# **Sophisticated Voting and Gate-Keeping in the Supreme Court**

Gregory A. Caldeira Ohio State University

John R. Wright
Ohio State University

Christopher J. W. Zorn Emory University

"Sophisticated voting" has a solid theoretical foundation, but scholars have raised serious questions about its empirical importance in real-world institutions. The U.S. Supreme Court is one institution where sophisticated voting should be common, but, paradoxically, where scholarly consensus about its existence has yet to emerge. We develop and test a formal model of sophisticated voting on agenda setting in the Supreme Court. Using data on petitions for certiorari decided in October term 1982, we show that, above and beyond the usual forces in case selection, justices engage in sophisticated voting, defined as looking forward to the decision on the merits and acting with that potential outcome in mind, and do so in a wide range of circumstances. In particular, we present strong evidence for sophisticated behavior, ranging from votes to deny a case one prefers to reverse to votes to grant cases one prefers to affirm. More importantly, sophisticated voting makes a substantial difference in the size and content of the Court's plenary agenda.

#### 1. Introduction

Votes cast by members of collegial bodies do not always faithfully represent their true preferences. Faced with three or more choices, voters may forsake a first choice that has little chance of winning in order to prevent a least favorite alternative from winning. Typically called "sophisticated" or "strategic" voting, this behavior has solid theoretical footing, and scholars have discovered

We appreciate the assistance of the staff at the Reading Room of the Library of Congress for our work on the papers of Earl Warren, William O. Douglas, William Brennan, and Thurgood Marshall; and the staff at the Mudd Library at Princeton, for the papers of Justice John Marshall Harlan, Jr. Saul Brenner, Lee Epstein, James Hardin, Charles Smith, Jeff Segal, and several anonymous reviewers also offered helpful comments. Zorn also thanks the John M. Olin Foundation for their support of this research. The Law and Social Science and Political Science Programs of the National Science Foundation supported the collection of some of the data used in this article. An earlier version of this article won the 1997 American Judicature Society Award of the Law and Courts Section of the American Political Science Association.

instances of it in legislatures and elections around the world (Abramson et al., 1992; Cain, 1978; Calvert and Fenno, 1994; Denzau, Riker, and Shepsle, 1985; Farquharson, 1969; Krehbiel, 1993; Krehbiel and Rivers, 1992; Riker, 1982, 1986; Volden, 1998).

Although most of the empirical research on sophisticated voting has dealt with legislatures or large electorates, sophisticated behavior is not unique to these institutions. The U.S. Supreme Court is one institution where sophisticated voting should be common, but, paradoxically, where scholarly consensus about its existence has yet to emerge (see Epstein and Knight, 1998; Spiller and Spitzer, 1996; but cf. Segal, 1997). We say paradoxically, because opportunities for strategic manipulation of the Court's plenary agenda are plentiful: the Court follows a sequenced, binary voting procedure for decisions on certiorari and the merits; the sifting of cases occurs out of sight, with no need to justify those decisions; cases are fungible; and decisions to grant plenary review usually presage the outcome on the merits. Thus the selection of cases is fertile soil for strategic manipulation, and the consequences for the Court's plenary agenda are potentially significant.

Our objective here is to investigate the role of the sophisticated behavior in setting the U.S. Supreme Court's agenda. Using data on petitions for certiorari decided in October Term 1982, we show that, above and beyond the usual forces in case selection, justices engage in sophisticated voting, defined as looking forward to the decision on the merits and acting with that potential outcome in mind, and do so in a wide range of circumstances. We present strong evidence for sophisticated behavior, ranging from votes to deny a case one prefers to reverse to votes to grant cases one prefers to affirm. Furthermore, sophisticated voting makes a substantial difference in the size and content of the Court's plenary agenda.

In Section 2 we describe sophisticated voting, weigh its theoretical and empirical importance, and evaluate previous research. In Section 3 we offer a model of sophisticated voting on the Court. Section 4 describes our data and addresses the central issue of measuring judicial preferences. We develop measures of the preferences of the justices, both individually and in the aggregate, which allow us to gauge strategic behavior. In Section 5 we consider sophisticated voting on certiorari at the individual level. By examining the interaction between the preferences of the individual justices and the balance of the Court, we demonstrate the influence of both ideological preferences and strategic concerns in voting on certiorari. In Section 6 we present evidence on the significance of sophisticated voting: a substantial number of cases qualified as "sophisticated" outcomes in which the Court denied certiorari because of forward-looking behavior by one or more of the justices.

## 2. Strategic Voting in Political Institutions

Political scientists typically characterize voters as "sophisticated" (or strategic) when they do not vote for their favorite alternative at one stage of a voting procedure in the hope of bringing about a more favorable outcome at a later stage. In contrast, voters are described as "sincere" when they always vote for their favorite alternative at each stage of the voting procedure (e.g., Farquharson, 1969). This terminology, though fairly standard, is somewhat unfortunate in that it fails to distinguish between voters who have rationally looked ahead in the voting procedure and attempted to anticipate future outcomes from those who have not. Voters can be sophisticated, in the sense that they are forward looking, but nevertheless optimally vote for their favorite alternative at the first stage of a voting procedure. Voters who vote for their first choices, therefore, are not necessarily engaging in nonstrategic behavior. Austen-Smith (1987), for example, has shown that with endogenous and decentralized formation of the agenda, an "optimally constructed agenda" makes sophisticated and sincere voting observationally equivalent.

Terminological ambiguities notwithstanding, Riker (1986) and others have provided important examples of sophisticated voting in political institutions. Yet Krehbiel and Rivers (1990) raise serious doubts about the empirical significance of sophisticated voting in legislatures. One problem is that sophisticated voting requires a "precise agenda fixed in advance and known to all participants" (Farquharson, 1969). The sequence of votes in legislatures, however, is often fluid and not known to all members. A second problem lies in identifying the true preferences of legislators. Ordeshook and Palfrey (1988), for example, demonstrate the difficulty of finding sophisticated voting with incomplete information about preferences. If many recorded votes are sophisticated, then legislative voting records will not be a reliable guide to legislators' true preferences. A third problem is that legislative procedures permit legislators to avoid sophisticated votes that might otherwise create problems with constituents.

The issues Krehbiel and Rivers (1990) raise might make the study of sophisticated voting on the Court untenable. Yet agenda setting in the Court comes closer than does Congress to meeting the conditions of sophisticated voting. First, justices know with certainty the subsequent branches in the tree after certiorari. Although they may not know precisely which issues the Court will decide, they will have a general sense of the alternatives. Since the Court's agenda is essentially fixed, unlike the situation Austen-Smith (1987) describes, it does not present problems of observational equivalence between sophisticated and naive behavior. Second, the opprobrium associated with sophisticated votes on the merits does not attach to the Court's agenda, in part because justices need not explain their positions. Third, justices deal with the same issues and a small number of individuals year after year, so knowledge about preferences is both easier to obtain and more likely to be accurate. Moreover, as Calvert and Fenno (1994) argue, sophisticated voting is possible if the actors possess even probabilistic knowledge of the agenda and preferences.

Despite the possibilities for strategic manipulation of the Court's agenda, scholars remain divided over the existence and extent of such behavior. Schubert (1959) claims that during the mid-1940s, liberal justices chose to grant

<sup>1.</sup> Standard definitions of sophisticated and sincere voting appear in Ordeshook (1992:75), and discussion of the confusion surrounding these concepts can be found in Baum (1997:90–91). We define the concept explicitly for our purposes in the next section.

