*A Rational Choice Perspective on Congressional Norms**

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This paper begins with a contrast between the conclusions of theoretical and empirical work on distributive policymaking. The former predicts that a minimum winning coalition will make public policy; the latter reveals universal or unanimous coalitions. This paper presents a model whose predictions conform to empirical findings. It first defines a "Distributive Legislative Game" and then shows that the set of minimum winning coalitions is the core of the game. To explain the observation of unanimous coalitions, it is shown that another game, the "Universalism Legislative Game," which allows *only* the coalition of the whole, dominates the previous game in the sense that the ex ante expected benefits are higher for all legislators. The observed "norm" of universal coalitions in Congress is thus interpreted as legislators choosing the rules of the game to maximize their expected benefits.

Theoretical work by several authors suggests that a minimum winning coalition (*MWC*) will determine the decisions of a legislature making distributive policy (Riker, 1962; Buchanan and Tullock, 1962; Riker and Ordeshook, 1973; Aumann and Kurz, 1977; see also Bott, 1953). These scholars conclude that the majority will adopt distributive policies that benefit themselves at the expense of the minority. These authors also predict that majorities will be of the barest possible size, since *MWC* maximizes the per capita gains for the winners.

Empirical studies of Congress uniformly find that the *MWC* prediction is simply wrong. Nearly all studies report that members of legislatures seek unanimity and are reluctant to exclude minorities from the benefits of distributive legislation (e.g., Ferejohn, 1974 on Public Works; Fenno, 1966 on Appropriations; Fenno, 1972 on Interior; Manley, 1970 on tax policy; Schattschneider, 1935 on the traditional tariff; and Froman, 1967 on member's private bills). This phenomenon is referred to as the universalism

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norm.[1] Even in the more general case of legislative party relations, studies have repeatedly shown that the majority parties in Congress attempt to work with the minority parties rather than to override them (e.g., Fenno, 1966, p. 164; Ferejohn, 1974, chaps. 8 and 10; Manley, 1969; Mayhew, 1966; and Froman and Ripley, 1965).

This paper presents a modification of the theory of the legislature which retains the assumption of self-interested maximizing behavior, but yields predictions consistent with empirical observation. In addition, this perspective suggests rationales for other features of Congress that are commonly reported in the empirical literature: the existence of various "norms," "roles," and "expectations." These features are interpreted as the informal rules or institutions of the legislature. It is argued that rules will be chosen which further the interests of the legislators. This point will be returned to in the final section following the discussion of the choice of a universalism norm. The next few sections attempt to resolve the above paradox by showing why this particular norm is chosen.

Prevailing Theories

A policy is distributive if the benefits accruing to one area can be varied without affecting the benefits received by other areas. Such policies exhibit high divisibilities so they can be disaggregated and dispensed unit by unit, thereby concentrating the benefits while spreading the costs through general taxation. These policies are in contrast to "public goods" which must be provided to all citizens or to none. The term was originally coined for nineteenth century land policies, but as Lowi (1964, p. 690) notes, it can be

> easily extended to include most contemporary public land and resource policies; rivers and harbor ('pork barrel') programs; defence procurement and R & D; labor, business, and agricultural 'clientele' services; and the traditional tariff.[2]

[1] This paper follows Mayhew and Polsby in distinguishing between "universalism" and "reciprocity." The former is used to describe unanimous inclusion of representatives' projects in omnibus-type legislation produced by one committee; the latter is used as representatives' deferential behavior toward the legislation of other committees. See Mayhew (1974, p. 114) and Polsby (1968). This distinction is made because the phenomena and their rationales are different. Compare this paper with the discussion of reciprocity in Weingast (1978). Most authors do not distinguish between these phenomena. For example, see Matthews (1960, compare pp. 99–100 with p. 147) and Froman (1967, compare pp. 15–17 with p. 22).

[2] The categorization of public policies as either distributive, regulatory, or redistributive is developed in this article.

