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The Journal of Politics, Vol. 39, No. 3 (Aug., 1977), 563-595.

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Models of Legislative Voting

JOHN W. KINGDON

IN RECENT YEARS various specialists in legislative behavior have found themselves troubled by what they have considered to be a deficiency in theory-building in the field. After an extended review of the literature on Congress, for instance, Robert Peabody argues, "The critical need is for *theory* at several levels for, quite clearly, in congressional research the generation of data has proceeded much more rapidly than the accumulation of theory."¹

While it is not clear that "the" theory of legislative behavior is on the horizon, scholars have recently developed a number of models of legislative voting which promise substantial theoretical payoff. These models are relevant not only to the specific case of legislative voting itself, but also potentially to legislative decision-making more broadly conceived and to governmental decision-making in general. These models have largely stood in splendid isolation, each supposedly representing a fairly complete accounting of legislative vot-

* This is a drastically revised version of an earlier paper prepared for delivery at the Conference on Mathematical Models of Congress, Aspen, Colorado, June, 1974. I am indebted to Michael Cohen for his patient counsel and valuable criticism, to Donald Matthews and Herbert Asher for their valuable comments, to Janet Grenzke for comments on an earlier version, to anonymous reviewers, and to various participants at the Aspen Conference for their perspectives. The final responsibility, however, rests with me.

¹ In Ralph Huitt and Robert Peabody, *Congress: Two Decades of Analysis* (New York: Harper & Row, 1969), 70. Italics in original.

ing, each probably compatible with the others, but none very much related to the others. If we were to be able somehow to arrive at a way to fit important aspects of these models together, our theoretical thinking about legislative behavior might be advanced considerably.

This paper presents one way of furthering this integrative process. First I briefly describe a few models that have been prominent in the literature. The paper then seeks to provide a framework for fitting them together. We then compare a new integrative model with data on congressmen's voting decisions. We end with some discussion of the broader implications of the work for building theory about decision processes.

THE MODELS

Identifying and describing models of legislative voting is not an easy task, as it turns out. There is actually quite a large number of constructs and arguments abroad in the literature which could be considered to be implicit or explicit models of voting. Our first task is to identify a set of models that do purport to be representations of decision processes involved in legislative voting and to summarize their major features. It is impossible in these pages to go into sufficient detail to do full justice to their richness and complexity. Nor is it my purpose to enter into a detailed critique of each model. But I will briefly state the major approach of each model without, I hope, doing violence to its intent.

Cue-Taking. Best exemplified by the Matthews-Stimson model,² cue-taking starts with the assumption that legislators must somehow cut their great information costs in order to reach decisions that will further their goals. The dominant strategy for accomplishing this is turning to their colleagues within the legislative body for cues which they follow in voting. These cues may come from individual legislators or from such groups of them as the state party delegation, the party, or even the whole body. Matthews and Stimson operationalize these fundamental tenets through the use of a computer simulation.

² Donald Matthews and James Stimson, "Decision-Making by U.S. Representatives," in *Political Decision-Making*, S. Sidney Ulmer, ed., (New York: Van Nostrand Reinhold, 1970), 14-43. See also their book, *Yeas and Nays* (New York: John Wiley & Sons, 1975).

Cue-taking is actually a family of models. The genesis of the ideas is to be found far back in the literature, in the notion of specialization among legislators. A well developed committee system is supposed to allow them to specialize in a few areas, and then for the areas in which they are not specialists, to rely on each others' judgments. The notion of cue-taking is also very much a part of communication models and of bloc voting models. Kovenock finds, for instance, that most of the interaction that a congressman has with others takes place with his colleagues in Congress, rather than with people outside the Congress.³ Truman hypothesizes that the blocs which he discerns in legislative voting, such as regional or state delegation groupings, are the result of regularized communications among the members of the bloc.⁴ Jackson's regression models of Senate voting can also be seen as consistent with cue-taking models, although the set of cues he includes is wider than the Senate itself.⁵

Policy Dimensions. Set forth early in the work of MacRae,⁶ policy dimensions have been most recently explored by Clausen, who argues that they constitute a theory of voting decisions.⁷ According to Clausen, a congressman starts with some notion of the policy content of the issue before him, and thinks of it in terms of a dimension (e.g., more or less government management of the economy). He places himself on that dimension, and compares his position to the position of the legislation, choosing the alternative presented which comes closest to his position. One way in which he may accomplish this matching is by picking the cues on which he will rely according to the degree to which the cue agrees with his own policy position. The cues on which he relies also differ from one policy dimension to another, so that, for instance, con-

³ David Kovenock, "Influence in the U.S. House of Representatives," *American Politics Quarterly*, 1 (October, 1973), 407-464.

⁴ David Truman, *The Congressional Party* (New York: John Wiley & Sons, 1959).

⁵ John Jackson, "Statistical Models of Senate Roll Call Voting," *American Political Science Review* 65 (June, 1971), 451-470. See also his *Constituencies and Leaders in Congress* (Cambridge, Mass.: Harvard University Press, 1974).

⁶ Duncan MacRae, *Dimensions of Congressional Voting* (Berkeley, Calif.: University of California Press, 1958).

⁷ Aage Clausen, *How Congressmen Decide* (New York: St. Martin's Press, 1973), see especially Chapter 2.

stituency is important on civil liberties and party on government management of the economy.

Predisposition-Communication. A predisposition-communication model is presented in the work of Cherryholmes and Shapiro.⁸ They argue that a congressman first assesses the strength of his predisposition for or against a bill. He does so by taking account of his own past behavior, the House party position, and the effects the bill would have on his constituency and region. If these factors predispose him strongly one way or the other, he simply votes on the basis of this predisposition. If his predisposition is not sufficiently strong, he enters an elaborate communication process among colleagues and with the President, the outcome of which determines his position. The actual model in this case is a computer simulation.

Consensus. In my own work on congressmen's voting decisions, I have presented a consensus decision model.⁹ According to this model, a congressman implicitly asks whether there is any controversy over the issue in the environment. If not, his decision rule is simple: he votes with the consensus in that environment. If there is controversy, he subsets the environment, and asks if there is any controversy in the field of forces that would affect his own decision, and if he finds none, he votes with that field. He can also use this mode of decision if there is a degree of conflict in his field, so long as the conflict is not substantial and so long as a dominant consensus can be discerned. The set of preconsensus processes which affects the degree of consensus present in congressmen's fields is as important as the final consensus rule. These processes include simple agreement in the congressional environment on a course of action, contrived consensus among the major reference groups, and the structuring of the fields according to the congressman's personal policy attitudes, his past voting history, or his weighting of potentially intense actors such as constituency.

Past Behavior. In the budgetary process, Wildavsky argues that legislative decisions on agency budgets are structured in large part by past decisions affecting these agencies.¹⁰ The incremental

⁸ Cleo Cherryholmes and Michael Shapiro, *Representatives and Roll Calls* (Indianapolis: Bobs-Merrill, 1969).

⁹ John W. Kingdon, *Congressmen's Voting Decisions* (New York: Harper & Row, 1973); see especially Chapters 10 and 11.

¹⁰ Aaron Wildavsky, *The Politics of the Budgetary Process* (Boston: Little-

method as an aid to calculation bases this year's budget on last year's budget, with a narrow range of increases or decreases. This concept looms very large in general theories of decision-making, and Asher and Weisberg are working on a study of the impact of voting history on legislators' decisions.¹¹ In the legislative voting case, one would conceive of a congressman's decisions as being a function of his past behavior on similar issues. If he has always voted for foreign aid, for instance, he will do so again. Changes in past behavior will be made in small and gradual increments.