FELA petitions in which the lower court had decided against the worker, and in which the worker had a good chance of winning on the merits; and to deny certiorari in cases in which the lower court had favored the worker. Thus liberal justices engaged in sophisticated voting on FELA petitions. By contrast, Provine (1980) debunks the idea of strategic justices. During the Vinson and early Warren courts, conceptions of proper judicial behavior enforced jurisprudential criteria and "prevent[ed] the justices from exploiting possibilities for power-oriented voting on case selection" (Provine, 1980:172). Perry (1992) straddles the question of strategic behavior: the justices usually employ jurisprudential criteria; other times, ideological considerations come into play. Yet he also quotes justices and clerks who testify about various forms of strategic behavior.<sup>2,3</sup>

Palmer (1982) presents evidence for both policy-oriented and strategic behavior. Justices were more likely to vote for certiorari if they eventually voted to reverse on the merits—and if their side won on the merits (see also Brenner and Krol, 1989; Krol and Brenner, 1990). For cases decided on the merits during the Vinson Court, Boucher and Segal (1995:835) estimate the impact of a justice's policy preferences and the degree of support for his position within the Court on votes for or against certiorari: "[D]uring the ... Vinson Court a majority of the justices exhibited strategic voting behavior." Boucher and Segal claim evidence of aggressive grants but not of defensive denials.

The contradictions in previous work on sophisticated voting in the Court stem from several problems. First, prior work has lacked an adequate measure of judicial preferences; to detect sophisticated voting, we need to know where the justices stand initially. Second, previous studies have usually focused on cases decided on the merits rather than the full set of petitions. Selection bias plagues such samples; omitting cases never reviewed on the merits mitigates against finding evidence of sophisticated behavior. This omission is problematic for, as we shall see, much sophisticated voting involves denials of certiorari. Since

<sup>2.</sup> We have found many examples of "strategic recommendations" in memoranda from law clerks in the papers of Thurgood Marshall, John Marshall Harlan, Jr., and Lewis F. Powell. Consider a single example. Marshall's clerk raises strategic considerations in a memorandum on Rust v. Sullivan (89-1391) and New York v. Sullivan (89-1392):

CA1 has ruled to the contrary of CA2 on a number of the claims. The lawyers are quite good, and the full range of potential arguments have been made. In the normal case, this would be a pretty clear grant. Here, though, I would deny. The rumor mill has it that SOC [Sandra Day O'Connor] has changed her vote in Hodgson and that the statute will be upheld in its entirety. If we can't win Hodgson, it's hard to imagine the abortion case we could win. This case has the First Amendment dimension, which might help us with AAS [Antonin Scalia] or AMK [Anthony M. Kennedy], but I doubt it. Because every abortion case on which cert is granted creates a new opportunity to overrule Roe, I would deny on defensive grounds. Tactical judgments aside, the case is a grant.

<sup>3.</sup> For state supreme courts, Hall (1992) finds persuasive evidence of the impact of electoral forces in judges' decisions in death penalty cases; liberal judges in such cases moderate their votes on the merits in order to minimize the chance of a future defeat at the polls.

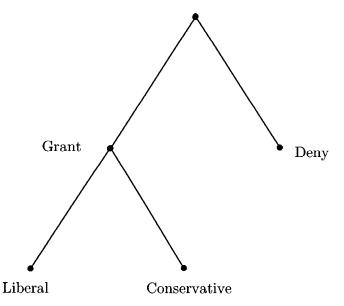


Figure 1. The Supreme Court's certiorari process.

most studies have included only cases given plenary review, we lack a complete model of voting on certiorari that includes strategic forces. Third, conceptual confusion characterizes much of this work; scholars have sometimes confused strategic and sincere behavior. We address these problems in the remainder of this article.

## 3. A Model of Sophisticated Voting on Certiorari

The Supreme Court follows a well-known binary procedure for decisions on certiorari and the merits. First, the Court decides whether to maintain or alter the status quo outcome established by the lower court, and second, for those outcomes it decides to alter, the Court establishes a new outcome to the right or the left of the status quo. This procedure is shown in Figure 1, where the Court's actions at the first stage are to deny (d) or to grant (g) certiorari, and the actions at the second stage are to decide the case in a liberal (l) or conservative (c) direction.4

We assume that each case on the Court's paid docket corresponds to a single dimension of the law, and that a point D on this dimension is the position of the status quo—the lower court's decision. Let L be the outcome when the Court grants certiorari and decides liberally on the merits and C be the

<sup>4.</sup> Strictly speaking, at the second stage justices must either affirm or reverse the lower court's decision. Affirming a conservatively decided case below, however, is tantamount to moving the outcome below in a more conservative direction; and affirming a case decided liberally below is tantamount to moving the outcome to the left. Similarly, reversing a case decided liberally (conservatively) below is equivalent to moving the outcome to the right (left).

outcome when the Court grants certiorari and decides conservatively. These three alternatives are ordered along a single ideological continuum, L < D < $C^{5}$  We assume that the precise locations of L and C are determined exclusively by the fact patterns and legal possibilities of the case, and that justices have complete information about the locations of these potential outcomes prior to their decisions on certiorari. Consequently, the justices may not craft opinions to locate outcomes at any point on the ideological line. The outcomes L, D, and C are instead exogenous, and the Court simply chooses among these alternatives.<sup>7</sup>

We assume that Supreme Court justices have single-peaked preference orderings over the outcomes L, C, and D, and we employ the notation L > D > C, for example, to denote the preference ordering L preferred to D preferred to C. A strategy for a justice is a pair of votes, one on certiorari and one on the merits. Given two alternatives at each stage, justices must choose from one of four possible strategies: (g, l), (g, c), (d, l), and (d, c), where g and d are the decisions on certiorari, and l and c are the decisions on the merits.

We say that justices employ *sophisticated* strategies when their optimal decision on certiorari depends on what they expect to happen on the merits (e.g., Farquharson, 1969). In other words, justices who use sophisticated strategies are forward looking, and they maximize their payoffs given their beliefs about outcomes at subsequent decision nodes. With sophisticated strategies, justices may—but will not necessarily—vote for their second preference on certiorari in order to lessen the likelihood of their least-preferred outcome on the merits. The sophisticated strategy for justices with preference, L > D > C, for example, is (d, l) instead of (g, l) when C is the anticipated outcome on the merits. In contrast, we say that justices employ *sincere* strategies when they vote for their most-preferred alternative on certiorari regardless of the likely outcome on the merits. Hence the sincere strategy for justices with L > D > C is (g, l)even when C is the likely outcome on the merits. The certiorari decisions of justices who employ sincere strategies, therefore, can be predicted perfectly by knowledge of their preferences on the merits alone.

To specify the conditions under which justices vote for certiorari when using sophisticated strategies, let J represent a justice's ideal outcome on the ideological line containing L, D, and C; and define the justice's utilities for outcomes as u(X) = -|J - X|, where  $X \in \{L, D, C\}$ . We assume that justices are uncertain about the outcome on the merits, and so we let p = Pr(C) be a justice's belief that the outcome on the merits is conservative, and 1-p be the

<sup>5.</sup> Since outcomes L and C establish new precedent, but D does not, we consider D to be a more

<sup>6.</sup> As we explain below, however, we assume that justices are uncertain about which outcome will prevail on the merits.

<sup>7.</sup> If the justices could determine the locations of L and C without being constrained by the characteristics of the case or the issues decided in the lower court, the outcome on the merits would always be located at the ideal point of the median justice. In this situation, justices might bargain over the outcome on the merits simultaneously with the decision on certiorari, the median justice's wishes would always prevail, and four votes on certiorari could always be assured.

probability that the outcome is liberal. Justices employ sophisticated strategies when they maximize their payoffs given their beliefs about what will happen on the merits. The following proposition specifies when justices will vote to grant certiorari, given that they look ahead to the likely outcome on the merits.

Proposition (Sophisticated Voting). A justice will vote to grant certiorari if and only if

(a) 
$$J > C$$
 and  $p \ge \frac{D-L}{C-L}$ .

(b) 
$$D < J^* \le J \le C$$
 and  $p \ge \frac{D-L}{C-L}$ , where  $J^* = \frac{C+L}{2} + \frac{D-L}{2p}$ .