In analyzing distributive policies, formal theories of legislative behavior concentrate upon the consequences of simple majority rule. To develop the context of these models, consider a legislature with N members, each with a consistent set of preferences over policies and outcomes.[3]

The legislature can be modeled as an n-person cooperative game. It is a majority rule game with some special features, and will be called the Distributive Legislative Game (*DLG*). It is represented as follows. Each representative, i, proposes a project or program with total benefits b, total costs c, and $b > c$.[4] Further, suppose that the benefits from the ith project accrue solely to district i and that the taxation system spreads the costs evenly over all districts. Notice that the *DLG*'s taxation mechanism restricts the possibilities for side payments. This feature, along with the lack of the zero sum condition, distinguishes the *DLG* from the simple majority rule games analyzed by Riker and Buchanan and Tullock.

The vector valued characteristic function is

$$v_i(S) = b - \frac{|S|}{N}c \qquad \text{for } i \in S, |S| > \tfrac{1}{2}N$$

$$v_i(S) = -\frac{|S|}{N}c \qquad \text{for } i \notin S.$$

Thus, if i is a member of the winning coalition, he receives the benefits of his project, b, and pays his share of the total costs which is one-Nth of $|S|$ projects, each of which costs c. If i is not a member of the winning coalition, he pays his share of the total costs and receives no benefits.

If a single legislator proposes his project, it will be defeated by $N - 1$ votes to one vote (the payoffs to all other districts are negative). Since no single project will be authorized, legislators may turn to a logrolling mechanism. In this context, logrolling is the process by which groups of representatives cooperate to pass each other's projects. Any coalition composed of more than half the legislators can assure passage of their projects and is called a winning coalition.

[3] N is assumed to be an odd number throughout. This is solely for ease of exposition; all of the results hold if N is even.

[4] The results which follow necessitate the assumption that each legislator's proposal has the same benefits and costs. See Fiorina (1978).

Both Riker and Buchanan and Tullock, analyzing a zero sum majority rule game, conclude that coalitions will be of minimum size, or $\frac{N+1}{2}$ legislators. That is, the set of *MWC* is identified as the "solution" to the legislative game and is considered to be stable in the following sense. All that is needed to ensure an outcome is the barest of majorities. If a set amount is to be divided up, increasing the number of members in the coalition will serve only to decrease the payoff to some or all of the members of the winning coalition. If a coalition forms that is bigger than the minimum size, then a subset (i.e., another coalition) of these legislators can increase their own payoff by excluding some members of the larger coalition. Which of the many minimum winning coalitions will actually form is not suggested; the theory merely predicts that the winning coalition that does form will be in this set.

Several scholars question whether *MWC* characterizes majority rule decisions on theoretical grounds (e.g., Butterworth, 1971; Frolich, 1975; Shepsle, 1974). However, these criticisms pertain to analysis of a zero sum majority rule game with side payments. The following proposition shows that these criticisms are irrelevant in the current context. Because the zero sum condition is not imposed and because the taxation mechanism of the *DLG* restricts side payments in a particular manner, a much stronger rationale exists for considering the *MWC* as the solution set.

> *Proposition 1:* Assuming that each legislator seeks to maximize the net benefits which accrue to his district, the set of *MWC* constitutes the core of the *DLG*. Further, any coalition not in this set is dominated by all members of this set.

Proof: Throughout, let $S \in MWC$ and let $A \notin MWC$. One coalition dominates another if its members comprise a majority (i.e., it is winning) and if these members prefer this coalition over the other.
Case I: $|A| < |S|$. By definition, S is minimum winning, so A cannot be winning; therefore, S defeats A. Case II: $|A| > |S|$. $\forall\, i \in S$, either $i \in A'$ or $i \in A \cap S$, where A' is the complement of A. To show dominance, simply note that all $i \in S$ prefer S to A. If $i \in A'$, he prefers S since

$$b - \frac{|S|}{N}c > -\frac{|A|}{N}c;$$

If $i \in A \cap S$, he prefers S since

$$b - \frac{|S|}{N}c > b - \frac{|A|}{N}c.$$

Conversely, no $S \in MWC$ is dominated by A (s.t. $|A| > |S|$). Case III: $|T| = |S|$. Finally, no $S \in MWC$ strictly dominates any other $T \in MWC$. Since S and T each comprise more than half the members, $S \cap T \neq 0$. $\forall i \in S \cap T$, i is indifferent between the two coalitions because they both yield the same payoff. Q.E.D.