Goals. Many decision models in other contexts portray decision-makers as being goal-seeking. The first step in such an argument, therefore, is to specify the goals which the decision-makers seek to maximize. Some recent works on congressmen, while not purporting to be complete models of voting decisions, are nevertheless highly relevant. Fiorina constructs a very instructive formal model of constituency-representative relations based on a congressman's goal of re-election.¹² Mayhew argues that re-election structures a congressman's behavior to a considerable degree, and that treating this goal as the congressman's primary preoccupation helps us to understand many features of the legislative process.¹³ Fenno's comparative committee study expands the list of goals.¹⁴ In differentiating among congressional committees, he finds it useful to characterize them as primarily serving one of three goals for committee members: re-election, influence within the House, and good public policy. An integrative model of legislative voting decisions might build in this goal-seeking feature and even these particular goals.

Given this array of models, one might be tempted to treat them as alternatives, and to attempt to discriminate among them in some

Brown, 1964); and Otto Davis, M. A. H. Dempster, and Aaron Wildavsky, "A Theory of the Budgetary Process," *American Political Science Review* 60 (September, 1966, 529-547.

¹¹ See their paper presented at the Conference on Mathematical Models of Congress, Aspen, Colorado, June, 1974. See also their paper, "A Dynamic Theory of Congressional Victory," (mimeographed, California Institute of Technology, 1975).

¹² Morris Fiorina, *Representatives, Roll Calls, and Constituencies* (Lexington, Mass.: D.C. Heath, Lexington Books, 1974).

¹³ David R. Mayhew, *Congress: The Electoral Connection* (New Haven, Conn.: Yale, 1974).

¹⁴ Richard Fenno, *Congressmen in Committees* (Boston: Little-Brown, 1973).

fashion. One would achieve this discrimination, presumably, according to several criteria: the models' ability to account statistically for decision outcomes, the empirical plausibility of the models, their logical features, or some combination of these criteria. One would then choose the best of the models and discard the others as not satisfying these criteria as well as the chosen one does.

Another approach, the one which I take in this paper, is to treat each of these models as having a grasp on an important part of reality. In this view, then, we do not have a case of incompatible, competing models. Instead, there are several compatible models which are in need of a persuasive means of integrating them. Let us turn to a way in which this might be done.

CONSTRUCTING AN INTEGRATIVE MODEL

In constructing a model which has a potential for weaving together threads of previous work, we should first keep in mind several features which we would ideally want such a model to exhibit. We would obviously want a persuasive model to be able to account for outcomes statistically. In addition to that conventional consideration, the model should be plausible, in the sense that it should be an accurate representation of legislators' decision-making processes which is intuitively realistic. As such, it should not be too complex or elaborate, picturing a deciding legislator as engaging in an extended search for information or proceeding through an impossibly involved set of steps. It should also be politically sensible, allowing full play for such important political forces as constituency considerations and interaction within the legislative chamber. Finally, it should be comprehensive, including all the relevant forces that might have an important bearing on the decision.

Keeping these considerations in mind, we start the task of developing an integrative model by noticing that most of the previous work on legislative voting begins with similar assumptions about information processing, search behavior, and decision-making capacity. These assumptions, entirely familiar to readers of Herbert Simon and other students of decision-making,¹⁵ posit that legislators,

¹⁵ See James March and Herbert Simon, *Organizations* (New York: John Wiley & Sons, 1958), Chapter 6; Chester Barnard, *The Functions of the Executive* (Cambridge, Mass.: Harvard University Press, 1966; first published 1938), 189-191; Richard Cyert and James March, *A Behavioral Theory of the*

like other decision-makers but perhaps even more than most, must make a large volume of complex decisions, while constrained by limits on time and cognitive capacity to do so without extensive study of each issue. Taking account of this decisional overload, the previous models and our integrative model all largely agree on the need for decision-making procedures that cut legislators' information costs and simplify their choices. They also agree that legislative voting is a repetitive problem-solving situation which calls for standard ways of making voting decisions which can be applied vote after vote. Lest this appear to be an obvious point, one could argue just as plausibly that legislators' simplification of decisions may not be the inexorable result of an impossible set of demands on their time, but rather due to their simple lack of inclination to devote a great deal of time and energy to substantive policy-making, particularly on the floor. In either case, however, from the perspective of describing their behavior, legislators are realistically portrayed as adopting decision rules which drastically simplify their choices, whether or not they have an inescapable need to do so.

In building an integrative model, we also begin with an assumption that is not particularly emphasized in many previous models of legislative voting,¹⁶ namely, that legislators are goal-seekers. Their behavior is purposive, and is not simply reaction to external forces. A natural preliminary step in dealing with that behavior is to identify the goals which seem to affect most legislators most of the time. For the purposes of this paper, I find it useful to work with adaptations of the goals which Fenno specifies. His formulations—the goals of re-election, influence within the House, and good public policy—are restated here so as to make them somewhat more comprehensive. Thus the primary goals of legislators are as follows:

(1) *Satisfying constituents.* It could be that constituency considerations come back ultimately to an interest in re-election. But one observes congressmen taking account of constituency reaction

Firm (Englewood Cliffs, N.J.: Prentice-Hall, 1963), 120-122; Raymond Bauer, Ithiel Pool, and Lewis Dexter, *American Business and Public Policy* (New York: Atherton, 1964), Chapter 29.

¹⁶ Scholars are increasingly interested in this aspect, however. See John Ferejohn and Morris Fiorina, "Purposive Models of Legislative Behavior," *American Economic Review*, 65 (May, 1975), 407-414.

long before and much more frequently than they worry explicitly about gain or loss of votes in the next election.¹⁷ Hence, the more comprehensive formulation here.

(2) *Intra-Washington influence.* Another set of considerations in voting has to do with satisfying a set of actors within Washington, who are not necessarily closely connected to the constituency. These include going along with one's party leadership, favor-trading among fellow legislators, and following the lead of the administration, particularly if the President is of the deciding legislator's party. One takes these into account, presumably, in order to build influence within the government, a set wider than the House itself. The same concept, retitled, could be used for state or foreign capitals.

(3) *Good public policy.* Most legislators have their conception of good public policy, and act partly to carry that conception into being. Their policy attitudes, their ideology (if it can be called that) decidedly affect their behavior. Their previous pattern of behavior, their voting history, enters here as well, since that pattern represents their traditional policy position on the issue currently confronting them.

These appear to be the goals which most legislators seek most of the time. I will shortly present ways of introducing them into an integrative model of legislative voting and of operationalizing and using them empirically.

The Place of Various Previous Models

Building on these assumptions about information processing and goal orientations, we are now in a position to discuss how various previous models of legislative voting might inform the development of a more integrative model.

I have found it useful to portray congressmen's decision-making as a sequential process, for which a version of modelling familiar in this and other contexts seems quite suitable. Such a process model pictures the legislator as beginning with a very simple deci-

¹⁷ Subsets of constituents, such as constituency elites interested in the content of certain public policy outcomes, are also influential without necessarily being directly relevant to re-election chances. On these points see John Kingdon, *Congressmen's Voting Decisions* (New York: Harper & Row, 1973), Chapter 2.

sion rule. If that rule can be applied, he does so, and is done with that decision on that particular vote or bill. If he cannot apply that rule, he proceeds to one which is somewhat more complex, which is applied if it can be. Previous steps are seen as controlling subsequent steps in the model, in the sense that if the early decision rule suffices, the congressman uses it and need not proceed further. This feature is both plausible as applied to congressmen and congruent with a good bit of more general literature on decision-making.¹⁸

In terms of the previous models of legislative voting, both the consensus model which I presented earlier and the one developed by Cherryholmes and Shapiro exhibit this kind of general structure. In addition, both of them start by assuming that there is a set of influences on the vote; Cherryholmes and Shapiro call them predispositions, and I call them a set of actors (including the congressman's own policy attitude) which might affect decisions. In my model, if there is no conflict among these actors, the decision is made: the congressman votes with them. If there is conflict, he must search further. The fundamental logic of the Cherryholmes-Shapiro simulation is quite similar. When predisposing factors agree, the die is cast; when they do not, the congressman must consider the issue further, through a communication process. The same thread is found to a degree in the Matthews-Stimson cue-taking model, which works best when the congressman's principal cue-givers agree and is significantly in error when they do not. Several important cue-givers in their model, furthermore, themselves represent an existing consensus in the perceptual fields of congressmen, including heavy majorities of the House, party, or state delegation. Thus the essential driving logic of an integrative model—the legislator's search for some sort of agreement among a set of possible influences on the vote which predisposes him in a certain direction, and some further decisional process in the absence of that agreement—is a thread common to a number of the models of legislative voting previously developed.

