

Our theory also takes into account the fact that committee assignments are not independent of one

another. There are formal as well as informal rules about the number of committees on which members may serve as well as constraints on party membership on each committee. Suppose, for example, each member sits on one committee, and there are only two committees. If committee *A* is stacked more conservatively than the floor, then committee *B* will be more liberal than the floor, since it is committee *A*'s complement.

Our theory also suggests that the role of the committee system in enforcing logrolling may be similar to that envisioned by Weingast and Marshall. Suppose, again using the two committee case, that a committee once populated by a random draw of members has faced years of competition between the parties, so that over time the committee members have become more polarized. So long as a few moderate members remain on the majority party committee membership, neither this committee nor its complement will appear to be preference outliers. Neither party will be willing to contest this committee's bills on the floor, since the bills will be relatively close to the floor median position and a challenge to the bill will gain little. Similarly, suppose one party stacks committee *A* and the other party stacks committee *B*, so that both committees appear as preference outliers. Neither party is willing to contest the committee bills on the floor, even though the committee bills are skewed, since each party gets its preferred policy on the policy it cares most about. Thus, even absent a "closed rule," i.e., a prohibition on amendments to committee bills, the committee outliers may succeed in influencing policy.

The paper is organized as follows. Section 2 develops a theory in which parties allocate members to committees to maximize the density-weighted utility of its members, given competition from another party. Section 3 presents a new test of the committee outlier hypothesis using a resampling method that explicitly incorporates institutional restrictions on committee membership allocations. Section 4 concludes the paper with a discussion of the model and its empirical testing relative to the other theories about committee composition.

2. Party Competition and Committee Assignments

The model we consider is a stylized representation of a legislature. A number of simplifications

have been made to illustrate our main points about how parties compete in setting up legislative committees. We assume there are only two parties, *L* and *R* ("Left" and "Right") in a single legislative body. Party *R*, the *majority party*, controls proportion $k \in (½, 1)$ of the legislature, and Party *L*, the *minority party*, controls the remaining $1–k$ mass of members.

Assume for the moment that the legislature considers only two issues, *A* and *B*, each of whose policy can be measured along the *same* ideology space *x*.[6] Below, we explicitly write out the utility functions of the members of the legislature. For now, assume that each member may be distinguished by his or her uniquely defined *ideal* policy outcome *x*. The density of members in the legislature that have ideal (bliss) point at *x* is denoted as $\phi(x)$, where $x \in [0,1]$ is a continuous single-dimensional *ideology* space (e.g., liberal-conservative) and $\phi(x) \geq 0$. The cumulative distribution is denoted as $\Phi(x) \equiv \int_0^x \phi(z)dz$. Thus $\Phi(0) = 0$ and $\Phi(1) = 1$. Denote by $\phi_R(x)$ and $\phi_L(x)$ the proportion of the mass at *x* that belongs to party *R* and *L*, respectively, so that $\phi(x) = \phi_R(x) + \phi_L(x)$. Let $\Phi_p(x) \equiv \int_0^x \phi_p(z)dz$, $p = L,R$, so that $\Phi_R(1) = k$, $\Phi_L(1) = 1–k$, and $\Phi_R(0) = \Phi_L(0) = 0$. The functions $\Phi_R(x)$ and $\Phi_L(x)$ are twice differentiable and monotonically non-decreasing in *x*. Throughout the paper, we will offer examples using right- and left-triangular distributions for ϕ_R and ϕ_L, respectively.[7]

Each issue *A* and *B* is the unique domain of a corresponding committee. Committees *A* and *B* each have mass $h_A = h_B = ½$, and each member serves on exactly one committee.[8] Assume also that each committee is reconstituted at the beginning of each legislative term, so there is no seniority system. This gives the parties maximum flexibility in choosing the composition of committees. Below, we consider what happens when this assumption is relaxed.

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[6] Poole and Rosenthal (1985) present evidence that the largest share of variance in voting patterns can be accounted for by a single-dimensional liberal-conservative scale.

[7] The distributions we use are $\phi_R(x) = 2kx$ and $\phi_L(x) = 2(1-k)(1-x)$. These density functions integrate to k and $1–k$, respectively, and have medians $x_R^m = 1/\sqrt{2} \approx 0.71$ and $x_L^m = 1 - 1/\sqrt{2} \approx 0.29$, and means $\bar{x}_R = 2/3$ and $\bar{x}_L = 1/3$. The party means and medians are fixed for all k, with the party median more extreme than the party mean. The floor mean and median, in contrast, are increasing in k. For our purposes the important properties are that the medians differ and that both parties include members spanning the distribution of ideologies but concentrated more heavily at the ends of the political spectrum. Any distribution for which the ideological means or medians differ in the same directions could be used to obtain similar results.

[8] This assumption could be relaxed to allow some members to be on more than one committee without affecting the results by simply reassigning members who get a larger number of committee assignments a larger weight in the party distributions.

For a given committee composition, assume the committee chooses the median policy. This follows from committee members behaving in a self-interested manner and from the single peaked structure of preferences.[9] Let the median policies chosen by committees *A* and *B* be denoted as x_A and x_B, respectively. If we denote the density functions for the committees as $y^A(x)$ and $y^B(x)$, and the cumulative density functions as $Y^A(x)$ and $Y^B(x)$, respectively, then the committee medians satisfy $Y^A(x_A) = Y^B(x_B) = ¼$. If the committees have the final say, then the policy adopted by the legislature is x_A for issue *A* and x_B for issue *B*. Below, we discuss how bills from committees are amended by the full legislature. For now, assume that Weingast and Marshall's (1988) assumption about logrolling among committees holds, so that the policies adopted by the legislature, x_A^* and x_B^*, are the policies coming out of the committees, i.e., $x_A^* = x_A$ and $x_B^* = x_B$.

The utility of a member of party *L* or *R* is a function of his ideal point *x* and the policies adopted by the legislature, x_A^* and x_B^*. Let a member of party *p* with ideal point *x* have utility

$$(1) \qquad U_p(x, x_A^*, x_B^*) = u_p - \alpha_p(x - x_A^*)^2 - \beta_p(x - x_B^*)^2, \qquad p = L, R,$$

$$x \in [0,1],$$

where u_p is the utility obtained if the policies adopted in issues *A* and *B* both happen to equal *x*, and the non-negative parameters α_p and β_p, which are constant across members of party *p*, are the relative weights placed on issues *A* and *B*. If $\alpha_p > \beta_p$, (1) implies that members of party *p* are hurt more by a difference between x_A^* and *x* than by an equal difference between x_B^* and *x*. Thus party *p* has stronger preferences concerning policy issue *A*. The idea here is that parties emphasize particular issues at the expense of others in most elections and are identified with their intensity of preferences for particular policies, although each party may have left- and right-wing members.[10] Different members may have different ideal points because they face different constituencies (e.g., Stratmann 1996) or they hold different ideological views (e.g., Levitt 1996).

[9] This assumption may seem odd since the median voter theorem predicts a single identical policy for each issue, once the issues reach the floor. However, we show that even with the restriction to a single policy dimension, a rich set of outcomes occurs, including those normally associated only with multidimensional models.

Since the legislature has a mass of one and ideology is single-dimensional, the median policy preferred by the floor for both issues is $x_A = x_B = x_f \equiv \Phi^{-1}(1/2)$. The median policy preferred by the parties are given by $x_R = \Phi_R^{-1}(k/2)$ and $x_L = \Phi_L^{-1}[(1-k)/2]$, respectively. Thus the median policies preferred by each party is identical across issues, but the α_p and β_p weights differ within and across party. It is also assumed that $x_L < x_f < x_R$, so that the parties differ fundamentally on which policies should be adopted.

Each party wishes to maximize the mass-weighted sum of the utility of its members:[11]

$$V_p = \int_0^1 U_p(x, x_A, x_B)\phi_p(x)\, dx, \qquad p = L, R. \tag{2}$$

This, in effect, means that the party cares about each of its members' reelection chances (as measured by the utility functions $U_p(x, x_A, x_B)$), but that the party (unlike its individual members) considers how changes in policies that benefit one member affect the reelection chances of its other members (e.g., Cox and McCubbins 1993, Aldrich 1994). In this sense, the party internalizes within-party externalities when it allocates its members across committees *A* and *B* by taking into account how opportunistic behavior by individual committees affects the party as a whole. However, once the party has made the committee selections, the committees (with the approval of the floor) formulate policy with the members acting in a self-interested manner.[12] The trick for the party is to temper the self-interest occurring on each committee just enough so as to maximize the joint utility of the party members.

If the committees are *homogeneous*, the committee exactly reflects the distribution of preferences of each party and the floor, so the median legislator on each committee has the same ideological preference point as the median legislator for the floor. Formally, each homogeneous

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[10] Kern (1989, Figure 3.3, p. 55) provides evidence that in the 1984 elections the Republicans, with Ronald Reagan at the top of the ticket, used taxes as an issue in over fifty percent of their advertisements and that their position was largely the same in congressional, senatorial, and presidential advertisements. Democrats, with Walter Mondale at the top of the ticket, were not as focused.

[11] Similar analytical results can be found for a party that wishes to maximize the utility of its median member.

committee has distribution $y^A(x) = y^B(x) \equiv \phi(x)/2$, and $y_p^A(x) = y_p^B(x) \equiv \phi_p(x)/2$, $p = L, R$, where $y_p^A(x)$ and $y_p^B(x)$ denote the party representation of type x on committee A and B, respectively. Thus for homogeneous committees $x_A = x_B = x_f$.[13] A committee that is not homogeneous can be created by exchanges between the *tails* of homogeneous committees. For example, to move homogeneous committee A's median to the right requires that a mass Δ be dropped from the left tail of homogeneous committee A and an equivalent mass Δ from committee B (given the restriction that the size of committees remains unchanged) be added on the right tail of homogeneous committee A. Note, however, that this implies that the opposite is being done with homogenous committee B. Clearly, the masses Δ need not come from the tail of each committee, but only from the correct side of the old and new medians. Each party is at most able to switch half its committee membership from one committee to the other, i.e., $|\Delta_R| \leq k/4$ and $|\Delta_L| \leq (1-k)/4$, where Δ_p is the mass moved by party p, $p = L, R$. At the extreme, party p can switch everyone to the right of committee A's party median with everyone to the left of committee B's party median, or vice versa.

We now make the following definitions:

DEFINITION: Party R Δ_R-*stacks* committee A when party R moves mass $\Delta_R \in [0, k/4]$ from the left tail of y_R^A and places it on the left tail of y_R^B. At the same time, mass Δ_R is moved from the right tail of y_R^B and placed on the right tail of y_R^A.