(c) 
$$J < L$$
 and  $p \le \frac{D - L}{C - L}$ .

(d) 
$$L \le J \le J^{**} < D$$
 and  $p \le \frac{D-L}{C-L}$ , where  $J^{**} = \frac{p(C+L)-L-D}{2(p-1)}$ .

*Proof.* We prove only (a) and (b); the proofs of (c) and (d) are analogous.

(a) 
$$J > C$$
.

EU (grant) = 
$$pu(C) + (1-p)u(L)$$
  
=  $p(C-J) + (1-p)(L-J)$ .  
EU (deny) =  $D-J$ .

The justice votes to grant iff EU (grant) > EU (deny), which implies

$$p(C - J) + (1 - P)(L - J) \ge D - J.$$

Solving for p yields  $p \ge \frac{D-L}{C-I}$ .

(b) 
$$J^* \leq J \leq C$$

EU (grant) = 
$$p(J - C) + (1 - p)(L - J)$$
.

EU (deny) = 
$$D - J$$
.

The justice votes to grant iff  $p(J-C)+(1-p)(L-J)\geq D-J$ . Solving for p yields  $p\geq \frac{D-L}{2J-C-L}$ . Cutpoint  $J^*$  is the smallest value of J such that this inequality holds, which

occurs where EU (grant) = EU (deny), or equivalently,

$$p(2J^* - C - L) + L - J^* = D - J^*.$$

Solving for 
$$J^*$$
 yields  $J^* = \frac{D-L}{2p} + \frac{C+L}{2}$ .

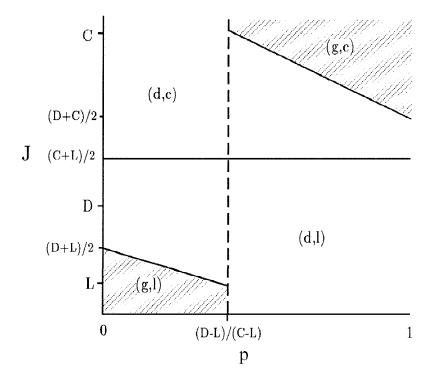


Figure 2. Certiorari voting under sophisticated behavior. Note: Shaded areas indicate ranges in which a vote for certiorari will occur. J is the position of the justice; p is the probability of a conservative outcome on the merits. See text for details.

We present this proposition graphically in Figure 2, where justices' ideal points, J, index the y-axis, and the probability of a conservative outcome, p, is on the x-axis. The sloped boundary lines in the northeast and southwest sections are given by the  $J^*$  and  $J^{**}$  equations, respectively. The strategies are indicated, as before, by (g, l), (g, c), (d, l), and (d, c). All strategies are sophisticated in Figure 2, because the conditions for their employment were derived under the assumption that justices maximize their payoffs given their beliefs about the outcome on the merits. With sophisticated strategies, justices may still vote to deny, their first choice, on certiorari. That is, justices with ideal points  $J \in [(D+L)/2, (D+C)/2]$  may be forward looking and still always vote for their first choice, to deny; however, justices with J > (D+C)/2 or J < (D+L)/2 will sometimes vote to deny certiorari when it is their second choice. Justices who vote to grant certiorari under a sophisticated strategy cast what judicial scholars sometimes refer to as an "aggressive grant." Those who vote to deny when it is their second choice cast what is sometimes referred to as a "defensive denial."

Sincere voting, as defined earlier, implies that justices do not attempt to maximize their payoffs given their beliefs about what will happen on the merits. Instead, their decisions on certiorari will be driven completely by their own

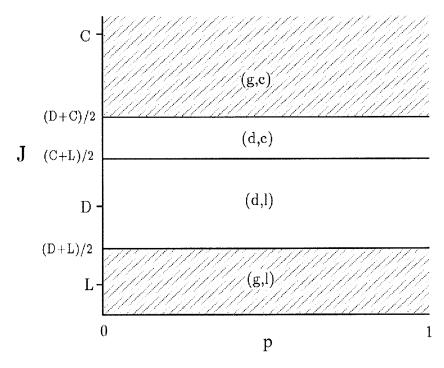


Figure 3. Certiorari voting under sincere behavior. Note: Shaded areas indicate ranges in which a vote for certiorari will occur. J is the position of the justice; p is the probability of a conservative outcome on the merits. See text for details.

preferences for outcomes on the merits. Figure 3 illustrates justices' strategies under sincere voting, where strategies are not conditional upon p, the expected outcome on the merits. In contrast to Figure 2, justices with preferences L > $D \succ C$  and  $C \succ D \succ L$  always vote to grant cert.

Taken together, the results outlined and Figures 2 and 3 yield the following comparative statics regarding the differences between sophisticated and nonsophisticated judicial behavior on certiorari. For the sophisticated voting strategies in Figure 2, the following results are evident, where G is the likelihood of a vote to grant certiorari:

Hypothesis 1. If 
$$p < \frac{D-L}{C-L}$$
, then  $\partial G/\partial p < 0$ , and  $\partial G/\partial J < 0$ .

Hypothesis 2. If 
$$p > \frac{D-L}{C-L}$$
, then  $\partial G/\partial p > 0$ , and  $\partial G/\partial J > 0$ .

Under Hypothesis 1, for a liberal-leaning court, the probability of granting decreases as the likelihood of a conservative decision on the merits increases, and as the justice's ideology leans more conservatively. Conversely, for a conservative court (i.e., one with a high value of p), the likelihood of granting increases in both the justice's and the Court's conservatism. For the strategies in Figure 3, the following result is evident:

## Hypothesis 3. $\partial G/\partial J$ is constant for all p.

That is, the likelihood of a sincere justice voting to grant certiorari does not depend in any way on the likely outcome should the case go to the merits. Instead, justices' votes on certiorari depend solely on their preferences over C, D, and L.

These hypotheses underscore our intuitive notions about sophisticated behavior. For example, on a conservative court with a case decided conservatively below, conservative justices, taking into account the likely outcome on the merits, will vote to grant certiorari and strengthen the lower court's decision. Conversely, liberals on a conservative court will vote to deny certiorari in order to prevent the court from affirming the lower court's decision, even though their first preference would be to grant and reverse the case in hopes of obtaining a more liberal outcome. This same logic obtains for cases decided liberally below. Generally, then, regardless of the direction of the lower court decision, when the ideology of the justice converges with the ideological predisposition of the Court on the merits, the justice will vote to grant certiorari; and when the ideological predispositions of the justice and the Court diverge, the justice will vote to deny cert.

Figure 2 and Hypotheses 1 and 2 suggest an empirical model for sophisticated voting of the form:

$$G \equiv \Pr(g) = f[\beta_{P} p + \beta_{I} J + \beta_{PI} (p \times J) + \beta_{X} X], \tag{1}$$

where G is the probability that a justice votes to grant certiorari, J is the justice's ideology, p is the ideological predisposition of the Court on the merits, X is a vector of exogenous control variables, and  $\beta_{\rm J} = \partial G/\partial J$ ,  $\beta_{\rm P} = \partial G/\partial p$ , and  $\beta_{\rm PJ} = \partial G/\partial (p \times J)$ . The interaction term  $p \times J$  accounts for the comparative static results in Hypotheses 1 and 2, where the effects  $\partial G/\partial p$  and  $\partial G/\partial J$ reverse direction at p = (D - L)/(C - L). Empirically, this reversal implies that the coefficient for the interaction term should have a sign opposite that of the coefficients for p and J. Since sophisticated voting implies a reversal in the direction of  $\partial G/\partial J$  over values of p, whereas sincere voting implies constancy of  $\partial G/\partial J$  across p, the magnitude and direction of the interaction effect provide a test of the two types of voting.