Thus, the set of *MWC* possesses an important stability property in the *DLG* which doesn't hold for simple majority rule games. This result serves as compelling reason to suppose that *MWC* characterizes outcomes of *DLG*. Any winning coalition which is not minimum can be beaten by a *MWC*; that is, a majority of members always prefers a minimum winning coalition to any other. Further, once an *MWC* forms, no other coalition can upset it. This last property does not hold in the contexts analyzed by Riker (1962) and Buchanan and Tullock (1962).

Modifying the Theory

The preceding theory fails to explain universalism, i.e., the tendency to seek unanimous passage of distributive programs through inclusion of a project for all legislators who want one. Indeed, this tendency constitutes evidence against the model. In exploring the observed data, it becomes apparent that the model fails to give consideration to an obvious feature of a representative process—the payoffs to a representative and to his district may differ. While the district may wish to enrich itself at the expense of the rest of the country, the representative wishes to retain the prestige and power which accompanies continued membership in the legislature. This feature, when explicitly incorporated into a model of the legislature, destroys the *MWC* theory and gives rise to the norm of universalism.

The model that follows is based upon several assumptions. The first is that representatives seek reelection. Although this need not be an end in itself, it is necessary to continue the utility derived from the prestige and power of a membership in the legislature.[5] The second assumption is that

[5] See Fenno (1972) for a more general discussion of legislators' goals. In Fenno's scheme, the reelection goal is but one of three goals. Mayhew (1974, Part I) places the assumption of single purposeful behavior in context by discussing its advantages and disadvantages.

districts respond positively to beneficial legislation: the greater the net benefits received by the district the more likely they are to reelect their representative. Further, decisions made by the electorate are based on the net benefits accruing to them without consideration of the effects on other districts. While the model distinguishes the intentions of the electorate and the representatives, it does assume that their interests are related: the representative seeks to be returned to office and his electoral fortunes are related to the benefits he brings home to his district. The more successful he is at getting projects built, the greater his chances of remaining in the legislature.

The major implication of these assumptions for the analysis of distributive policy is that representatives pursuing their own interests will prefer institutional arrangements (or norms) which increase their chances of success in gaining benefits for their districts. Universalism is such an institution. Rational self-interested legislators have compelling reasons to prefer decision making by maximal rather than minimal winning coalitions.[6]

Since different rules define different legislative games, the choice between various institutions is a choice between games. The Universalism Legislative Game (*ULG*) is an alternative legislative institution to compare with *DLG*. Assume, again, that each legislator has a project worth b to his district with costs c ($b > c$) which are spread across all districts through general taxation. Further, *ULG* allows each legislator to include his project in an omnibus-type proposal.

The legislators, in choosing their operating rules, must decide which game to play, *DLG* or *ULG*. Each legislator will evaluate the alternatives in terms of the *ex ante* expected payoffs.[7]

Consider the decision of legislator i. Under *ULG* his district's payoffs are known with certainty and are $b - c$ (which is the benefits minus the district's share of the total costs, or one Nth of N projects which cost c).

In contrast, outcomes under *DLG* are characterized by *MWC*. The net payoff to the districts of the *MWC*'s members will be $b - \frac{(N+1)c}{2N}$

[6] The following argument provides a rationale for Mayhew's claim:

> On legislators supplying particularized benefits, two points may reasonably be made. The first is that it is vital for members to win victories; a dam is not good unless it is authorized and built. The second is that winning victories can be made quite easy. The best way for members to handle the particularized is to establish universalistic standards (Mayhew, 1974, p. 114).

[7] The following decision calculus is actually a special case of the Deegan-Packel Index (Deegan and Packel, 1977). More generally, see Plott (1972) for a discussion of individual choice among constitutional provisions. See also Roth (1977).

which is the benefits from the project minus the district's share of the total costs (or one Nth of $\frac{(N+1)c}{2N}$). The payoff to the legislator is a greater chance of reelection for ensuring a project for his district.

For members not in the coalition, the payoff to their districts will be negative. They pay their share of the total costs, $\frac{1}{N}$th of $\frac{N+1}{2}c$ projects for a net payoff of $-\frac{(N+1)c}{2N}$. For these legislators, the payoff is an increased chance of defeat for having obtained a negative payoff for the district.

A priori, of course, no legislator can be sure that he will be a member of the winning coalition, and hence of how distributive programs affect his chance of reelection. From this standpoint, if all such coalitions are equally likely,[8] any given legislator has a $\frac{(N+1)}{2N}$ chance of being in the winning coalition.[9]

[8] Though an unrealistic assumption because it ignores institutional features such as parties, committees, seniority, etc., this assumption is commonly employed in probability models of legislative behavior. For example, see Rae (1969), Taylor (1969), Curtis (1972), Badger (1972), and Schofield (1972).