As I see it, cue-taking enters the decisional process in two critical ways. First, it is a means to an end. If legislators are goal-

¹⁸ For a general discussion of modelling decision processes, see Herbert Simon, *The Sciences of the Artificial* (Cambridge, Mass.: MIT Press, 1969). For an application, see Cyert and March, *A Behavioral Theory of the Firm*.

oriented, as we have portrayed them as being, then, as Matthews and Stimson rightly argue, taking cues from fellow legislators is a prominent way to translate their goals into votes. If a congressman wants to vote so as to satisfy his goal of bringing about good public policy, for instance, one easy and frequently used way to accomplish this aim is by picking fellow congressmen as cue sources who agree with his own general philosophy. I have developed some evidence elsewhere that this choice of colleagues according to agreement with one's own policy attitude on the issue is in fact what is happening.¹⁹ As Clausen persuasively argues,²⁰ recognition of this phenomenon implies that a cue-taking model and a policy dimension interpretation of legislative voting, far from being incompatible, are actually quite complimentary. The same general line of thinking applies to goals other than the policy goal. For example, a deciding congressman may follow the guidance of colleagues whom he considers to have "good political judgment," particularly from the same state delegation, in order to vote in a way most likely to satisfy constituents.

The second occasion on which cue-taking enters the decisional process is when such other possible influences on the vote as goals, predispositions, ideology, or constituency considerations do not provide sufficient guidance to make a decision. This situation is particularly exemplified by the many low-visibility, minor issues which come to the floor, about which very few people apart from a few involved colleagues care. Yet these votes must be cast, since a poor attendance record is a considerable liability with constituents in the next campaign. In such a case, the congressman's own policy attitude does not provide guidance, since he does not care about the issue; his constituency may be utterly indifferent; and there may be no intra-Washington consideration which would prompt him to vote one way or the other. This is not the same case as the cue being a means to an end, since here, there appears to be no goal-oriented consideration which would point the legislator in a given direction. Both the literature and practical experience are replete with examples of such votes, in which a deciding congressman is bereft of other guidance and simply follows a trusted colleague, sometimes quite blindly. This view of cue-taking is consistent not only with

¹⁹ Kingdon, *Congressmen's Voting Decisions*, 72-79.

²⁰ Clausen, *How Congressmen Decide*, 33-35.

Matthews' and Stimson's work, but also with the Cherryholmes-Shapiro model, in which it is postulated that a congressman turns to a communication process when predisposing factors do not provide sufficient guidance.

The literature on policy dimensions is relevant in a number of ways. First, policy dimensions can be seen as a major way of describing the final voting behavior. As such, an accounting of the dimensions which one finds in legislative votes may simply be a useful description of the structure of votes, rather than a description of the processes by which legislators arrive at their votes. In addition to this treatment of dimensional analysis as a summary of outcomes, however, there may be ways in which a policy dimension theory can be seen as a part of the decisional processes themselves, as Clausen argues. As I see it, these ways fall generally into two categories. First, policy dimensions enter the process through some attitudinal mechanism. The congressman has a set of attitudes about matters of public policy, obviously closely connected to policy goals, discussed above, which affect his voting quite directly. Thus, a congressman sorts a given issue into a policy dimension, matches his own position on that dimension to the proposal under consideration, and picks the alternative which has the best match to his own position. His policy attitudes also very prominently affect his choice of cues, as stated above. Secondly, as Clausen argues, policy positions taken by the congressman are affected not only by his attitudes but also by such political actors as his constituency and party which he feels are important to him. Thus constituency considerations figure prominently in voting on civil liberties matters, while party affects voting on Clausen's government management dimension. As I have treated these actors above, their importance derives from their clear connection with a congressman's goals: constituency and interest groups with reelection, party and administration with intra-Washington influence, and so forth.

Finally, a legislator's previous voting history is closely aligned with his policy position. If he has a well-established voting history, it is quite likely that he will also have a rather firm policy attitude on the issue, and vice-versa. It would be possible, of course, to have a voting history without a very firm attitude, particularly in the case of rather minor issues to which a congressman has not paid a great deal of attention over the years and has simply

taken to voting on by habit. Even in that probably infrequent case, however, the voting history defines the congressman's policy position on the issue, and hence, his position on the policy dimension of which the issue is a part. Thus voting according to voting history and according to policy position is seen in this paper to be closely connected.

An Integrative Model

We are now in a position to present a model which attempts to integrate the various models in a fashion which incorporates the features just discussed. That model is displayed in Figure 1.

The first two steps are the same as the first two in the consensus mode of decision, which I have presented elsewhere.²¹ If there is no controversy in the environment at all, the congressman's choice is simple: he votes with that environment and is done with it. On many bills, for instance, a unified committee reports the bill and nobody opposes the committee position in any particular. If there is some controversy, he subsets the environment, considering only the actors which are most critical to him—his own constituency, his party leadership, his trusted associates in the House, his own policy attitude, etc.—which I call the "field of forces" which bear on his decision. If there is no conflict among those actors, he votes with his field. I assume, as a legislator does, that if there appears to be no consideration which would prompt him to vote in a way different from that toward which he is impelled by every factor in his field of vision, then there is no reason to think twice. And as I have argued above, this is a beginning to an integrative model which is common to a number of the previous works on legislative voting.

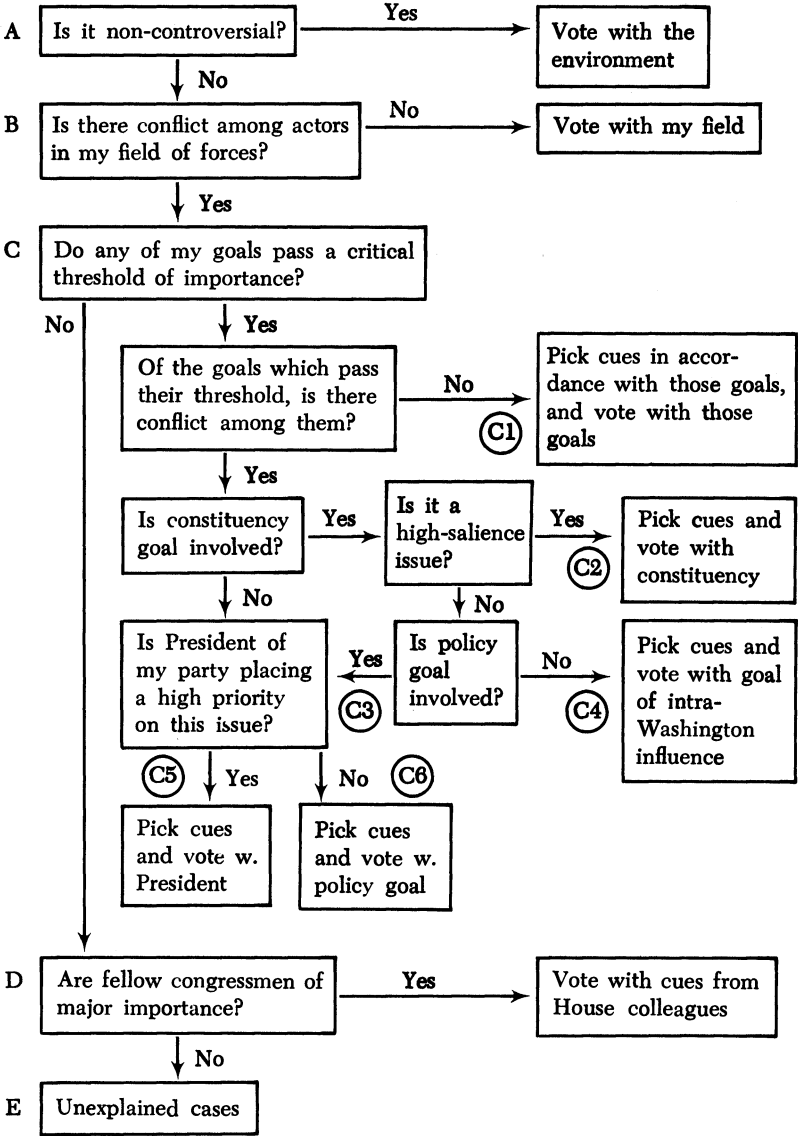
If there is some conflict among the congressman's relevant actors, he then proceeds to consider his goals, which I conceive for the purposes of this paper as being the three discussed above—constituency, intra-Washington influence, and public policy. But a goal is not brought to bear on the decision if it seems unimportant to him on this issue. It must pass what I have labelled a critical threshold of importance in order to be evoked and relevant to the decision. For example, a congressman's constituency may have a vague and largely unarticulated opposition to foreign aid. In that

