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LEGISLATIVE FACILITATION OF GOVERNMENT GROWTH:
UNIVERSALISM AND RECIPROCITY PRACTICES IN MAJORITY RULE INSTITUTIONS*

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I. INTRODUCTION AND BACKGROUND

Majority Rule, Universalism, and Reciprocity

Theorists generally agree that majority rule institutions do not provide an economically optimal supply of public goods. They find less agreement, however, on the nature of the departure from optimality. Anthony Downs (1957, 1960) argues that democratic governments typically do "too little," a claim which follows primarily from his focus on informational imperfections in real world political processes.¹ In contrast, Buchanan and Tullock (1962) contend that democratic governments do "too much." Their models presume perfect information and exploit the divergence between benefits and costs characteristic of many public programs.

More recent research suggests that questions of whether majority rule institutions do too little or too much are fundamentally unanswerable. Not only is majority rule generally indeterminate (Plott, 1967), but in the absence of equilibrium literally any outcome is possible (McKelvey, 1976; Schofield, 1976).² Thus, while one can say that majority rule is inefficient (by virtue of its

indeterminacy), it does not appear that one can address the characteristics of the inefficiency.

Given the preceding background the obvious question is whether one can say anything about legislative stimuli for public sector growth. Fortunately, the answer is yes, and the reason is that purported majority rule institutions often do not function as theory might lead us to expect. Democratic assemblies are a prime case: while it is formally correct to refer to them as majority rule institutions, it is empirically misleading to take that characterization too seriously. I am not referring merely to the decentralization often found in such bodies. Theoretically majority rule still holds at each stage. In the U.S. House of Representatives, for example, a subcommittee majority can report a bill to the full committee, a majority of which may modify it and report it to the floor (usually via a majority of the Rules Committee) where a majority can again modify it and send it to the Conference (an interesting sub-institution wherein a majority of each chamber's conferees must approve the compromise which will be reported back to their respective chambers). I am referring instead to the fact that even at the separate stages of a decentralized legislative process scholars have identified patterns seemingly inconsistent with notions of majority decision. Two such patterns which deserve the attention of this conference are universalism and reciprocity.

Universalism is synonymous with the phrase "something for everyone." In Congress we usually do not find bare majorities carrying a decision -- minimal winning coalitions exploiting maximal

losing ones. Instead we find floor coalitions of extraordinary size and sometimes virtually unanimous committees. The traditional pork barrel bills are the classic case. According to Ferejohn (1974) the typical public works omnibus bill contains something for 350-400 congressional districts. The recent "Park Barrel" bill was estimated to have a direct effect on more than 260 districts, as well as spillovers into neighboring districts (LA Times, Congressional Record, June 26, 1978, H6059-H6073).

Reciprocity is the expectation that concerned or otherwise involved minorities should have their way. At the committee or subcommittee level reciprocity requires a policy of mutual noninterference if not mutual support. Among individuals reciprocity demands at a minimum that members not oppose colleagues' proposals which have no significant impact on their own districts.

The existence of universalism and reciprocity has been recognized in the empirical literature for quite some time. Matthews (1960) addressed both in his classic account of the early postwar Senate, though he failed to make a clear distinction between the two. Fenno (1962) contains an excellent discussion of reciprocity in the Appropriations process. Ferejohn's (1974) discussion of the Public Works process implies that reciprocity is widespread. Mayhew (1974) contains the most thorough discussion of universalism as well as references to a far-flung empirical literature. Just what universalism and reciprocity are is less certain. The earlier writers (Matthews and Fenno) regard them as real (though subjective) phenomena: internalized norms which constrain members' behavior.

Later authors (e.g. Mayhew) regard universalism and reciprocity as reflections of (at least tacit) agreements entered into by utility-maximizing legislators. Weingast (1978) in fact formalizes such a view of universalism. I will not dwell on the distinction here, except to note the obvious fact that what we think universalism and reciprocity are depends on why we think they exist, a matter I'll return to below. For the moment let us characterize universalism and reciprocity as "practices" or "arrangements"; these terms fall somewhere between "norms" and "agreements."

The implication of universalism for government growth is obvious, that for reciprocity somewhat less so. Though we may not be able to say much about the outcome of pure majority rule, the situation is not so wide-open when we consider majority rule transformed by universalism. Take any particular government activity. Majority rule states that the legislature might undertake that activity at some level in anywhere from 0-435 congressional districts. Traditional economic theory states that the legislature should undertake that activity at some level in somewhere between 0 and 435 districts. Universalism implies that the legislature will undertake that activity at some level in all or nearly all 435 districts. The odds are very high that majority rule as modified by universalism will depart from efficiency in the direction of over-production of public goods and services, or in short, economically excessive government activity. And indeed, some observers consider many public sector activities associated with universalism to be economically unjustified even in the very weak sense of unitary cost-benefit ratios (Ferejohn, 1974).

Reciprocity often will stimulate government growth, but it does not do so unaided. It is commonly argued that the committees which are the primary beneficiaries of reciprocity are systematically unrepresentative of the parent body. Specifically, they are dominated by members who have high demand for the activities within the committee's jurisdiction (Niskanen, 1971). Examples from recent history are common. The Interior Committees have been the domain of representatives from economically undeveloped districts (usually in the West) who worked to obtain national subsidization for their development efforts. The Agriculture Committees have been run by representatives who sought national subsidies for particular agricultural sectors. The Banking Committees have attracted representatives from urban areas who favored national subsidization of housing, urban renewal, etc. By allowing such committees a relatively free hand, reciprocity almost certainly produces excessive government involvement in a given area. Whatever the optimal level of an activity, it is doubtful that it will consistently be near the maximum demand for that activity, which is what reciprocity tends to produce.

As I indicated, there are exceptions to the preceding account of the workings of reciprocity. Take the Judiciary Committees during the 1950s and 60s. These committees attracted both the high demand group (Northern liberal Democrats with Black constituents) and the low demand group (Southern Democrats from racist districts). Each had an equally direct stake in Civil Rights legislation. A priori, one cannot say that reciprocity would produce greater government involvement in such a context. And in fact, it is in just such

contexts that we do not observe reciprocity. Rather, reciprocity is associated with committees whose members have a direct, compatible interest in the committee's jurisdiction especially where nonmembers have only an amorphous taxpayer interest.

Some Finer Distinctions

The preceding discussion of reciprocity hints at several distinctions it will be useful to recognize before moving on. It may clarify matters to consider differences among types of public policies and associated differences among kinds of government growth.