DEFINITION: Party L Δ_L-*stacks* committee A when party L moves mass $\Delta_L \in [0, (1-k)/2]$ from the left tail of y_L^B and placed on the left tail of y_L^A. At the same time, mass Δ_L is moved from the right tail of y_L^A and placed on the right tail of y_L^B.

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[12] Rhode (1994) gives the party leadership the role of selecting policies to offer as alternatives to the committee policies, which are exogenous in his model. As we are focusing on the preference outlier hypothesis, we emphasize the committee allocation process over the floor debate process. However, in principle it is possible to incorporate this extra stage to the game, though to do so requires an explicit recognition of the status quo policy. See also Aldrich (1994), who argues that the status quo is important in testing for the preference outlier hypothesis since every vote is implicitly a choice between alternatives, one of which is the status quo.

[13] With the right and left-triangular distributions, a homogeneous committee has density function $y_A(x) = y_B(x) \equiv \phi_R(x)/2 + \phi_L(x)/2 = kx + (1-k)(1-x)$.

Thus if *R* stacks a committee it moves the median of that committee to the right, and if *L* stacks a committee it moves the median of that committee to the left. Obviously, neither party can simultaneously stack both committee *A* and committee *B*, since committee assignments are *not independent* of one another.[14] If a party stacks committee *A*, it is forced to give ground on committee *B*.[15]

We use $\Delta_p > 0$ to denote the case where party *p* stacks committee *A* and $\Delta_p < 0$ for the case where party *p* stacks committee *B*. Thus *R* can choose any $\Delta_R \in [-k/4, k/4]$ and *L* can choose any $\Delta_L \in [-(1-k)/4, (1-k)/4]$ to maximize (2). In general, there are four possible types of equilibria: *i*) *R* and *L* both stack committee *A* ($\Delta_R > 0, \Delta_L > 0$); *ii*) *R* stacks committee *A* and *L* stacks committee *B* ($\Delta_R > 0, \Delta_L < 0$); *iii*) *R* stacks committee *B* and *L* stacks committee *A* ($\Delta_R < 0, \Delta_L > 0$); or *iv*) *R* and *L* both stack committee *B* ($\Delta_R < 0, \Delta_L < 0$). We adopt the following definitions for the equilibrium strategies taken by the parties:

DEFINITION: Parties *confront* one another in the committee assignment problem if in equilibrium they stack the same committee [i.e., $\text{sign}(\Delta_R) = \text{sign}(\Delta_L)$].

DEFINITION: Parties *accommodate* one another if in equilibrium they stack different committees [i.e., $\text{sign}(\Delta_R) \neq \text{sign}(\Delta_L)$].

Clearly, confrontation and accommodation have different implications for the configuration of committees. If the parties confront one another on committee *A* (see Figure 1), then committee *A* will be a *bipolar outlier*, implying that the party committee medians will be skewed towards the party "extremists," i.e., $x_L^A < x_L$ and $x_R^A > x_R$, where x_p^c is the median of party *p* on committee *c*. However, this means that the *bipolar complement*, committee *B*, will be composed of party "moderates" (i.e.,

[14] As there are only two committees, we let Δ_p simultaneously denote the movement from *A* to *B* and from *B* to *A*. Thus, if we explicitly defined $\Delta_p^A > 0$ (< 0) to be the movement to the right (left) side of Committee *A* and $\Delta_p^B > 0$ (< 0) to be the movement to the right (left) side of Committee *B*, then it is obvious that $\Delta_p^A + \Delta_p^B = 0$. We explore this constraint in more detail below when we move to $N > 2$ committees.

the left-wing of party *R* and the right-wing of party *L*), so that $x_L^B > x_L$ and $x_R^B < x_R$. In this case committee *A* will have a higher variance than the floor and committee *B* a lower variance than the floor, though statistical tests of measures of central tendency (e.g., the mean or median of the whole committee) may be inconclusive. If the parties accommodate one another (see Figure 2), then the two committees will appear as *preference outliers* relative to the entire floor but will be outliers in the opposite direction from one another, i.e., either $x_A < x_f < x_B$ or $x_A > x_f > x_B$. These are the three basic configurations of committees that result from party competition on committee assignments.

The obvious question is, when will parties choose to accommodate rather than confront one another, given that assignments to committee *A* have implications for the composition not only of committee *A*, but also of committee *B*? The answer depends upon the parties' preferences, as represented by the parameters α_p and β_p, and their mean preferred policies. Suppose that x_A and x_B may be written as differentiable functions of Δ_R and Δ_L with $dx_A/d\Delta_R > 0$, $dx_B/d\Delta_R < 0$, $dx_A/d\Delta_L < 0$, $dx_B/d\Delta_L > 0$, and $x_A = x_B = x_f$ for $\Delta_R = \Delta_L$. Then *R* and *L* will choose Δ_R and Δ_L, respectively, to satisfy:

$$\text{(3a)} \qquad \frac{\partial V_R(\Delta_R \mid \Delta_L)}{\partial \Delta_R} \equiv V_R^R = \int_0^1 2\phi_R(x)\left(\alpha_R(x - x_A)\frac{\partial x_A}{\partial \Delta_R} + \beta_R(x - x_B)\frac{\partial x_B}{\partial \Delta_R}\right)dx = 0,$$

$$\text{(3b)} \qquad \frac{\partial V_L(\Delta_L \mid \Delta_R)}{\partial \Delta_L} \equiv V_L^L = \int_0^1 2\phi_L(x)\left(\alpha_L(x - x_A)\frac{\partial x_A}{\partial \Delta_L} + \beta_L(x - x_B)\frac{\partial x_B}{\partial \Delta_L}\right)dx = 0.$$

Assuming that second-order conditions (i.e., $V_{LL}^L < 0$ and $V_{RR}^R < 0$, where $V_{ij}^i \equiv \partial^2 V_i/\partial\Delta_i\partial\Delta_j$) and stability conditions (i.e., $|V_{LL}^L V_{RR}^R| > |V_{RL}^R V_{LR}^L|$) hold and that the constraints on the magnitudes of the Δ_p's are not binding, (3) defines a Nash equilibrium for the committee assignment problem. As we show below, multiple equilibria may occur so that the second order and stability conditions are only valid locally.

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[15] One way around this would be for parties to allow members who are more extreme to serve on a larger number of committees. Using a simple ordinary least squares regression model with the number of committees as the dependent variable and the Americans for Democratic Action (ADA) rating as a dependent variable, we could find no relation between the number of committees on which a member serves and the size of his or her ADA rating. This was true for both parties. However, seniority does have a positive and significant effect on the number of committees on which a member serves.

The conditions in (3) may be rewritten in a form more easily interpreted. First, note that

$$\int_0^1 \phi_R(x)(x - x_c)dx \;=\; k(\bar{x}_R - x_c), \quad \text{and} \quad \int_0^1 \phi_L(x)(x - x_c)dx \;=\; (1-k)(\bar{x}_L - x_c), \quad c = A,B,$$

where $\bar{x}_p \equiv \int_0^1 \phi_p(x)x\,dx$ is the *mean preferred policy* of party p. Thus (3) may be rewritten as:

$$(4) \qquad \alpha_L(\bar{x}_L - x_A)\frac{\partial x_A}{\partial \Delta_L} + \beta_L(\bar{x}_L - x_B)x_L^B \;=\; 0, \quad \text{and} \quad \alpha_R(\bar{x}_R - x_A)\frac{\partial x_A}{\partial \Delta_R} + \beta_R(\bar{x}_R - x_B)\frac{\partial x_B}{\partial \Delta_R} \;=\; 0.$$

These equations state that at an interior solution, each party stacks committees such that the change in the difference between the mean preferred policy and the actual policy chosen in each committee is equal. One interesting conclusion is that if the Nash equilibrium involves an interior solution, and if party p values both policies (i.e., $\alpha_p > 0$ and $\beta_p > 0$), then both policies (x_A and x_B) will be on the *same side* of the mean preferred policy of the party. On the other hand, if one policy is unimportant to party p (say policy A has weight $\alpha_p = 0$), then the policy that does have value will be set equal to $\bar{x}_p$, if possible (i.e., if an interior solution exists). Thus if party p only cares about policy B, if possible it will choose to stack committee B such that the policy equals the average preferred policy of its members. Of course, if a corner solution occurs for one or both of the parties, then these conditions will hold as inequalities.

The following proposition summarizes the main comparative statics result of the paper:

PROPOSITION: If an interior solution exists, then *i*) an increase in a preference for a policy c by party p will cause that party to stack committee c more (less) heavily if the policy is less (more) extreme than the mean preferred policy of the party; *ii*) as the party's mean preferred policy $\bar{x}_p$ becomes more extreme, the party will stack the committee for the policy it prefers most more heavily; *iii*) an increase in the preference for policy c by party p will cause party q to increase (decrease) its stacking of committee c if the reaction functions are positively (negatively) sloped; and *iv*) an increase in party share which does not affect the party mean preferred policy will have no effect upon how parties stack committees.

Proof: Totally differentiating (4) yields:

$$\begin{pmatrix} V_{RR}^R & V_{RL}^R \\ V_{LR}^L & V_{LL}^L \end{pmatrix}\begin{pmatrix} d\Delta_R \\ d\Delta_L \end{pmatrix} =$$

$$\begin{pmatrix} -(\bar{x}_R - x_A)\dfrac{\partial x_A}{\partial \Delta_R} & -(\bar{x}_R - x_B)\dfrac{\partial x_B}{\partial \Delta_R} & 0 & 0 & -\alpha_R\dfrac{\partial x_A}{\partial \Delta_R} & -\beta_R\dfrac{\partial x_B}{\partial \Delta_R} \\ 0 & 0 & -(\bar{x}_L - x_A)\dfrac{\partial x_A}{\partial \Delta_L} & -(\bar{x}_L - x_B)\dfrac{\partial x_B}{\partial \Delta_L} & 0 & -\alpha_L\dfrac{\partial x_B}{\partial \Delta_L} \end{pmatrix} \begin{pmatrix} d\alpha_R \\ d\beta_R \\ d\alpha_L \\ d\beta_R \\ d\bar{x}_R \\ d\bar{x}_L \end{pmatrix}$$

By Cramer's Rule:

(5) $$\partial\Delta_R/\partial\alpha_R = -|H|^{-1}V_{LL}^L(\bar{x}_R - x_A)\frac{\partial x_A}{\partial \Delta_R} > 0 \quad \text{if} \quad \bar{x}_R > x_A,$$

(6) $$\partial\Delta_R/\partial\beta_R = -|H|^{-1}V_{LL}^L(\bar{x}_R - x_B)\frac{\partial x_B}{\partial \Delta_R} < 0 \quad \text{if} \quad \bar{x}_R > x_B,$$