[9] Proof that if all coalitions are equally likely, the probability of inclusion for any given members is $\frac{N+1}{2N}$. Let $M = \frac{N+1}{2}$ be the minimum number which comprises a majority. The total number of minimum winning coalitions is $\binom{N}{M}$. The total number of minimum winning coalitions in which a given representative is not a member is $\binom{N-1}{M}$. Thus, $1 - \frac{\binom{N-1}{M}}{\binom{N}{M}}$ is the probabilitiy that a given representative will be included in the minimum winning coalition which eventually forms. Reducing, this becomes

$$1 - \frac{\frac{(N-1)!}{M!\,(N-1-M)!}}{\frac{N!}{M!\,(N-M)!}} = 1 - \left(\frac{N-M}{N}\right) = \frac{N+1}{2N}.$$

The following theorem shows that under these circumstances all legislators will prefer *ULG* to *DLG*.

> *Universalism Theorem:* If legislators maximize the net benefits which accrue to their districts, and if all minimum winning coalitions are equally likely, then *ULG* dominates *DLG* for all legislators (i.e., the expected net benefits are greater under *ULG* than *DLG* for all legislators).

Proof: Let EP_D be the expected payoff under *DLG* for legislator i. If $i \in MWC$, then his payoff is $b - ac$ where $a = \frac{(N+1)}{2N}$; however, if $i \notin MWC$, then his payoff is $-ac$. Since his chances of being included in the MWC are $\frac{N+1}{2N} = a$ (see footnote 9 for the derivation of this result),

$$\begin{aligned} EP_D &= a(b - ac) + (1 - a)(-ac) \\ &= ab - a^2c - ac + a^2c \\ &= a(b - c). \end{aligned}$$

Next, let EP_U be the expected payoff under *ULG*. This yields legislator i $b - c$ in all cases (i.e., $EP_U = b - c$). Finally,

$$\begin{aligned} EP_U - EP_D &= (b - c) - a(b - c) \\ &= (1 - a)(b - c) > 0. \end{aligned}$$

Q.E.D.

Under *ULG*, the expected payoff to each district is greater than under *DLG*, and moreover, each legislator is more likely to be reelected.

The pursuit of reelection is not the only reason legislators would rationally choose to institutionalize and maintain a tradition of unanimous coalitions.[10] In addition to increasing the *ex ante* probability of reelection, unanimity reduces the uncertainties they face if *MWC*s are to be formed. Risk averse legislators presumably favor reductions in their risk of defeat. Also, institutionalizing the coalition of the whole reduces the time and energy used to negotiate the formation of the winning coalition. This time can be used pursuing actions related to other objectives of the members.

Once universalism has been accepted as an institutional rule, the legis-

[10] The question of maintenance will be pursued shortly.

lator must decide whether to include a project (previously, the decision also included the choice of a strategy to become part of the *MWC*). This decision can be modeled as a noncooperative game and has a Nash equilibrium solution. The choice is whether to propose a project, given that all other districts are getting a project. As long as the project brings a net benefit to the district, it is in the interests of the representative to propose one.

Consider again N legislators indexed by i. Each could propose a project bringing benefits, b_i, and costs, c_i. The decision for any legislator, j, is between the following strategies: (1) Propose a project and receive net benefits $b_j - \frac{1}{N} \times (\Sigma_i c_i)$; or (2) Fail to propose a project and simply bear the district's share of all other costs $-\frac{1}{N} \times (\sum_{i \neq j} c_i)$.

Strategy (1) is preferable to (2) as long as b_j is greater than $\frac{1}{N} c_j$ or, in words, the benefit/cost ratio of the project is greater than $1/N$. Thus the equilibrium strategy is a project for every district as long as one can be found that provides benefits that exceed $1/N$th of the costs.

A natural objection to the preceding analysis poses short-term against long-term rationality. In the long-term all the legislators do better under universalism. But in the short-term what prevents an impetuous group of legislators from proposing a bill with projects for just a bare majority? Obviously, a universalistic rule must include further features that give individual legislators an incentive to follow the rule at all times. What "maintenance mechanisms" are there to support this norm?