Furthermore, given that  $\partial G/\partial J$  changes direction at p = (D-L)/(C-L), we can estimate p = (D - L)/(C - L) by differentiating Equation (1) with respect to J and solving for p at the point where  $\partial G/\partial J = 0$ . This estimate of the cutting point provides another test of the null hypothesis of sincere voting against the hypothesis of sophisticated voting. Under the hypothesis of sophisticated voting, for observed values of p less than the estimated cutting point—that is, for liberal courts—increasing values of J should lead to lower probabilities of granting certiorari; for observed values of p greater than the estimated cutting point, increasing values of J should lead to higher probabilities of granting certiorari. In contrast, under the hypothesis of sincere voting, increasing values of J should exhibit identical effects on certiorari for values of p above and below the estimated cutting point.

## 4. Data, Conceptualization, and Measurement

Problematic to the empirical testing of sophisticated voting are measures of justices' preferences on the merits—the variable J in our theoretical analysis—and a measure of how the Court is likely to decide each case on the merits—the theoretical variable p. One approach to measurement followed by scholars in the past has been to use justices' votes on the merits as indicators of their preferences on the merits (e.g., Boucher and Segal, 1995; Brenner and Krol, 1989; Palmer, 1982). Unfortunately this approach has three serious drawbacks. First, it provides a measure of preferences on the merits only for cases granted certiorari. This necessarily introduces selection bias, for cases granted certiorari vary systematically from those denied (e.g., Caldeira and Wright, 1988). Second, using the votes on the merits as a measure of preferences introduces endogeneity, as the outcome on the merits may reflect sophisticated strategies on certiorari. And third, because preferences and actions are treated as equivalent, knowledge about preferences implies perfect knowledge about outcomes. Hence, this approach presumes that justices know with certainty how colleagues will vote on the merits, and this assumption is almost surely incorrect (see Calvert and Fenno, 1994).

Another measurement approach has been to derive justices' general ideological preferences from newspaper editorials and other published materials written prior to their confirmations (e.g., Segal and Cover, 1989). These measures have proven useful in a number of contexts (see, e.g., Epstein and Mershon, 1996), despite representing extremely broad measures of preferences. In order to establish justices' preferences on specific issues and particular cases, we seek a much finer-grained measure of preferences.8

We develop a measure of justices' preferences for outcomes on the merits of a given case based on their votes on the merits on similar, but different cases from the past. Across a broad range of issues, we compute their probable position on the merits for all paid cases in which the Court granted (N = 144)or denied (N = 1.747) certiorari during the 1982 term (N = 1891). From Spaeth's Supreme Court Judicial Database (1997), we obtained the proportion of decisions on the merits in which each justice had voted in a conservative direction in each of 40 different issue areas between the term of the justice's appointment and the end of October term 1981. After generating these proportions for each issue for each justice (a total of 369 scores), we assigned to each petition in October term 1982 the scores for each justice, according to the issue addressed in the petition. Using our 40 issue areas, we were able

<sup>8.</sup> The measures employed by Epstein and Mershon, for example, are global, referring to preferences on civil liberties/civil rights or economic policies. In looking forward, however, justices need to know how colleagues will vote on specific issues, not on the general dimensions of economics or civil rights. The more specific our measure of preferences, the more leverage we have in estimating the likely positions of individual justices and the Court as a whole.

<sup>9.</sup> The 1982 Term is a good choice for at least two reasons: (1) Although conservatives usually held sway, liberals and moderates often had sufficient votes to grant cert and often coalesced for victories on the merits. (2) The data on conflict collected by the NYU Law Review for 1982 are unparalleled in quality, making our estimates crisper than would otherwise be the case.

to assign scores for each justice to 1114 of the 1891 cases (59%) on the paid docket.10

This procedure allows us to place each of the justices along an ideological continuum ranging from zero (no conservative votes on that issue in the past) to one (no previous liberal votes on that issue), and therefore corresponding to the variable J from our theoretical analysis. The distribution of justices' scores is approximately normal [W' = 0.994 (Shapiro and Francia, 1972)], with a mean of 0.48, a standard deviation of 0.25, and a slightly larger number of conservative than liberal preferences. This agrees with common knowledge of the Burger Court, which by 1982 leaned in a conservative direction, despite the presence of liberals Brennan and Marshall.

The analysis of sophisticated voting behavior also requires information about the likelihood that any given justice's preferred position will prevail on the merits. Thus we combine the ideological preferences of the different justices to obtain a measure of the likelihood that the Court as a whole will decide conservatively on the merits. For each justice in each case, we sum the ideological scores of the other eight justices and divide by eight, obtaining a measure of the average level of conservatism of the Court's other members. This yields a summary measure of the other justices' likely positions on a particular case, which can be interpreted as each justice's view of the expected probability of a conservative outcome on the merits. This measure corresponds to the variable p in the hypotheses of Section 3.

Diagnostics indicate the validity of our measures of ideological preference, both for the individual justices and for the Court as a whole. Our measure of J correlates strongly (r = 0.89, p < .01) with the scores used by Segal and Cover (1989), and it also exhibits substantial face validity, with Rehnquist and Burger scoring among the most conservative and Brennan and Marshall the most liberal. 11 Of importance, our measure of justices' voting predispositions on the merits avoids some of the problems of endogeneity endemic to other studies. Our measure of justices' preferences, although based on votes on the merits, is derived from votes across a variety of different courts and terms prior

<sup>10.</sup> These issues include the following areas of the law: Miranda and confessions, search and seizure, right to counsel, right to trial and juries, desegregation, reapportionment, immigration, sex discrimination, Native American rights, poverty law and benefits, torts against the United States, libel and slander, commercial speech, miscellaneous First Amendment cases, establishment and free exercise of religion, obscenity, miscellaneous due process cases, the takings clause, the Freedom of Information Act, abortion, attorney's fees, OSHA and consumer protection, federal regulation of transportation, federal regulation of utilities, federal regulation of communication, lawyers and admission to the bar, labor unions, antitrust and mergers, bankruptcy, personal injury and liability, pensions and benefits, state taxation, state regulation of business, federal securities regulation, environmental protection, zoning, intellectual property, general civil procedure, standing and access, and federal taxation.

<sup>11.</sup> In our model of voting, cases come from the lower courts in two types, liberal and conservative. Within these two types, there is a great deal of variation—for example, among cases decided in a conservative direction in the court below, some are more conservative than are others. Unfortunately it is impossible with a full term of data to devise a measure of where cases fall on the left-right continuum within issue areas.

to October Term 1982. Finally, to the extent votes on the merits are based on sincere preferences (e.g., Segal, 1997), aggregating those votes ought to provide the best empirical estimates of those preferences.

We also collected data on justices' certiorari votes, as well as an extensive set of control variables. For justices' votes on certiorari, we used Justice Brennan's docket books. 12 From Records and Briefs of the Supreme Court, we collected dissent in the lower court, disagreement between the lower courts, constitutional claims, nature of the issues, the United States as a petitioner, and the presence of amicus curiae briefs in support of or against certiorari. From the New York University Supreme Court Project (1984a, b), we ascertained whether the petitioner had alleged conflicts between or among lower courts, or between the lower court and the Supreme Court, and whether a square conflict between courts had occurred. We coded the ideological direction of the decision in the lower court below based on our reading of United States Law Week and of Records and Briefs. Following Spaeth (1997), we categorized the lower court's decision as liberal, conservative, or indeterminable.

## 5. Sophisticated Voting and Deciding to Decide

Our data are organized as a panel of 10,026 observations, with one observation for every justice for every cert petition during October Term 1982 (i.e., 1114×9). We analyze only 9321 of the 10,026, however, as data are missing on at least one variable for some observations. Each observation contains variables specific to justices and to cases. Our dependent variable is the vote on certiorari, coded 1 if the justice voted in favor of granting cert, and 0 otherwise. For our control variables, we code 1 if present, 0 if absent, and we expect positive signs in all cases.