(7) $$\partial\Delta_R/\partial\alpha_L = |H|^{-1}V_{RL}^R(\bar{x}_L - x_A)\frac{\partial x_A}{\partial \Delta_L} > 0 \quad \text{if} \quad \bar{x}_R > x_A \text{ and } V_{RL}^R > 0,$$

(8) $$\partial\Delta_R/\partial\beta_L = |H|^{-1}V_{RL}^R(\bar{x}_L - x_B)\frac{\partial x_B}{\partial \Delta_L} < 0 \quad \text{if} \quad \bar{x}_R > x_B \text{ and } V_{RL}^R > 0,$$

(9) $$\partial\Delta_R/\partial\bar{x}_R = -|H|^{-1}V_{LL}^L(\alpha_R\frac{\partial x_A}{\partial \Delta_R} + \beta_R\frac{\partial x_B}{\partial \Delta_R}) > 0 \quad \text{if} \quad \alpha_R\frac{\partial x_A}{\partial \Delta_R} + \beta_R\frac{\partial x_B}{\partial \Delta_R} > 0,$$

(10) $$\partial\Delta_R/\partial\bar{x}_L = |H|^{-1}V_{RL}^R(\alpha_L\frac{\partial x_A}{\partial \Delta_L} + \beta_L\frac{\partial x_B}{\partial \Delta_L}) > 0 \quad \text{if} \quad \alpha_L\frac{\partial x_A}{\partial \Delta_L} + \beta_L\frac{\partial x_B}{\partial \Delta_L} > 0 \text{ and } V_{RL}^R > 0.$$

Similar expressions can be found for the derivatives of Δ_L. The term $|H| > 0$ is the determinant of the Jacobian of (3), which is positive if stability conditions hold. The second order conditions imply that $V_{LL}^L < 0$ and $V_{RR}^R < 0$. The derivatives of the medians with respect to changes in the Δ_p's are $\partial x_A/\partial\Delta_R \geq 0$, $x_B/\partial\Delta_R \leq 0$, $\partial x_A/\partial\Delta_L \leq 0$ and $\partial x_B/\partial\Delta_L \geq 0$ by assumption. We know by (4) that x_A and x_B are each on the same side of the mean policy for each group, so that $\text{sign}(\bar{x}_p - x_A) = \text{sign}(\bar{x}_p - x_B)$, $p = L, R$. Part *i* follows from (5) and (6). Part *ii* follows from (7) and (8). Part *iii* follows by noting that the slopes of the reaction functions are the same as the signs of V_{RL}^R and V_{LR}^L, for *R* and *L*, respectively. Part *iv* follows from noting that the k's drop out of (4). *Q.E.D.*

The proposition establishes that parties' preferences for policies dictate how they stack

committees. As the emphasis a party places on a policy increases, the party membership on the committee becomes more of a preference outlier relative to the party's floor. Whether the party responds to increased stacking by the other party depends upon the V_{RL}^{R} and V_{LR}^{L} terms: in addition to determining the slopes of the reaction functions, these terms represent the effect of an increase in stacking by the other party on the party's own marginal utility product of additional stacking of the committee. If this is negative, then increased stacking by the other party leads to less stacking by the party in question; if it is positive, it leads to more stacking. Increases in the mean party policy preference have an ambiguous effect on how the party stacks committees, since both committees are affected by changes in the mean preferred policy. Thus whether the party responds by stacking the committee more or less heavily depends upon which committee is affected the most at the margin. Finally, changes in the party control level (k) that do not also affect the mean preferred policy have no effect on how the parties stack the committees. This result is somewhat surprising, since a larger majority means the party has more degrees of freedom in its committee allocation process.

As we noted above, there are four possible equilibria that might occur, with two of the equilibria involving confrontation on one committee and the other two involving accommodation in one direction or the other. Since even with the specific functional forms chosen no closed form solution can be found for the first-order conditions in (3), we constructed a set of numerical examples based on the right- and left-triangular distributions for the party preferences to illustrate the implications of our theory. The resulting best response functions are presented in Figure 3.

The algorithm we used to produce these functions had the following steps. First, for arbitrary values of Δ_L and Δ_R, calculate the points x_L^1, x_L^2, x_R^1, x_R^2, defined such that

$$\Phi_R(x_R^1) = |\Delta_R|, \quad \Phi_L(x_L^1) = |\Delta_L|, \quad 1 - \Phi_R(x_R^2) = |\Delta_R|, \quad 1 - \Phi_L(x_L^2) = |\Delta_L|. \tag{11}$$

At these break-points, the functions describing the committee density change. These points must satisfy the following constraints, which correspond to the constraints on Δ_L and Δ_R:

$$x_L^1 \le x_L \le x_L^2, \qquad x_R^1 \le x_R \le x_R^2, \qquad \text{and} \qquad x_L \le x_R. \tag{12}$$

Second, order the values x_L^1, x_L^2, x_R^1, and x_R^2 from low to high. There are four feasible combinations of

the orderings satisfying (12):[16]

(13) (*a*) $x_R^1 \le x_L^1 \le x_L^2 \le x_R^2$, (*b*) $x_L^1 \le x_R^1 \le x_L^2 \le x_R^2$ (*c*) $x_L^1 \le x_L^2 \le x_R^1 \le x_R^2$ (*d*) $x_L^1 \le x_R^1 \le x_R^2 \le x_L^2$.

Third, evaluate the appropriate density integrals in each interval of (13). There are nine possible committee densities corresponding to whether 0, $\phi_p/2$, or ϕ_p is included on committee *c* by party *p* at a given *x*; these densities in turn depend upon the signs and magnitudes of the Δ_p (recall Figures 1 and 2). The median of each committee is also found in this step, and then the utility functions are evaluated. Finally, find the best response functions (B_R and B_L for party *R* and *L*, respectively) by solving for $\Delta_R^* = \text{argmax } V_R(\Delta_R \mid \Delta_L)$ and $\Delta_L^* = \text{argmax } V_L(\Delta_L \mid \Delta_R)$, where the argument space has been limited to fifteen discrete points.

Included in Figure 3 are the best-response functions that result from various party shares and issue weights. For the left-hand column of panels (*a* through *d*) $k = 5/8$, i.e., party *R* controls 5/8 and party *L* controls 3/8 of the legislature. For the right-hand column of panels (*e* through *h*) $k = 3/8$. Four policy preference parameter combinations are considered. In the first two rows (*a*, *b*, *e*, and *f*), each party cares about only one of the two issues, and the issues each party cares about are different. One would expect accommodation to occur here, and indeed this is the case: in equilibrium the parties accommodate one another, and each committee is a preference outlier. Notice also that while the minority party stacks its preferred committee at or near the maximum level, the majority party need not stack its preferred committee so heavily. This is because the average party preference is less extreme than the position the majority party is capable of obtaining. This is less likely to be true for the minority party. Panels *c* and *g* are at the opposite end of the spectrum, with the two parties weighing each policy equally. In this case, *two* equilibria exist: in one both parties stack committee *A*, and in the other both parties stack committee *B*. Thus each equilibrium exhibits confrontation on one of the committees. There are multiple equilibria in this case because each party cares equally about *both* issues; for whichever policy one party confronts, the other party is obliged to do so also. In this case whichever

[16] The ordering $x_R^1 \le x_L^1 \le x_R^2 \le x_L^2$ is not ruled out by (12), but can be shown to occur only in the region outside the

committee the parties choose to confront one another on will appear as a bipolar outlier and the other will appear as a bipolar complement. Panels *d* and *h* show an intermediate case in which the parties care more about one issue than the other but value policies produced by each committee. There are two points to note about these cases. First, there are almost, but not quite, multiple equilibria. Thus a weighting of 2:1 in preferences for one policy over another is sufficiently large, taken together with the other assumptions, to drive one equilibrium out of the picture. Second, the equilibrium that survives is of the confrontation type, but it is confrontation on the issue the minority party cares most about, not the one the majority party cares most about. This result indicates that Cox and McCubbins' (1993) emphasis on the majority party alone is misplaced, the minority party can in fact affect the equilibrium choices made by the majority party.

Open Versus Closed Rules For Floor Debates: The Role of Seniority

To opponents of the preference outlier hypothesis, one of the most damning criticisms of the hypothesis is the fact that a "closed rule," which disallows amendments by non-committee members during floor debate is only infrequently used in Congress(Krehbiel 1990, 1991, 1997). Because bills are most commonly considered under an open rule, which allows even non-germane amendments to be considered, critics of the preference outlier hypothesis suggest that the logrolling arrangements implied by the Weingast and Marshall (1988) theory would be unstable.[17] Our theory shows why this is not likely to be the case. Consider first the case where accommodation occurs. Neither party has an incentive to renege on the committee proposal, since the party that cares about the proposal got what it wanted and the other party is, by its choice to accommodate, relatively unaffected by the policy. Thus no reneging will occur even under an open rule.

However, this does not explain how reneging is prevented when parties confront one another on a

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bounds placed on Δ_L and Δ_R.

committee. Here the medians of a stacked committee and the floor may differ substantially.[18] The explanation for a lack of reneging and hence the absence of a closed rule lies in the additional assumption that membership on committees is a quasi-property right due to *seniority*. As Weingast and Marshall (1988) argue, senior members cannot be kicked off a committee except under extreme circumstances (e.g., heavy losses by the party or loss of the individual's seat in the legislature). This means that once a member is on a committee, he cannot easily be removed by the party leadership, even if he is in disagreement over the nature of the policies coming out of the committee. Even if a party continues to stack a committee, all it takes is a few moderates in the majority party to cause the committee median to be close to the median of the entire legislature. Levitt (1996) offers evidence from the U. S. Senate showing that some senators' positions do change over time. Note also that if a committee member does become a moderate on a committee of extremists, his influence over the policy increases since he is more likely to be the median member of the committee. Hence seniority, by restricting the degree to which parties can stack committees and thus moderating the policies coming out of committees on which the parties confront one another, serves to enhance the majority party's ability to support the committee policies on the floor of the legislature.

Extension to N > 2 Committees

To see what happens with more than two committees, consider the case of three committees, *A*, *B*, and *C*, with weights α_p, β_p, and γ_p, $p = L, R$. In this case let Δ_p^A, Δ_p^B, and Δ_p^C denote the stackings of committees *A*, *B* and *C*. Again, assume that if $\Delta_R^c > 0$, committee *c* is stacked to the right by party *R*, and if $\Delta_R^c < 0$, it is stacked to the left by party *R*, $c = A, B, C$. There are two constraints on the values

[17] There are three types of rules for how the floor handles proposals from the committees that need to be considered (e.g., Shepsle 1979). Suppose a bill is reported from committee *A* and is taken up for consideration by the floor. In a "closed rule" setting, the floor cannot amend the bill coming from a committee. With a "germane rule," the floor may offer any amendment it likes so long as the amendment affects only the policy in question, i.e., x_A can only be amended as "$x_A + \varepsilon_A$." With an "open rule," any amendment is possible from the floor, including ones that amend x_B as well as x_A; thus amendments may be offered of the form "$x_A + \varepsilon_A$, $x_B + \varepsilon_B$". Weingast and Marshall (1988) assume a closed rule setting, implying that the legislature either can accept the policy coming from the committee or the status quo.