Lowi (1964) has tried to specify the outlines of three differing policy arenas.³ The first, distributive politics, refers to the classic case of particularized benefits and generalized costs. Water projects, federal buildings, urban renewal projects, research grants, neighborhood health centers, etc. are examples, as are traditional industry specific tariffs. The second arena Lowi terms regulatory politics. In this arena policy proscribes or commands specific actions on the part of individuals and firms. Such constraints supposedly produce general benefits (i.e. in the public interest) and impose general costs. The third arena is that of redistributive politics. All economists and many political scientists have trouble with this one: distributive and regulatory activities almost certainly have redistributive implications. Lowi appears to distinguish distributive from redistributive in terms of the scale of the effort. Redistributive involves shifts from capital to labor or at least richer to poorer. White to Black or

young to old might also qualify. Large scale reallocations of resources across demographic or income categories would seem to define redistributive, whereas smaller scale reallocations across geographic categories appear to define distributive.⁴

Imperfectly associated with Lowi's three policy arenas are three types of government growth which I will label size, intrusiveness, and scope. Size is the traditional concept of government growth. How many government employees are there? How big is their payroll? What portion of GNP is accounted for by government? Intrusiveness refers to the degree that government policy diminishes individual freedom of action. Assuming zero enforcement costs an increase in the intrusiveness of government would not necessitate an increase in size, but given the error of that assumption growth along the two dimensions will be positively correlated. Finally, scope refers simply to the different spheres in which the government is involved. Again, an expansion in scope will necessarily entail an expansion in size, but scope and intrusiveness are less closely related.

I suggest that an increase in government activity in some distributive policy area necessarily entails only an expansion in government size. If we build more dams, we pay higher construction and operating costs. Redistributive policy, in contrast, necessarily entails only an increase in the intrusiveness of government: those redistributed from have less freedom than before.⁵ But note that a shift from a flat or proportional income tax to a progressive one need not require an increase in the size of the revenue collection agency

(assuming no increase in cheating as a result of the change). The instruments we choose to effect redistribution do entail growth in government size, but in principle they need not.⁶ Regulatory policy, finally, involves both the obvious increase in the intrusiveness of government and an increase in the sheer economic weight of the regulatory apparatus. Consider land use planning, drug regulation, auto safety regulation, etc.

An expansion in government scope, of course, can occur in any of the three policy arenas. In the distributive arena we can (and have) proceeded from water projects to urban renewal projects to local health, counseling and training projects. In the redistributive arena one could imagine a progression from a tax on personal earned income all the way to a general tax on wealth. And in the regulatory arena we have seen a steady expansion from regulation for the public health and safety to commercial practices to product quality to employment and organizational membership decisions and almost to the proscription of father-son and mother-daughter social functions.

To return to the main lines of our discussion universalism and reciprocity are usually associated with the distributive arena and for reasons to be mentioned later, the older regulatory arena. The great legislative battles in which a narrow, carefully constructed legislative majority triumphs over a large, intense majority generally center around policies which fall in the regulatory or redistributive categories. Examples include Full Employment (Bailey, 1950), Federal Aid to Education (Eidenberg and Morey,

1969), Civil Rights (Wolfinger, forthcoming), and Medicare (Marmor, 1973). Indeed, committees such as House Education and Labor whose workload includes a high proportion of proposed redistributive legislation have drawn scholarly attention in large part because of their apparent failure to follow universalism and reciprocity practices (e.g. Fenno, 1971).

Thus, in focusing on universalism and reciprocity we implicitly focus on distributive policy, and based on my earlier arguments, the size dimension of government growth.

Two Possible Bases for Universalism and Reciprocity

Earlier I referred to different conceptions of the nature of universalism and reciprocity. These differing conceptions of what universalism and reciprocity are correspond to different conceptions of why they exist. The older conception (internalized norms) is rooted in the notion of the legislature as a sociological institution. Legislators are members of a collectivity which has a task to accomplish (i.e. a "function" to perform). A subcommittee should draft an appropriations bill, a full committee should defend its product on the floor, a chamber should approve effective laws etc. Universalism and reciprocity facilitate the performance of such functions. Universalism minimizes sources of petty bickering (nobody gets left out). Reciprocity buttresses the Committee-seniority-expertise system (Fenno, 1966). To elaborate, complexity and size of workload have forced the modern legislature to implement a division of labor--the committee system. Seniority ensures that

experienced (i.e. expert?) members chair committees. Reciprocity provides the incentive which makes the system work. If uninformed and uninformed members felt free to upset the careful work of the committees, the latter would have little incentive to specialize in their particular jurisdictions, and the overall quality of legislation would suffer. The following delightful exchange from the recent debate on the "Park Barrel" bill illustrates this older, policy-neutral view of internal legislative arrangements:

Mr. Skubitz (R., Kansas) (Ranking Republican, House Interior Committee):

Mr. Chairman, I would like to ask the chairman of the subcommittee a question. In the opinion of the subcommittee, does the gentleman not think that if 95 to 98 percent of the projects we have here were brought out in the old process of having them one at a time, that they would all be passed by this body anyway?

Mr. Burton (D., California) (Chairman, Subcommittee on Parks and Territories):

Mr. Chairman, if the gentleman will yield, absolutely.

Mr. Skubitz:

What we tried to do was to lump them all together so that this body might act once in a few hours rather than spend days and weeks on these projects.

Mr. Burton:

The gentleman is absolutely correct.

--(Congressional Record, June 26, 1978, H6061)

The newer conception of universalism and reciprocity (more or less conscious agreements) rests on the more cynical assumption that legislators seek individual goals, chiefly reelection, primarily and collective goals secondarily, if at all. The probability of reelection is enhanced by the procurement of projects for the district, a task which is easier under universalism than majority rule (Mayhew, Weingast), and also by the appearance of "clout" produced by reciprocity. Hence universalism and reciprocity are voluntary (if tacit) agreements by legislators whose primary goal is to remain legislators.

The older view of the specific effects of universalism and reciprocity is widely accepted, and in my opinion largely valid. But many of us have come to doubt that minimizing individual unhappiness and buttressing the Committee-seniority-expertise system necessarily, or even usually produces high quality legislation. Rather, those effects of universalism and reciprocity serve a different purpose--the individual goals of the members as supposed in the newer view. The *raison d'être* of universalism and reciprocity is not so much to facilitate the work of a majority rule institution as to alter the pattern of outcomes from that which legislators might expect a majority rule institution to produce.