We observe a vote for each case (indexed by i) and for each justice (indexed by j). For the model in Equation (2), where  $X_{ij}$  is a vector of explanatory variables, we expect heterogeneity over both i and j.

$$\Pr(\operatorname{Grant})_{ii} = f(X_{ii}\beta). \tag{2}$$

For example, if a justice votes consistently from one case to the next, and this consistency is due to forces outside the model, the probability given in Equation (2) would covary across cases. Similarly, if justices influence each other's decisions in ways not captured by the independent variables, the probabilities in a particular case would covary across justices. We deal with this latter form of heterogeneity by treating each case as a separate observation and each justice's vote in that case as a separate measurement on that case.

Given the nature of our data, we adopt the method of generalized estimating equations (GEE) (Liang and Zeger, 1986a,b; see also Pendergast et al., 1996), an extension of the generalized linear models approach (e.g., McCullagh and Nelder, 1989) to time-series cross-sectional data. This approach has the ad-

<sup>12.</sup> None of the justices' docket books is a perfect record of voting in conference. On balance, Brennan's assiduity in record keeping recommends his docket books over Marshall's. On the similarity of the data across justices, see Maltzman and Wahlbeck (1996).

vantages of allowing for flexible dependence across repeated measures within a unit of analysis and of providing robust parameter estimates despite possible misspecification of that dependence. Here we treat each case as a single unit of analysis and each justice's vote within that case as a single observation. We allow the within-observation correlation matrix to be estimated without constraints—that is, we impose no particular form on the matrix of conditional interjustice correlations. This specification has two central advantages. First, it allows estimation to occur while taking account of the possibility of interjustice influence, thereby improving the efficiency of our estimates; and second, it provides an estimate of the extent of interjustice influence on certiorari voting through examination of the correlation matrix.<sup>13</sup>

Following our theoretical discussion in Section 3, the central variables in our test of sophisticated voting are the ideological preference of the justice on a given case, J, the ideological predisposition of the Court on the merits, p, and the interaction of the two. If justices employ sophisticated voting strategies, we expect that J and p will have direct negative impacts on the likelihood of voting for certiorari. This expectation follows because the direct effects of J and p can be interpreted only for a value of the interaction  $p \times J = 0$ . Since  $p \times J = 0$  if and only if J = 0 or p = 0, the coefficients  $\beta_J$  and  $\beta_p$  must be interpreted in the context of a liberal Court [i.e., p < (D-L)/(C-L)]. Hence, on a liberal Court, the effect of increasing values of J (i.e., greater individual conservatism) and increasing values of p (i.e., more conservative, but still liberal-leaning Court; see Figure 2) should lead to lower probabilities of granting certiorari. Finally, given our expectation that the effects of J and p reverse direction at p = (D - L)/(C - L), we anticipate the coefficient for the interaction term to be positive and greater in magnitude than either of the direct effects.

Results of the GEE estimation of our model of sophisticated voting appear in Table 1.14 The model represents a substantial improvement in fit over the null model ( $\chi^2 = 589.30$ , p < .001), <sup>15</sup> and the results for the case-related

<sup>13.</sup> To check for other potential cases of interdependence in our data, we also estimated our model using heteroskedasticity-consistent standard errors (White, 1980). Results from that estimation confirm those we report here.

<sup>14.</sup> Separate analyses show the dramatic effects of selection bias. If, as many scholars have done in the past, we estimate our model in Table 1 only on cases decided on the merits, much of the evidence of strategic voting disappears. The effect of the Court's likely decision on the merits is essentially zero. A conservative justice is no more or less likely to vote for cert when the Court is liberal than when it is conservative. Yet a large (but insignificant) interaction implies that, as a justice becomes more liberal, the influence of the Court increases. The justice's score is marginally significant, suggesting that (a) when the Court is conservative, the more liberal is a justice the more likely he or she is to vote to deny; and (b) this effect disappears as the Court becomes more liberal. These results, in general, suggest strategic behavior by liberals but not by conservatives. To the extent that liberals were a minority in most cases, this makes sense; most cases in which the conservatives might have voted in a strategic fashion were probably denied and thus not included

<sup>15.</sup> Because GEE models are estimated via quasi-maximum likelihood, the chi-square statistic reported here is not a standard likelihood-ratio test; it is, however, analogous to it.

Table 1. GEE Estimates for a Strategic Model of Certiorari Voting, October Term 1982

Variables	Coefficients
Constant	-1.690**
	(0.238)
U.S. as a petitioner	1.082**
Laurence de monte de la constante de la consta	(0.121)
Lower court reversal	0.338**
Alleged conflict	(0.074) 0.375**
Alleged Cornict	(0.096)
Actual conflict	1.221**
, istaal sermiet	(0.095)
Civil liberties issue	-0.071
	(0.089)
One amicus brief for certiorari	0.506**
	(0.120)
Two or three amicus briefs for certiorari	0.901**
	(0.173)
Four or more amicus briefs for certiorari	1.466**
One or more emigue briefs against cortionari	(0.196) 0.656**
One or more amicus briefs against certiorari	(0.149)
Constitutional claim	0.020
Conditional claim	(0.082)
Dissent in lower court	0.152 <sup>*</sup>
	(0.091)
Conservative lower court decision	-0.468**
	(0.077)
Justice's ideology (J)	-0.863**
	(0.406)
Ideological leaning of the court (p)	-1.776**
lustice's idealogy widealogical looping of the sourt	(0.492) 3.124**
Justice's ideology × ideological leaning of the court	(0.803)
	(0.003)

N = 9231. Numbers in parentheses are standard errors. One asterisk indicates p < .05, two indicates p < .01 (one tailed). See text for details.

independent variables generally conform to those in Caldeira and Wright (1988, 1990). Conflict, alleged and actual, increases the probability of a justice voting to grant certiorari, as do amicus briefs, reversal in the lower court, and the presence of the United States as a petitioner. In contrast, cases involving civil rights or liberties are no more or less likely to be granted certiorari than are other issues. Moreover, the relationship between the ideological direction of the lower court decision and voting to hear a case is negative, and, ceteris paribus, conservative cases are substantially less likely to be granted certiorari than liberal ones.

Turning to the indicators of strategic behavior, we note that all three are correctly signed and statistically significant at traditional levels of confidence. As we hypothesized, the coefficients for the justice's position on the merits (J)

Table 2. Simulated Probabilities of Voting for Certiorari, By Court and Justice Position and Lower Court Decision

Lower Court	Justice's	Court's	Probability
Decision	Conservatism	Conservatism	of Cert
	( <i>J</i> )	(p)	
Liberal	0.10	0.10	0.70
Liberal	0.10	0.90	0.26
Conservative	0.90	0.10	0.35
Conservative	0.90	0.90	0.67
Liberal	0.50	0.10	0.62
Liberal	0.50	0.90	0.55
Conservative	0.50	0.10	0.43
Conservative	0.50	0.90	0.37
Liberal	0.90	0.10	0.53
Liberal	0.90	0.90	0.82
Conservative	0.10	0.10	0.52
Conservative	0.10	0.90	0.13

Simulations are based on estimates in Table 1, with all other independent variables fixed at the same values as discussed in Figure 4. See text for details.

and the expected outcome on the merits (p) are negative, and the interaction term is positive. Consequently, when the Court is conservative on an issue, as a justice becomes more liberal, the net probability of voting to grant certiorari decreases. Conversely, when the Court is liberal, increasing liberalism of a justice increases the net probability of voting to grant certiorari. These results are strongly significant, even after controlling for ideology and the qualities of cases, and lend considerable support to the proposition that justices are sophisticated in their certiorari voting.

