

ON THE NATURE OF SUPREME COURT DECISION MAKING

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How does the U.S. Supreme Court reach decisions? Since the 1940s, scholars have focused on two distinct explanations. The legal model suggests that the rule of law (*stare decisis*) is the key determinant. The extralegal model posits that an array of sociological, psychological, and political factors produce judicial outcomes. To determine which model better accounted for judicial decisions, we used Supreme Court cases involving the imposition of the death penalty since 1972 and estimated and evaluated the models' success in accounting for decisional outcomes. Although both models performed quite satisfactorily, they possessed disturbing weaknesses. The legal perspective overpredicted liberal outcomes, the extralegal model conservative ones. Given these results, we tested another proposition, namely that extralegal and legal frameworks present codependent, not mutually exclusive, explanations of decision making. Based on these results, we offer an integrated model of Supreme Court decision making that contemplates a range of political and environmental forces and doctrinal constraints.

The common law's . . . reverence for . . . *stare decisis* [means] that a policy made in a piecemeal manner would be better able to win support. . . . When the Court reverses itself or makes new law out of whole cloth . . . the holy rite of judges consulting a higher law loses some of its mysterious power.

—Walter F. Murphy

Judges are inevitably participants in the process of public policy formation; . . . they do in fact "make law"; [and] in making law they are necessarily guided in part by their personal conceptions of justice and public policy.

—C. Herman Pritchett

How does the U.S. Supreme Court reach decisions? The above statements answer that question quite differently. The first, grounded in positivist jurisprudence, suggests that the rule of law *stare decisis* is the key determinant. The second, reflecting political jurisprudence, posits the converse—that an array of sociological, psychological, and political factors having little to do with legal doctrine produce judicial outcomes. These perspectives represent the mainstream—albeit highly divergent—responses to the question we pose. That both have persisted, despite the obvious tension between them, is somewhat puzzling; that the subfield of law, courts, and judicial processes may be more polarized than ever is extraordinary. While Hensley and Rhoads (1988) reported that the political (extralegal) model dominates disciplinary research, Slotnick (1989) noted the opposite trend—that the studies conducted by entering professionals reflect a return to doctrinal (legal) analysis.

Can two highly divergent conceptualizations of judicial decision making coexist? Empirical evidence suggests that at minimum, each can account for variations in behavior. Pritchett and many other adherents of extra legalism have more than ably demonstrated the explanatory power of their ap-

proach (e.g., Pritchett 1948; Schubert 1954; Spaeth 1961, 1979; Ulmer 1960). Segal and others present equally compelling results supporting the legal model (e.g., Hagle 1989; Kort 1957; Segal 1984; Wolpert 1991).

Yet for all the research conducted and all the years this debate has raged, it is almost startling to find that scholars have yet to compare these basic models systematically.¹ Pritchett and the extralegalists virtually ignore doctrine; Segal and others consider some attitudinal variables, but only after controlling for doctrine.

How legal and extralegal models of judicial decision making perform in head-to-head competition forms our central concern here. Using Court cases involving the imposition of the death penalty since 1972, we estimate and evaluate the ability of each to account for decisional outcomes.

CONCEPTUALIZATIONS

In his classic study of the various schools of jurisprudential thought, Pound (1959) identified over 20. Today, we probably could add 4 or 5 more (see Carter 1985; Stumpf 1988). In fact, debates—some more heated than ever—over how judges and justices *should* contemplate cases continue to occupy a preeminent position in legal and political circles (see "Critical Legal Studies Symposium" 1984; Posner 1981). We, on the other hand, are concerned with how justices *do* reach decisions. On some level the answers to this would probably rival in number those to the more normative query. To be sure, many—if not most—of the various jurisprudential schools find some representation within the nation's vast judicial apparatus. Within the political science literature, however, only two have received serious theoretical

and analytical attention: the legal and the extralegal models.

The Legal Model

Often termed *positivist*, or *analytical jurisprudence* (see Austin 1904), the *legal model* was the primary modus operandi for political scientists through the 1940s and continues to dominate legal education in the United States. At its core, legalism centers around a rather simple assumption about judicial decision making, namely, that legal doctrine, generated by past cases, is the primary determinant of extant case outcomes. It views judges as constrained decision makers who "will base their opinions on precedent and will adhere to the doctrine of *stare decisis*" (Wasby 1988, 210). Some scholars label this *mechanical jurisprudence*, because the process by which judges reach decisions is highly structured. Levi (1949) describes the basic pattern of legal reasoning, reasoning by example, as a process characterized by the doctrine of precedent and articulated in three steps: (1) observation of a similarity between cases, (2) announcement of the rule of law inherent in the first case, and (3) application of that rule to the second case.

Legal education and scholarship adopted this as a paradigm—the process by which judges and lawyers should proceed. Eschewing normative approaches, political scientists (from the 1920s through the 1950s) instead viewed "reasoning by example" as the way judges *do* proceed. Cushman (1929), Corwin (1924), and many others centered their work on the notion that previously announced legal doctrine provided the single best predictor and explainer of Court decisions.

How this model became so entrenched in the political science literature is readily discernible. Many scholars reasoned that judges (all schooled in legalism) would naturally gravitate to it upon ascension to the bench. After all, how else would they approach decision making? In addition, strong expectations exist within the legal community that judges will reason by example. As Murphy (1964) suggests, following legal precedents is a well-entrenched norm of the deliberative process. Finally, the case studies of the day reinforced the model's value. Articles published in political science journals summarized the reasoning used and the precedents set by the justices, disregarding any other factors contributing to decisional outcomes. Cushman's analysis of constitutional law for 1936–37 (one of the most volatile terms in the Court's history), provides a wonderful example. After acknowledging "The 1936 term of the Supreme Court will probably be rated as notable," he enumerated some of the "facts . . . one should bear in mind"—that Roosevelt had won a landslide reelection and had submitted a plan to reorganize the Court. Rather than demonstrate how those "facts" might have affected Court decisions, however, Cushman noted simply that "no suggestion is made as to what inferences, if any, might be drawn from them" (1938, 278) and proceeded to analyze the New Deal

cases vis-à-vis existing precedent (a difficult task, indeed).

The Extralegal Model

While the legal model was predominating political science thinking about the Court, new perspectives emerged from the ranks of the nation's judiciary and law schools. In general, these thinkers denounced legalism as mechanical jurisprudence—sometimes subtly (e.g., Holmes 1881), sometimes loudly (e.g., Pound 1931). Instead, they beckoned judges to consider more dynamic factors as bases for decisions. Many credit Holmes's (1881) *The Common Law* with initiating this plea. Students of this school often cite as exemplary his remark that "the life of the law has not been logic; it has been experience. . . . It cannot be dealt with as if it contained only the axioms and corollaries of a book of mathematics" (1–2). Illustrative, too, is Louis Brandeis's famous brief in *Muller v. Oregon* 1908, containing 113 pages of sociological data but only 2 of legal argument. It was Pound (1931), however, who catalyzed the first strain of extrajudicialism, sometimes called *sociological jurisprudence*. In his seminal *Harvard Law Review* article, Pound drew his now-famous distinction between "law in books" and "law in action," behooving judges to adopt the latter, without necessarily abandoning the former. Cardozo and many others followed suit.

Later adapters of *sociological jurisprudence*—the realists of the 1930s—though were far more radical in orientation, maintaining that rules based on precedents were nothing more than smokescreens (see Frank 1930, 1950; Llewellyn 1951) or "myths, clung to by man out of a childish need for sureness and security. A mature jurisprudence recognizes that there is no certainty in law" (Stumpf 1988, 16).