This paper focuses on the newer conception of universalism and reciprocity, a controversial conception, and one which as yet is purely theory rather than fact (purely speculation rather than theory in the case of reciprocity). Why do we observe patterns seemingly indicative of universalism and reciprocity? What model(s) of individual goal-seeking behavior predicts such observations? We will begin by considering the properties of simple majority rule in the distributive arena, both as background for those unfamiliar with the theoretical results and as a check on the common opposition that universalism, reciprocity, or both are inconsistent with simple majority rule.

II. DISTRIBUTIVE POLICY-MAKING: ON THE TRAIL OF UNIVERSALISM

Notation, Definitions, Assumptions

We begin with a set $L = \{\ell_1, \dots, \ell_\ell\}$, of legislators, $|L| = \ell > 4$.

When a set W , $|W| = w > \frac{\ell}{2}$ of legislators supports a proposal we call W a winning coalition, and if $|W| = \frac{\ell}{2} + 1$ (ℓ even) or $\frac{\ell+1}{2}$ (ℓ odd), we term W a minimal winning coalition and signify it by M , $|M| = m$.

Assume that each ℓ_i wishes the legislature to authorize a project with benefits, $b_i \geq 0$ and costs, $c_i > 0$. These proposals are not the outcome of a strategic calculation but arise naturally from the preferences of constituents.

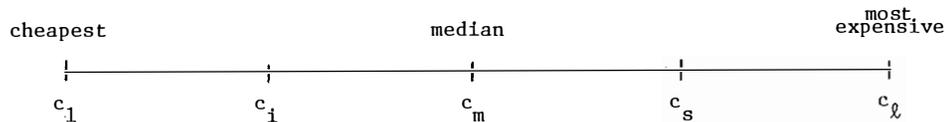
Secondly, assume that each district is assigned a tax share, $t_i > 0$, prior to the decisionmaking, i.e. t_i is constant and exogeneous to the project authorization process. Given that we are in the realm of distributive politics b_i accrues exclusively to the constituents of l_i whereas c_i is borne by the districts of all l_j in proportion $t_j c_i$. The budget is balanced: $\sum_{j=1}^l t_j c_i = c_i \forall c_i$.

Assume thirdly that legislators are primarily interested in reelection and that constituents support legislators on the basis of the net benefits of legislative decisions to the districts. In short, l_i seeks to maximize

$$b_i - t_i \sum_{j \in P} c_j \quad \text{where } P \text{ is the set of approved projects} \quad (1)$$

l_i will carry out this maximization by (1), seeking to get legislative approval for his project, (2) working against the approval of all other projects, or more generally, working to minimize the total cost of all projects authorized. Clearly, l_i will only propose his project if $b_i \geq t_i c_i$. We assume this always holds.

All projects can be arrayed along a costliness dimension:



Projects more costly than the median will be termed expensive; all other projects will be termed cheap.

Finally, the minimal winning coalition composed of legislators l_1 to l_m (projects c_1 to c_m) is called the cheapest minimal winning coalition, and denoted by M^C .

Distributive Politics Under Unconstrained Majority Rule

If the projects of individual l_i are considered sequentially (i.e. separately) all projects fail by votes of $l-1:1$ because each legislator maximize net benefits to his district by voting against all projects but his own. The series of projects constitutes a succession of binary (aye-nay) decisions, and since majority rule is well-behaved on two element sets, this case presents no ambiguity. The unique majority rule outcome is the disapproval of all projects which we will signify by Z , the zero project outcome.

Tullock (1970), Weingast (1978) and others contend that legislatures will escape the no project outcome by communicating and forming logrolling coalitions which will result in the approval of w projects, one for each member of the coalition. Thus, the meaning of a proposal now shifts from a single project to an omnibus, an l -vector of ones and zeroes where ones identify the legislators who receive projects. It is now well-known, however, that such processes are notoriously unstable. The operative theorem in this case is that of Kadane (1972).

In the terminology I have introduced, Kadane shows that if legislators have separable, single-peaked preferences over each of a series of policy choices (e.g. proposals), then either Z is the equilibrium of the logrolling process, or the latter has no equi-

brum and Z is an element of the top cycle.⁷ Thus, if the logrolling process yields a stable outcome, it will be no different from the sequential voting process, i.e. Z ; otherwise, the outcome of the logrolling process is unpredictable. Still, perhaps we can say something by considering briefly the dynamics of the logrolling process.

Assume Z is not in equilibrium.⁸ Then, Z is vulnerable to any winning coalition such that

$$b_i - t_i \sum_{j \in W} c_j > 0 \quad \forall_i \in W .$$

That is, any omnibus which yields positive net benefits to a majority of members defeats Z . This "positive net benefits" requirement holds only at the initial stage (the defeat of Z), however. Note that W itself is vulnerable to any cheaper winning coalition W' (larger or smaller) such that

$$b_i - t_i \sum_{j \in W'} c_j > b_i - t_i \sum_{j \in W} c_j \quad i \in W \cap W' , \quad (2a)$$

$$b_i - t_i \sum_{j \in W'} c_j > -t_i \sum_{j \in W} c_j \quad i \in W' \setminus W . \quad (2b)$$

All members of W' must do better than they did when W was in existence. For members in the overlap, $W \cap W'$, this means a greater positive payoff than previously; but for members of W' who were not in W , the new payoff could simply be a smaller negative payoff than previously.

That aside, it is clear that W is vulnerable to two general classes of coalitions: (1) any winning subset of itself

(because the subset will be a cheaper coalition); (2) the cheaper coalitions of its size. In particular, W will be vulnerable to the cheapest minimal winning subset of itself which in turn will be vulnerable to the cheapest of all minimal winning coalitions, M^C . All of this is independent of the exact values of b_i , c_i , t_i .

Various authors stop at this point and identify M^C as the predicted outcome of distributive policymaking by majority rule.⁹

But Kadane's theorem tells us that M^C itself is vulnerable.

Implicitly analysts assume that all members of a winning coalition receive their project (i.e. 2a, 2b). That need be so only at the initial stage (the defeat of Z). One must also recognize the possibility of what might be termed "bribe coalitions" in which only some members receive projects, vis-à-vis the more standard "project coalitions" in which all members receive projects. Specifically, let the members of $L \setminus M^C$ bribe away the cheapest member of M^C (call him d for defector). This they can do by offering to build only his project. The yield from this degenerate omnibus is

$$b_d - t_d c_d > b_d - t_d \sum_{j \in M^C} c_j \quad \text{for } d$$

$$-t_i c_d > -t_i \sum_{j \in M^C} c_j \quad \forall_i \in L \setminus M^C$$

While numerous bribe coalitions could defeat M^C , the above is uniquely preferred by all its members: it is the cheapest bribe coalition.