One possible answer lies in the procedural rules and institutional structure of the legislature. For example, a rule may be adopted to prevent poaching. If a member attempts to remove a project by floor amendment or otherwise obstruct the process, then remove his project instead. Though this rule is rarely needed, it is invoked on occasion. Ferejohn reports that Senator Proxmire's attempts to reduce the pork resulted in the curtailment of his pet project (Ferejohn, 1974, pp. 114–5). More recently, Senator Buckley of New York proposed a series of amendments removing a project or two for every state from the public works legislation. Only the two amendments removing projects from New York passed. Similarly, this rule provides potential penalties to a member seeking to build a *MWC*. Those

who make the attempt may only make themselves worse off through the exclusion of their district's project.[11]

A second, noninstitutional factor inhibits attempts to form *MWC*s: the repetition inherent in the legislative process. In the next session a new *MWC* might form. If exclusion from the legislative benefits implies a much greater risk of defeat, then legislators will be even more reluctant to make the attempt for short-run gain out of fear of losing next time.

In order for the legislature to adopt universalism, legislators must perceive that the benefits of projects generally exceed the costs. Assuming each legislator's project has the same benefits, b, and costs, c, the proposal to adopt universalism yields net benefits to each legislator of $b - \frac{1}{N} \times NC$, in contrast to *MWC* expected benefits of $\frac{N+1}{2N} b - \frac{N+1}{2N} c$. The former exceeds the latter only if b is greater than c. Hence a rational legislator will vote to adopt universalism only if the expected benefits are positive. Yet this conclusion is at odds with scholarly observations of many distributive policies. The very term "pork barrel" connotes expenditures that are not economically warranted. Empirical studies abound with examples of public works for which the "benefits" exceed the costs only because of the wildest assumptions that lie behind the calculations.

Two factors help explain why universalism persists after the objective basis for its adoption has vanished. First, over time, projects are chosen with successively lower rates of return. This reflects rational legislators choosing those projects with the greatest net benefits first. As the process continues, the net benefits of the projects decline and eventually become negative.

Once universalism is adopted, cooperative action by all legislators is no longer required, and each proposes his projects individually. As the projects being proposed no longer meet the criterion $b > c$, the process takes on the familiar form of the prisoner's dilemma. Acting individually, legislators will still continue to propose projects (until $b < \frac{1}{N} c$, since each

[11] A full exposition of the institutions supporting universalism is beyond the scope of this paper. See Ferejohn (1974) for a discussion of the actual rules supporting the Public Works legislation.

district bears only one *N*th of the costs of its own projects). Consequently, the institution may remain after it has ceased producing net benefits.

Constituents will not necessarily find it rational to hold their representative responsible for the persistence of pork after the entire program ceases to provide them with net benefits. A representative is only one vote in the legislature. Acting by himself, though perhaps making a valiant attempt (as either Proxmire or Buckley may have been doing), one vote is not likely to alter policy. At the same time, as long as he goes along, he retains the ability to get his district its share which partially negates the liability of the entire program. As Noll and Fiorina argue, constituents may indeed be satisfied with this type of role as long as there is some advantage to incumbency. If voters perceive their ability to change the system, acting through their legislator, to be negligible, it is rational for them to (reluctantly) approve of this role.[12]

Second, the political benefits and costs may differ from the economic benefits and costs. This explanation remains vacuous without a particular model of how these systematically differ. The following discussion suggests but one way in which this might occur.[13]

Legislators rarely receive 100 percent of the vote.[14] Sixty percent is usually considered a large plurality. Since most districts are not composed of a homogeneous group of constituents, representatives cannot hope to capture 100 percent of the vote. A legislator is successful in obtaining reelection if he builds a majority coalition or constituency within his district. The basis of this coalition is an amalgam of positions on issues, including issues other than distributive programs, such as regulatory or redistributive policies.[15] Thus a representative may consciously choose a supporting constituency that contains only a comfortable majority of the district population. This implies that the institution of universalism may continue even though the net return on projects is negative. If a representative has built a supporting constituency that represents, say 60 percent of his district,

[12] Noll and Fiorina (1978) develop this point in greater detail in the context of a formal model. For an interesting interpretation on the changing role of representatives from policymakers to errand boys, see Fiorina (1977a, 1977b).