So began a long line of thinkers who harshly critiqued legal reasoning for its inadequacy as a basis for judicial decision making, an inadequacy stemming from various considerations. From a normative standpoint, many followed Brandeis's lead, arguing that extralegal factors should enter judicial deliberations. After all, if judges were constrained by precedent, law would remain static when it should reflect changing morals and values. Additionally, critics argued that justices, "like other human beings, are influenced by the values and attitudes learned in childhood" (Frank 1950). It would be extraordinary, they claimed, to think that judges, just because they don black robes, were any less susceptible to such influences. Indeed, justices may be even more vulnerable than other decision makers because the rules of law are "typically available to support either side" (Pritchett 1969, 31). In making choices between competing precedents, then, other factors are bound to come into play.

Although legal realism gained a strong following within the nation's leading law schools during the 1930s, political scientists were reluctant adherents. It was not until the publication of Pritchett's (1948) *Roosevelt Court* that students began to abandon a

positivist approach and view Court decisions more critically and analytically. In essence, Pritchett brought legal realism to political science. He equipped scholars with the arsenal necessary to estimate and evaluate its propositions. And, as an important by-product, he provided the fodder for the development of political jurisprudence and behavioralism—a development more fully stylized and realized by Schubert (1954), Spaeth (1961), and Ulmer (1960), who incorporated the assumptions of realism into their models of judicial decision making. Like Frank, they viewed the Court's environment as one that provided the justices with "great freedom to base their decisions solely upon personal policy preferences" (Rohde and Spaeth 1976, 72). But unlike the realists, they proceeded operationally to define and systematically to test attitudinal models of judicial behavior.

MODELS: CURRENT STATUS

The Extralegal Model

The underlying premise of *The Roosevelt Court*—that a host of internal, attitudinal factors other than "the law" contribute to case outcomes—continues to constitute a mainstay of research on Supreme Court decision making. Over the past decades, countless efforts have viewed court decisions as a function of personal attributes (e.g., Tate 1981), attitudes (Rohde and Spaeth 1976), and role conceptions (Gibson 1978). In general, however, most of these depict a Court driven by single-minded seekers of legal policy, justices who wish to etch into law their personal views.

Though the basic tenets of behavioralism continue to shape our vision of the judicial process, we have made some attempts at refining that conceptualization. In general, we now know that Court decisions are a product of factors not only internal but also external to the Court. Research by myriad scholars reveals that litigants, attorneys, and parties can affect case outcomes (e.g., Galanter 1974; Vose 1959). Although this body of literature is, conceptually speaking, quite murky, we acknowledge the validity of several of its basic premises. First, we recognize that attainment of "repeat player status" can translate into litigation success (Galanter 1974). How one becomes a "repeat player" is difficult to specify; but at least two factors contribute: association with a national litigating organization and regular appearance before the Court. Attorneys from the ranks of public interest law firms are ensured some level of financial and other support that many private counsel lack (Vose 1959). Repeated and continuous use of legal recourse breeds familiarity, confidence, and expertise that one-shotters cannot possibly acquire (O'Connor 1980). Second, and concomitantly, we acknowledge the extraordinary role played by one repeat player, the solicitor general of the United States. Whether participating as a direct party or as an *amicus curiae*,

solicitors general seem to carry great weight with the justices. Their presumed legal expertise, their utility in preconference screening, and their embodiment of the interests of the nation are just some of the factors explaining the solicitors' general excellent record before the Court (Segal 1991). Third, we accept the proposition that appellants are more likely to win their cases than appellees. This expectation is grounded both in fact (Wasby 1988) and in theory (Palmer 1982). Thus, no extralegal model can afford to ignore it.

Political scientists also recognize that pressures emanating from outside the legal system can affect case outcomes. In particular, we believe that the Court is responsive to the larger political environment. Some suggest that its rulings reflect the wishes of the citizenry (e.g., Barnum 1985). But owing to difficult conceptual and analytical obstacles, scholars have yet to provide truly compelling support for this assertion (see Caldeira 1991, 313–16). They have been more successful at establishing a link between the Court and the other branches of government. That is, even though the Justices lack an electoral connection or mandate of responsiveness, we have several reasons to suspect that Congress and the president affect Supreme Court decision making (Casper 1972; Murphy 1964) and that the direction of their influence reflects their partisan composition (Nagel 1969). First, scholars assert that both Congress and the president possess a vast array of powers over matters important to the Court, which the Justices can hardly afford to ignore (Baum 1989a, 133). Some of these powers, such as presidential and senatorial roles in the appointment process, are obvious; some are not. As Wasby (1988) notes, Congress can restrict the Court's jurisdiction to hear cases; enact legislation, or even propose constitutional amendments, to recast Court decisions; and hold judicial salaries constant. In turn, "the Court's policies may be affected by a desire to deter Congress" from taking these steps (Baum 1989a, 133). By the same token, Murphy (1964) and Scigliano (1971) point to the multifaceted relationship between the Court and the president, one that goes well beyond his power to nominate justices or even to send his solicitor general into the Marble Palace. It is no secret, for example, that many presidents have enjoyed special relationships with sitting justices and that presidential preferences have found their way into particular opinions. Nor can we ignore the role the president plays in shaping congressional responses to the Court.

Another set of literature focuses on the role of the Court within a democratic society, many scholars arguing that Court decisions do not significantly deviate from the preferences of the existing majoritarian regime. Though some argue that this is largely a result of the regularity with which presidents appoint justices (e.g., Dahl 1957), others suggest that it stems, at least in part, from the institutional nature of the Court (Marshall 1989; Murphy 1964). In short, because the justices lack any real mechanism to enforce their decisions, they depend on other politi-

cal actors (and the public) for support of their positions (Johnson and Canon 1984). Without such support, the Court could lose its institutional legitimacy, a danger of which its members seem well aware (Caldeira 1991). Accordingly, for the Court to have power within government it must "follow the election returns," or at the very least, consider them (Barnum 1985). Along similar lines, the Court, at least on occasion, takes cues from the political environment to guide its decisions (Vidmar and Ellsworth 1974). It has even gone so far as to build that dimension into some of its jurisprudential standards. In evaluating whether certain kinds of punishments violate the Eighth Amendment's cruel-and-unusual clause, for example, the Court proclaimed that it would look toward "evolving standards of decency" as defined by public morals.

Given this literature, then, we have sufficient reasons to suspect that the president and Congress can affect Supreme Court decision making or at least that Court rulings encapsulate the preferences of the other branches. What is more, we know something about the direction of this influence. The relationship between the Court and other branches of government, throughout history, has revolved around the ebb and flow of partisan politics. As Nagel observed, these patterns are "significantly shaped by such political considerations as the degree of party difference between Congress and the Court, the nature of the party in power in the national government and the party affiliations" of the individual Justices. (1969, 259). Put in more concrete terms, when the nation and its institutions move toward parties representing "have not" views (e.g., today's Democratic party), the Court tends to adopt more liberal policy postures, particularly on issues of rights and liberties. Conversely, as parties of "haves" (e.g., today's Republican party) come into power, the opposite effect will occur (Epstein, Walker, and Dixon 1989; Nagel 1969). In sum, while we continue to incorporate the premises of the attitudinal approach into our thinking about behavior, we also recognize that pressures external to the Court (be they from attorneys, parties, and litigants or from the larger political environment) supplement behavioral assumptions. We can express this extralegal model as

$$\Pr(C_i = 1) = b_0 + \sum b_h EL_{ih} + e, \quad (1)$$

where C_i is the Court's decision in a given case (a binary variable equal to 1 if the Court rules in a conservative direction, 0 otherwise); $\Pr(C_i = 1)$ is the probability of a given Court decision taking a conservative posture; and EL_{ih} are the extralegal variables influencing that decision.