Of course, any bribe coalition is immediately vulnerable

to Z (by a vote of $\ell-1:1$) as well as to various project coalitions. And the cycle continues.

Thus, this brief look at the nature of the distributive policymaking cycle is not terribly illuminating. In terms of coalition size there are only two points from which anything is not possible in one step:

- (1) $Z \rightarrow$ project coalition \rightarrow any cheaper coalition \rightarrow bribe coalition \rightarrow anything
- (2) $M^c \rightarrow$ bribe coalition \rightarrow anything.

In terms of government expenditure the cycle is a bit simpler:

$$0 \rightarrow \sum_{j \in W} c_j \rightarrow \sum_{j \in D} c_j \rightarrow \text{any amount} < \sum_{j \in L} c_j$$

where D is the set of defectors in a bribe coalition. That is, from Z we can predict that $w > \frac{\ell}{2}$ projects will be funded. From there majority rule leads to cheaper outcomes until a bribe coalition exists, from which point more expensive proposals can defeat less expensive ones. This dynamic may put one in mind of Sisyphus, but certainly not of universalism.

Distributive Policymaking Under Procedure-Constrained Majority Rule

No real world legislature mirrors the "anything goes" model examined in the preceding section. In most legislatures a body of rules constrains the proposals which the legislature might consider and by implication the various coalitions which can form. The overall effect of such rules is generally to restrict the nature of legislative maneuvers to those which entail marginal or incre-

mental changes from proposals under consideration. In this section we will impose a set of rules which brings a considerable degree of stability to the distributive arena. But in no way does this stability resemble universalism.

Assume a specific model of coalition formation and change, a model which limits coalitions to the following:

- (1) Expulsion of a member.
- (2) Addition of a member.
- (3) Substitution of a new member for a previous one.

These steps, however, may be continued indefinitely.

Theorists will recognize the preceding constraints as a ψ rule (Luce, 1954) which limits the coalition formation/alteration process to one of marginal change. In the abstract these rules might seem arbitrary. But consider an institutional arrangement (what Shepsle, 1978, terms an amendment control process) which would generate something like those rules: a permissible amendment to an omnibus may propose to:

- (1) Strike a project.
- (2) Add a project.
- (3) Substitute one project for another.

This type of rule resembles those which often obtain in real world legislatures, including the rule under which public works omnibus bills are considered.¹⁰

Under the imposed rules Z is always in equilibrium. Thus, we assume that at the initial stage a subset (committee) of L is changed with the construction of an omnibus. That is, the committee

itself is unconstrained when formulating the initial omnibus for floor consideration. Because Z with 0 net benefits is the status quo, or default outcome, to have any possibility of acceptance the committee proposal must provide positive net benefits to a majority of members, including presumably a majority of the committee.¹¹ Suppose that the committee proposal includes w projects, where $w > m$.

How will the membership of L react to the committee proposal? Given that they seek to maximize net benefits to their districts, it seems natural to suppose that they offer the permissible amendments which, if passed, would accomplish that maximization. With this assumption the system becomes determinate.

Consider first amendments which propose adding projects. Some members not in the winning project coalition might try to maximize their net benefits by proposing that their project be approved.¹² No matter. All such amendments lose $\ell-1:1$. Thus, the committee proposal can never be expanded.

Knowing the above, $\ell-1$ legislators would seek to offer an amendment to cut the most expensive project from W , while the legislator who has the most expensive project would seek to offer an amendment to delete the second most expensive project in the omnibus. Either amendment would pass $\ell-1:1$.

Given that all ℓ_i who seek to maximize net benefits by proposing addition amendments will fail, while all who find it rational to offer deletion amendments will succeed, we conclude that the winning project coalition becomes both cheaper (as

previously) and smaller at each stage. And in contrast to the unconstrained process, all members of the project coalition receive positive net benefits.

Eventually this process pares the original omnibus down from w projects to the cheapest subset of m projects. At this point all legislators who maximize net benefits by offering further deletion amendments are doomed to failure, because striking one more project would reduce the omnibus to $m-1$ projects, less than a majority and a loser to the status quo, Z .¹³ Thus, legislators would maximize net benefits by offering substitution amendments. Of these amendments $\ell-1$ legislators would favor that which replaces the most expensive member of M with the least expensive member of $L \setminus M$:

$$b_i - t_i \sum_{j \in M} c_j < b_i - t_i \sum_{j \in M'} c_j \quad i \in M \cap M'$$

$$- t_i \sum_{j \in M} c_j < b_i - t_i \sum_{j \in M'} c_j \quad i \in M' \setminus M$$

where M' is a minimal winning project coalition cheaper than M , and different from M by one member. As before the most expensive legislator would naturally rather strike the second most expensive project. Eventually the substitution amendments produce M^c .¹⁴ Note that all members of M^c receive positive net benefits.

The preceding analysis can be summarized by the following:

Proposition. Under the specified (i.e. marginalist) rules, the omnibus representing M^c is in equilibrium:

- (1) All expansion amendments fail
1:l-1.
- (2) All deletion amendments fail l-m:m.
- (3) All substitution amendments fail
1:l-1.

In Shepsle's (1977) terminology the procedures imposed on the legislative process produce a new "structure induced equilibrium," M^c . If the process has a "preference induced equilibrium," it is Z , which is also stable under our procedures, but it is achievable only if the originating committee proposes it, i.e. if the projects are so economically poor that no committee majority can construct an omnibus they prefer to Z .

In sum, a model of distributive policymaking modified to reflect real legislative considerations banishes the unpredictability inherent in unconstrained majority rule. But the modified model leads us away from rather than toward universalism. Minimal winning coalitions, and cheap ones at that, reign supreme in the modified model.

Universalism as Long-Term Self-Interest

We can safely conclude that intuitive expectations are correct: universalism is not compatible with myopic models of majority rule. Rather, universalism appears to be something which overrides the dynamics of majority rule. Various candidates for that "something" present themselves, including the always available

"imperfect information." But the most compelling argument is that of Weingast (1978).