[18] For example, using the right-triangular distribution, the median of a committee stacked by the majority party may differ by as much as 0.2 from the median of the floor, depending on the value of *k*. However, this assumes that the majority party stacks the committee at its maximum level. As Figure 3 shows, it is not in the majority party's interest to stack a committee to this degree.

of the Δ_p^c. First, the maximum amount by which a committee may be stacked is now 2/3 of the mass of the party membership of the committee, i.e., $\Delta_R^c \in [-k/3, k/3]$ and $\Delta_L^c \in [-(1-k)/3, (1-k)/3]$, $c = A, B, C$. This means that a committee may be stacked more heavily to the right or the left than could occur when there are only two committees, although stacking one committee in an extreme fashion means that two other committees are now affected. Second, as in the case with two committees, the total movement across committees must balance out to maintain equal committee memberships, i.e., $\Sigma_c \Delta_R^c = 0$ and $\Sigma_c \Delta_L^c = 0$. Using the balancing constraint to solve for Δ_p^C, the problem can be reduced to two choice variables per party with the constraints that $\Delta_R^c \in [-k/3, k/3]$ and $\Delta_L^c \in [-(1-k)/3, (1-k)/3]$, $c = A, B$, and the additional constraints that $\Delta_R^A + \Delta_R^B \in [-k/3, k/3]$ and $\Delta_L^A + \Delta_L^B \in [-(1-k)/3, (1-k)/3]$.

Perhaps the main implication of having more than two committees is that parties are no longer constrained to choose either confrontation or accommodation on all committees. For example, suppose that there are *four* committees, *A*, *B*, *C*, and *D* with policy weights α_p, β_p, γ_p, and δ_p, respectively. Suppose further that party *R* cares about issues *A* and *B* only ($\alpha_R = \beta_R = ½$ and $\gamma_R = \delta_R = 0$) and party *L* cares about issues *A* and *C* only ($\alpha_L = \gamma_L = ½$ and $\beta_L = \delta_L = 0$). Then the Nash equilibrium is characterized by confrontation on committee *A* (a bipolar outlier), accommodation to the right on committee *B*, accommodation to the left on committee *C*, and bipolar complementarity on committee *D*, on which neither party cares about. We shall see examples of each of these types of committees in the empirical evidence below. Each type is consistent with the party competition model (and not with all of the other models), even though they all happen simultaneously. Thus the extension to multiple policies and committees enriches the class of equilibria one might expect to see.

3. Empirical Evidence

Many authors have provided empirical tests of the committee outlier hypothesis.[19] Our contribution is twofold. First, we explicitly test the null hypotheses of the prevailing theories, including our own. Most previous research has focused on the issue of whether committees appear as random draws of the legislature, but little space has been devoted to testing whether the alternate theories are

supported.[20] Second, our technique is itself an innovation on the resampling techniques that have previously been used by Mooney and Duval (1993) and Groseclose (1994a, 1994b). Our methodology explicitly incorporates a number of institutional restrictions, which we argue play a role in the ways in which parties are constrained in their allocation of members to committees.

All of our empirical tests are done on the twenty-two standing committees in the U.S. House of Representatives for the 97th – 102nd Congresses. This covers the period 1981-1994, or the last dozen years of the recently ended forty years of Democratic control of the House.[21] In each case we test the hypotheses using interest group ratings indices. The indices used in the analysis all range from zero to one hundred, with a congressman getting a zero if he votes against the desires of the interest group on each of the votes selected for the index and a 100 if he votes with the group one hundred per cent of the time. The indices used in the analysis and the issues they rate Congressmen on are:[22]

Rating	Rating Group	Measures
ADA	Americans for Democratic Action	pro-liberal
ACLU	American Civil Liberties Union	pro-individual liberties
CFA	Consumer Federation of America	pro-consumer
COC	Chamber of Commerce of the United States	pro-business
COPE	AFL-CIO Committee on Political Education	pro-labor
LCV	League of Conservation Voters	pro-environmental
NSI	National Security Index of the American Security Council	pro-strong defense
NTU	National Taxpayers Union	pro-tax limitation

[19] See Weingast and Marshall (1988), Krehbiel (1990), Cox and McCubbins (1993), Mooney and Duval (1993), Groseclose (1994a, 1994b), Londregan and Snyder (1994), and Adler and Lapinski (1997).

[20] Both Krehbiel (1990, 1991) and Cox and McCubbins (1993) test the preference outlier theory against the null hypothesis that the committees are a random draw. Only Krehbiel appears to recognize that rejection of the preference outlier hypothesis against the random draw hypothesis is not sufficient to accept alternate theories.

[21] Our tests examine the results of party competition rather than the process of party competition. We look at the composition of the committees rather than the characteristics of members seeking to join the committees. Evidence on which members successfully join committees is explored by Weingast and Marshall (1988) and Cox and McCubbins (1993).

[22] All data is from the *Almanac of American Politics* (Barone et al., various years). The ratings used for each Congress are the ratings the congressman received in the even numbered year of the previous Congress. Thus newly elected congressmen are omitted from the analysis. In addition, the indexes reported in each year vary. The ACLU was unavailable for the 97th Congress, so the Public Citizen Watch (PCW) index was substituted. The COC index was unavailable for the 97th and 98th Congresses, so was replaced by the National Association of Business (NAB) index. The NTU index was unavailable for the 101st and 102nd Congresses and was replaced by the National Tax Limitation Committee (NTLC) index.

Hypothesis Tests

We test one main hypothesis and two other hypotheses that appear in the literature, one appearing explicitly, the other implicitly. For each committee and each rating, the test statistic is either the difference in medians, $d_{pq} = m_{pc} - m_{qf}$, or the ratio of standard deviations, $r_{AA} = s_{Ac}/s_{Af}$, where m_{pc} (s_{Ac}) is the committee median (standard deviation) for party p, and m_{qf} (s_{Af}) is the floor median (standard deviation) for party q, where $p, q = A$ (all members), D (Democratic members only), or R (Republican members only).

Our main hypothesis is that, from the standpoint of a given interest group rating, a committee will appear to be a random sample from the floor, i.e., H_0: $d_{DD} = d_{RR} = d_{AA} = 0$. We refer to this as the "random draw" hypothesis. The alternative hypothesis H_A is that at least one of these three terms is not equal to zero. The terms that are nonzero and the direction of the inequality characterizes the given committee as one of the following types:

(i) Confront (bipolar outlier): $d_{DD} > 0$ (≤ 0) and $d_{RR} \leq 0$ (> 0) (not both $d_{DD} = 0$ and $d_{RR} = 0$) for liberal (conservative) ratings.

(ii) Confront (bipolar outlier complement): $d_{DD} > 0$ (≤ 0) and $d_{RR} \leq 0$ (> 0) (not both $d_{DD} = 0$ and $d_{RR} = 0$) for conservative (liberal) ratings.

(iii) Accommodate (classical preference outlier): $d_{pp} > 0$ (≤ 0) and $d_{qq} \geq 0$ (< 0) (not both $d_{DD} = 0$ and $d_{RR} = 0$), with $p \neq q = D, R$, or $d_{AA} \neq 0$.

Separately, we test the informative committees hypothesis (Gilligan and Krehbiel 1987, 1989, 1990, 1994; Krehbiel 1990, 1991) or the representative-majority-party hypothesis (Cox and McCubbins 1993):

(*iv*) Informative Committees: $d_{AA} = 0$ and $v_{AA} = 1$.[23]

(*v*) Representative-Majority-Party: $d_{AD} = 0$.[24]

[23] If we ignore the ratio of standard deviations tests, Krehbiel's hypothesis is identical to the random draw hypothesis for the whole committee. Note that Krehbiel tested the ratio of variances, not the ratio of standard deviations. With the permutation method, each test would yield identical ASLs since the variance is simply the square of the standard deviations.

The Permutation Resampling Method

The statistical technique we used to test these hypotheses is the resampling method known as permutation (e.g., Noreen 1989).[25] The question that the permutation method addresses is: "Given the composition of the Congress, is it possible by random chance alone to obtain a committee with a median (or standard deviation) that differs from the floor median (or standard deviation) by the amount of the actual observed difference?" Unlike Groseclose (1994b), who also uses permutation, or sampling without replacement, we keep several structural characteristics of the Congress intact.[26] First, each committee is formed with the same number of Democratic and Republican members as actually appear on the committee. Second, each member appears on the same number of committees in each permutation as he or she is actually on. And third, each permutation committee, once formed, has each member endowed with the same *set of ratings* on whichever committees they serve. That is, each member is treated as though she or he is a vector of preferences over different policies, with the vector being represented by the member's ratings from different interest groups. Thus all committees are formed jointly, and each committee is composed of members with the complete set of attributes of the actual members of the floor, including ratings vectors and number of committee

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[24] This is a generous (perhaps incorrect) view of Cox and McCubbins' theory. Groseclose (1994b) interprets Cox and McCubbins as implying that $d_{DD} = 0$ for all committees and ratings. Cox and McCubbins themselves test the hypothesis that $d_{DD} = d_{RR} = 0$. However, it seems strange that the majority party would use its influence simply to ensure that the committees were representative of the entire Congress. Why not use its power to ensure that the committees are representative of the majority party? If this is the case, and if the minority party allocates its members to be representative of its party, then the majority party would allocate members in such a way as to move committees toward its preferred median.

[25] The method is similar to the bootstrap technique used by Mooney and Duval (1993) or Groseclose (1994a). However, while the bootstrap method assumes that both the committee and the floor are draws from a given distribution, the permutation method assumes that the floor is the true distribution. Thus the permutation method draws without replacement while the bootstrap draws with replacement, so no member is represented on the same committee more than once. Groseclose (1994b) uses the permutation method but with some differences from our approach as noted below.