The Legal Model

It is, of course, true that many of those engaged in the study of public law are less than content with this extralegal model, calling for a greater emphasis on doctrine as a valid explanation of case outcomes.

Brigham (1978), Johnson (1987), and O'Neill (1981) have stressed that the language of law (precedents, etc.) channels and constrains judicial choices. Shapiro (1972), too, suggests that "we have overemphasized extralegalism to the point [that] we somehow ignore the fact that appellate courts and the lawyers that serve them spend an overwhelming proportion of their energies communicating with one another, and that the judicial opinion itself conforming to the style of *stare decisis*, is the principal mode of communication." Two decades after publication of *The Roosevelt Court*, Pritchett even lamented that behavioralism may have gone too far: "Political scientists who have done so much to put the 'political' in 'political jurisprudence' need to emphasize that it is still 'jurisprudence'. It is judging in a political context, but it is still judging; and, judging is something different from legislating or administering" (1969, 42).

Like behavioral models, legal perspectives have evolved over the years, not so much conceptually as analytically.² In particular, work by Kort (1957) and Segal (1984, 1986) demonstrated systematically—not contextually—that the law controls case outcomes. Rather than focus on a specific decision or strain of precedent, Kort and Segal isolated areas of law and used facts and legal doctrine, respectively, to predict judicial determinations. When they found that the Court responded to legal factors in a consistent manner, some social scientists began to question the sweeping generalizations of the behavioralist school.

Kort's (1957) work has been the subject of some criticism. Fisher (1958) chastised his methods; others found his use of legally irrelevant facts puzzling.³ Segal's analyses overcame some of these shortcomings. He used probit (a multivariate analytic strategy), which allowed him to reach more precise conclusions about the relationship between doctrine and output. In addition, he limited his consideration to facts of legal significance. Virtually all his variables tap doctrine, rather than attributes of the sort incorporated by Kort.⁴ Indeed, he labels his analysis "a legal model."

Even so, Segal's model (and similar ones, e.g., Hagle 1989; Ignagni 1990; Wolpert 1991) arguably failed to correct for some of the shortcomings of previous work. Scholars continue to construct legal models in a rather post hoc fashion. Segal, for example, included certain variables (e.g., warrantless searches made prior to arrest and consent searches) because the *Court* said they were important and not because he had a priori knowledge that they should be significant in search-and-seizure analysis. Another potential problem is more temporal in nature: most legal models incorporate doctrine that the Court enunciated *after* it decided some of the cases contemplated in a given analysis. Segal included a variable comprised of six "exceptions" to the warrant and probable cause requirements. Although the Court had not written any of these exceptions into law prior to 1967 (the balance came in the early 1970s), Segal incorporated them into a model developed to explain

Court search-and-seizure decisions between 1962 and 1981.

Do these problems undermine the efforts of Segal and those following in his footsteps? We think not. On the contrary, they are endemic to legal models in general, rather than to specific scholarly efforts. Consider the temporal problem from the perspective of those who view the law as self-contained (as it is often presented to be in law school courses). Because, for them, the core notion is that all decisions are rooted in *stare decisis*, they would simply respond that the old doctrine anticipated the newer one, that the facts and questions varied, not the doctrine. They would bring much the same argument to bear on the post hoc nature of these models.

Seen in this light, the approach taken by Segal and others (Hagle 1989; Ignagni 1990; Wolpert 1991) neatly parallels the conceptualization offered by legalists. What is more, by providing empirical verification for the legal model, they gave it greater status within the scientific community studying judicial decision making.⁵ Though their methods differed from those of the classicists and they often included attitudinal measures in their models, their conclusions lent support to traditional assumptions about the nature of legal deliberations. More formally, we could conceptualize this model as

$$\Pr(C_i = 1) = b_0 + \sum b_j L_{ij} + e, \quad (2)$$

where L_{ij} are the legal factors impinging on the probability of a conservative decision and the other symbols are as in equation 1.

ESTIMATING THE MODELS

Since both legal and extralegal models are well established theoretically and analytically, we evaluate each on two scores: the typical parameter estimation strategy⁶ and a strategy based on the ability of the models to classify Court decisions correctly. For this examination, we focus on almost two decades' worth of cases involving capital punishment ($N = 64$), measuring Court outcomes as a simple binary choice whether it affirmed the imposition of the penalty (coded 1) or not (coded 0). Data are from the *U.S. Reports* for the 1971–88 terms. The mean value across terms is .45 in favor of the death penalty.

In general, our task in operationalizing the independent variables for both the legal and extralegal models is rather straightforward. As we shall describe in some detail, we simply adapt past constructs to our data, rather than improve upon them or introduce *major* innovations. Given our interest in comparing two well-entrenched (and empirically verified) models, we believe this to constitute the most evenhanded approach. Nonetheless, as our discussion has indicated, we are not unaware of the shortfalls of past research exploring the relative effect of extralegal factors and legal doctrine on decision making. There is still debate, for example, over whether

factors exogenous to cases actually affect the Court's decisions. By the same token, while Segal's (1984) work markedly advanced the line of inquiry on the impact of doctrine, that does not necessarily mean that it and its progeny are perfect. Nor can we ignore the perspective that *any given* Court producing *any given* legal doctrine is composed of justices possessing particular attitudes and so forth. Thus, a certain degree of interaction undoubtedly exists.

We shall take up some of these concerns later. Our present task is to examine the relative performance of the models as models. In so doing, and for the reason suggested, we feel it important to follow a research tack similar to those which preceded us in terms of the development of the model. With this in mind, we now turn to our specific operationalizations of both models.

The Legal Model

To develop a legal model, we followed Segal's lead. In his research on search-and-seizure cases, he reviewed Court doctrine relating to these suits and specified a concomitant legal model around that doctrine. This strikes us as a sensible approach, one that can clearly delineate whether "the law" determines case resolution. In general, the Court has centered its inquiry into capital punishment on the decision-making process, that is, the decision to impose death or not.⁷ More specifically, it has promulgated legal doctrine in response to three orienting questions. First, upon whom can decision makers confer a sentence of death? Rape⁸ and, in fact, all crimes for which the defendant did not intend to murder are undeserving of capital punishment. Hence, if the accused was tried for anything less than intentional murder,⁹ we would expect to find the Court resolving the case in favor of the criminally accused. To test this proposition, we coded the alleged crime (CR) as one for which a sentence of capital punishment was proportional to the offense (coded 1) or not (coded 0).

Second, who can make the decision between life and death? Although the Court allows judges and/or juries to impose a sentence of death,¹⁰ it has made clear that the latter cannot be biased toward such a verdict. Juries, in short, cannot be *death-qualified* (DQ)¹¹ that is, the "death penalty may not be imposed if the jury that assessed it was selected so as to exclude anyone who expressed general objections to capital punishment or religious or conscientious scruples against it" (Whitebread and Slobogin 1986, 637). To determine whether the justices responded consistently to issues of death-qualified juries, we coded whether this claim was raised (coded 0) or not (coded 1). If it was part of the legal record, we expect the Court to find in favor of the defendant.