Weingast relies on the notion of the "veil of ignorance" previously used by analysts of constitutional choice (e.g. Buchanan and Tullock). If legislators hope to remain legislators, and expect to propose projects as a means of doing so, and find it impossible to predict their long-term likelihood of success (i.e. cannot predict how often they will be proposing cheap projects), they may unanimously agree to forego the formation of cheap minimal winning coalitions.

Recounting briefly, given a long series of omnibus bills the legislator under the veil of ignorance calculates that the probability of membership in M^c is approximately $\frac{l+1}{2l}$.

Thus, his expected value from a given omnibus is

$$\frac{l+1}{2l} b_i - t_i \sum_{j \in M^c} c_j \quad (3)$$

Under universalism, however, l_i 's expected value is

$$b_i - t_i \sum_{j \in L} c_j \quad (4)$$

It could well be the case that (4) > (3). In Weingast's analysis $b_i = b_j$, $c_i = c_j$, $t_i = t_j = \frac{1}{l}$, $\forall i, j$. Substituting in (4) and (3) we see that all l_i would prefer universalism to majority rule if $b > c$, hardly a strong condition. Of course, one may object to Weingast's special assumptions but these can be relaxed somewhat. The equal benefits assumption is unnecessary. And if we allow $c_i \neq c_j$ we can still derive an interpretable condition. In this case a legislator's

expected value given majority rule is less than that under universalism if (substituting in (3) and (4)),

$$\frac{\ell+1}{2\ell} b_i - \bar{c}_{Mc} < b_i - \bar{c}_L \tag{5}$$

or

$$\bar{c}_L - \bar{c}_{Mc} < \frac{\ell-1}{2\ell} b_i \tag{6}$$

where

\bar{c}_{Mc} is the mean cost to each district of the projects in M^c .

\bar{c}_L is the mean cost to each district of all the projects.

For large ℓ (6) says that universalism is preferable to majority rule if the average cost to the district of building the extra projects is less than half the benefits of the district's project. If benefits just cover costs (6) demands something close to equal c_j , whereas if benefit/cost ratios are more favorable (6) can hold even with considerable variation in the c_j ; the following examples illustrate the two cases:

Example 1. $b_i = c_i$ V_i

\underline{c}_1	\underline{c}_2	\underline{c}_3	\underline{c}_4	\underline{c}_5
\$3	\$3	\$4	\$4	\$4

$\bar{c}_L = 3.6$
 $\bar{c}_{Mc} = 2$

ℓ_1, ℓ_2 prefer majority rule; ℓ_3, ℓ_4, ℓ_5 are indifferent.

Example 2. $b_i / c_i = 3$ V_i

\underline{c}_1	\underline{c}_2	\underline{c}_3	\underline{c}_4	\underline{c}_5
\$2	\$3	\$4	\$5	\$6

$\bar{c}_L = 4$
 $\bar{c}_{Mc} = 1.8$

All five legislators prefer universalism to majority rule.

Of course, legislators operating under the veil of ignorance cannot very well be predicting the cost distribution of projects. But (5) and the examples at least demonstrate that rational legislators may opt for universalism even when considerable variation in project cost is anticipated.

It seems, then, that rational legislators with a long-run perspective might form cooperative agreements to authorize all proposed projects, or in short to agree to universalism as a "rule" of the distributive game.

Weingast's theory is quite plausible, and it does suggest several roughly testable implications. For one, we would expect that universalism is more prevalent now than in nineteenth century Congresses, for modern legislators have certainly had greater aspirations for a long-term career than their nineteenth century predecessors. Legislators with a short-term career perspective would not appear well described by the veil of ignorance notion, nor would they be likely to adhere to a universalism agreement if their immediate incentives conflicted with it.¹⁵

Another reason universalism as conceptualized by Weingast might be more prevalent today than during earlier periods has to do with the expansion of the distributive arena itself. If the legislature only approves irrigation projects, the veil of ignorance is not so plausible: we all know who needs the biggest projects. But if the legislature approves the building of any kind of projects interest groups, bureaucrats and legislators can conceive, the veil of ignorance becomes more plausible. Thus, an expansion in the scope of government distributive activity might stimulate an expansion in the size of each separate activity.

III. DISTRIBUTIVE POLICYMAKING: ON THE TRAIL OF RECIPROCITY

To address reciprocity we need to complicate the simple model used thus far. Whereas we dealt in section II with an undifferentiated distributive arena (e.g. urban renewal and irrigation projects compete directly), we must now assume standing committees with fixed (at least in the short-run) jurisdictions. While this might seem to complicate matters, the additional complexity is mostly apparent. The conceptual investment already made enables us to construct a model of reciprocity agreements in reasonably short order.

A Simple Committee System

Assume L is partitioned into a set of committees,

$C = (C_1, C_2, \dots, C_c) \mid |C| \geq 3, |C_i| < m$, each of which has exclusive jurisdiction over a given distributive activity, i.e. the exclusive right to construct an omnibus proposing the authorization of projects of a given nature (e.g. urban renewal, irrigation, federal buildings, military contracts, etc.). The committees themselves operate by majority rule, and must secure a majority on the floor in order to upset Z . The only floor amendments in order are those which pertain to projects in a committee's jurisdiction. Such amendments are called germane.

As mentioned previously discussions of reciprocity normally presuppose a nonrandom distribution of legislators across committees. Specifically, assume that legislators join one committee of their choice,¹⁶ and that they do so for electoral reasons. I will represent those reasons in a very simple way: each legislator has a project in the jurisdiction of the committee he joins and none in the jurisdiction of other committees. This is the classic case when congressmen advocate reciprocity: proposals affect other districts only by raising their tax burden.¹⁷

Given the rules the legislature operates under, all committees lose on the floor. By construction, a majority of the legislators has no project in the jurisdiction of each committee and thus cannot possibly receive positive net benefits from an omnibus. Thus, each committee proposal goes down, or alternatively, a succession of defection amendments passes until the proposed omnibus is amended to Z . How might our committees escape this fate?

A Super-Omnibus

In part II we worked with the fact that although each legislator's proposal would fail, an omnibus might pass. Formally, each ℓ_i proposes a degenerate omnibus with a single unit entry (signifying approval of his project) and $\ell-1$ zero entries (signifying rejection of all other projects. Any such degenerate omnibus loses to Z , an ℓ -vector of zeros. But an appropriate ℓ -vector containing more ones than zeros (a winning project coalition) can defeat Z .