[26] This feature has not been incorporated into other resampling tests in the literature. For example, the bootstrap technique (Mooney and Duval 1993, Groseclose 1994a) implicitly allows some members to serve on a committee more than once. In addition, by forming each committee independently, these authors and Groseclose (1994b) also implicitly assume that each member's ratings vector can be shuffled with other members. Thus, for example, the seat on a committee occupied by Ted Kennedy (a noted liberal) with respect to the ADA rating might be occupied by Jesse Helms (a noted conservative) for the ACU rating. Londregan and Snyder (1994) raise a similar point.

assignments.[27]

The algorithm works as follows. First, a random committee is chosen for each new potential member. We then check to see if that member is already on the committee (if so, pick a new randomly chosen committee), if the member is already on his or her full allotment of committees (if so, pick a new member), or if the party allotment for the committee is full (if so, pick a new committee). Only when all members have been placed on a set of committees, all committee slots are filled by party, and all members are placed on the exact number of committees on which they actually serve, is the *b*th pseudo committee system formed. The vector of test statistics $\{d_{pq}^b, r_{AA}^b\}$ is then formed for permutation $b = 1,\ldots,B$. The statistical tests are based on the empirical distributions of the d_{pq}^b (or r_{AA}^b) and the observed d_{pq} (r_{AA}). We report the *achieved significance level* (ASL), a measure of how extreme is the test statistic d_{pq} is. All ASL's are reported based on $B = 2{,}000$ permutations.[28] The ASL's are calculated as follows (Noreen 1989, pp. 14-19): If $d_{pq} > 0$, then $ASL(d_{pq}) = (nge + 1)/(B + 1)$, where nge is the number of d_{pq}^b observed to be greater than or equal to d_{pq}. If $d_{pq} < 0$, then $ASL(d_{pq}) = (nle + 1)/(B + 1)$, where nle is the number of d_{pq}^b observations less than or equal to d_{pq}. If $d_{pq} = 0$, then $ASL(d_{pq}) = \min[(nle + 1)/(B + 1), (nge + 1)/(B + 1)]$. The ASL for the ratio of standard deviations tests are conducted similarly, with $ASL(v_{AA}) = \min[(nge + 1)/(B + 1), (nle + 1)/(B + 1)]$.[29]

Results of Empirical Tests

In the Appendix we list the House medians for each of the ratings used for the 97th – 102nd Congresses. Table 1 presents difference in medians test results by party for the twenty-two standing committees using the general liberal rating (the ADA) and the policy specific ratings, including indices for labor (COPE), business (COC), environment (LCV), consumers (CFA), national security (NSI),

[27] Groseclose (1994b) claims (p. 447) to form each of the ten committees on which he tests the preference outlier hypothesis simultaneously. He apparently does not control for committee party memberships or for differences in the number of committees on which each member sits. He does not report whether or not this technique was used in his other hypothesis tests.

[28] Groseclose (1994b) used 20,000 permutations. Noreen (1989, pp. 58-61) provides evidence that 2,000 is sufficient to obtain significance at three decimal places on the ASL. We ran the 100th Congress with 10,000 permutations and there were no differences in the results of our hypothesis tests. The results presented in the tables are with 2,000 permutations for all Congresses.

[29] The ASL's are thus one-tailed measures.

tax reduction (NTU), and civil liberties (ACLU).[30] In each case the observed achieved significance level is reported and differences in medians that are significant in a two-tailed test at the 90% (*), 95% (**) and 99% (***) confidence levels are indicated.[31] In discussing the results we describe committees as being more "liberal" or more "conservative" than the House. A committee membership is more liberal (conservative) if it has a higher (lower) ACLU, ADA, CFA, COPE, or LCV median rating than the House or if it has a lower (higher) COC, NTU, NSI median rating than the House.[32]

In Table 1, we see that stacking occurs quite frequently. Democrats stack the District of Columbia, Education and Labor, Energy and Commerce, Foreign Affairs, Interior and Insular Affairs, Judiciary, Post Office and Civil Service, and Rules Committees with *liberal* members in two or more of the six Congresses but stack the Agriculture, Armed Services, Merchant Marine and Fisheries, and Veterans' Affairs Committees with *conservative* members in two or more of the six Congresses.[33] Republicans stack the Agriculture and Interior and Insular Affairs Committees with party conservatives but stack the Appropriations, Education and Labor, Merchant Marine and Fisheries, Post Office and Civil Service, and Science, Space and Technology Committees with party liberals.[34] Looking at the whole committee composition, we find evidence that the Appropriations, District of Columbia, Education and Labor, Foreign Affairs, House Administration, Judiciary, Post Office and Civil Service Committees are stacked with liberals and the Agriculture, Armed Services, and

[30] Similar results as those presented for the ADA rating were obtained using the general conservative rating ACU (American Conservative Union) but are omitted from our presentation to save space.
[31] This differs from many previous tests (e.g., Krehbiel 1990, Groseclose 1994b) that are one-sided tests. However, for the reasons mentioned in the theoretical section, there is no reason to believe that all committees will be preference outliers in the same direction. To conduct two-tail tests, we simply calculate whether the observed ASL is less than ½ of the critical level, i.e., the ASL is said to be significant at the 1% (5%) [10%] level if the reported ASL is less than 0.005 (0.025) [0.05].
[32] We only describe a committee as stacked in one direction or the other if the difference in medians is statistically significant in two or more Congresses since it is less likely that this could have occurred by chance.
[33] The Public Works and Transportation Committee is an outlier in two Congresses using the NTU rating, but the direction of the difference changes.
[34] In addition, the Banking, Finance and Urban Affairs Committee appears to be stacked with liberal Republicans in the 97th Congress by both the ADA and CFA ratings.

Veterans' Affairs Committees are stacked with conservatives.[35]

We summarize the results from Table 1 in Table 2. Democrats stack thirteen of the twenty-two standing committees (nine liberal, four conservative), Republicans stack eight committees (six conservative and two liberal), and twelve committees are preference outliers taken as a whole (nine liberal and three conservative). A total of fifteen committees have preference outliers by at least one of the parties in two or more Congresses. Accommodation appears to occur much more often than confrontation (thirteen out of fifteen committees rejecting the random draw hypothesis). Only the Interior and Insular Affairs committee regularly appears to be a bipolar outlier, although weaker evidence exists for the Judiciary Committee also being a bipolar outlier.[36] The Merchant Marine and Fisheries Committee appears to be a bipolar complement, with both parties stacking the committee with their moderate members.[37] Tables 1 and 2 show that the party competition model explains the organization of Congress well, with fifteen of the twenty-two standing committees demonstrating either accommodation or confrontation.

In Table 3, we present the ratio of standard deviations test of the informative committees hypothesis (i.e., H_0: $r_{AA} = 1$). These tests use the same set of ratings as the difference in medians tests from Table 1. Five committees show signs of being more homogeneous than the House across the six Congresses and various ratings. These include the Agriculture, Appropriations, Armed Services, Public Works and Transportation, and the Science, Space and Technology Committees. Three committees appear to be more heterogeneous than the House: the District of Columbia, Interior and Insular Affairs, and Judiciary Committees. Three other committees (the Education and Labor, Merchant Marine and Fisheries, and the Post Office and Civil Service Committees) sometimes appear more

[35] By two ratings (LCV and COC), the Energy and Commerce Committee as a whole is stacked with more liberal members in the 97th Congress, which is consistent with results from the Democrats. In addition, for the 97th Congress the Banking, Finance and Urban Affairs Committee is stacked with liberal members of both parties separately and taken together by both the ADA and CFA ratings, and the Public Works and Transportation Committee, which showed inconsistent results with the Democrats, appears as more liberal using the NTU rating for the 97th Congress by all three measures (Democrats only, Republicans only, and the whole committee).

[36] The Judiciary committee is stacked liberal by Democrats and on the whole committee in more than half of the Congresses. Republicans stack it conservative in the 100th Congress.

homogeneous and sometimes more heterogeneous than the Congress as a whole. At least nine of the committees provide evidence rejecting the hypothesis that the committees have similar standard deviations as the House. Furthermore, interpreting the informative committees hypothesis as requiring both $d_{AA} = 0$ and $v_{AA} = 1$ (see Tables 1 and 3) causes the hypothesis to be rejected in fifteen of the twenty-two standing committees. In addition, two of the three committees that consistently appear more heterogeneous, which Krehbiel (1990, 1991) considers to be supportive of the informative committees hypothesis, are ones previously identified as possibly bipolar preference outliers. Thus the informative committees hypothesis is strongly rejected.

Table 4 presents results of our test of the representative-majority-party hypothesis.[38] These results are not supportive of the hypothesis that $d_{AD} = 0$. On four committees, the Agriculture, Appropriations, Armed Services, and Veterans' Affairs Committees, there is consistent evidence that the committee is more conservative than the Democratic floor, and on two others, the District of Columbia and Rules Committees, the committee is more liberal than the Democratic floor. In addition, for five of the committees it sometimes appears that the committee is more liberal than the Democratic floor and at other times it appears that the committee is more conservative than the Democratic floor. Thus half of the twenty-two committees reject the hypothesis that the committee is representative of the Democratic floor, and in five of these cases, the committees show mixed evidence regarding the direction of difference between the committee and the Democratic floor.

4. Discussion and Conclusions

Weingast and Marshall (1988), building on earlier work by Niskanen (1971), Shepsle (1979), and others, sparked the debate on the committee outlier hypothesis by suggesting that members of Congress designed the institution for the purpose of ensuring their own reelection success. They

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[37] Weaker evidence can be found in Table 1 supporting the Science, Space and Technology Committee as also being a bipolar complement (rather than accommodate liberal, as indicated in Table 2). The Republican membership is stacked liberal by the LCV rating in four of the six Congresses, while the Democratic membership and the committee membership as a whole is stacked conservative in two separate Congresses using the ADA rating.

[38] Tables 1 and 2 provide evidence on Cox and McCubbins' (1993) and Groseclose's (1994b) test of the hypothesis that $d_{DD} = 0$. This hypothesis is rejected in two or more Congresses for fifteen of the standing committees.

argued that the committee system in Congress is perfectly suited to that purpose—it allows members control over policies important to their reelection, and it control opportunistic behavior by preventing bills unfavorable to the committee from being introduced, which, in turn, helps to enforce logrolling agreements between committees. However, they explicitly assumed the influence of political parties to be negligible. In retrospect, this omission is odd: if the committee system exists to meet its members' reelection needs, could not the party system exist for the same purpose? This paper answers that question in the affirmative. Our results show that political parties play an important, and empirically supported, role in the organization of the Congress.