To provide a concrete interpretation of the combined effects of the coefficients in Table 1, we calculated predicted probabilities of voting to grant certiorari for various types of lower court decisions and different combinations of J and p. Our predictions, which appear in Table 2, are based on a non-U.S., noncivil rights, non-constitutional liberal case reversed without dissent in the lower court and brought to the Court with both an allegation of and actual conflict and one amicus brief in favor of granting certiorari. Such a case would be a strong contender for certiorari, but by no means an automatic grant. The results in Table 2 reinforce our conclusion that justices employ sophisticated voting strategies on certiorari. The effects of sophisticated voting emerge clearly: justices are much more likely to vote for certiorari when the Court is likely to decide in favor of their preferred outcome on the merits. In those instances where J = p = .1 or J = p = .9, the average predicted probability of certiorari is .68. However, in those instances where  $J \neq p$  and  $J \neq .5$ , the average predicted probability of certiorari is only .32. For moderate justices, J = .5, the average predicted probability of certiorari is .48.

For an additional illustration of the net effects of the coefficients, we plot in Figure 4 the predicted probabilities of voting for cert as a continuous function of the ideology of the justice and that of the Court for the same benchmark

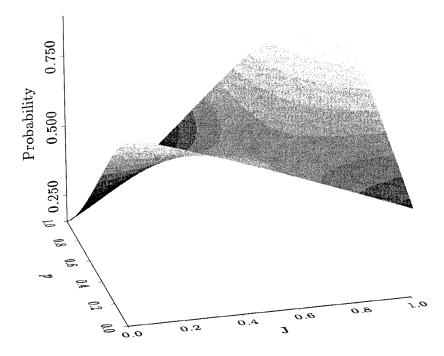


Figure 4. Predicted probabilities of voting for certiorari, by justices' and court's ideology. Note: Darker colors indicate smaller probabilities of voting for certiorari. See text for details.

case used in Table 2.16 Consistent with Hypothesis 1, the probabilities for a conservative justice (i.e., justice's ideology = 1.0) decrease from 0.89 when the Court is very conservative to 0.45 when it is very liberal. The opposite is true for liberal justices: the probabilities of a vote for certiorari in that instance increase from 0.15 to 0.77 as the Court becomes more liberal. When the Court is conservative, a justice's probability of voting for certiorari declines from 0.89 to 0.15 with increasing liberalism, but on a liberal court, the probability of voting for cert increases from 0.46 to 0.77 with increasing liberalism.

Our null hypothesis of sincere voting states that justices' preferences for outcomes on the merits should affect their certiorari votes independently of the Court's likely decision on the merits. In other words, as illustrated graphically in Figure 3, the effect of J on granting certiorari should be constant across all values of p. The implication of this null hypothesis for model (1) and the estimation in Table 1 is that the coefficient of the interaction term should be

<sup>16.</sup> The equation used to generate the simulated probabilities for Figure 4 and Table 3 was

 $Pr(Cert) = \Phi[0.747 - 0.863(J) - 1.776(p) + 3.124(p \times J)],$ 

where 0.747 represents the sum (or "index") of the other variables.

zero. That is, there should be no differential effects of J dependent on p. However, given the strong statistical significance of the interaction coefficient in Table 1, we comfortably reject the null hypothesis of sincere voting.

As described in Section 3, a related test of sincere versus sophisticated voting involves estimating the cutting point p = (D-L)/(C-L) and then estimating  $\beta_I = \partial G/\partial J$  for values of p above and below the cutting point. Under the hypothesis of sincere voting, estimated values of  $\beta_I$  should be identical above and below the cutting point. In contrast, sophisticated voting predicts  $\beta_J > 0$ for values of p above the cutting point, and  $\beta_I < 0$  for values of p below the cutting point. We estimated the cutting point to be p = .276.17 We then split the sample and used probit to estimate  $\beta_I$  in the two sets of observations. The results clearly recommend rejection of the null hypothesis. For p > .276 (i.e., a conservative Court), our estimated value of  $\beta_J$  was positive and statistically significant at a level of .01; for p < .276 (i.e., a liberal Court), our estimated value of  $\beta_I$  was negative and statistically significant at a level of .05.<sup>18</sup>

These findings provide solid support for the proposition that justices employ sophisticated strategies when voting on cert. In particular, we show a substantial relationship between not only a justice's own ideological position and his or her vote, but also between the positions of the other members of the Court and that vote. Our results are also robust: they hold despite controls for the effect of case quality, direction of the lower court decision, and interjustice influence at the certiorari stage. Furthermore, the nature of this relationship is consistent with expectations derived from a model of strategic behavior in which a justice considers the likely decision on the merits in his or her voting calculus. Our simulated probabilities show large changes in justice-specific probabilities of voting for cert depending on the ideological positions of the justices and that of the Court, indicating that such considerations are of substantive as well as statistical significance.

## 6. Consequences of Sophisticated Voting

Sophisticated voting is substantively important only when it affects outcomes. Thus we are ultimately interested in sophisticated *outcomes*—instances in which sophisticated voting by individual justices changes the content of the Court's plenary agenda. Undoubtedly some of the cases on the plenary agenda result from forward-looking votes for first choices. Observational equivalence precludes us from detecting such cases, however, because in those instances both sophisticated and naive justices opt for first choices when they vote to grant certiorari. Accordingly, we focus on cases in which justices look forward and vote to deny cert, their second choice, to prevent an unfavorable outcome. The likelihood of such outcomes depends critically on the distribution of justices'

<sup>17.</sup> The estimates in Table 1 are  $Y = \Phi[\beta_0 + \dots -0.863(J) - 1.77(p) + 3.124(J \times p)]$ . Thus we can find the point at which the function "turns over" by considering  $\partial Y/\partial J = -0.863 + 3.124 p$ ). Setting this to zero and solving, we find p = .276.

<sup>18.</sup> The estimated coefficients were 0.888 for the sample of conservative courts and -1.105 for the sample of liberal courts.

preferences. A court comprised of six liberal and three conservative justices, for example, would have enough votes to enact a liberal agenda no matter how the conservatives voted. For sophisticated voting to affect outcomes, then, certain distributional conditions for justices' preferences must be met.

To specify these conditions, we make several assumptions. First, we assume that justices are never indifferent between any two outcomes among L, D, and C. This restriction leaves us with six possible preference orderings, two of which can be eliminated given our previous assumptions that justices' preference orderings over the three outcomes are single peaked, with D between L and  $C^{19}$ . Thus we have four possible preference orderings: C > D > L,  $D \succ C \succ L$ ,  $D \succ L \succ C$ , and  $L \succ D \succ C$ . For convenience, we label justices as "liberals," "conservatives," or "moderates," depending on whether their first preference is L, C, or D, respectively. Finally, for notational simplicity, we denote the preference ordering L > D > C by L; the ordering C > D > L by C; and the orderings D > L > C and D > C > L by **DL** and **DC**, respectively. We let  $N_{\mathbf{L}}$  be the number of justices having preference  $\mathbf{L}$ ,  $N_{\mathbf{C}}$  be the number of justices having preference C,  $N_{DL}$  be the number of justices with preference **DL**, and  $N_{DC}$  be the number with preference **DC**.

With four possible preference orderings, several conditions must be met before strategic voting in the form of defensive denials by individual justices produces a sophisticated outcome. The necessary conditions for a sophisticated outcome are as follows:

(1) 
$$N_{DL} + N_{DC} < 6$$
 (possibility of certiorari)

(2) a) 
$$N_{L} + N_{DL} \ge 5$$
 or (majority on the merits)  
b)  $N_{C} + N_{DC} \ge 5$ 

(3) a) 
$$N_L < 4$$
 if (2a) or (possibility of defensive denial) b)  $N_C < 4$  if (2b)

The first condition simply ensures that certiorari is possible. Since all moderates have a straightforward strategy of voting to deny cert,  $N_{DL} + N_{DC} < 6$  is necessary to ensure at least four potential votes for cert (Palmer, 1995; Schwartz, 1993). Condition (2) specifies that there will be a majority on the merits for reversing or affirming the lower court. This will be trivially satisfied since we assume justices are never indifferent. Finally, condition (3) ensures that neither liberals nor conservatives can dictate the outcome on certiorari, even if they are in the majority. If at least four justices were liberals, for example, and if the expected outcome on the merits was L, then defensive denials by conservatives could not affect the outcome on cert.