Now we have the fact that each committee proposal will fail. Formally, each committee proposal is an ℓ -vector with zeros for at least a majority of the legislature (because $|C_i| < m$), but possibly with ones for some subset of the committee. Each such ℓ -vector loses to Z . But, following the analogy of part II, can two or more of the committee proposals combined as a super-omnibus, defeat Z ? Yes obviously. Rather than coalitions of individual legislators we now have coalitions of legislators organized in committees, but the task remains the same: to agree to report a super-omnibus which provides positive net benefits to a majority of the legislature and can thus defeat Z . And this task proceeds in light of the knowledge that any such agreement will be subject to floor assaults. Can we predict anything about the nature of the proposed super-omnibus? The question poses difficulties.

In the first place the committee coalitions are not predictable--our rules of coalition formation are not imposed within the committees where the omnibus bills are put together. At the committee stage we have unconstrained majority rule.

In the second place the same is true of the intercommittee bargaining. Even if a majority of each committee somehow managed to agree on a proposal, such agreements could be upset at the next stage. One or more committee coalitions might find that some projects in its jurisdiction which have not been authorized are cheaper than projects authorized by the winning project coalitions of other committees. And this opens the doors of instability. Supporters of a tentative super-omnibus might seek to expand cheaper committee winning project coalitions and contract more expensive ones. In fact, committees could be forced to authorize the projects of a majority of their cheaper members in order to forestall the authorization of a like number of more expensive projects in other committees. In sum, anything becomes possible. At the level of negotiating the super-omnibus, we have unconstrained majority rule. Just as it is theoretically impossible to specify what emerges from each committee, so it is impossible to predict the change in committee proposals which emerges from intercommittee negotiations.

Myopia is a useful assumption, but perhaps we have pushed it too far here. Each legislator knows that failure to agree upon a super-omnibus representing a winning project coalition will result in zero benefits to his district. Z will be the legislative outcome. Moreover, bribe coalitions are surely doubtful. The minority of legislators receiving projects must be aware that a majority has the incentive to gut such a super-omnibus on the floor. Bribe coalitions might play a role in the negotiations but it is completely futile to accept them as the outcome of those negotiations. Failure

to agree, agreement on a bribe coalition and agreement on Z all mean the same thing: Z .

By the same token legislators can make certain types of predictions about the floor fate of a super-omnibus representing a winning project coalition. All proposed additions to such a super-omnibus will fail, of course, for the same reason as before. A majority would have the incentive, however, to pass deletion amendments to wipe-out any extraneous members, starting with the most expensive. Similarly, a majority would have the incentive to substitute cheaper for more expensive members of the project coalition, as before. In short, a floor majority has the incentive to reduce any proposed super-omnibus representing a project coalition to something similar to the familiar M^C .¹⁸ Why not, then, just eliminate all the fuss and propose the latter?

Here the committee system creates a catch in the proceedings. The super-omnibus which represents M^C could well involve only the projects of a minority of members of some committees. In such a case the majority of the committee anticipates negative net benefits from the super-omnibus and would therefore refuse to report the committee omnibus involving a minority of their colleagues: Z is preferred to M^C by a minority, but that minority may include committee majorities whose cooperation is necessary to form M^C .

A second-best possibility would be a super-omnibus representing the cheapest possible minimal winning coalition composed entirely of committee winning project coalitions.¹⁹ As

before, all addition amendments receive only one vote. A majority opposes all deletion amendments because the coalition is minimal. And no substitution amendments pass because the coalition is already the cheapest practical (i.e. meeting the constraint that it be composed of committee majorities).

Enough. The preceding somewhat tedious account makes the point. Introduction of committees with associated jurisdictions detracts significantly from the stability produced by the amendment control process in part II. The cheaper minimal winning coalitions still have some significance, but there appears to be a much greater likelihood that the system will simply bog down, no agreement on a super-omnibus will result, and Z will emerge by default. When the legislature operates as a committee of the whole at least 51 percent of the legislators could count on success. Given committees endowed with meaningful power (jurisdictions) 51 percent of the legislators might hope for success, but 0 percent might achieve it. A theory of reciprocity is fairly obvious at this point.

Reciprocity as the Means to Universalism in a Decentralized Legislature

In part II we saw that with the legislature operating as a committee of the whole, legislators with a long-term perspective might look favorably on universalism agreements. The latter can result in higher long-run benefits to the district than majority rule. I trust it is noncontroversial to point out that universalism agreements become even more tempting as the attractiveness of the

alternative decreases. We have just seen that in a legislature operating under a committee system, legislators expect either to be in a minimal winning coalition not generally the same as M^c (i.e. one having lower net benefits) or to receive zero net benefits as the process stalemates and results in Z .

Looking at the long-term, suppose that the legislator estimates that a minimal winning coalition will form with probability, p_i , and that stalemate will result with probability, $(1-p_i)$. Resorting to the veil of ignorance again, a legislator expects the following payoff in a legislature operating with a committee system (assume $t_i = t_j = 1/\ell$):

$$p_i \left(\frac{\ell+1}{2\ell} b_i - \bar{c}_M \right) + (1-p_i)0 \quad (7)$$

Comparing (7) with the left-hand side of (5) we see that so long as $p_i < 1$, (7) will be less.²⁰ In short, anytime universalism is attractive to legislators in an undifferentiated legislature, it will be even more attractive to the same legislators in a legislature differentiated into committees which control specific jurisdictions.

But what are we doing talking of universalism in a section devoted to reciprocity? Quite simple, reciprocity is merely a means to universalism in a differentiated legislature. Assuming that legislators in the latter wish to operate under universalism, how do they go about doing so? Within committee they can agree to universalism directly, as before. The members of each committee makes an agreement to include the projects of all members in their

proposal. But given that the committees contain minorities of the legislature, within-committee agreements are not enough; agreements between committees are also necessary. Each committee agrees to keep hands off the proposals of other committees. That is exactly reciprocity, but it is no more than a precondition of universalism. Given the committee system universalism can be achieved only by a combination of within-committee and between-committee agreements. Matthews' failure to distinguish clearly between universalism and reciprocity was probably less a confusion than a recognition that the two are inextricably connected.

A Meta-Theoretical Inconsistency?

The argument that universalism and reciprocity are allied agreements entered into by legislators intent on maximizing net benefits to their districts rests on the notion of the veil of ignorance: legislators cannot predict a priori the costliness of their projects and thus their likelihood of being members of the cheap minimal winning coalitions which are the expected outcome under majority rule. Yet at the same time we assume that legislators join specific committees because they know their projects will lie within the jurisdictions of those committees. Does this supposition contradict the assumed veil of ignorance? I don't really think so.