²¹ Kingdon, *Congressmen's Voting Decisions*, Chapter 10.

FIGURE 1

AN INTEGRATIVE MODEL OF LEGISLATIVE VOTING DECISIONS

Step



case, he would say that there was a constituency opinion on the issue, but that it was not intense enough to bother taking account of. The same could apply to the other goals. In the next section of this paper, I present some operationalizations of these thresholds and use them to deal with data on voting decisions.

If none of the goals is important enough to the congressman in the given decision to be relevant, he then proceeds to follow trusted colleagues within the House. He chooses colleagues who are on the committee that considered the bill and who agree with him in general philosophical, policy terms.²² If one or more goals are important enough, he asks if there is conflict among the goals which have been evoked. If there is none, the choice is then clear: to vote with the evoked goal or goals (Step C1). It could be in this case that only one of them is relevant to the decision, or that two or even all three are, but that they all point him in the same direction. For example, it could be that the policy goal on a given issue is the only one which passes its critical threshold, and the other two, while either opposed to, favorable to, or neutral concerning his conception of good public policy, are not in any event important enough to him on that issue to be potentially controlling. He votes in that case according to his conception of good public policy. As the model specifies, part of this decision may well be picking cues within the House to reinforce his policy goal, as a means to that end, in the fashion discussed above. Other examples of no conflict among evoked goals could be given, but this one will perhaps suffice.

If there is some conflict among the goals which the legislator considers relevant to his decision, he proceeds implicitly to some decision rules which help him sort out the conflicts and make a satisfactory choice. It might be helpful at this point in the argument to present all the logically possible combinations of conflict among the three goals, which is done in Table 1. In the first column, the possible combinations are listed, and the second and third columns contain the outcomes which the model would predict for each of the combinations. The numbers are relevant to the operationalization, which is explained in the next section of this paper.

²² I have presented elsewhere the decision rules used to choose House Colleagues to whom to turn for guidance. See *Ibid.*, Chapter 3.

TABLE 1
 ALL POSSIBLE COMBINATIONS OF CONFLICTS AMONG GOALS,
 AND THE RESULTANT OUTCOMES

Combinations	Outcomes, ^a Expected and Actual		Totals
	High-salience Issues ^b	Low- or Medium-Salience Issues ^b	
Policy and constituency vs Intra-Washington	Constituency (C2) 1/2 ^a	Policy or Pres. ^c (C3) 2/2	3/4
Policy and intra-Wash. vs Constituency	Constituency (C2) 0/0	Policy (C3) 3/3	3/3
Constituency and intra- Wash. vs Policy	Constituency (C2) 0/0	Policy or Pres. ^c (C3) 0/0	0/0
Policy vs Constituency	Constituency (C2) 1/2	Policy (C3) 6/6	7/8
Constituency vs Intra-Washington	Constituency (C2) 0/0	Intra-Wash. (C4) 3/4	3/4
Policy vs Intra- Washington	President ^b (C5) 3/5	Policy ^b (C6) 3/3	6/8
Totals	5/9	17/18	22/27

^a The goal stated in each cell is the expected outcome, the goal which the model would predict would dominate the decision. The notation in parentheses refers to the appropriate step in Figure 1. The actual performance is captured in the numbers in each cell. The first is the number of cases in which the outcome is as predicted by the model, the second is the total number for that cell. For instance, in the case of a conflict between the constituency and intra-Washington influence goals, on low- or medium-salience issues, the model would predict that the representative would vote according to the intra-Washington consideration. Of the four cases in which there was such a conflict on such an issue, the congressman voted as the model expects in three.

^b In the case of the conflict between Policy and Intra-Washington, "high-salience" refers to the presidential involvement specified in Figure 1, Step C5, low-salience to non-involvement (Step C6). In the others, the salience of the issue refers to the general visibility of the issue in the press, in the public, and among participants. See *Congressmen's Voting Decisions*, 292-293, for the coding particulars.

^c In these cases, since the congressman cycles through Steps C5 and C6, there is a chance that the President's request may over-turn the policy consideration, and it did in fact happen in one case. Thus that case is coded as accounted for by the model, even though policy did not control, because the model predicted the outcome correctly. In the other case, the President's priority is not involved, so the congressman votes according to his policy position. See the text for further explanation.

There is a variety of ways in which the decision rules could be stated in this part of the model. I hypothesize that the congressman considers the constituency interest first. He may not end up voting with the constituency, but he always considers it when it is above the minimal level of importance. Placing this goal first is in keeping with the fact that the congressman owes his tenure in office to his constituency, and as Fiorina and Mayhew argue,²³ reelection is of critical importance to him.

If the constituency is not involved, the only logically possible conflict among the three goals left is between policy and intra-Washington influence. In that case, I hypothesize that the congressman has a disposition to vote with his policy goals, unless he is of the same party as the President and the President places a high priority on the issue. Intra-Washington considerations other than that one, such as party leadership requests or favor-trading, would not, I would argue, be enough to overcome a really strong policy predisposition. But a high-priority request from a president of his party would.²⁴ The results in Steps C5 and C6 of the model reflect this reasoning.

If the constituency goal is involved, the congressman weighs that consideration against policy and/or intra-Washington influence. I have set forth elsewhere an account of that sort of balancing.²⁵ The key here is that there is a filter for the salience of the issue—the general visibility of the issue in the press, in the attentive public, and among the participants in the legislative process. If the issue is of high salience, and if constituency is a relevant consideration, the model postulates that in view of the likelihood that important constituents will notice and disapprove of a vote out of keeping with their interests, the constituency consideration will dominate the others (Step C2). If the issue is of lower salience, however, the congressman has more freedom to allow his policy views or intra-Washington considerations to control the choice.

In the case of low- or medium-salience issues, if the policy goal

²³ Fiorina, *Representatives, Roll Call, and Constituencies*, and Mayhew, *Congress: The Electoral Connection*.

²⁴ For some evidence on these points, see Kingdon, *Congressmen's Voting Decisions*, Chapters 4 and 6.

²⁵ *Ibid.*, 35-44. The same balancing logic applies to Step C1. If constituency is not sufficiently intense to pass the critical threshold and policy position is sufficiently extreme, for example, policy dominates constituency.

is relevant to the issue, the congressman is disposed once again to favor it. He must check the possibility, however, that the intra-Washington goal would be involved and would center on a priority request from a President of his party which conflicts with his policy goal. He therefore (at Step C3) cycles through the presidential step described above, but in most cases ends up voting in accordance with his policy views (Step C6). If the policy goal is not relevant, the only logically possible conflict (Step C4) is between constituency and intra-Washington influence. Since it involves a low- or medium-salience issue at that point, I hypothesize that the congressman decides in favor of the intra-Washington consideration, in line with the argument presented above.