Finally, what factors should decision makers consider in their deliberations? Clearly, judges and juries must, in an evenhanded manner, consider whether a penalty of death is the appropriate one. For instance, they must look at the particularized circumstances

(PC) of the case that may favor the defendant's position.¹² Along similar lines, the death penalty cannot be made mandatory,¹³ nor, conversely, can it be applied in an arbitrary (e.g., racially discriminatory) manner.¹⁴ Certainly, then, we would expect the Court to look unfavorably on any attempt to limit factors idiosyncratic to the crime or the accused (coded 0 if present, 1 if not). Concomitantly, judges and juries should contemplate particularized aspects of the crime against those factors in aggravation (AG). Unlike factors mitigating against death, those in aggravation must be specific and appropriate.¹⁵ If they are overly broad or vague, the Court should be inclined to rule against the state. We coded the presence of such a claim as 0, the absence as 1. In addition, juries and judges often consider, at the prosecution's urging, results of state-initiated psychiatric (SP) examinations. The Court, however, has clearly indicated that these must be conducted in accord with strict norms of due process and fairness.¹⁶ We posit, then, that a claim suggesting otherwise (coded 0) would weigh in favor of the accused.

Given these definitions, we can now rewrite equation 2 in the following operational terms:

$$\Pr(C_i = 1) = b_0 + b_1 \text{CR}_i + b_2 \text{DQ}_i + b_3 \text{PC}_i \\ + b_4 \text{AG}_i + b_5 \text{SP}_i + e.$$

We expect $b_1, b_2, b_3, b_4, b_5 > 0$. Like Segal, we recognize that some death penalty cases "often have idiosyncratic factors that affect the Court's decision and [that these] factors do not determine the Court's resolution of any case" (1984, 893). Yet we also argue that the factors considered here should strongly predispose the Court toward finding against the imposition of the death penalty.

This noted, one issue remains—the data collection process. Because it is likely that Court opinions filter out specific claims, they are not (for our purposes) reliable or useful sources of information. Accordingly, scholars seeking to estimate legal models turn to outside sources, such as the briefs filed by participating attorneys or the decisions of lower courts. Because attorneys narrow the array of existing legal arguments from which the justices can select to focus their opinions, we used their claims as our primary data source. For some of the doctrinal variables encompassed in our legal model (e.g., death-qualified juries), however, we found it necessary to consult the lower court opinions to ensure that they were, in fact, part of the legal record.

The ExtraLegal Model

Given previous successes at estimating extralegal models, our task is rather straightforward. As we did for the legal model, we simply adapt past constructs to our data. We earlier demonstrated that three elements compose this perspective: the justices' internal predispositions, litigants, and the political environment. Although previous research accounts

for internal value changes in diverse ways, one acceptable procedure operates under the assumption that as the number of Nixon, Ford, and Reagan appointees increased, so should the number of conservative (in our case, pro-death penalty) outcomes (e.g., Segal 1984). We can, then, operationalize this Court change (CC) variable as an additive index, taking on the value of 0 until the appointment of Stevens, 1 after Stevens, 2 with the appointment of O'Connor, 3 after Scalia, and 4 with Kennedy.¹⁷

Measuring the literature's expectations about the role of parties in litigation means adding of four factors. First, we consider whether attorneys representing defendants were experts in death penalty litigation. Following the lead of others, we assume that defense counsel (DC) from the ranks of public interest law firms or interest groups (in our study, virtually all were from the ACLU or the NAACP Legal Defense Fund) and those appointed by the Court were experienced death penalty litigators (coded 0), otherwise not (coded 1). Second, to avoid underestimating our model, we considered the relative expertise and repeat player status of the states (ST). We reasoned that the more a state litigated in this particular area, the greater its expertise (see, generally, Epstein and O'Connor, 1988). Three of the 18 states involved in death penalty litigation—Texas, Georgia, and Florida—accounted for nearly 50% of all cases, each litigating roughly 10 of them. We coded them as repeat players (1), all others as 0. Third, we ascertained whether the solicitor general (SG) had filed a brief amicus curiae (coded 1) or not (coded 0);¹⁸ and we considered who appealed (AP) to the Court, the defendant (coded 0) or the state (coded 1).

Finally, we wanted to capture appropriately the political environment confronting the Court. Not only is this a factor that all extralegal models should consider, but, because the Court has incorporated an "evolving standards of decency" component into its capital punishment jurisprudence, it is of particular importance for our analysis. The logic proffered by other scholars, pointing to the obstacles of relying on public opinion data and of the benefits of considering the composition of the other national institutions, led us to adapt an index to tap political pressures (from Cameron, Cover, and Segal 1989). Here, we assume that as the political environment (PE) becomes more Republican, so will the Court's decisions. That environment takes on a value of 0 if both the president and Congress are Democratic; a value of 1 if one branch is Republican, the other Democratic; and a value of 2 when the Senate and the president are Republican.

In sum, we can now specify the extralegal model, as depicted in equation 1, in the following terms:

$$\Pr(C_i = 1) = b_0 + b_1 \text{CC}_i + b_2 \text{DC}_i + b_3 \text{ST}_i \\ + b_4 \text{SG}_i + b_5 \text{AP}_i + b_6 \text{PE}_i + e.$$

We expect $b_1, b_2, b_3, b_4, b_5, b_6 > 0$.

EVALUATING THE MODELS: PARAMETER ESTIMATES

Table 1 depicts the estimates retrieved from a probit analysis of the legal and extralegal models.¹⁹ As the maximum likelihood estimates and summary measures indicate, both perform quite satisfactorily. The $-2 \times \log\text{-likelihood}$ ratios lead us to reject the implicit null hypothesis (i.e., all coefficients equal 0) for both. Moreover, they do an equally adequate job in reducing error prediction. If we had no knowledge of legal or extralegal factors affecting death penalty case outcomes and we guessed that all were liberal, we would accurately classify 55%. The legal model, which correctly categorizes 75% of the cases, results in a 44% reduction in error,²⁰ and the extralegal model, which accurately classifies 81%, reduces error by 58%.²¹

Although our concern lies with the models as models, the individual coefficients of each are rather interesting. In general, the legal model's maximum likelihood estimates meet our expectation. The absence of supportive doctrine positively affects the Court's propensity to take a law-and-order stance. More specifically, we hypothesized that the justices centered their inquiry into capital punishment on three dimensions of the decision-making process. We suggested, for example, that they would be less likely to uphold a death sentence against a defendant who did not intend for murder to occur. As we can see, when such a sentence is imposed, it results in a 1.49-standard-deviation addition to the cumulative normal probability function. More concretely, a death sentence imposed on an intentional murder would have a .51 probability of Court affirmation, one given to any other defendant a .12 probability.

We also suggested that several doctrinal aspects of the jury-judge deliberation process would affect Court disposition: the specifics of the crime, aggravating circumstances, and state-initiated psychiatric inquiries. As noted, all three have some impact on the justices. Failure to consider particularized case circumstances is one of the more important determinants, actually altering institutional choice. If defendants raise this issue, the model predicts an outcome favoring them; if not, the Court will probably find for the state. Charges of overly broad or inappropriate aggravating circumstances also increase substantially the probability of the Court's reaching a liberal outcome. The results of a modal categorization indicate that the state will likely lose if this issue is raised (.47) but will win in the absence of such a claim (.82). So, too, the Court has scrutinized quite closely state-initiated psychiatric proceedings. Sentences of death involving such issues would have only a .28 probability of being upheld as compared to .48 without them.