In the first place within each committee (i.e. among projects in each class) the veil of ignorance is still plausible. Perhaps irrigation projects are the *raison d'etre* for the members

of only one committee, but among that subset, who can say how expensive one's projects will be vis-à-vis one's fellow committee members'? Thus, a legislator will be highly uncertain about his chances of being in the committee winning coalition.

In the second place, we have seen that the intercommittee bargaining is quite fluid. Some theorists might deny that it even has as much structure as I claim for it. Certainly, though, even those members in committee winning coalitions will be very uncertain about their chances of being included in the intercommittee agreements. Who can say whether the cheaper urban renewal projects will be more or less expensive than the cheap water projects ten years down the road, and how both will stack up against cheap projects of some other committee?

Thus, the additional knowledge assumption entailed by the committee system does not appear to contradict the overall veil of ignorance notion which drives the analysis. Perhaps the periodic pressures to reorganize committee systems so as to provide the committees with jurisdictions approximately equal in importance reflects the effort to protect the veil of ignorance-- universalism and reciprocity agreements are easier to maintain under such conditions than when some committees know they deal in cheaper substance and therefore stand a better than even chance of entering minimal winning coalitions.

IV. ADDITIONAL FACTORS WHICH FACILITATE UNIVERSALISM AND RECIPROCITY ARRANGEMENTS

Misperception of Benefits and Costs

We have discussed a theory of universalism and reciprocity arrangements based on uncertainty about future outcomes. The theory makes no appeal to misperception of the benefits and costs. Rather, we assume that legislators faithfully attempt to maximize the net benefits of distributive policymaking to their districts. It is evident, however, that various types of misperception can make the adoption of universalism and reciprocity arrangements more likely.

Consider condition (6). If constituents overestimate the benefits, underestimate the costs, or both, universalism agreements become more likely. As Mayhew (1974) argues, congressmen make every effort to acquaint constituents with the formers' efforts in their behalf; moreover, congressmen favor those activities which are highly visible in their impact (i.e. construction, with its evident use of local labor and materials). Yet reasonably objective observers have raised doubts about the actual benefits of various distributive activities (Ferejohn on water projects; Anagnoson (1977) on EDA projects and HUD water and sewer grants; Gramlich (1978) on the employment impact of public works programs).

On the cost side we have the well-known problem of fiscal illusion (Goetz, 1977; Wagner, 1976). If project expenses are systematically underestimated and/or recouped in such a way that constituents underestimate true costs (e.g. through income taxes

rather than user charges), (6) states that universalism agreements become more likely. Thus, fiscal illusion encourages legislators to forsake majority rule for universalism, with its consequent excessive level of distributive activity.

Divergence of Legislator and District Benefits

Throughout parts II and III we assumed that legislators faithfully maximize net benefits to their districts albeit as a means to their own reelection. In the preceding section, however, we recognized that constituents might not calculate net benefits accurately, and asserted that legislators might maximize perceived net benefits rather than actual. If we presume that legislators do not make the same perceptual errors constituents do, the preceding assertion requires that we recognize the divergence between legislator and district benefits.

If legislators maximize the appearance of net benefits then they have a positive incentive to overestimate project benefits and to encourage fiscal illusion. No doubt the typical legislator's opposition to good policy analyses ("the benefits of my program can't be quantified"), tax indexing, user charges, etc. is multifaceted. But perhaps at least part of it is that such devices make the legislator's life easier by facilitating universalism and reciprocity: the latter make the appearance of positive net benefits more likely than the actuality of zero benefits, although his district might be better off under the latter.

The Distributive Tendency

The conclusions in this paper apply only to the distributive arena. As we mentioned in the introduction, universalism and reciprocity are most obvious in that arena. Few committees and few bills deal solely with distributive policy, however; and some degree of reciprocity is accorded to committees in all but the most heated battles over regulatory and redistributive policy or except in the case of "rogue" committees (e.g. Post Office and Civil Service, D.C.?) Can we explain this wider incidence of universalism and reciprocity?

Ripley and Franklin (1976) have argued that a primary strategy for passing regulatory or redistributive legislation is to infuse it with sufficient distributive elements that opponents are bought off. As examples they suggest the Model Cities Act of 1966, the Federal Aid to Education Act of 1965, and others (see also Dommel, 1975, on urban programs). In his discussion of the Social Pork Barrel, Stockman (1975) concurs with Ripley and Franklin and argues that the process of particularizing ostensibly general legislation continues after the legislation is adopted (e.g. the vote on House passage of the Elementary and Secondary Education Act of 1965 was 263-153; by 1974 the vote on reauthorization had swelled to 380-26). Universalism and reciprocity may be so widespread simply because distributive politics is more pervasive than we realize.

A final comment here. Policy analysts often note the tendency of legislators to choose inefficient means to achieve public policy ends (e.g. water treatment plants rather than tax/subsidy schemes, education grants rather than vouchers, etc.). Elsewhere Noll and I (1978a,b) have theorized about the basis of this "inefficiency tendency" (the distributive tendency by another name). Combining those earlier conclusions with the ones in this paper suggests that legislators' self-interest leads them to prefer not only inefficient policy instruments, but excessive usage of those instruments.

V. CONCLUSION: EMPIRICAL PROPOSITIONS FOR FUTURE STUDY

Following the example of economists, students of political economy often conclude theoretical papers by summarizing their theoretical results, i.e. speculations. While sometimes guilty of that practice, I will eschew it here and conclude by suggesting some testable propositions which might provide a real world anchor for the theory of universalism and reciprocity discussed herein.

In part II I suggested a very general proposition:

P-1: Universalism is more prevalent in today's Congress than in the nineteenth century forerunners.

Recall that this proposition rested on the notions that (1) today's career legislators have longer time horizons than their amateur predecessors; (2) the greater the diversity of the distributive

arena (i.e. scope of government) the more plausible is the veil of ignorance. Both considerations contribute to the adoption of universalism. P-1 brings our argument full circle: universalism is a consequence of an increasing scope of government and a cause of increasing size.

Several additional propositions follow from an examination of (3)-(6) from the standpoint of the individual legislator. If for some reason particular legislators do not feel they need to operate under the veil of ignorance, predictable subsets may oppose universalism and reciprocity. Specifically,

P-2: Legislators who expect their districts to want no projects will certainly oppose universalism and reciprocity.