I have now discussed a framework by which, I would argue, the various models of legislative voting might be persuasively fit together into a general theory of legislative voting decisions which is at once comprehensive, parsimonious, and plausible. I have detailed, both verbally and through the integrative model, the ways in which a set of decision processes may be tied together. It remains now to present ways of operationalizing the key concepts and applying them to a set of data on congressmen's voting decisions.

ANOTHER LOOK AT THE DATA

In this section, I apply the concepts discussed above to my interview data, which are described at length in *Congressmen's Voting Decisions*.²⁶ Briefly, I repeatedly interviewed a sample of Members

²⁶ For readers who are not familiar with the earlier study, it may be useful to present some details of the research design beyond what is presented in the text. The core of this study, which provides the data base for the quantitative analysis presented in this article, was a set of interviews with congressmen. In contrast to relying on roll call analysis or on standard survey interviewing, each of these interviews concentrated on some specific vote or votes that were currently or very recently under consideration. It sought to develop a kind of life history of that decision, including the steps through which the congressman went, the considerations which he weighed, and the political actors who influenced him.

There are two sampling questions involved: choosing the respondents, and choosing the votes about which to ask. As to the first, the sample of respondents is a probability sample of members of the U.S. House of Representatives in 1969, stratified by party, seniority, and region. I interviewed fifteen congressmen for each vote chosen. Once four draws of 15 congressmen ($n=60$) had been made, I started to return to the first 15-member sample,

of the U. S. House of Representatives in 1969, concerning their sources of information and voting cues, their decision rules, and the importance of various political actors in their decisions. Each of the interviews, in contrast to a survey type of instrument, concentrated on one decision which they had recently made. Generalizations are thus based on my cumulation of these decision histories

and went through the sample in that fashion for the rest of the congressional session, 15 per vote, returning to a given congressman every fourth vote. It should be emphasized that the *decision*, not the congressman, is the unit of analysis. Since each congressman was interviewed about several voting decisions, the resultant number of cases is approximately the number of congressmen interviewed times the number of decisions each was asked about, or precisely, 222 decisions.

As to the selection of votes, given the issue-by-issue design, I had to choose votes weekly, as the issues came up for floor consideration. I therefore could not rely on conventional sampling procedures, which require a final population list of votes as a sampling frame. I thus chose votes which were receiving some attention by congressmen, press, lobbyists, and others; votes in which several political actors (e.g., constituency, party, administration, etc.) might have the potential for being involved in decisions; and votes about which there was fairly extensive and intense conflict, upon which people appeared to be expending energy and political resources. The result was a sample of "big" votes of the session: ABM deployment, surtax extension, tax reform, HEW appropriation, state control over the poverty program, cigarette advertising, agriculture payment limitations, electoral college reform, water pollution abatement, foreign aid, campus unrest, elementary and secondary education, the debt limit, HUAC and the seating of Adam Clayton Powell, 15 issues in all. While these were all important votes, they were clearly not uniform in importance or in public salience, with some being considerably more salient than others.

The interview was conducted in a conversational fashion, with no notes taken. After I cited the vote which I wanted to discuss, I asked a general open-ended question: "How did you go about making up your mind? What steps did you go through?" After the question was answered completely and appropriate probes were exhausted, I asked a series of questions about each of several hypothesized influences on the vote, which were designed to pick up any other influence which was not spontaneously mentioned in response to the first question. I asked about the possible involvement of fellow congressmen, party leadership and informal groups within the party, staff, constituents, administration or executive branch, interest groups and reading. Answers to these questions were then coded according to the direction in which each influence would point the congressman and the importance which he appeared to attach to each influence.

For more detail on these procedures and the rationales for them, please consult Kingdon, *Ibid.*, Chapter 1, Appendixes A and B.

over the course of the entire session, and the unit of analysis is the decision ($n = 222$).

I should make clear at the outset that, strictly speaking, the theory which I have presented above is not to be completely tested in the pages to follow. The model was generated from the previous literature and from the data set used in my own previous study. Hence, a complete validation would have to rest on a testing against new, independently generated data sets. What follows here is a partial test and an illustration of the ways in which the concepts might be measured and used. That return to the data suggests that the model is plausible, parsimonious, and consistent with what we know about the ways in which representatives actually make their decisions. I obviously consider its validity to be rather strongly indicated, but also obviously, a fully definitive validation would have to be done in a different fashion.

As far as the first two steps in the integrative model are concerned (Figure 1), the operationalization is the same as that presented in my earlier model. Since the votes were chosen partly to maximize conflict, there are no cases in these data of non-controversial votes. As far as the second step is concerned, the congressman's field of forces includes his own specific policy attitude toward the issue under consideration, his constituency, fellow congressmen to whom he paid attention, interest groups, his staff, his party leadership, and the administration. There is no conflict among the actors in this field 47 percent of the time, and respondents voted with their fields in all these cases.²⁷ Given that the votes selected were relatively high-conflict votes, the fact that the first two steps account for nearly half of these cases argues that these steps must have quite a high predictive power for legislative votes in general, since the general case is surely less conflict-ridden than these votes.

Starting with Step C, a major question of operationalization is the critical threshold of importance for each of the three important goals. What indicators would tell that a constituency interest, for instance, is sufficiently important that the congressman considers

²⁷ As I note elsewhere (*Ibid.*, 306) some intra-actor conflict (e.g., among constituents, among colleagues) is ignored here, and properly so. The key question is whether a given *consideration* (constituency, party, etc.) points in one or another direction, and what is the state of conflict among these considerations.

that constituency goal at Step C, rather than noticing but largely neglecting the constituency position in his decision? There is such an indicator in my data, the "importance" coding for each actor. With this coding, the congressman's comments relative to each actor were coded into four categories: (1) the actor was of no importance in the decision; (2) the actor was of minor importance; that is, the congressman noticed the actor's position, checked it, or the like, but the actor was of no greater importance; (3) the actor was of major importance; that is, whether or not the congressman ended up voting with the actor, he weighed the actor's position carefully and the actor had a major impact on his thinking; (4) the actor determined the decision, to the exclusion of other influences. The inter-coder reliability for this variable was very good.²⁸

Building on this coding, the critical thresholds of importance for the goals are operationalized as follows: for the constituency goal, the congressman passes that threshold on the decision at hand if his constituency for that decision is coded as being of major or determinative importance. If it is coded as being of minor or no importance, we consider that the threshold has not been passed, and that the constituency goal is not sufficiently important to the congressman on that decision to be involved in Step C of the model. Substantively, passing this threshold could be due to one or both of two reasons: either the constituency feeling is quite intense on the issue and any congressman would want to take account of it, or the congressman considers catering to constituency interest an important goal regardless of constituency intensity. For present purposes it is not so critical which or what combination of these two reasons is responsible for the constituency being of major importance in the decision. Whatever the reason, the congressman's goal of satisfying constituents is evoked.

The constituency position, it should be noted, may not be the whole constituency, the mass public, or even a majority of the constituency. It could be these, but it could as easily be the position of a fairly narrow subset of the constituency, such as school administrators on education funding. In this connection, interest groups do not appear as a separate force in the model, since, as I have maintained elsewhere, they appear to have little impact on congressmen's voting decisions apart from their constituency con-

²⁸ On the coding, see *Ibid.*, 16-23, 288-289.

nections.²⁹ Thus interest groups are subsumed under constituency for present purposes, and ignored as being important in their own right.