The third issue we expected the Court to consider—death-qualified juries—failed to produce a signif-

Table 1

**Probit Estimates for Legal and Extralegal Models
of Decision Making Capital Punishment Cases,
1971–1988 Terms of the U.S. Supreme Court**

VARIABLE	LEGAL MODEL COEFFI- CIENTS	EXTRA- LEGAL MODEL COEFFI- CIENTS
Death-Qualified (DQ)	.94* (.61)	—
Crime (CR)	1.49** (.73)	—
Particularized circumstances (PC)	1.46*** (.44)	—
Aggravating factors (AG)	1.01** (.50)	—
State psychiatric examination (SP)	1.38** (.62)	—
Political environment (PE)	—	1.88*** (.60)
Court change (CC)	—	.70** (.30)
Appellant (AP)	—	1.74*** (.57)
Defendant counsel (DC)	—	1.20** (.56)
State (ST)	—	1.29*** (.49)
Solicitor general (SG)	—	2.67*** (1.07)
Constant	-5.35	-5.87
$-2 \times \log\text{-likelihood ratio}$	18.82***	36.69***
% categorized correctly	75	81

Note: Standard errors are in parentheses. N = 64. Of these cases, the Court affirmed the imposition of the death penalty in 45%.

* $p \leq .10$.

** $p \leq .05$.

*** $p \leq .01$.

icant coefficient. Its estimate, however, requires little explication. The variable adds to the model's explanatory power,²² and its maximum likelihood estimate is positively correlated with a prodefendant outcome, conforming to our hypothetical model. Further, compare the modal probabilities for sentences reached by death-qualified juries (.50) versus those of all others (.82).

The maximum likelihood estimates of the extralegal model are also satisfactory, with our measures of internal and external factors producing significant results. Consider, first, the internal change variables. We see that the addition of Republican appointees enhanced the Court's propensity toward a law-and-

Table 2**Evaluating the Predictions of Legal and Extralegal Models Over Time**

NATURAL COURT ERA	NUMBER OF CASES PREDICTED CORRECTLY		TOTAL NUMBER OF CASES
	LEGAL MODEL	EXTRALEGAL MODEL	
1 (1971–74)	3 (100)	3 (100)	3
2 (1975–80)	16 (94)	17 (100)	17
3 (1981–86)	19 (63)	22 (73)	30
4 (1987–88)	10 (71)	10 (71)	14
Total	48 (75)	52 (81)	64

Note: Prediction equations are probits using estimates displayed in Table 1. Percentages are in parentheses.

order stance. A most significant shift, however, occurred when O'Connor joined the Court. Prior to her ascension to the bench, a death sentence probably would not have been upheld (a .20 probability). Upon her arrival in 1981, odds increased to .69 that the Court would hold for the state. The external political environment also exhibited a *strong* effect on Court behavior, the most obvious manifestation occurring in the Carter-to-Reagan transition.²³ During the Carter administration, when the government was uniformly Democratic, sentences of death had only a .37 probability of Court approval. During the first six years of the Reagan presidency, the Court almost always upheld such verdicts (.69). Two of the litigant variables also fared quite well. If the solicitor general filed a brief supporting the state, the odds approach .61 of the Court's concurring. In the absence of solicitor general reinforcement, states will generally lose their cases (.44 probability). Likewise, when the defendant appealed, the Court would probably take a liberal position (.65). If the state appealed, that probability would fall to .24. Hence, once again, the solicitor general and appellant variables produced a radical change in institutional decision making from a stance favoring defendants to one predisposed toward state interests.

Though the attorney and state variables did not have quite as dramatic an effect on average, they performed adequately. States facing a less-than-experienced attorney would have about a 50/50 chance of winning their dispute. But if they opposed interest group counsel or a Court-appointed defender, their odds fell, slightly, to 42%. Conversely, attorneys challenging practices in Texas, Georgia, or Florida faced an uphill battle as the modal probability approached .75 that the Court would find in favor of those states; it neared 0 for other governmental litigators.

Both the overall fits and the estimates of the extralegal and legal models suggest that the Court reacted quite consistently to doctrinal cues as well as to changes in political stimuli presented in over 15 years of death penalty litigation.

EVALUATING THE MODELS: CATEGORIZATIONS AND PREDICTIONS

Model evaluation can occur on a number of different dimensions. We already have detailed our models' ability to generate reasonable parameter estimates. Indeed, having found both to generate satisfactory coefficients, we could simply conclude that legal and extralegal explanations provide equally viable evaluations of Court decision making. This sort of analysis, however, reveals little about their relative value and their ability to postdict the range of case outcomes. Moreover, significant maximum likelihood estimates may mask individual, nonrandomized flaws. Because time-boundness has constituted such a problem in previous models of Court decision making (e.g., Ulmer 1986),²⁴ we are particularly interested to know whether the explanatory power of legal and/or extralegal perspectives diminishes over time. We address these concerns by comparing the percentages of correct and incorrect categorizations generated by both models over time. To facilitate interpretation, we grouped these into four periods roughly corresponding to the Natural Court eras included in our analysis.²⁵

As we depict in Table 2, we find little longitudinal erosion, generally speaking. Both models start off quite well, postdicting nearly 100% of the 20 cases decided during the first two Natural Courts. Equally satisfying is that both categorize correctly 10 of the 14 cases occurring in Natural Court 4. Perhaps most important, however, is that their ability to generate correct predictions for the latest round of death penalty cases was nearly as good as those for the first. Our models correctly categorized all three cases decided in 1972. During the 1988 term, the Court decided 7 cases involving imposition of the death penalty. If we withhold those cases and reestimate the models, each accurately forecasts the outcomes in 5 of the 7.

Although no erosion occurred in the utility of either model, a more detailed examination reveals the

Table 3**Evaluating the Predictions of Legal and Extralegal Models by Ideology**

NATURAL COURT ERA	% PREDICTED						TOTAL NUMBER OF CASES	
	LIBERAL (AGAINST DEATH PENALTY)			CONSERVATIVE (FOR DEATH PENALTY)				
	LEGAL	EXTRALEGAL	ACTUAL % LIBERAL	LEGAL	EXTRALEGAL	ACTUAL % CONSERVATIVE		
1 (1971–74)	100	100	100	0	0	0	3	
2 (1975–86)	76	82	82	24	18	18	17	
3 (1981–86)	66	43	36	33	56	63	30	
4 (1987–88)	79	21	50	21	79	50	14	

Note: Prediction equations are probits using estimates displayed in Table 1.

presence of two nontrivial problems. First, as we can see in Table 3, which depicts the percentage of liberal and conservative outcomes produced during each natural court (in contrast to the actual outcomes), our models possess ideological biases. The political model becomes increasingly, monotonically, and *incorrectly* prone toward conservatism. For Natural Court 1, it correctly classified all outcomes as liberal; by Natural Court 4, it placed only 21% of cases into that category, when half actually belonged there. Thus, despite initial appearances, by Natural Court 4 the political model is overestimating conservatism, an important finding, to which we will return.

The legal model exhibits precisely the opposite propensity. Beginning in Natural Court 3, the legal model overestimates the *liberal* inclination of the Court. As Table 2 indicates, it yielded its worst predictions in Natural Court 3. As we can see in Table 3, it produced those errors because it overcategorized liberal outcomes. Natural Court 4 presents much the same picture. It classified all seven cases decided in favor of the defendant accurately, but only three of the seven outcomes supporting the state. In short, our doctrinal model predicts more prodefendant outcomes over time than actually occurred, while the extralegal one is moving in the opposite direction. This reaches a point of virtual juxtaposition in Natural Court 4, when the legal model suggested that 79% of the cases would fall into the liberal column, while its extralegal counterpart placed 79% into the conservative one.