P-3: Legislators who expect to propose projects with lowest benefits are most likely to oppose universalism and reciprocity.

P-4: Legislators whose districts have the highest tax shares are most likely to oppose universalism and reciprocity.

Additionally, a legislator who expects his probability of being in a minimal winning coalition to be greater than $\frac{1}{2}$ should be less attracted to universalism, ceteris paribus. Therefore,

P-5: Legislators who expect to propose the cheapest projects are the most likely to oppose universalism and reciprocity.

When coupled with known empirical associations propositions 2-5 suggest a derivative implication:

P-6: Republicans are more likely than Democrats to oppose universalism and reciprocity.²¹

Finally, consider (7). If legislators form their estimates of legislative stalemate, $(1 - p_1)$, based on past experiences, (7) suggests the following proposition which might be tested either temporally or cross-culturally:

P-7: Ceteris paribus legislatures which experience histories of legislative stalemate are more likely to adopt universalism and reciprocity than those in which majorities accomplish positive legislative actions. In particular, differentiated legislatures (i.e. those with strong committee systems) are more likely to adopt universalism than undifferentiated legislatures.

Although the causes of government growth are many and complex; legislative adherence to universalism and reciprocity is surely a contributing factor. The U.S. Congress with its career legislators, its rich, variegated and contagious distributive politics, and its highly differentiated committee system provides a conducive climate for the universalism and reciprocity practices on which government thrives.

FOOTNOTES

1. In a strangely one-sided treatment Downs ignores the possibility that imperfect information might also generate countervailing factors such as fiscal illusion (Wagner, 1976; Goetz, 1977).
2. One should recognize, however, that these negative theorems are "possibility" results: they identify features of majority rule but do not necessarily predict that such features will be realized. Work is only now commencing on "probability" results: specification of which outcomes among the limitless possibilities are likely to occur. Along these lines Ferejohn, Fiorina and Packel (1978) have proposed a model which produces results reminiscent of earlier speculations by Tullock (1967).
3. Though not explicit on the matter, Lowi's scheme appears most applicable to domestic policy.
4. The reader might wish to compare Lowi's distinctions with those in Buchanan and Tullock (1962), chapter 11.
5. It is commonly objected that the enhanced freedom of those redistributed to more than balances out the diminished freedom of their benefactors. Even if we concede the point (though I

suspect many here would regard it as nonsensical) it does not alter the fact that even "desirable" or "justifiable" redistributions require an increase in the intrusiveness of government.

6. However, if we measure size simply by the total of government expenditures or revenues (vis-à-vis employment or payrolls), then redistribution necessarily increases size of government.
7. Separability and single-peakedness are clearly satisfied in this context. All legislators have binary preferences over projects: they favor their own and oppose all others. Thus, single-peakedness is trivial. Separability also is obvious. Whatever the pattern of project approvals and disapprovals in an omnibus, a legislator favors any one proposal change which happens to be an authorization for his project or a deauthorization for anyone else's project, and opposes any one-proposal change which happens to be an authorization of someone else's project, or a deauthorization of his project.
8. Z will be in equilibrium if $b_i < t_i \sum_{j \in M} c_j$ for some $i \in M, \forall M$. In this case no winning coalition could find an omnibus each member could support. Intuitively, the case corresponds to one in which all the proposed projects are real dogs.
9. Or just any M if the authors assume that $b_i = b_j, c_i = c_j,$

\forall_i, j (e.g. Weingast, 1978). We should point out that Riker (1962), who has studied minimal winning coalitions most extensively would not necessarily predict M in this case: distributive politics is not in general a zero-sum game.

10. Part (3) of the rule is the only part which differs from the rule which the U.S. House generally uses (although proposals to alter the funding level of a project are in effect, substitutes) but this is the least important part for our analysis. See below, footnote 14.
11. As will become evident nothing more needs to be assumed about the committee. What they propose is irrelevant so long as it represents an omnibus for a winning project coalition. In fact, current work with Ferejohn suggests that the authorizing committee is theoretically unnecessary. Sophisticated voting in committee of the whole under the addition and deletion rules will lead a majority to build up from Z to M^C ,
12. Note that depending on the values of $b_i, t_i,$ and $c_j \in W$ some non-members of the project coalition might find that it is more efficacious to offer an amendment to delete the most expensive c_j rather than include their own project.
13. This is implicitly a sophisticated voting argument--unadulterated myopia would lead legislators to pass successive deletion

amendments until Z was achieved. In the aforementioned work with Ferejohn we show that sophisticated legislators will defeat further deletion amendments once M is achieved.

14. If our amendment control process did not permit substitution proposals, the omnibus would simply be pared down to its cheapest m projects. The coalition M^C supporting this omnibus would in general be more expensive than M^C .
15. Interestingly, though, if legislators were concerned with maximizing net benefits to the district as an end in itself, rather than as a means of prolonging their own careers, their time perspective would make no difference: even the one-termer might adhere to universalism rather than join a M which would provide greater immediate benefits.
16. For evidence that this is a reasonably plausible assumption see Gertzog (1976) and Rohde and Shepsle (1973).
17. To digress for a moment about a suggestion arising from empirical studies, an increase in the tax burden of one's district is apparently insufficient to qualify a congressman as having a direct interest in a given piece of legislation. In the redistributive and regulatory arenas legislators representing the "redistributed from" and "regulatees" respectively, are considered legitimate opponents of legislation. But in the

distributive arena any opposition seems tinged with illegitimacy. Probably this situation reflects the failure of modern Congresses to recognize the concept of a budget constraint. In its absence distributive projects appear noncompetitive. While the recently adopted Budget Process recognizes a constraint in principle, it remains to be seen whether the constraint is truly binding.

18. It would not generally be the same as M^C because of the committee system and germaneness rule. The latter limits the types of substitution amendments which could be offered. Thus the minimal winning coalitions of the decentralized process would typically be more expensive than those generated by the committee of the whole.
19. Notice that this second best coalition could involve a minority of committee majorities. We have not assumed that the committees are of equal size, nor have we excluded larger than minimal committee coalitions, so long as they are cheaper than alternative minimal committee coalitions.
20. So long as $M \neq M^C$ (7) will be less than the left-hand side of (5) even when $p = 1$.
21. Recall Mayhew's (1966) finding that congressional Republicans practice "exclusive" compromise whereas their Democratic counterparts practice "inclusive" compromise.

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