A number of authors share our view of the importance of political parties in the workings of the Congress.[39] Our contribution has been to show how parties act as coordinator and arbitrator in the process of assigning seats on committees and that this contributes to understanding how the organization of Congress, including the party system, benefits its members. The underlying assumption of this model is that it is the role of parties to consider how opportunistic behavior by members of the opposing party, as well as by its own members, affects the reelection possibilities of party members. Thus it wishes to prevent reneging on logrolling between committees, since this sort of opportunistic behavior hurts the reelection chances of its members. Parties in our model are assumed to be the final voice on (new) committee assignments. Since parties want all members reelected, all members' interests are given positive weights in the party calculus. The objective of maximizing the well-being of the party is not necessarily in conflict with the interests of individual members wishing to ensure their own re-election. Indeed, re-election of members is necessary for party success. However, the party's role is to ensure that opportunistic behavior by some of its members does not cause more damage than those members are worth to the party. Parties are constrained in what they can and cannot do. Since individual members cannot be removed easily from committees, parties cannot easily discipline members for defecting from the party line. Indeed, this lack of credible enforcement of the party line is

[39] See Shepsle and Weingast (1994), and the other papers in that volume. Rhode (1994) in particular, shares this view, though he agrees with Krehbiel that the future research "should abandon the view of legislatures as institutions that are overwhelmingly preoccupied with distributive politics" (p. 352, quoting Krehbiel 1991, p. 258). Aldrich (1994) also emphasizes the role of party competition, though he focuses more on how parties participate in the amendment process once a committee bill has been presented to the floor.

the main reason that Weingast and Marshall assumed party influence to be negligible. However, what Weingast and Marshall miss is that how committees are set up in the first place affects how well the system can prevent opportunistic behavior.[40] It is this process that the present paper has examined.

We argue that there are three general classes of committees that can be formed. One class consists of committees in which there is accommodation by the parties, with preference outliers on the same side of the spectrum over-represented in both parties' committee memberships. However, these types of committees cannot all be preference outliers on the same side of the liberal-conservative spectrum, since stacking one committee to the right means that the complement needs be stacked to the left. Thus, classical preference outlier committees need be found on both sides of the spectrum. Furthermore, the success of these committees is ensured by having a "twin" to aid in the log roll. Since by definition a log roll can only occur on close votes, this type of committee will be able to garner support from its twin in exchange for support elsewhere. As in Weingast and Marshall, the gatekeeping and seniority aspects of committees helps ensure the institutional memory for such agreements.

A second type of committee in which parties play a big role is the class of committees on which there are preference outliers from opposite ends of the spectrum. In this type of committee individuals in the two parties are allowed to fight on issues of great ideological importance to each party. Because there is disagreement between the parties, the policies coming out of committee might be thought to be subject to reneging via challenges on the floor. Here seniority helps explain how the parties can have committees with real debate but still obtain results that are acceptable to the floor. Absent a seniority system the majority party may be capable of stacking a committee such that it can force an extreme policy out of the committee. However, this would simply be challenged on the floor, since parties cannot control voting behavior of their members but only changes to committee assignments. With a seniority system, so long as a few moderates remain in the majority party, the committee bill will end up as a moderate bill and will be able to survive challenges from the floor. This provides a rationale for minimal use of the closed rule—it is simply unnecessary.

[40] Indeed, one of the often stated criticisms of the preference outlier hypothesis is, if committees act to benefit

The third type of committee is the complement to the bipolar committee just discussed. On these committees, parties will appear to be using a bipolar strategy, but in the wrong direction—with the liberal party stacking the committee with its conservative members and the conservative party stacking it with its liberal members. On this type of committee, the membership will be centrist and more homogeneous than the floor.

Each type of committee we have just discussed appears not only in the Congress, as our evidence suggests, but also in other theories of how committees are formed. Our theory is a unifying framework that can explain each of the three types of committees. None of the other theories (the preference outlier, the informative committees, nor the representative majority party hypotheses) can explain all of the observed types of committees.[41]

To conclude, we concur with the opinion of Weingast and Marshall (1988) and others that the committee system in the Congress is set up to benefit its members' reelection goals. However, we believe that this theory is greatly enriched when the role of parties is recognized as fulfilling a complementary purpose—to ensure the reelection goals of its members by tempering opportunistic behavior via allocations of committee assignments.

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their own members, why does each committee not try to usurp the entire budget?

[41] The preference outlier hypothesis cannot explain the bipolar complement committee, and neither of the other theories can explain the accommodation classical preference outlier committees.

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Appendix

The following table gives the median ratings by Congress and by party for the period covered in the analysis. See the text for descriptions of the data used in the analysis.

Table A: Median Ratings by Congress by Party

		Rating								
Party	Congress	ADA	COPE	LCV	CFA	NSI	NTU	ACU	COC	ACLU
Whole House	97th	35	44	45	38	63	35	37	50	40
	98th	48	59	62	52	70	41	40	47	46
	99th	45	57	58	58	56	32	50	47	50
	100th	50	60	53	58	50	33	36	44	42
	101st	60	68	56	73	50	29	30	50	61
	102nd	53	67	63	72	50	59	33	43	48
House Democrats	97th	67	72	61	64	33	23	18	18	53
	98th	75	83	77	75	36	27	22	33	63
	99th	75	84	71	75	20	26	25	38	70
	100th	75	85	68	75	10	27	13	28	70
	101st	80	88	75	82	10	12	12	36	78
	102nd	78	88	75	89	20	35	13	29	70
House Republicans	97th	11	16	35	15	100	56	72	91	27
	98th	10	17	31	23	100	74	82	77	17
	99th	10	15	32	25	100	51	80	75	15
	100th	10	16	27	25	100	53	81	81	10
	101st	15	17	31	36	100	75	88	92	26
	102nd	11	16	38	44	100	95	82	79	9

Table 1: Difference in Medians Tests by Party, 97th – 102nd Congress

		Committee Democrats (H_o: $d_{DD} = 0$)						Committee Republicans (H_o: $d_{RR} = 0$)						Whole Committee (H_o: $d_{AA} = 0$)					
Committee	Rating	Congress						Congress						Congress					
		97th	98th	99th	100th	101st	102nd	97th	98th	99th	100th	101st	102nd	97th	98th	99th	100th	101st	102nd
Agriculture	ADA	-17	*-15	**-17.5	**-20	***-20	**-22	**-1	0	5	0	-5	-2.5	-7	-7.5	-5	-12.5	-10	-6
	LCV	-14	*-9.5	*-8.5	***-19	**-22	***-25	**-12.5	-8.5	-1	-6	0	**-25	-6	-9	**-9.5	**-16	*-12	***-25
	NTU	6	**11	***5	1.5	***14.5	***27.5	2	2	-3.5	-3.5	1	0	1	6	**5	**5	**13	12
Appropriations	ADA	5	0	0	0	0	5	0	5	5	2.5	2.5	0	9	0	5	5	5	3
	NTU	-3	-3	***-5	***-4	**-4	-6	-3	-5	***-10	**-9	***-12.5	**-9.5	-4.5	-3.5	***-5	***-6	*-12	-9
Armed Services	ADA	***-45	***-40	***-40	***-30	***-20	***-28	*-0.5	-5	-5	-2.5	0	0	***-18	***-27.5	***-25	***-25	**-12.5	**-20
	NSI	***51	***64.5	***60	***60	***50	***30	0	0	0	0	0	0	***37	***30	***44	***45	***40	**30
Banking, Finance & Urban Affairs	ADA	5	5	0.5	0	5	5	*14	5	7.5	-2.5	-5	0	*21	15	20	0	10	-3
	CFA	**15	2	0	0	0	2.5	*12	-3	4	-4	0	0	4.5	8	0	0	0	0
	COC	0	0	0	1	0	0	-8	5	-5	-6	0	0	-6.5	3	3	6	0	7
Budget	ADA	-3	5	10	5	5	5	0	5	0	-5	5	0	1	7.5	5	5	-10	8.5
	NTU	0.5	0	2.5	1.5	-0.5	-2	3	9	7.5	2	-2.5	-5	-3.5	-8	**6	2.5	7.5	2
District of Columbia	ADA	16	10	15	*20	**17.5	**22	0	3	5	-5	-5	-2.5	37	27.5	**40	15	**30	***41
	ACLU	**22	***33	*20	19.5	***20	**24	-0.5	-0.5	8	-5	-9	-2.5	***33	***46	***37.5	**37	***30	***40.5
Education & Labor	ADA	5	0	10	5	***15	11	0	15	***25	**15	**22.5	*14	1	20	**27.5	**22.5	10	**25
	COPE	5.5	*7	6	5	***7	***8	3.5	7	2	9	6.5	*10	3	*23	***26	**23.5	**21	***23
Energy & Commerce	ADA	11	5	5	0	2.5	5	*17	0	0	-5	-5	-2.5	21	15	5	5	0	3
	LCV	10	**10.5	7	**11	0	0	9.5	-5.5	-5	0	0	-6.5	***22	9	9.5	2.5	0	0
	COC	-7	0	-2	0	0	0	-8	4	-3	7	1	6.5	**-28	-5	-3	0	-4	3
Foreign Affairs	ADA	11	5	10	**12.5	5	11	*17	2.5	0	-5	*17.5	11	*26	22.5	20	15	15	**19
	NSI	**-22.5	-15.5	-10	-10	-10	-10	**-27.5	0	0	-5	*-10	**-20	-23	**-33.5	**-36	-25	*-30	**-28
	LCV	10	*9	***16	**11	6	*13	**17.5	9.5	11	11	10	**25	12.5	**14	***22.	***21	**19	***25

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Government Operations	ADA	2.5	-5	3	-2.5	7.5	0	6	7.5	0	-5	-5	11	-2	2.5	5	20	15	8
	NTU	4.5	3	2	1.5	1	-2	3	-11	*8.5	1	7.5	0	-2	2	-2	-3	*-13	-3
House Administration	ADA	5	-7.5	5	0	2.5	5	0	-5	0	-10	-5	-2.5	3.5	7.5	15	5	2.5	8
	NTU	-5	**-15	-2.5	-2	-4	-11	3	3	1.5	3	2.5	-9.5	-8	*-14	-2	-3.5	*-16.5	**-26

(Table continues on next page)

Table 1: Difference in Medians Tests by Party, 97th – 102nd Congress (continued)