This trended behavior continues to plague the models into the Court's 1989 term, which we did not include in our analysis, but can now consider for diagnostic purposes. During that term, the Court decided 11 death penalty cases, holding for the state in 10. If we did not know the outcomes of those cases and used the estimates generated from our legal and extralegal models (see Table 1) to predict them, our results would be discouraging. Both continued along the ideological paths already described. The legal model predicted that the Court would decide 10 of the 11 1989 term cases in favor of the defendant, and the extralegal model classified all 11 as holding for the state.²⁶

Not only are the models exhibiting trended ideological behavior, but (a related problem) they also seem to be working at cross purposes. Consider that the legal model incorrectly classified 16 cases, the extralegal one 13. If the cases missed by the models were simply idiopathic, we would expect many of the total 29 to be shared errors; but in fact, they had only 4 missed cases in common. Put in somewhat different terms, of the 16 outcomes incorrectly classified by the legal model, the extralegal one picked up 12. Conversely, the legal model accurately categorized 9 of the 13 errors produced by the extralegal one.

Hence, what emerges (taken in conjunction with previous findings) is that while the overall fits are quite good, the models exhibit disturbing propensities and, interestingly, ones that move in precisely opposing directions. The political model becomes increasingly conservative, the legal model increasingly liberal. Thus, the errors they produce are largely idiosyncratic.

Explaining the Findings

Taken together, then, the legal and extralegal models seem to be working at cross purposes, producing opposing categorizations over time. Theoretically speaking, this is a puzzling phenomenon but one on which we can speculate. We first consider a traditional criticism of the legal model, namely, that it is too static to account for changes in the law. We found, however, that this was not necessarily the case for death penalty litigation. Rather, it does change over time, forecasting more liberal outcomes with each passing Natural Court era than actually happen.

Why this occurs is rather evident. Once the Court enunciates legal policies, attorneys will take a cue from those precedents, bringing better and better arguments within those doctrinal parameters. Quite exemplary are capital cases involving overly broad aggravating circumstances. In *Gregg v. Georgia* 1976, the defendant's attorney claimed that one of the state's aggravating circumstances, namely, that the offense was "outrageously or wantonly vile, horrible or inhuman in that it involved torture, depravity, or

an aggravated battery to the victim," was overly broad and vague. The Court rejected this contention on the grounds that future courts need not construe it as such. This holding voided Gregg's particular claim but opened the doors to new challenges based on future interpretation of that circumstance. This is precisely what happened in *Godfrey v. Georgia* 1980, when an attorney challenged Georgia's construction of the very same aggravating circumstance. Based on *Gregg*, the justices agreed that the state courts had interpreted it in such a way as to make it overly broad and vague. Our legal model accurately classified the outcome of *Godfrey*; but it missed a 1989 case also involving aggravating circumstances, *Hildwin v. Florida*.²⁷ In this instance, the Court ignored existing precedent and found for the state.

After this small deviation from *Gregg* and *Godfrey* in 1989, the justices moved more rapidly to distinguish existing precedent. For example, in the 1990 case of *Lewis v. Jeffers*, they held that the aggravating factor challenged in *Gregg* was not unconstitutionally vague as applied to the defendant even though a lower court, relying in part on *Godfrey*, held that it was. Once again, we used existing estimates (see Table 1) to try to "postdict" *Lewis*. Not surprisingly, this effort failed. The legal model—built around earlier precedent—failed to categorize correctly the outcome of *Lewis v. Jeffers*.

This series of cases (and others) demonstrates that the legal model contains an inherent flaw. Because it only considers legally relevant facts, it will continue to forecast liberal outcomes as attorneys capitalize on existing precedent even though "the law" may not actually move in that direction. This is why our legal model accurately forecasted the Court's early "aggravating" cases but missed those decided in 1989 and 1990.

Does this mean that we should discount the legal model in favor of the extralegal one? We think not, because it, too, exhibits idiopathic behavior, prematurely predicting conservative outcomes. It accurately predicted *Hildwin* but missed several other cases in which the Court adhered to precedent and ruled in favor of the defendant.²⁸ Particularly interesting is the one 1989 term ruling that it miscategorized, *McKoy v. North Carolina*. This case involved the constitutionality of a state sentencing scheme permitting juries to consider only those mitigating circumstances on which they unanimously agreed. Because so many pro-state "buttons" of our existing extralegal model were pushed (e.g., the defendant was not represented by a group, the high number of Nixon-Reagan appointees, etc.), it predicted that this case had virtually no chance of being decided in favor of the defendant. Yet, citing clear-cut doctrine suggesting the need for "flexibility" of mitigating circumstances, the Court held for the defendant.

Seen in this light, the extralegal model is too dynamic. It assumes that changes in the political environment will contemporaneously affect court decisions. Yet as the death penalty data suggest, this may be an incorrect assumption. Why does the model

possess this flaw? Most importantly, as *McKoy* indicates, it fails to consider the doctrinal boundaries in which the Court works. If Brigham (1978) and others are right, stare decisis does constrain the array of available legal options. Accordingly, abrupt alterations in the political environment may not necessarily translate into concomitant, contemporaneous doctrinal change.²⁹

AN INTEGRATED MODEL

Hence, both models possess weaknesses—weaknesses that run diametrically to one another. The legal perspective, which overpredicts liberal outcomes, needs to be tempered by a consideration of political forces. Conversely, the extralegal model should be checked by doctrinal constraints. Given these weaknesses, should we abandon both models as incomplete portrayals of Court decision making? We think not. Rather, they should be considered codependent explanations. The legal model assumes that the Court cannot ignore its role as an adjudicative body, that it is bound by precedent. The extralegal model assumes that the Court heeds political forces and must do so to retain its institutional legitimacy. Over time, those models may diverge, applying diametric pressure of the Court. For capital punishment cases, the legal model exerts a liberalizing influence on the justices as attorneys capitalize on existing doctrine. The extralegal exerts influence toward a more conservative posture as the external and political environments move in that direction. To this extent, legal and extralegal models present interdependent explanations of judicial decision making.

Seen in this light, then, our most prudent approach, analytically speaking, is to combine the two into an integrated model of decision making, one informed by both legal and extralegal factors:

$$\text{Pr}(C_i = 1) = b_0 + \sum b_h EL_{ih} + \sum b_j L_{ij} + e. \quad (3)$$

Table 4 depicts the maximum likelihood estimates and summary statistics retrieved from estimating equation (3) in probit. As we can see, the model is quite well behaved. It is significant at the .01 level; all variables add to the model's explanatory power; and the maximum likelihood estimates are in the hypothesized direction. Even more encouraging is its ability to categorize correctly 88% of all case outcomes, with no evident ideological bias.³⁰

Based on these results, it would be tempting to conclude that scholars should consider both legal and extralegal variables in their models of Court decision making, that these factors have an equivalently strong impact on outcomes. But is that true? To explore this, we created instruments for each set of factors (legal and extralegal) and then used those to generate beta weights.³¹ Table 5 illustrates the results of that analysis. Overall, extralegal factors exert nearly twice the influence (.35 versus .69) on a given Court decision. Particularly interesting, however, is

Table 4**An Integrated Model of U.S. Supreme Court Decision Making**

VARIABLE	COEFFICIENT
Death-qualified (DQ)	1.23 (1.14)
Crime (CR)	2.86** (1.21)
Particularized circumstances (PC)	1.13** (.66)
Aggravating factors (AG)	1.05* (.68)
State psychiatric examination (SP)	2.19*** (.86)
Political environment (PE)	2.25*** (.79)
Court change (CC)	.64* (.39)
Appellant (AP)	1.55** (.79)
Defendant counsel (DC)	1.08** (.62)
State (ST)	1.90*** (.64)
Solicitor general (SG)	1.93* (1.44)
Constant	-13.66
-2 × log-likelihood ratio	48.99***
% categorized correctly	88

Note: Standard errors are in parentheses. N = 64. Of these cases, the Court affirmed the imposition of the death penalty in 45%.