It might be possible that a coding of "major" or "determinative" importance would be closely associated with the congressman's vote in accordance with the constituency position. If such were the case, the test of the model would not be as good as could be hoped, since passing the critical threshold would by itself imply a constituency-oriented vote, lending an artificial predictive power to the model. It turns out, however, that these apprehensions can be alleviated somewhat. Of the cases in which there is some conflict in the congressman's field, constituency is coded as being of major or determinative importance in 42. Of these 42 cases, the congressman votes with the constituency position 62 percent of the time, a performance somewhat better than chance (which is 1/2), but not dramatically better. By contrast, the model correctly predicts 93 percent of those cases. Thus, while there is naturally some association between the importance coding and the vote, it is not so strong as to negate the value of defining the critical threshold in the fashion described. The coding does not by itself produce the predictive performance.

The intra-Washington goal is treated in a similar fashion. If either the congressman's party leadership or the administration is coded as being of major or determinative importance, the congressman is considered to have passed the threshold on this decision and the goal is evoked. In addition, fellow congressmen could define the passing of the threshold on this goal, if they are coded as being of major or determinative importance, *and* if some consideration of vote-trading or intra-House power is involved. In other words, fellow congressmen do not trigger this goal, even if coded major or determinative, if the deciding legislator uses his colleagues simply to reinforce ideology, constituency, or party, or if colleagues are used in the absence of other guidance. These uses of fellow congressmen are provided for elsewhere in the model. To be relevant to the goal of intra-Washington influence, colleagues must be important for their own sakes, not because they are convenient surrogates for something else or because they are the only cues left. This supplementary coding was made by a rereading of the inter-

²⁹ *Ibid.*, 143-146.

view protocols in the cases involved, to see how colleagues were being used.

The goal of good public policy presents something of a problem in these data. Because the interviewing was done at the time of decision, respondents nearly always held some articulated policy attitude toward the bill or vote at hand, and voted consistent with it. But it would be very difficult, given these data, to determine the intensity or background of that attitude earlier in the process of decision. Therefore, some measure of the importance of the policy goal other than the intensity of the congressman's policy attitude toward the vote at hand is needed. Instead of trying to tap that intensity, I use here two measures of the congressman's policy position. The policy goal is considered to pass the critical threshold of importance if *either* his voting history on similar issues is coded as being of major or determinative importance in his decision, *or* his ideology as measured by Americans for Democratic Action (ADA) and Americans for Constitutional Action (ACA) scores is sufficiently extreme as to be a good guide to his decision. Some congressmen are simply considered extreme "liberals" or "conservatives," by themselves and by everyone associated with the process. If they are, I assume that their ideology is sufficiently strong to give them considerable guidance, and to cause the congressman to pass the threshold on the policy goal. Because of a well-established voting history or a relatively extreme ideological position, in other words, he has a pretty fair notion of what constitutes "good public policy" for him in the current instance. Operationally, the ADA and ACA scores are used to form an index, in which a congressman is considered to be sufficiently extreme if either the ADA or ACA score is 90-100 or 0-10, and if the opposite score is in the opposite three deciles among my respondents. If the ADA score is zero, for instance, and the ACA score is in the upper three deciles, the congressman is considered to be a conservative; if the ADA score is 100 and the ACA score is in the bottom three deciles, for another example, the congressman is defined as liberal. Congressmen who do not meet the criteria described are considered to have a sufficiently "moderate" record that ADA-ACA position is not a guide to votes, and thus do not evoke the policy goal.

An impressionistic scanning of the Members so classified confirms that those labelled the most liberal and conservative by the ADA-ACA criterion would be clearly regarded by most observers of the

House as being correctly labelled. The index fails to identify some members for whom certain policy goals are clearly relevant, as, for instance, some very public doves on ABM deployment. In that sense, it may underestimate the importance of policy goals, since it discards some members for whom policy goals may be highly important. That underestimation also lowers the overall predictive performance of the model a bit. But the index does not make the other error: those who are identified as liberal or conservative are not mislabelled.³⁰ As far as triggering the policy goal is concerned, the ADA-ACA index and the coding for the importance of voting history make a roughly equal contribution. Of the cases which exhibit some conflict in the field of forces in which the policy goal is evoked, the ADA-ACA index alone is responsible for that triggering in 30 cases, voting history alone in 27, and the two together in 25.

Other operationalizations of the model are fairly straightforward. (1) Salience of the issue is a trichotomy (low, medium, high), as defined by the attention the issue appears to be receiving in the press, among congressmen, and among other participants in the legislative system.³¹ The model's specification of the cutting point being between high and medium salience is consistent with evidence presented elsewhere,³² that high-salience issues are distinctively constituency-oriented, whereas low- or medium-salience issues are less so. (2) The priority which the President places on the issue is determined from my knowledge of the administration's position and lobbying activities. In the first year of the Nixon administration, priority items tended to have to do with the budget, and these cases particularly centered on the debt limit and the surtax extension. (3) At Step D, fellow congressman importance is once again the importance coding, major or determinative constituting the criterion of entrance into that step.

The quantitative fruits of the model generation and data analysis are presented in Table 2, with a subset for Steps C2 through C6 more fully elaborated in Table 1. Overall, the model correctly pre-

³⁰ It is also true that ADA and ACA scores relate strongly to other such indexes, lending an additional validity to the measure. See Carol Goss, "House Committee Characteristics and Distributive Politics" (paper prepared for delivery at the 1975 American Political Science Association meeting), 7.

³¹ See Kingdon, *Congressmen's Voting Decisions*, 292-293, for this coding and for the votes so classified.

³² *Ibid.*, 42-44.

TABLE 2
QUANTITATIVE PERFORMANCE OF THE INTEGRATIVE MODEL

Step (see Figure 1)		Accuracy ^a	Percentage of cases ^b	Cumulative Percentages ^c
A	Non-controversial votes	—	0%	0%
B	No conflict in field	104/104 = 100%	47	47
C1	No conflict among goals	74/79 = 94%	33	80
C2-C6	Conflict among goals (from Table 1)	22/27 = 81%	10	90
D	Fellow congressmen	5/5 = 100%	2	92
E	Unexplained cases	n = 7		

^a Accuracy equals the percentage of the cases in which the congressman votes as the model specifies. For example, at Step C1, there are 79 cases in which there is no conflict among the goals, and the congressman votes in accordance with the evoked goals in 74 of those cases. Thus accuracy = $74/79 = 94\%$. The number of "mistakes" made by the model at this step is five.

^b Percentage of cases equals the percentage of the total ($n = 222$) accounted for by that decision step. For example, in Step C1, it is $74/222 = 33\%$.

^c The cumulative percentage equals percentage of 222 accounted for by that step plus all previous steps. For example, at Step C1, it is $74 + 104 = 80\%$.

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dicts 92 percent of the voting decisions. Of those, only 10 percent are accounted for by Steps C2-C6, the most elaborate part of the model, which itself is not very elaborate. It seems clear that legislators' voting decisions can be understood as the workings of extremely simple decision rules, rules which are not generated in some arbitrary fashion, but in a way which is consistent with quite a rich body of previous literature on legislative voting. It must be remembered also that this particular sample of votes contains those decisions which should be the hardest to predict. I deliberately selected votes which were among the most conflict-ridden of the session, which makes the high degrees of consensus (at Steps B and C1) really quite striking. One would not have expected these results, given the votes selected. Thus the model should do even better for run-of-the-mill votes. If there is as little conflict among actors and goals with these relatively "big," high-visibility votes, then there should be even less with more routine votes. I would expect, however, that for those votes, the simpler Steps A, B, C1, and D (stressing no conflict and House colleagues) would account for

more of the total than these data indicate, and the more elaborate Steps C2-C6 would be resorted to even less frequently than these data indicate.