		Committee Democrats (H_o: $d_{DD} = 0$)						Committee Republicans (H_o: $d_{RR} = 0$)						Whole Committee (H_o: $d_{AA} = 0$)					
Committee	Rating	Congress						Congress						Congress					
		97th	98th	99th	100th	101st	102nd	97th	98th	99th	100th	101st	102nd	97th	98th	99th	100th	101st	102nd
Interior & Insular Affairs	ADA	5	*10	10	10	0	5	5	0	-5	-5	-5	0	9	*-17.5	10	15	7.5	14
	LCV	**17	4.5	**15	7.5	0	6.5	-1	***-16	*-11	*-11	-12	*-25	7	-6	1	-5	0.5	12
Judiciary	ADA	0	10	10	7.5	10	5	3	0	-2.5	*-10	-5	0	-2	*22.5	15	15	**20	**19
	ACLU	2	***22	*15	**19	6.5	12.5	0	-7	-1	-5	-12	2	7	**21	***20	23	10	10
Merchant Marine & Fisheries	ADA	-6	-10	-10	*-15	*-7.5	*-17	***28	0	5	*10	7.5	6	9.5	7.5	-2.5	-10	-5	-9
	LCV	6	-3.5	-8	-3.5	-6	0	-2	2.5	-7	1	0	12	7	5.5	-5	-4	-3	0
	NTU	0.5	2	0	3.5	*7.5	10	**-13	**-18	*-7.5	*-8	-4.5	0	-5	-6.5	0	1	5.5	8
Post Office & Civil Service	ADA	8	5	*12.5	10	10	11	0	-5	2.5	10	**35	*19.5	*29	20	***37.5	**27.5	**25	*19.5
	COPE	***17	***9	***11	**8	***6.5	*5.5	-1	-4	5.5	12	**40	***34	***33	*19	**26.5	*25.5	*21	*20
Public Works & Transportation	ADA	-11	-5	0	0	0	-11	0	0	5	-2.5	-5	0	-10	-2.5	7.5	0	0	-9
	NTU	-1	0	1	**-2.5	0	*13	0	-1	-6.5	**-10	2	0	5	-1.5	-2.5	*-3.5	-7	4.5
Rules	ADA	5	-5	0	0	5	0	0	-2.5	-2.5	-5	7.5	0.5	18	12.5	25	15	15	14
	NTU	*-8	**-16	-2	1	5	-10	-1	7	-4	-4.5	-8	-2.5	**-15.5	*-17	-4	-2	-11	-21
Small Business	ADA	5	-2.5	0	-5	0	0	7.5	2.5	0	-5	-7.5	0	4	5	-7.5	-2.5	0	-3
	COC	-4	4	0	-3	*7	0	-18	-5.5	3	**13	1	0	5	0	1.5	-2.5	6	1.5
Standards of Official Conduct	ADA	-20	7.5	0	5	5	16	4.5	2.5	2.5	-5	7.5	6	-10	-12.5	-5	-12.5	-17.5	-9
	ACLU	-18	20	-2.5	7.5	9.5	**21.5	1.5	-6.5	0	-2.5	5	-0.5	-10	-6.5	-6	-12	-8.5	9
Science, Space & Technology	ADA	-6.5	-5	-5	**-12.5	-2.5	-8.5	14	5	5	0	0	0	9.5	-2.5	0	-5	7.5	*-11.5
	LCV	-5.5	-2.5	-7	-6.5	-6	-12	*13.5	4.5	*16	***21	**19	-6.5	8	3	4.5	7	7	-6.5
Veterans' Affairs	ADA	**-34	-10	*-15	-10	-5	**-25	0	0	5	-5	5	6	-13	-2.5	0	-12.5	-5	-14
	NSI	***56	4.5	5	10	10	*20	-11	0	-10	0	0	0	**26	10	22	20	10	**40
Ways & Means	ADA	-17	5	0	0	0	5	0	-2.5	0	0	12.5	0	4	2.5	1	0	15	11
	NTU	1	-2	-1	1	2	*-10	1	8.5	0.5	6	0.5	-5	0	5	-0.5	1	-3	-10

Notes:—A positive sign on the test statistic d_{pp} means the committee party median rating is larger than the House party median rating. The achieved significance level (ASL) are not reported (they are available from the authors). However, significance in a two-tail test is indicated by asterisks (***significant at the 1% level; **significant at the 5% level; *significant at the 10% level). See text for a description of the data used in the analysis and a description of the ASL calculations. All tests based on $B = 2{,}000$ permutations.

Table 2: Characterization of Committees

Committee	Difference in Medians Tests			Committee Type
	Democrats (H_o: $d_{DD} = 0$)	Republicans (H_o: $d_{RR} = 0$)	Whole Committee (H_o: $d_{AA} = 0$)	
Agriculture	Conservative	Conservative	Conservative	Accommodate (Conservative)
Appropriations	Liberal	Liberal	Liberal	Accommodate (Liberal)
Armed Services	Conservative	--	Conservative	Accommodate (Conservative)
Banking, Finance & Urban	--	--	--	Random Draw
Budget	--	--	--	Random Draw
District of Columbia	Liberal	--	Liberal	Accommodate (Liberal)
Education and Labor	Liberal	Liberal	Liberal	Accommodate (Liberal)
Energy & Commerce	Liberal	--	Liberal	Accommodate (Liberal)
Foreign Affairs	Liberal	Liberal	Liberal	Accommodate (Liberal)
Government Operations	--	--	--	Random Draw
House Administration	--	--	Liberal	Accommodate (Liberal)
Interior & Insular Affairs	Liberal	Conservative	--	Confront (Bipolar Outlier)
Judiciary	Liberal	--	Liberal	Accommodate (Liberal)
Merchant Marine & Fisheries	Conservative	Liberal	--	Confront (Bipolar Complement)
Post Office & Civil Service	Liberal	Liberal	Liberal	Accommodate (Liberal)
Public Works & Transportation	Conservative/Liberal	--	--	Random Draw
Rules	Liberal	--	Liberal	Accommodate (Liberal)
Small Business	--	--	--	Random Draw
Standards of Official Conduct	--	--	--	Random Draw
Science, Space & Technology	--	Liberal	--	Accommodate (Liberal)
Veterans' Affairs	Conservative	--	Conservative	Accommodate (Conservative)
Ways & Means	--	--	--	Random Draw

Notes:—See Table 1 for the test statistics. The difference in medians tests are labelled "Liberal" ("Conservative") if the ACLU, ADA, CFA, COPE, or LCV difference in medians tests are significantly positive (negative) in *two or more* of the six Congresses, or if the ACU, COC, NSI, or NTU difference in medians tests are significantly negative (positive) in two or more of the six Congresses. ("Conservative/Liberal" means the tests yielded both results with different ratings or different Congresses.) For each of the hypotheses, a double-dash ("--") indicates acceptance of the null hypothesis.

Table 3: Ratio of Standard Deviations Tests of the Informative Committees Hypothesis

Committee	Rating	Congress					
		97th	98th	99th	100th	101st	102nd
Agriculture †	ADA	0.92	**0.86	***0.85	**0.86	***0.86	***0.80
	LCV	1.11	0.99	0.96	*0.88	0.90	1.07
	NTU	0.97	0.91	0.84	0.84	*0.90	***0.67
Appropriations †	ADA	1.03	0.96	**0.93	0.93	0.98	1.04
	NTU	**0.78	0.98	***0.77	0.91	**0.87	0.84
Armed Services †	ADA	**0.87	**0.87	***0.84	***0.87	0.94	**0.91
	NSI	***0.81	***0.83	***0.79	***0.84	***0.89	**0.93
Banking, Finance & Urban Affairs	ADA	0.97	1.03	0.97	1.00	1.05	1.06
	CFA	1.00	1.04	0.96	1.01	1.02	1.08
	COC	0.96	1.01	1.00	0.93	0.98	1.00
Budget	ADA	0.97	1.05	1.06	1.01	1.01	1.02
	NTU	0.91	*1.12	1.09	1.03	1.01	0.84
District of Columbia †	ADA	1.18	1.03	1.01	1.19	**1.32	***1.40
	ACLU	1.23	*1.27	1.03	1.20	**1.36	***1.39
Education & Labor ‡	ADA	1.07	0.89	**0.88	0.92	0.94	1.00
	COPE	1.06	1.03	1.05	1.03	*1.11	1.08
Energy & Commerce	ADA	0.96	1.08	1.09	1.06	1.05	1.08
	COC	0.99	1.08	1.02	1.09	1.02	**1.11
	LCV	1.01	1.03	1.02	1.07	1.05	0.99
Foreign Affairs	ADA	0.98	0.97	1.02	1.04	0.93	1.00
	LCV	0.90	0.93	0.97	0.96	0.94	*0.85
	NSI	0.98	1.03	0.98	1.00	0.98	0.96
Government Operations	ADA	1.04	0.96	1.05	0.96	1.01	0.98
	NTU	1.02	0.86	1.11	0.91	0.98	0.95
House Administration	ADA	1.08	0.91	1.06	1.07	1.03	1.03
	NTU	1.04	*1.19	1.07	1.13	1.07	0.87
Interior & Insular Affairs †	ADA	1.08	**1.12	***1.15	**1.15	1.06	1.09
	LCV	1.08	***1.20	***1.22	***1.26	*1.13	***1.25
Judiciary †	ADA	1.08	*1.11	***1.15	**1.16	***1.16	1.09
	ACLU	1.10	**1.19	**1.16	**1.15	1.12	1.07
Merchant Marine & Fisheries ‡	ADA	0.96	0.92	*0.92	**0.85	0.92	*0.90
	LCV	*1.14	0.92	1.00	0.97	0.98	1.01
	NTU	0.87	0.86	1.04	0.85	0.92	1.73
Post Office & Civil Service ‡	ADA	1.09	1.10	1.09	0.96	0.84	0.92
	COPE	***1.20	*1.12	1.00	0.92	**0.78	0.87
Public Works & Transportation †	ADA	0.92	0.95	1.01	1.01	1.02	**0.90
	NTU	1.00	0.90	0.98	*0.84	1.04	**0.77
Rules	ADA	0.98	1.00	1.05	1.02	0.92	1.04
	NTU	0.93	1.21	0.85	0.80	0.95	0.91
Small Business	ADA	0.97	0.96	1.03	0.98	1.05	1.00
	COC	0.98	0.93	1.04	**1.12	1.01	0.97
Standards of Official Conduct	ADA	0.76	1.06	1.00	1.04	1.02	1.19
	ACLU	0.84	1.22	0.99	1.08	1.07	*1.22
Science, Space & Technology †	ADA	0.93	0.92	0.93	0.96	0.94	0.94
	LCV	0.93	0.94	**0.83	**0.83	**0.82	1.13
Veterans' Affairs	ADA	0.97	1.01	0.94	0.94	0.99	**0.85
	NSI	0.89	1.02	0.94	1.00	1.00	0.96
Ways & Means	ADA	0.98	1.05	0.97	1.01	0.95	1.02
	NTU	0.90	1.03	1.05	**1.17	1.02	0.94

Notes:—The null hypothesis is H_o: $r_{AA} = 1$. The achieved significance level (ASL) is not reported (they are available from the authors). However, significance in a two-tailed test is indicated by asterisks (***significant at the 1% level; **significant at the 5% level; *significant at the 10% level). † Indicates rejection of the null hypothesis in two or more Congresses with a consistent direction. ‡ Indicates rejection of the null hypothesis in two or more Congresses with an inconsistent direction.