* $p \leq .10$.

** $p \leq .05$.

*** $p \leq .01$.

the data depicted in Table 5 make a great deal of sense. When the Court handed down *Furman v. Georgia*, it was writing on a virtually clean slate. Interestingly, however, extralegal factors have no discernible impact on it. The variables included in our legal model drove the decision. To some extent, this is an artifact of how we derived that model—mainly, though not exclusively, from *Furman* (and *Gregg*). But given the relative weight of extralegal factors (nonexistent), the data do tell us something about the nature of judicial decision making. When the justices placed the relatively novel issue of capital punishment on their agenda in 1972, they were apparently more influenced by the extant legal claims than by political and societal forces, which had yet to gel sufficiently. Such a finding seems to support what others have written about those early death penalty cases (e.g., Kurland 1972).

What we see in Natural Courts 2, 3, and 4 also fits compatibly with our existing knowledge of capital punishment doctrine and of Court decision making. As the issue evolved and doctrine was refined (or, in some instances, severely distinguished), the relative weight of legal and extralegal factors shifted markedly. The basic underpinnings of the plurality opinions in *Furman* (and, later, *Gregg*) continue to govern the imposition of the death penalty (i.e., the Court has not yet reverted to a pre-1972 posture). That is why the legal model continues to provide a viable framework by which to assess Court outcomes. Yet the more political and politicized factors exert the greatest influence today on case outcomes.

Again, this is not surprising, given previous research on Court decisions in capital cases in particular (e.g., Zimring and Hawkins 1986). But, it does reveal something about the nature of judicial decision making. In short, as law governing capital punishment evolved, the Court moved away from the original doctrine *per se* and looked instead to the extralegal environment.

CONCLUSION

We began with a relatively simple purpose—to determine how well legal and extralegal models performed in head-to-head competition. We thought this a significant enterprise because theories of judicial behavior are rarely subjected to this sort of examination. As it turned out, both models performed satisfactorily, evincing strong abilities to account for Court outcomes in capital punishment litigation.

Our analysis could have ended here, concluding that legal and extralegal models provide equally good frameworks by which to assess Court decision making. Such a conclusion, however, would have been premature, because, upon further evaluation, we found that both exhibited disturbing propensities. The legal one prematurely anticipated liberal outcomes, the extralegal model conservative ones. Given these results, we tested another proposition, namely, that extralegal and legal frameworks presented code-

Table 5**The Relative Influence of Legal and Extralegal Variables on U.S. Supreme Court Decisions**

NATURAL COURT ERA	BETA WEIGHTS	
	LEGAL MODEL	EXTRALEGAL MODEL
1 (1971–74)	.52	.00
2 (1975–80)	.35	.67
3 (1981–86)	.48	.72
4 (1987–88)	.56	.80

Note: See note 31 for the computation of the beta weights.

pendent, not mutually exclusive, explanations of decision making. Based on these results, we offered an integrated model of judicial decision making contemplating a range of legal and extralegal factors.

Taken as a whole, what does our model reveal about the nature of Supreme Court decision making? Can we now address our original research question, How does the Supreme Court reach decisions? On some level, its answer is obvious: the most complete explanation of judicial outcomes should incorporate legal and extralegal factors. Seen in this light, the views of neither the classical legal thinkers nor the behavioralists are incorrect; but they are incomplete. Both law and politics, as we would intuitively expect, play significant roles in the Supreme Court's decision-making process.

On another level, however, these roles may not necessarily be equivalent. Our analysis of capital cases reveals that legal factors have the greatest impact at the early stages of an issue's life; as it evolves, however, extralegal variables dominate. In a way, therefore, our results reinforce the legal paradigm set out by the pragmatic Benjamin Cardozo (1921). When the law ceases to be consistent with the Court's "sense of justice," there occurs a greater willingness to abandon it. This, he wrote, *should be* the nature of the judicial process. Our analysis confirms that (at least for death penalty litigation) it *is*.

Where do we go from here? Surely our next research tasks must be to eliminate some of the shortcomings of this effort. In particular, our focus on a single area of the law hampers our ability to reach generalizable conclusions. Hence, future analyses ought to continue where we have left off by exploring other legal issues with an eye toward discerning whether the patterns we found are idiosyncratic or sufficiently universal.

Notes

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1. On the other hand, we could argue that this is more the "norm" than it is an anomaly; that is, research on the judicial process rarely compares models of decision making. Two of the few exceptions are Gibson 1978 and Johnson 1987. The latter, especially, is relevant to our study. Johnson sought to determine whether a legal or political model accounted for "more variation in the use of Supreme Court decisions by lower federal courts" (1987, 325). In the end, his analysis lends support to "those who argue that legal factors in part account for judicial behavior, especially in lower courts" (339).

2. For a vivid illustration, cf. Cushman's and Segal's treatments of search-and-seizure cases (Cushman 1929, 82–84; Segal 1984).

3. Kort corrected some of these problems in later works (e.g., Kort 1973).

4. Many textbooks and readers on the judicial process distinguish *fact pattern* analysis from legal models. As Carp

and Stidham note, "While fact pattern scholars also believe that the facts of a case determine its outcome, they quickly part company with the traditional approach after that point" (1985, 193). Among the most important factors setting it apart from a legal model, according to them, is the use of legally irrelevant facts. In this light, Segal, who does not consider such "irrelevant facts," comes far closer to validating doctrinal perspectives than behavioral ones.

5. These studies focus on the U.S. Supreme Court. For an excellent example of the application of the legal model to lower-court decision making, see Johnson 1987.

6. Here we refer to probit—an analytic technique well suited to binary choice variables, such as judicial outcomes—because it operates on a continuous S-shaped probability function.

7. *Gregg v. Georgia* 1976.
8. *Coker v. Georgia* 1977.
9. *Enmund v. Florida* 1982.
10. *Gregg v. Georgia* 1976.
11. *Witherspoon v. Illinois* 1968; *Adams v. Texas* 1980.
12. See, generally, *Furman v. Georgia* 1972; *H. Roberts v. Louisiana* 1977; *Lockett v. Ohio* 1978.
13. *Woodson v. North Carolina* 1976.
14. *Furman v. Georgia* 1972; *Gregg v. Georgia* 1976.
15. *Godfrey v. Georgia* 1980.
16. *Estelle v. Smith* 1980.