<sup>19.</sup> Preference orderings where D is last violate single-peakedness on a scale where D is the moderate outcome.

How often are these conditions satisfied? To obtain a theoretical estimate, we first computed the number of possible distributions of nine justices, given the four possible positions of L, C, DC, DL. One possible distribution, for example, might consist of nine justices with L orderings; another might be a court with four L and five C orderings; and still another with three L, four DC, and two C orderings. In total, there are 220 different configurations of the four preference orderings. We then counted the number of these distributions that satisfied conditions (1)–(3). We counted a total of 40 such configurations.<sup>20</sup>

If we assume each configuration is equally likely on any given case, the probability that the justices' preferences are distributed so as to produce a strategic outcome on a given case is  $40/220 \cong .18$ . Sophisticated outcomes will, of course, not occur on 18% of all of the cases brought before the Court. Many cases are not serious candidates for certiorari, and would be denied regardless of the policy preferences of the justices. Sophisticated voting arises because justices wish to deny cases the Court would otherwise grant, and thus the 18% applies to cases that ordinarily would be granted certiorari.

To make this interpretation more precise, we distinguish between a sophisticated plenary docket and an inclusive plenary docket. The inclusive plenary docket consists of all of those cases that would be granted when justices simply vote for their first preference on cert—regardless of whether they anticipated the outcome on the merits—and is unobserved, whereas the sophisticated docket is the observed docket that results from defensive denials and aggressive grants. If we let  $\sigma$  denote the size of the inclusive, unobserved docket, and s the size of the observed, sophisticated docket, then the relation between the two is  $s = \sigma - .18\sigma$ . The sophisticated docket should be 18% smaller than the inclusive docket, assuming all configurations are equally likely.

Since our data contain 144 grants of certiorari (i.e., s = 144), our theoretical prediction is that the size,  $\sigma$ , of the inclusive plenary docket should be  $\sigma$  –  $.18\sigma = 144$ , or  $\sigma = 176$ . Hence we predict 32 sophisticated outcomes. Empirically we identify a *sophisticated* outcome whenever (1) the Court denied certiorari to a case decided liberally (conservatively) below when, according to our estimated priors, we predict a conservative (liberal) majority on the merits and at least two justices voted for cert; or (2) the Court denied certiorari to a case decided liberally (conservatively) below when, according to our estimated priors, we predict a liberal (conservative) majority on the merits and at least two justices voted for cert.

20. The following 20 distributions satisfy conditions (1)–(3). Re	eversing the order of <b>C</b> , <b>DC</b> , <b>DL</b> ,
and L leads to another 20.	

C	DC	DL	L	(cont.)	C	DC	DL	L	(cont.)	C	DC	DL	L
3	2	3	1		3	4	1	1		2	4	1	2
3	2	2	2		3	4	0	2		2	5	0	2
3	2	1	3		3	5	0	1		1	4	0	4
3	2	0	4		2	3	2	2		1	4	1	3
3	3	2	1		2	3	1	3		1	5	0	3
3	3	1	2		2	3	0	4		0	5	0	4
3	3	0	3		2	4	0	3					

Table 3. Sophisticated Outcomes on Certiorari, October term 1982

Term and Docket Number of Case	Ideological Outcome Below	Expected Vote on Merits, L-C	Justices Voting for Cert <sup>a</sup>	Type of Sophisticated Outcome <sup>b</sup>
82-281	Liberal	2–7	O,Bu,R	DD-R-L
82-964	Liberal	2–7	BI,O,R	DD-R-L
82-1259	Liberal	2–7	BI,O,R	DD-R-L
82-1510	Liberal	2–7	BI,W,R	DD-R-L
81-1852	Liberal	4–4	S,W,R	DD-R-L
81-2240	Liberal	2–6	BI,W,R	DD-R-L
82-22	Liberal	4–4	W,R	DD-R-L
82-274	Liberal	3–6	Bu,R	DD-R-L
82-446	Liberal	4–5	BI,R	DD-R-L
82-1507	Liberal	4–4	W,R	DD-R-L
81-2275	Liberal	4–4	W,R	DD-R-L
81-2406	Liberal	4–4	W,R	DD-R-L
82-490	Conservative	8–1	Br,M	DD-R-C
82-787	Conservative	5–3	Br,S	DD-R-C
82-830	Conservative	5–4	M,BI	DD-R-C
81-2344	Conservative	7–2	Br,BI,W	DD-R-C
82-1585	Liberal	5–4	Br,W	DD-A-C
82-1586	Liberal	5–4	Br,W	DD-A-C

a O: O'Connor, Bu: Burger, Br: Brennan, Bl: Blackmun, R: Rehnquist, W: White, M: Marshall, S: Stevens.

Eighteen cases meet one of these criteria; these cases appear in Table 3. We emphasize that these cases are plausible, not definite instances of sophisticated outcomes, because we have no way of clearly identifying justices whose first preference is denial. We cannot establish with certainty, therefore, that the distribution of preferences on each case meets precisely all of our theoretical conditions. Nonetheless, the patterns of cases uncovered squares well with much of the conventional wisdom regarding the dynamics of the Burger Court. Most of the cases in Table 3 are defensive denials by liberals to prevent review and reversal of a case decided liberally below. Some, however, are defensive denials by conservatives to prevent a liberal majority from reviewing and reversing a case decided conservatively below, and two are defensive denials by conservatives to block aggressive grants by liberals.

At an individual level, a few of the positive votes for certiorari on these cases were cast by justices who generally are moderate. Frequently, however, these justices—for example, O'Connor, Blackmun, and Stevens—had estimated preferences on these cases that reflect conservative or liberal rather than moderate preferences. For example, Blackmun generally had conservative scores—.43, .19, .15, and .30—when he voted for certiorari on cases decided liberally below, but liberal priors when he voted for certiorari on cases decided conservatively

<sup>&</sup>lt;sup>b</sup> DD-R-L refers to a "defensive denial" by liberals to prevent reversal of a case decided liberally below; DD-R-C, defensive denial by conservatives to prevent reversal of a case decided conservatively below; and DD-A-C, defensive denial by conservatives to prevent affirmation of a case decided liberally below.

below—.70 and .54. Only Justice White more frequently exhibited a moderate preference in 6 of the 10 instances in Table 3 for which he voted for certiorari. Perhaps in these instances Justice White was motivated more by jurisprudential considerations and less by ideological concerns.

#### 7. Conclusion

Several of our results stand out. First, and foremost, we provide some of the first empirical evidence of Supreme Court justices behaving sophisticatedly across the board on agenda setting. We show that, whether liberal or conservative, in grants or denials, members of the Court act with an eye to the behavior of their fellow justices. This consistency is striking, and is at odds, in whole or in part, with a number of previous studies. By setting forth a formal model of the process, examining all of the Court's petitions for certiorari in a single term, and utilizing superior measures of both individual justices' and the Court's preferences, we believe that we have made significant improvements over earlier works on strategic behavior on agenda setting.

Second, and equally important, the sophisticated interactions we have uncovered have a substantial impact on the work of the Court. Theoretically, we identify a nontrivial difference between the Court's agenda under conditions of sincere and sophisticated behavior. Empirically, this difference is borne out in our identification of at least 18 omissions from the Court's plenary docket in October term 1982 to which we can trace defensive denials on certiorari. Thus sophisticated behavior in agenda setting has striking implications for the Court's decisions on the merits.