Table 4: Tests of the Representative-Majority-Party Hypothesis

Committee	Rating	Congress					
		97th	98th	99th	100th	101st	102nd
Agriculture †	ADA	-39	-35	-35	-37.5	-30	-31
	LCV	-22	-23.5	**-23	**-31	*-31	***-37
	NTU	13	20	**11	**11	**30	36
Appropriations †	ADA	-23	-27.5	-25	-20	-15	-22
	NTU	7.5	10.5	***1	***0	*5	15
Armed Services †	ADA	***-50	***-55	***-55	***-50	**-32.5	**-45
	NSI	***67	***64.5	***80	***85	***80	**60
Banking, Finance & Urban Affairs	ADA	*-11	-12.5	-10	-25	-10	-28
	CFA	-21.5	-15	-17	-17	-9	-17
	COC	25.5	17	12	22	14	21
Budget	ADA	-31	-20	-25	-20	-30	-16.5
	NTU	8.5	6	**12	8.5	24.5	26
District of Columbia †	ACLU	***20	***29	***17.5	**9	***13.5	***19
	ADA	5	0	**10	-10	**10	***16
Education & Labor ‡	ADA	-31	-7.5	**-2.5	**-2.5	-10	**0
	COPE	-25	*-1	***-1	**-1.5	**1	***2
Energy & Commerce	ADA	-11	-12.5	-25	-20	-20	-22
	COC	**4	9	6	16	10	17
	LCV	***6	-5.5	-4	-12.5	-19	-12
Foreign Affairs ‡	ADA	*-6	-5	-10	-10	-5	**-6
	LCV	-3.5	**-0.5	***9	***6	**0	***13
	NSI	7	**1	**0	15	*10	**2
Government Operations	ADA	-34	-25	-25	-5	-5	-17
	NTU	10	16	4	3	*4	21
House Administration ‡	ADA	-28.5	-20	-15	-20	-17.5	-17
	NTU	4	*0	4	2.5	*0.5	**-2
Interior & Insular Affairs ‡	ADA	-23	*-45	-20	-10	-12.5	-11
	LCV	-9	-20.5	-12.5	-20	-18.5	0
Judiciary ‡	ACLU	-6	**4	***0	-5	-6.5	-11.5
	ADA	-34	*-5	-15	-10	**0	**-6
Merchant Marine & Fisheries	ADA	-22.5	-20	-32.5	-35	-25	-34
	LCV	-9	-9	-18.5	-19	-22	-12
	NTU	7	7.5	6	7	22.5	32
Post Office & Civil Service ‡	ADA	*-3	-7.5	***7.5	**2.5	**5	*-5.5
	COPE	***5	*-5	**-0.5	*0.5	*1	*-1
Public Works & Transportation	ADA	-42	-30	-22.5	-25	-20	-34
	NTU	17	12.5	3.5	*2.5	10	28.5
Rules †	ADA	-14	-15	-5	-10	-5	-11
	NTU	**-3.5	*-3	2	4	6	3
Small Business	ADA	-28	-22.5	-37.5	-27.5	-20	-28
	COC	37	14	10.5	13.5	20	15.5
Standards of Official Conduct	ADA	-42	-40	-35	-37.5	-37.5	-34
	ACLU	-23	-23.5	-26	-40	-25	-12.5
Science, Space & Technology	ADA	-22.5	-30	-30	-30	-12.5	*-36.5
	LCV	-8	-11.5	-9	-8	-12	-18.5
Veterans' Affairs †	ADA	-45	-30	-30	-37.5	-25	-39
	NSI	**56	44.5	58	60	50	**70
Ways & Means	ADA	-28	-25	-29	-25	-5	-14
	NTU	12	19	5.5	7	14	14

Notes:—The null hypothesis is H_o: $d_{AD} = 0$. The achieved significance level (ASL) is not reported (they are available from the authors). However, significance in a two-tailed test is indicated by asterisks (***significant at the 1% level; **significant at the 5% level; *significant at the 10% level). † Indicates rejection of the null hypothesis in two or more Congresses with a consistent direction. ‡ Indicates rejection of the null hypothesis in two or more Congresses with an inconsistent direction.

Figure 1: The Joint Consequences of Confrontation on Committee *A*

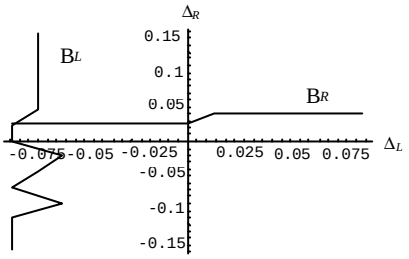
Notes:—Each horizontal pair of diagrams corresponds to a particular magnitude of Δ_R and Δ_L. In panels (a) and (b), each party stacks Committee *A* by the maximum possible Δ_p. In panels (c) and (d), each party stacks committee *A* by 2/3 of the maximum possible Δ_p. In panels (e) and (f), each Party stacks Committee *A* by 1/3 of the maximum possible Δ_p. The panels on the left correspond to committee *A*, the panels on the right to committee *B*. In each panel, the grey lines correspond to a homogeneous committee and the black lines to a stacked committee. Solid lines correspond to the distribution of the whole committee, long-dashed lines to the committee distribution for party *R*, and short-dashed lines to the committee distribution for party *L*.

Figure 2: The Joint Consequences of Accommodation on Committee *A*

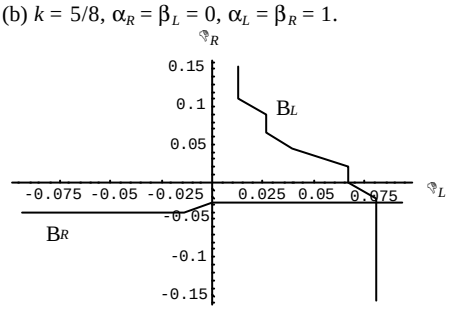
Notes:—Each horizontal pair of diagrams corresponds to a particular magnitude of Δ_R and Δ_L. In panels (a) and (b), each party stacks Committee *A* by the maximum possible Δ_p. In panels (c) and (d), each party stacks committee *A* by 2/3 of the maximum possible Δ_p. In panels (e) and (f), each Party stacks Committee *A* by 1/3 of the maximum possible Δ_p. The panels on the left correspond to committee *A*, the panels on the right to committee *B*. In each panel, the gray lines correspond to a homogeneous committee and the black lines to a stacked committee. Solid lines correspond to the distribution of the whole committee, long-dashed lines to the committee distribution for party *R*, and short-dashed lines to the committee distribution for party *L*.

Figure 3: **Best-Response Functions for Various Party Shares and Party Policy Weights**

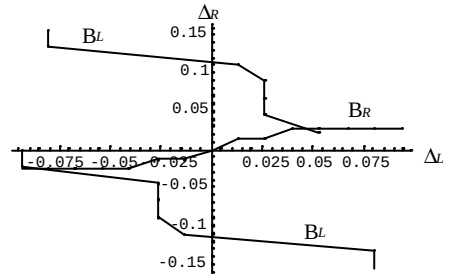
(a) $k = 5/8$, $\alpha_R = \beta_L = 1$, $\alpha_L = \beta_R = 0$.



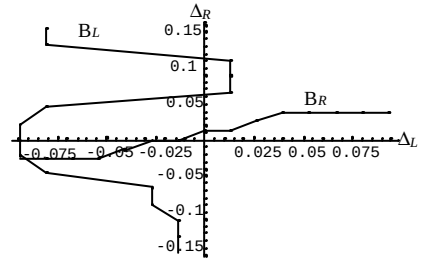
(b) $k = 5/8$, $\alpha_R = \beta_L = 0$, $\alpha_L = \beta_R = 1$.



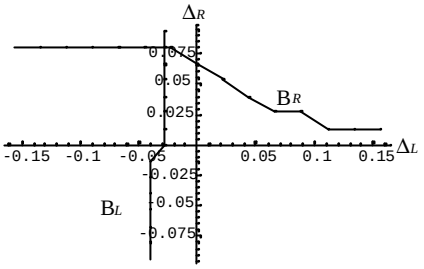
(c) $k = 5/8$, $\alpha_R = \beta_L = \alpha_L = \beta_R = 1/2$.



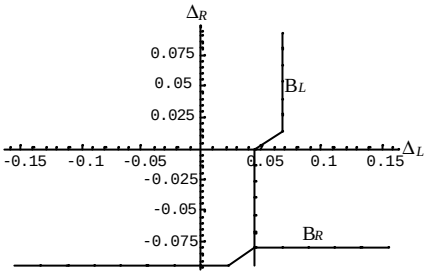
(d) $k = 5/8$, $\alpha_R = \beta_L = 2/3$, $\alpha_L = \beta_R = 1/3$.



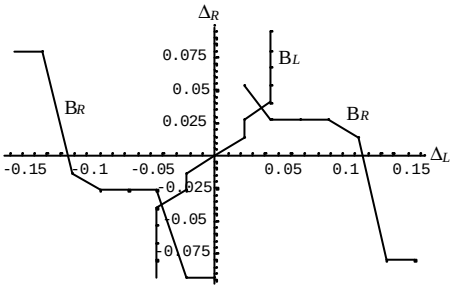
(e) $k = 3/8$, $\alpha_R = \beta_L = 1$, $\alpha_L = \beta_R = 0$.



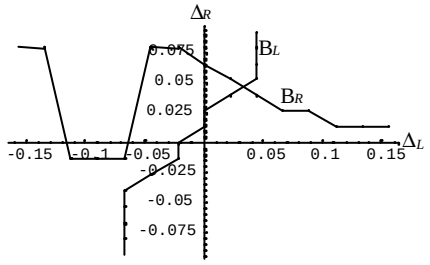
(f) $k = 3/8$, $\alpha_R = \beta_L = 0$, $\alpha_L = \beta_R = 1$.



(g) $k = 3/8$, $\alpha_R = \beta_L = \alpha_L = \beta_R = 1/2$.



(h) $k = 3/8$, $\alpha_R = \beta_L = 2/3$, $\alpha_L = \beta_R = 1/3$.



Notes:—These figures show the best response functions (B_R and B_L, for parties R and L, respectively) based on an extrapolation over fifteen discrete points. The choice variables Δ_L and Δ_R are the amounts by which each party stacks committee A ($\Delta_p > 0$) or committee B ($\Delta_p < 0$). The parameter k is the share of the legislature held by party R. The α_p and β_p parameters are the weights party p places on policies A and B, respectively. Panels (a), (b), (e) and (f) show each party accommodates the other when the parties care only about the opposite policies from one another. Panels (c) and (g) show the parties confront one another (with multiple equilibria) when each party has intense preferences for the same policies. Panels (d) and (h) show that the parties accommodate one another when preferences for opposite policies are weighted by a ratio of 2:1.