17. We adopt this measure from Segal's analysis (1984, 895). But we are not unmindful of its flaws, the most important of which is that it assumes identical changes from one pair of justices to the next. For example, Segal treated the change from Warren to Burger as the equivalent of the change from Douglas to Stevens. Based on Baum's scores and rankings of the justices (1989b, 517), this is somewhat troublesome (i.e., Stevens and Douglas generally supported civil liberties claims, as did Warren; Burger generally did not). We face a similar problem; if anything, our predicament is somewhat more exaggerated than Segal's because, for instance, we are treating the change from a Roosevelt–Ford (Stevens for Douglas) pairing as the equivalent of a Nixon–Reagan (Kennedy for Powell) one.

We offer two reasons for so doing. The first, and more important, one speaks in general terms to this sort of research. Like Segal (1984), we wanted to assess the cumulative impact of ideology on institutional-level decision making and do so in a non-post hoc way. This approach allows us to reach that end in a far more satisfactory manner than would, say, indicators developed to tap the specific propensity of individuals. To demonstrate this, let us compare the bottom lines of Segal's (1984) approach to macro decision making (which we adopt here) with that which he and Cover fashioned in 1989 to identify *a priori* the ideology of individual justices. If we took the median ideology of the justices from Segal and Cover's (1989) scores, we would expect to observe *no* change in the Court's ideological propensity from 1975 to 1986 and a *decrease* in its overall conservatism from 1987 to 1988. In contrast, our adaptation of Segal's (1984) measure depicts a Court that is, generally speaking, growing more conservative over time. No question exists as to which, on its face, is the more valid measure.

We also, of course, are mindful of the fact that we are dealing with a particular area of the law. Accordingly, our second reason is more substantive and contextual. As we know, the death penalty did not become a major political issue and thus a consideration in the Supreme Court nomination process until *Furman v. Georgia* 1972, after Eisenhower and Nixon made their appointments. This is particularly critical for our treatment of the Reagan-to-Nixon appointments. While Nixon ensured that his nominees were law-and-order advocates, he had no reason to identify their position on death penalty. In contrast, later Republican presidents (particularly Reagan) included a pro-death penalty stance as a requirement for nomination (Schwartz 1988). Accordingly, it is possible that some of the Nixon appointees were less predictable on capital punishment than on general issues of criminal law. (In fact, Epstein and Kobylka 1992 empirically

demonstrates it). In short, at least in the death penalty area, we have every reason to suspect that a "conservative" justice was potentially replaced by an even more "conservative" one.

18. The office of the solicitor general never participated as a party, nor did it file any briefs in support of the defendants' position.

19. In the interest of space, we generally limit our discussion to the results uncovered from the probit analyses. For readers seeking more information, we would be most willing to provide copies of the data set. Contact Epstein by post or bitnet (C38054LE @ WUVM.D).

20. Brenner, Hagle, and Spaeth (1990) offer the formulation

ROE = 100

$$\times \frac{\% \text{ correctly classified} - \% \text{ in the modal category}}{100\% - \% \text{ in the modal category}}$$

21. As is the case for all analytic techniques (e.g., ordinary least squares regression), researchers must concern themselves with interpretive problems that can result from violating the assumptions of the extant underlying statistical theory. In particular, we must at least consider the problem of serial correlation. As Aldrich and Nelson note, "When residuals are serially correlated, maximum likelihood estimates remain unbiased in large samples, but they are not efficient. The result is precisely analogous to that of autocorrelated linear models" (1984, 81). Yet we will not statistically address the issue of serial correlation for the same reasons offered by Marra, Ostrom, and Simon (1989, 605-7). Most important is that "there is no agreed-on test for statistical significance in the nonlinear context" (*ibid.*). Aldrich and Nelson concur, "Unfortunately, corrections for serial correlation have proven untractable in the logit and probit cases" (1984, 81). Adding to our decision was the fact that like Marra, Ostrom, and Simon (1989, 605), our data lack a constant time interval between observations.

22. To determine this, we removed DQ from the model, reestimated it, and compared the log-likelihood ratio it produced with that listed in Table 1. Overall, the removal of DQ resulted in a significant (at .05) reduction in the model's explanatory power.

23. We stress this point because of the possibility that conceptual overlap between the court change and political environment variables bled into our analysis. After all, some scholars argue that it is through the appointment process that Congress and the president primarily affect the Court. Several diagnostic checks, though, confirm our finding that the variables have independent and significant effects. We first examined whether they were significantly correlated; they were not. We then checked for an interaction effect. We added to the extralegal model an interaction term (PE \times CC). While both CC and PE produced significant estimates, the interaction term did not.

24. More specifically, Ulmer addressed the question of whether social background models are time-bound, concluding that, indeed, they "work only for particular sets of judges at particular points in time" (1986, 965). A more recent study by Tate and Handberg (1991) argues that there may be no way to avoid this problem completely. However, they suggest that if researchers develop more theoretically sensitive personal attribute models, the problem of time-boundness can be minimized.

25. They are Natural Court 1 (1971-74), Natural Court 2 (1975-80), Natural Court 3 (1981-86), and Natural Court 4 (1987-88). Natural Courts are periods during which the Court's membership remains stable. We should note, though, that Natural Court 3 is not a pure Natural Court since a membership change did occur during the 1986 term: Scalia replaced Rehnquist, who ascended to the chief justice position left open by Burger's retirement. For purposes of presentation, we grouped 1986 with Natural Court 3.

26. To be sure, then, the categorization accuracy of the extralegal model remained high (91%), but had we merely guessed that all 1989 term cases would result in pro-state

outcomes, we would have been equally accurate. Moreover, if these categorizations result from trended behavior (as we suspect), we cannot necessarily conclude that the model is explaining Court outcomes.

27. In *Hildwin*, the Court held that the Sixth Amendment does not require that a jury specify the aggravating circumstances authorizing the imposition of death—that they could be specified by a judge. One of the statutorily allowed aggravating circumstances was that the killing was "especially heinous, atrocious and cruel." The Court concluded that the validity of this circumstance did not need to be addressed, since the imposition was based on other factors provided by statute.

28. In *South Carolina v. Gathers* 1989, the Court considered the remarks of a prosecutor at the sentencing stage, remarks that the state supreme court held "conveyed the suggestion appellant deserved a death sentence because the victim was a religious man and a registered voter." The Supreme Court agreed, ruling that "our capital cases have consistently recognized that 'for purposes of imposing the death penalty . . . [the defendant's] punishment must be tailored to his personal responsibility and moral guilt,' citing *Enmund v. Florida* 1982 (*ibid.*, 2210).

29. Another explanation centers on how we measured the Court's internal ideological disposition. It is possible that the *Court change* variable, which increases over time, may be responsible for the extralegal model's categorizations. To explore this possibility, we reestimated the model using the means of Segal and Cover's (1989) values instead of our CC measure. As we have pointed out (n. 17), their scores are less than ideal for macro analysis. Therefore, we did not adopt them; and the reestimation reflects this deficiency. More specifically, the results, through Natural Court 3, parallel those we obtained. The model does a satisfactory job in categorizing cases but by Natural Court 3, overestimates conservative outcomes. For Natural Court 4, however, it correctly categorizes only 50% of the cases, a percentage below either of our models for any Court era. Such is hardly surprising, given that Segal and Cover's mean values anticipate that Natural Court 4 would be less conservative than that which preceded it. As a result, we cannot reach any firm conclusions; we can only offer the explanation in text as a strong possibility.

30. Of the eight missed cases, five were liberal outcomes, and three were conservative ones.

31. To create the instruments, we followed the approach outlined by Ostrom and Job, reestimating the equations and then using the standard deviation of the underlying scale and of each instrument to compute the beta weights (1986, 565).

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