The model does specify that the congressman *picks cues and* votes in accordance with the specified goal. Thus far, we have only considered the percentage of *votes* predicted, without reference to whether or not the congressman also picked cues to reinforce those votes. I take it that "picking cues" here refers to choosing fellow congressmen on whom to rely according to their agreement with the goal specified in the model. Thus fellow congressmen at Step C2 should not be opposed to the constituency position, if the model is right; or at Step C6, they should not be opposed to the deciding legislator's policy position. If this factor is taken into account, we lose five cases which would otherwise be correctly predicted. That is to say, there are five cases in which the actor "fellow congressman" is opposed to a decision which was governed by the specified goal. Building this loss into the overall figures, therefore, the overall performance of the model, defined as the congressman's *both* voting as the model specifies *and* avoiding colleagues who are opposed to that vote, is 90 percent. The predictive performance, in other words, remains high.

Alternative Formulations

It may be useful to test some alternative formulations of the model, to see if this is the formulation which works best in the sense of correctly accounting for outcomes. Such an analysis would help to evaluate some plausible alternative hypotheses about the structure of the model and the place of several of the variables in it. I present here two types of alternative formulations: (1) changes in the basic structure of the model, and (2) changes in certain parts of the model.

The Basic Structure. There are three changes in the basic structure which have been tried on the data: bypassing the first consensus steps in the model, bypassing the non-consensus part of the model, and substituting one simple decision rule for the non-consensus part.

First, to bypass the first steps, we postulate that the 104 cases correctly accounted for by the consensus step (Step B) can be predicted by subsequent steps in the model (Steps C and D). In

other words, we start the model running at Step C. One logical feature of the model becomes immediately clear, namely, that the only way for the goals step (Step C) to fail to predict decisions correctly is for none of the three goals to exceed their critical thresholds. If any do exceed their thresholds, then it is logically impossible in the 104 consensus cases for the goal agreement step (Step C1) not to account correctly for the outcome. If goals pass their thresholds, in other words, there is agreement among them by definition, since the original Step B filtered the cases according to the consensus criterion. Of the 104 cases at issue, then, Step C would correctly account for 82. Of the remaining cases, which then reach Step D, following fellow congressmen of major importance picks up an additional nine cases. Thus Steps C and D account for 91 of the 104 cases, for an 88 percent accuracy rate; the original Step B accounted for all 104, a 100 percent accuracy rate.

Second, to bypass the non-consensus parts of the model, we drop out Steps C2 through C6, and observe what difference it makes. In other words, if there is conflict among the evoked goals (at Step C1), the model proceeds immediately to considering the position of fellow congressmen (Step D), rather than going through the decision rules designed to sort out the goal conflict. The issue then is how many of the 27 cases originally classified as Steps C2-C6 cases are accounted for by Step D, which turns out to be 12 of the 27, or 44 percent. This compares to 22 of the 27 (81 percent) in the original formulation. As with the first reformulation, this one does not improve on the original; in fact, it performs worse.

The third basic structural reformulation, instead of bypassing the non-consensus steps (C2 through C6), substitutes a simple but plausible decision rule for them, namely that in the event of serious conflict among his goals, the legislator votes in accord with his policy position. Of the 27 cases at issue, the policy goal is evoked in 23, and of those 23, the legislator does vote with his policy position in 17. Thus the hypothesized decision rule accounts for 63 percent (17/27) of the cases, compared to 81 percent (22/27) in the original model's Steps C2-C6.

Changes in Certain Parts. The last structural reformulation leads directly to some possible reformulations of parts of the model, particularly concentrating on various parts of the goals steps (Step C and substeps thereof). These changes fall into three categories: one concerned with the constituency goal, those concerned with the

intra-Washington influence goal, and one which eliminates the threshold requirement at the beginning of Step C.

First, in the steps of the original model which show a conflict between constituency and other goals (C2 through C4), one could state an hypothesis that if constituency is of major importance, given the primacy of re-election to a seasoned politician, the congressman should be expected to vote with the constituency every time. That model, however, would account for only 3 of the 19 cases, whereas the model presented in Figure 1 accounts for 16. Thus this reformulation would represent a distinct loss of ability to account for the outcomes quantitatively.

Second, taking up reformulations having to do with the goal of intra-Washington influence, one plausible hypothesis would be that congressmen of the President's party would follow his lead. In the session under study, the hypothesis would state that when Republicans were aware of an administration position and when it played some part in their thinking, they would vote with the administration position. It turns out that when the administration was involved in Republican decisions, they voted with the administration position 68 percent of the time. By contrast, the model presented in this paper accounts for 85 percent of the same 59 cases.

Another reformulation involving intra-Washington influence would allow more than simply a president of the legislator's own party to be involved at Steps C5 and C6. Suppose, at that step in the model, that either the President of one's own party, or one's own party leadership, or colleagues within the House engaged in a logrolling exchange, could overturn one's own policy position; in other words, the entire set of evoked intra-Washington considerations could be swung into play, rather than simply a president of one's own party. It turns out that only two cases are affected by that change, and the reformulation fails to predict them correctly, whereas the original model had correctly predicted them.

The final reformulation eliminates the requirement that a goal must pass a critical threshold in order to be evoked (beginning at Step C), and then asks how the 79 cases originally disposed of at the goal consensus stage (C1) fare without that threshold requirement. Operationally, then, the goals are evoked as follows: (1) if either constituency or interest groups are of *any* importance in the congressman's decision (rather than of major or determinative importance), then the constituency goal is evoked; (2) if either

administration, party leadership, or fellow congressmen are of any importance, the goal of intra-Washington influence is evoked; (3) the policy goal threshold remains unchanged, since the ADA-ACA index must provide some sort of direction. Then because some conflict among the goals is now introduced into the 79 cases that would previously have been filtered out due to the threshold requirement, we run the 79 cases through the non-consensus steps (C2 through C6) under the new conditions. The result is that Steps C2 through C6 correctly predict 62 of the 79 cases (78 percent), predict a result which does not in fact occur in 13 cases, and fails to provide a decision rule in four cases. If we allow those four cases to proceed to fellow congressmen for resolution (Step D), three of the four are correctly predicted there. Thus, by the combination of the non-consensus and fellow congressmen steps, we have correctly accounted for 65 of the 79 cases (82 percent), whereas the original model at Step C1 accounted for 74 of the 79 (94 percent).

In conclusion, after testing of several alternative formulations, it appears that the original model presented in Figure 1 emerges largely intact. None of the reformulations performs better in a quantitative sense, and many of them perform substantially worse. The good quantitative performance, however, does not address all of the questions which one might have about a model's usefulness. We now turn to some further questions.

A Caution about Quantitative Performance

It is appropriate to close with a caution that models of legislative voting should not be accepted solely because of their good ability to account for cases in quantitative terms.³³ In some situations in the social sciences, a good fit to the data is regarded as a sufficient condition to accept a model, since it is difficult to predict outcomes. In other situations, such as the case of legislative voting models, a good quantitative performance is a necessary, but not sufficient condition to accept a model, since outcomes are quite easy to predict. The null hypothesis in the legislative case predicts 50 percent

³³ For a general discussion, see Herbert Simon, "On Judging the Plausibility of Theories," in *Logic, Methodology, and Philosophy of Sciences*, III, ed. van Rootselaar and Staal, (Amsterdam: North-Holland Publ., 1968), 439-459.

of the cases by itself, since if a congressman were flipping coins between "yes" and "no" in order to decide, and a random model were also flipping coins, the random model and the congressman's behavior would agree half the time. Beyond this "impressive" chance performance, quite a simple model constructed from commonplaces in the literature—e.g., some combination of party, region, constituency, and President position—would probably do quite nicely in a statistical sense. Indeed, a model which simply postulated that all congressmen vote "yea," while not theoretically interesting, would yield a fairly good prediction.³⁴ As a matter of fact, most of the previous models discussed in this paper do quite nicely on their data sets, and we have become accustomed to models which predict about 85 percent of the cases. This is not to say that all possible models do well in terms of a criterion of ability to predict, as we have seen. Some models can be falsified, but that still leaves a number of models which do well.