Third, our work has implications for the nature of Supreme Court decisionmaking more generally. Our finding that justices act in a sophisticated fashion in even the earliest stage of the Court's decisional process supports our contention that agenda setting is a prime locale for sophisticated action on the part of the justices. Even more important, sophisticated voting matters in the sense that the casting of sophisticated votes alters the ultimate outcome, which is, of course, precisely the point of doing so. We do not expect justices who act in a sophisticated fashion in setting the Court's agenda to abandon those strategies in favor of myopic preference seeking once the plenary agenda is set. A host of other behaviors—writing of majority opinions, opinion assignment, concurrences, and dissents—also provides opportunities for strategic interaction among the justices, something long recognized (e.g., Murphy, 1964) and more recently recalled (e.g., Epstein and Knight, 1998). For a number of reasons, it has been difficult to detect evidence of sophisticated voting in other political institutions. Not all decision-making bodies are equivalent from the perspective of sophisticated voting—the Supreme Court, with its mode of agenda setting, offers great opportunities; Congress, given its institutional rules, may not be so open to strategic manipulation.

To what extent may we generalize from our results for a single term? Over time, the Supreme Court varies enormously both in the ideological composition and balance of its membership and the nature of its caseload; and even the mechanics of agenda setting change, albeit at a slow pace. October term 1982 was, as we suggested in Section 4, a propitious term in which to detect sophisticated voting and its consequences. On lopsidedly liberal or conservative Courts—for example, October term 1992—we expect to find sophisticated voting making less of a difference in the shape of the plenary agenda. The dominant ideological coalition will in those situations "have the votes" to control both the composition of the agenda and the decision on the merits. Yet we would still expect to find many instances of sophisticated voting, as minority justices attempt—usually without success—to fend off unpleasant decisions on the merits. Just how often, and with what success, sophisticated voting occurs on agenda setting in the Court under various circumstances are important questions for future research. To answer these questions will require data on the Court's decision making on certiorari across a set of terms, issues, and compositions of the Court.

#### References

Abramson, Paul R., John H. Aldrich, Phil Paolino, and David W. Rohde. 1992. "Sophisticated' Voting in the 1988 Presidential Primaries," 86 American Political Science Review 55-69.

Austen-Smith, David. 1987. "Sophisticated Sincerity: Voting Over Endogenous Agendas," 81 American Political Science Review 1323-1329.

Baum, Lawrence A. 1997. The Puzzle of Judicial Behavior. Ann Arbor: University of Michigan

Boucher, Robert L., Jr., and Jeffrey A. Segal. 1995. "Supreme Court Justices as Strategic Decision-Makers: Aggressive Grants and Defensive Denials on the Vinson Court," 57 Journal of Politics 812-823

Brenner, Saul, and John F. Krol. 1989. "Strategies in Certiorari Voting on the United States Supreme Court," 51 Journal of Politics 828-840.

Cain, Bruce E. 1978. "Strategic Voting in Britain," 22 American Journal of Political Science 639-

Caldeira, Gregory A., and John R. Wright. 1988. "Organized Interests and Agenda-Setting in the U.S. Supreme Court," 82 American Political Science Review 1109-1128.

.. 1990. "The Discuss List: Organized Interests and Agenda-Building in the Supreme Court," 24 Law & Society Review 807-836.

Calvert, Randall L., and Richard F. Fenno, Jr. 1994. "Strategy and Sophisticated Voting in the Senate," 56 Journal of Politics 349-376.

Denzau, Arthur, William Riker, and Kenneth Shepsle. 1985. "Farquharson and Fenno: Sophisticated Voting and Home Style," 79 American Political Science Review 1117-

Epstein, Lee, and Jack Knight. 1998. The Choices Justice Make. Washington: CQ Press.

Epstein, Lee, and Carol Mershon. 1996. "Measuring Political Preferences," 40 American Journal of Political Science 261-294.

Farquharson, Robin. 1969. Theory of Voting. London: Hodge.

Hall, Melinda Gann. 1992. "Electoral Politics and Strategic Voting in State Supreme Courts," 54 Journal of Politics 427-446.

Krehbiel, Keith, and Douglas Rivers. 1990. "Sophisticated Voting in Congress: A Reconsideration," 52 Journal of Politics 548-578.

Krol, John F., and Saul Brenner. 1990. "Strategies in Certiorari Voting on the United States Supreme Court," 43 Western Political Quarterly 335-342.

Liang, Kung-Yee and Scott L. Zeger. 1986a. "Longitudinal Data Analysis for Discrete and Continuous Outcomes," 42 Biometrics 121-130.

.. 1986b. "Longitudinal Data Analysis Using Generalized Linear Models," 73 Biometrika 13-22.

- Maltzman, Forrest, and Paul J. Wahlbeck. 1996. "Inside the Supreme Court: The Reliability of the Justices' Conference Records," 58 Journal of Politics 528-539.
- McCullagh, P., and J. A. Nelder. 1989. Generalized Linear Models, 2nd ed. London: Chapman & Hall.
- Murphy, Walter F. 1964. Elements of Judicial Strategy. Chicago: University of Chicago Press.
- New York University Supreme Court Project. 1984a. "Appendices," 59 New York University Law Review 1403-1929.
- . 1984b. "Summaries of Cases Granted Certiorari during the 1982 Term," 59 New York University Law Review 823-1003.
- Ordeshook, Peter C. 1992. A Political Theory Primer. New York: Routledge.
- Ordeshook, Peter C., and Thomas R. Palfrey. 1988. "Agendas, Strategic Voting, and Signalling with Incomplete Information," 32 American Journal of Political Science 441-466.
- Palmer, Barbara. 1995. "The Defensive Denial: Institutional Rules and Strategic Voting on the Supreme Court." Paper presented at the 1995 Meetings of the Midwest Political Science Association.
- Palmer, Jan. 1982. "An Econometric Analysis of the U.S. Supreme Court's Certiorari Decisions," 39 Public Choice 387-398.
- Pendergast, J. F., S. J. Gange, M. A. Newton, M. P. Lindstrom, and M. R. Fisher. 1996. "A Survey of Methods for Analyzing Clustered Binary Response Data," 64 International Statistical Review 89 - 118.
- Perry, H. W., Jr. 1992. Deciding to Decide: Agenda-Setting in the United States Supreme Court. Cambridge: Harvard University Press.
- Provine, Doris Marie. 1980. Case Selection in the United States Supreme Court. Chicago: University of Chicago Press.
- Riker, William H. 1986. The Art of Political Manipulation. New Haven: Yale University Press.
- Schubert, Glendon. 1962. "Policy Without Law: An Extension of the Certiorari Game," 14 Stanford Law Review 284-327.
- Schwartz, Edward. 1993. "Information, Agendas, and the Rule of Four: Nonmajoritarian Certiorari Rules for the Supreme Court." Paper presented at the 1993 Meetings of the Midwest Political Science Association.
- Segal, Jeffrey. 1997. "Separation-of-Powers Games in the Positive Theory of Congress and the Courts," 91 American Political Science Review 28-44.
- Segal, Jeffrey A., and Albert J. Cover. 1989. "Ideological Values and the Votes of U.S. Supreme Court Justices," 83 American Political Science Review 557-566.
- Shapiro, S. S., and R. S. Francia. 1972. "An Approximate Analysis of Variance Test for Normality," 67 Journal of the American Statistical Association 215–216.
- Spaeth, Harold J. 1997. The United States Supreme Court Judicial Database, 1953-1995. Ann Arbor: Inter-University Consortium for Political and Social Research.
- Spiller, Pablo T., and Matthew L. Spitzer. 1995. "Where Is the Sin in Sincere? Sophisticated Manipulation of Sincere Judicial Voters (With Applications to Other Voting Environments," 7 Journal of Law, Economics, & Organization 32-63.
- Volden, Craig. 1998. "Sophisticated Voting in Supermajoritarian Settings," 60 Journal of Politics 149-173.
- White, Halbert. 1980. "A Heteroscedasticity-Consistent Covariance Matrix and a Direct Test for Heteroscedasticity," 48 Econometrica 817-838.