[13] Developing models of the divergence between the economic and the political costs and benefits deserves greater attention. Two outstanding approaches not discussed in the text are Hinich's study of food regulation by the FDA and Haveman's work on the Army Corps of Engineers. See Hinich (1975) and Haverman (1965).

[14] This section relies on Fenno (1977) and Fiorina (1974).

[15] See Lowi (1964) for discussion of this classification.

then projects with negative rates of return may still be included if the benefits can be concentrated among the supporting coalition, and if $b > .6c$ for all legislators.[16]

Eventually, electoral incentives will favor removing pork barrel expenditures when net benefits become sufficiently negative. A new cooperative action may remove or alter the nature of the now counterproductive institution, thereby increasing the flow of net benefits to the constituencies. This can be accomplished by canceling the program or by altering its scope and jurisdiction. The latter alternative has the potential to widen the set of possible projects to include some with positive net benefits.

Indeed, widening the scope of the process rather than dismantling a committee's jurisdiction has occurred frequently in recent years. As Ferejohn reports, "The Corps' function has expanded . . . dramatically in the last thirty years. Projects for the protection of wildlife, the construction of recreation facilities, the improvement of water supply and quality, and the stimulation of regional economic development have all been authorized by Congress for the Corps of Engineers during this time period . . . This expansion has enabled the Corps to avoid cutting back its budget and staff as earlier functions have declined in importance" (Ferejohn, 1974, p. 8). In particular the recent amendments to the Water Pollution Control Act (1956 and especially 1972) authorizing construction of sewage treatment plants gave the Corps a boost as their more traditional function has become less valuable.

These modifications to the theory of the legislature provide a rationale for the pork barrel as a structure to serve member goals. It further predicts that this system cannot remain unaltered indefinitely. The process must either be halted entirely or dramatically changed once the total system becomes inefficient.

Policy Consequences

In addition to affecting member goals differently from unmodified majority rule, universalism has an effect on policy outcomes. In the case of no constituency differentiation within the district, the pork barrel system

[16] If the benefits are perfectly concentrated among the legislator's supporters then the cost to the supporters is 60% of $(\frac{1}{N})Nc$. Consequently, they receive positive net benefits at the expense of the rest of the district and all other districts if $b > .6c$.

becomes an electoral liability once the benefits are no longer greater than their costs. This provides an incentive to alter the process as was discussed above. In contrast, under *MWC* the process will not become a liability until the benefits are less than $\frac{(N+1)}{2N}\%$ of the costs. Since $\frac{N+1}{2}$ projects are built under *MWC*, a district receiving a project pays only $\frac{1}{N}$ of $\frac{N+1}{2}c$. Consequently, the net benefits to the district are positive if $b > \frac{N+1}{2N}c$. This implies that pork barrel will continue longer under unmodified majority rule than under universalism. Alternatively, more inefficiency (or pork) is possible under *MWC* than universalism.

The results remain if the possibility of the political rewards differing from the economic rewards is assumed. Recall that a congressman who has built a supporting constituency of 60 percent of his district receives positive benefits under universalism as long as $b > .60c$.[17] With this supporting constituency, under *MWC* rules, a project will yield positive political rewards of $b > \frac{N+1}{2N} \times .60c$ or $b > .6\frac{(N+1)}{2N}c$. (e.g., if $N = 100$, then $.6\frac{(N+1)}{2N}c < \frac{1}{3}$.)

The conclusion that simple majority rule allows more inefficient policies than unanimity is not new. Buchanan and Tullock (1962, pp. 10–14, and chap. 5) argue that unanimity is required to ensure that only efficient projects will be chosen. Their conclusion and the results of this paper are derived from similar models so this inconsistency is not surprising.

The literature is not fully supportive, however. Barry (1965, pp. 250–56, 317–18) argues that unanimity has the greatest potential for pork since it distributes a "veto" to every voter. Each individual, pursuing his own self-interest, is likely to demand special benefits in return for his cooperation. Unanimity maximizes the pork if all voters pursue this strategy. However, in terms of the rational actor paradigm, this argument makes little sense. If all voters pursue the strategy of choosing a project such that $\frac{1}{N}c$

[17] Thus, the political net benefits are $b - .6c$.