In evaluating those remaining models of legislative voting, then, one should add to conventional criteria of statistical fit and quantitative performance, and use more conceptual and theoretical considerations. I outlined above some of these considerations, including plausibility, simplicity, political realism, and comprehensiveness. The advantages of the model presented in this paper have to do with those considerations. Our discussion attempts to use the virtues of various previous models to construct a more integrated view of legislative voting. The resulting model is quite comprehensive, and yet does not achieve this comprehensiveness at the expense of simplicity, plausibility, and realism. There is also a compelling logic to the progression portrayed, as congressmen are seen as moving from the simple to the complex, from a simple judgment about the whole environment, to a subsetting of that environment, to a further subsetting which concentrates explicitly on goals. These sorts of considerations, rather than simply an im-

³⁴ For a discussion which makes the same point, see Matthews and Stimson, *Yeas and Nays*, 115. Weisberg has calculated various null models in addition to the 50 percent model, and has concluded that some of them can account for well into the 80 percent range. That fact places all the more importance on such considerations as plausibility, simplicity, and comprehensiveness. See Herbert Weisberg, "The Inherent Predictability of Legislative Votes" (paper prepared for delivery at the Annual Meeting of the Midwest Political Science Association, 1976).

pressive ability to account for cases quantitatively, commend the model.

An instructive illustration may be the juxtaposition of the model presented here with the analysis found in *Congressmen's Voting Decisions*. I will discuss two of the types of analyses found there: the correlation analysis, which attempts to determine the influence of each of a set of actors on voting decisions, and the consensus model, which presents a process model of the decisions. Taking the correlation analysis first, in *Congressmen's Voting Decisions*, I identify six actors in the legislative system who could conceivably have an influence on a congressman's votes: the congressman's constituency, fellow congressmen, interest groups, the administration and executive branch, his party leadership, and his staff. The position of each on the issue at hand (for, against, neutral) is treated as an independent variable affecting the vote, and agreement scores, bivariate correlations, partial correlations, and stepwise regression are generated from the basic correlation model. The results are presented in great detail in the earlier work,³⁵ and need not be repeated here. What is relevant to this discussion is that the multiple correlation between the six variables and the vote is .83, and that the residuals exhibit no pattern which would lead one to suspect the adequacy of the equation. Thus the quantitative performance is good, and for some purposes, such as the ability to sort out the influence of various actors on legislative voting decisions, the analysis is quite useful.

As a model of decisional processes, however, the correlation approach does not appear to be entirely satisfying. A major point of a model such as the one discussed in this paper is that most of the time, legislators do not "weight influences" as regression, correlation, or some computer simulations portray them as doing. If legislators were to make decisions in a fashion analagous to regression, they would be required to weight each potential influence and to consider simultaneously the entire set of weighted influences. Given the severe time constraints on decision, and perhaps a general tendency for human beings to avoid thinking in such a simultaneous weighting fashion, this mode would not seem to be a plausible model of decisional processes. Furthermore, such a mode of decision is simply unnecessary on most votes. If the various pos-

³⁵ Kingdon, *Congressmen's Voting Decisions*, Chapters 1-8, App. E.

sible influences agree, or the critical subsets of them agree, as they often do, then there is no need to engage in the weighting procedure that many other types of analysis require. A more minor consideration is that one would come away from the correlation analysis with the impression that fellow congressmen drive the decisions, which for a series of technical and conceptual reasons is probably not a complete model of decision, as I argue both here in this paper and elsewhere.³⁶ At any rate, it is important to distinguish the objectives of a regression mode of thought from those of a process modelling approach.

The other juxtaposition is between the model presented in this paper and the earlier consensus mode of decision, which is found in *Congressmen's Voting Decisions*.³⁷ The final steps of that model, unlike this current one, portray a deciding congressman as identifying the actors who were out of line with the dominant consensus in the field, and voting against them. The gain in predictive power of the model discussed here over that earlier model is trivial. What this new model does provide are important theoretical additions to the earlier work. As in the case of most of the models discussed in this paper, this integrative model does not negate or substitute for the earlier work, but rather adds to it in important ways.

To elaborate, the original consensus model in its last steps was not simply a matter of "majority rule" or mechanical counting. Somehow, there are processes at work, conceptualized earlier as "preconsensus" processes,³⁸ which lead the congressman to the conclusion that these actors against which he votes are isolated, of little consequence, and capable of being safely slighted. The model presented in this paper provides a way to interpret the pattern portrayed in the consensus mode. For example, there are 19 cases in my data in which the constituency is the one actor out of line with the rest of the field and in which the congressman votes against the constituency position. In 15 of those 19, constituency is coded as being of minor importance, meaning, in terms of the model presented in this paper, that the goal of satisfying constituents has not been evoked. The remaining four were all low-salience issues, in which the constituency interest could be over-

³⁶ *Ibid.*, Chapter 3.

³⁷ *Ibid.*, Chapter 10.

³⁸ *Ibid.*, Chapter 11.

ruled. Thus the operation of the model presented in this paper helps us to understand why the deciding congressmen could vote against constituency wishes in these instances. Or to take the other most numerous example, respondents voted against interest groups in 22 cases, of which 18 found constituency to be of minor importance and the remaining four found constituency opposed to the interest group position. Because interest groups are vulnerable without a constituency connection,³⁹ it seems quite understandable in terms of the integrative model presented here that congressmen should find it possible to vote against an interest group when the constituency consideration is either not evoked or is opposed to the lobby position. Other examples could be discussed.

The point is that deciding congressmen are indeed voting against these actors, as the original consensus model portrays them as doing. This new model adds some further thinking about *why* they are doing so. The same could be said for other models. Thus cue-taking is decidedly taking place, and congressmen are clearly voting in ways that can be interpreted according to policy dimensions. One advantage of the new model rests not in negating previous models but in providing a more comprehensive framework within which they can all be better understood.

CONCLUSION

This paper has started with a set of models of legislative voting which at first blush have seemed to many scholars to be alternative, contradictory accounts of voting decisions. Instead of treating them as competing models, however, I have chosen to discuss them as entirely compatible with one another, each having a grasp on an important part of the whole reality. Both by a verbal discussion of the models and of their place in legislative voting decisions, and by the generation of an integrative model, I have attempted to weave the various threads of reality together in a way which is satisfying both conceptually and empirically. I have ended by relating the new model to my data on congressmen's voting decisions.

There may be a wider applicability of the key concepts presented here beyond the case of legislative voting, in the sense that wide

³⁹ *Ibid.*, Chapter 5.

varieties of decision-makers may use versions of a similar general approach to their decisions. Legislators, bureaucrats, judges, and others may all be thought to search for consensus in their environment, to subset that environment in the event that agreement is lacking and to search for consensus within the most critical subset, to identify their most important goals and ask if there is agreement among them, and to get into more complex decisions if these simpler rules fail them. The well-known use of standard operating procedures in bureaucracies, for example, may be due to consensus among the relevant actors in the bureaucrat's environment—his superiors, the agency clientele, his co-workers, his professional associates outside the agency—that given SOP's are appropriate for a given class of cases. Or judges deciding on sentencing of convicted defendants, for another example, have been found to impose the sentence recommended by police, prosecutor, and probation departments if the three agree; if they do not agree, the judge must enter a more complex set of decision rules.⁴⁰ Mass public voting behavior exhibits similar characteristics: when various important influences agree, the voting decision is made; when they do not, the voter is said to be under "cross-pressure," and the decision becomes more complicated. Space does not permit an extended discussion of the possible applications, but it is worth noting that the model presented here may represent a general decision strategy, an approach to decision-making which is widely used. Thus this work hopefully contributes not only to further understanding of legislative behavior, but also to the general building of theory about decision processes.

⁴⁰ Bradley Schram, "An Investigation into Disparity in Sentencing in Wash-tenaw County Circuit Court," (Senior Honors Thesis, Department of Political Science, The University of Michigan, 1972), 73-74. I should mention that Schram's work was done entirely independently of my own, and neither could have influenced the other.