$< b < c$ then any one individual can make himself better off by vetoing the whole proposal. Since all are demanding pork, the payoff to any individual voter will be $b - \frac{1}{N} \times Nc = b - c < 0$; vetoing the whole collection yields him zero.[18]

One possible way of interpreting Barry's (1965) claim is to examine a legislature where the majority rule is qualified to allow a subset of voters a veto.[19] Those legislators possessing veto power may be able to extract more pork than unmodified majority rule. For example, assume majority rule subject to only one legislator's veto. This legislator must be in the *MWC* which forms, and may demand more projects than any other legislator, potentially increasing the pork barrel. A more detailed investigation of this social choice rule is beyond the scope of this paper.

Conclusion

This paper provides an instrumental basis for the social-psychological norms observed in most real world legislatures. In doing so, it follows Fenno and others in interpreting these norms as the informal structure or rules of the legislature.[20] In the *Power of the Purse*, Fenno begins the discussion of the House Appropriations Committee's structure in these terms.

[18] Pennock (1970) disagrees with Barry's (1965) arguments and supports Buchanan and Tullock (1962). See also Ferejohn (1974, "Conclusion") for a further contrast between the two approaches.

[19] It is possible Barry had this in mind. He writes,

> The nearer a system comes to requiring unanimity for decisions, the more prevalent we may expect to find the 'pork barrel' phenomenon. The United States comes nearer to a "unanimity system" than any other Western democracy; it also suffers most from the "pork barrel" problem. . . . (1965, p. 317).

In the above example, the individuals with the veto power are the relevant committee chairman, ranking minority member, president, etc.

[20] Arrow (1963) argues similarly for the case of medical ethics; Harsanyi (1969) presents an insightful rational choice interpretation of social norms and values; and Barry (1970) devotes most of *Sociologists, Economists and Democracy* to contrasting the rational choice approach against the sociological. The first two scholars, and Barry at times, provide a partial synthesis of the two approaches. They interpret social values or norms within the rational choice framework as rules governing behavior. As such, the rules must be explained in terms of the benefits and costs which they provide for the group and the individuals following the rules. Schelling (1963) argues a similar thesis.

> In the first place, the Committee must develop an institutional decision-making structure. In the second place, the Committee must maintain or stabilize the decision-making it created. (p. 127) . . . The basic elements of the Committee's internal structure are its differentiated roles . . . Roles consist of clusters of norms (p. 128).

Next,

> The idea of control mechanisms completes the definition of an operative norm. Two such mechanisms are of special importance to the Committee on Appropriations. The first is the socialization process . . . the second is the sanctioning mechanisms applicable to all members of the Committee which operates to reward the observance of appropriate norms and punish deviations from them (p. 208).

As argued here, legislators find it in their own self-interest to establish norms and form institutions to further their goals. Observing that different institutions imply different outcomes, which affect member goals differentially, a rationale exists for establishing one set of norms over another.[21]

This perspective suggests possible explanations for other norms discussed in the literature. The informal rules of the legislature further collective goals and individual members' goals. Consider the dual norms of specialization and reciprocity which support the committee system.[22] These norms foster the development of legislative expertise in a specific area so that complex proposals on diverse subjects can be considered simultaneously. Consequently the Congress as a whole need not consider each bill and individual representatives need not study and research the details of all legislation. The reciprocity rule provides the incentives to specialize by delegating the decision power of the legislature in a particular area to a specific committee. Individual members thereby gain greater influence in a particular area. Since representatives tend to be members of committees related to their constituency's interests (Fenno, 1973), members can use this influence to shape policies closer to their constituency's needs or preferences than if these policies were to be drafted by a random collection of members.[23] Individual legislators consequently have an incentive to support

[21] Mayhew (1974) devotes the second half of his excellent essay to a discussion of how the structure of Congress is designed to further member goals.

[22] For a further elaboration on the rational choice perspective on the reciprocity system, see Weingast (1978).

[23] Fenno (1966) makes a similar argument for the House Committee on Appropriations. One of the Committee's prime methods of controlling spending under Chairman Cannon was to assign members to subcommittees unrelated to their districts' interests. See Ferejohn (1974, Chap. 9) for evidence supporting this claim in the case of pork barrel legislation.

the committee system by following the reciprocity rule. Thus, like the universalism norm, the specialization and reciprocity norms have an effect on a representative's electoral fortunes and on the nature of the policies written by the legislature.

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