

Strategic Anticipation in a Judicial Hierarchy

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ABSTRACT

To what extent are lower court judges anticipating how their decisions might be reviewed on appeal? Unfortunately, few empirical analyses concentrate on answering these important questions. This paper contributes to the debate by focusing on the anticipation of Supreme Court responses by judges on the Courts of Appeals. Do judges on the Courts of Appeals guess the preferences of Supreme Court justices when rendering decisions? Additionally, does this anticipatory behavior significantly impact or constrain the ability of these judges to maximize their personal policy preferences? To address these questions, I examine decisions rendered by the U.S. Courts of Appeals from 1953 to 1988, and their subsequent treatment by the U.S. Supreme Court, under a strategic choice statistical framework. Initially, the empirical results indicate that Appeals Court judges do anticipate responses from the Supreme Court, and adjust their behavior according to this perceived constraint. However, this constraint is not experienced by all appellate judges. During the Warren Court era it is apparent that the constraint is experienced by all appellate panels, regardless of ideology; yet, the likelihood of the Supreme Court granting *certiorari* is substantially higher for conservative decisions than for liberal ones. During the Burger Court era it is apparent that more liberal appellate panels experience this constraint to a higher degree than conservative appellate panels (and the likelihood of Supreme Court review increases substantially for liberal decisions).

To the extent law is the primary deciding factor in cases, we have a familiar hierarchical legal system. But to the extent lower courts are trying to guess the preferences of higher courts, and higher courts are reviewing based on ideology and outcome, then law is not the chief determinant of outcomes; rather it is ideology and reversal rates.¹

The above quotation raises interesting questions about the relationship between courts in the federal judicial hierarchy. To what extent are lower court judges anticipating how their decisions might be reviewed on appeal? If interpretations of the law remain the primary influence in the decision calculus, then the judicial hierarchy resembles a conventional legal system with the principle of *stare decisis* playing a central role. However, the attitudinal model posits (and subsequent empirical studies demonstrate) that judges render decisions according to their personal preferences (Segal and Spaeth 1993, 2002). Rather than reliance on the law or principles of *stare decisis*, the predominant influence of judicial outcomes becomes individual ideological concerns. Does this reliance on ideology mean lower court judges try to guess the preferences of judges on higher courts, as Burbank and Friedman hint? If so, how does this impact the familiar hierarchical legal system?

Unfortunately, few empirical analyses concentrate on answering these important questions. This paper contributes to the debate by focusing on the anticipation of Supreme Court responses by judges on the Courts of Appeals. Do judges on the Courts of Appeals guess the preferences of Supreme Court justices when rendering decisions? Additionally, does this anticipatory behavior significantly impact or constrain the ability of these judges to maximize their personal policy preferences? To address these questions, I first examine theories of judicial compliance and hierarchical relationships – focusing especially on principal-agent theory – and

¹ Burbank and Friedman (2002, 31).

derive a formal model to illustrate expected patterns of behavior. I then empirically evaluate the formal model using a strategic choice statistical framework.

PREVIOUS RESEARCH ON JUDICIAL HIERARCHIES

The institutional structure of the federal judiciary facilitates an application of the legal concept of *stare decisis*. Under this principle, courts located in the lower echelons of the hierarchy apply binding precedents – handed down by higher tribunals – to resolve current disputes. As Canon and Johnson (1999, 30) state, “all courts lower in the hierarchy must attempt to apply the policy to relevant cases, interpreting the policy as necessary to fit the circumstances at hand.” Several scholars examined lower court treatment of legal precedents and concluded that inferior judges generally adhere to Supreme Court pronouncements of law (Gruhl 1980; Johnson 1987; Songer and Sheehan 1990; Benesh and Reddick 2002), and lower court judges tend to follow ideological trends from these higher tribunals (Baum 1980; Songer 1987). According to Baum, the reason for compliance by lower court judges is that while those judges seek to set doctrine near their personal ideal points, they realize that doing so increases the chance of being reversed by a higher court. Therefore, judges “must balance their preferences against the preferences of [the higher] court and sometimes take positions that diverge from their own preferences in order to avoid reversals that would move policy even further from those preferences” (1997, 115).

In order to understand the influence of this hierarchical relationship, scholars have turned to principal-agent theory. The fundamental premise behind this theoretical construct is that the principal seeks to produce results according to his or her personal preferences but, due to a lack of resources, the principal cannot review every aspect of a particular policy arena.² Therefore, the principal “delegates some rights... to an agent who is bound by a (formal or informal)

² See Brehm and Gates (1997) for a more detailed explanation of the principal agent model.

contract to represent the principal's interests..." (Eggertsson 1990, 40). The tension within this relationship arises because the agent also seeks to produce results according to his personal preferences, which may not be similar to those of the principal. The difficulty for the principal involves establishing substantial controls, inducements or other enforcement mechanisms to ensure that the agent does not deviate from the principal's preferences (Shepsle and Bonchek 1997), but because a principal cannot develop perfect enforcement mechanisms and due to information asymmetries between the principal and the agent, it is always possible for the agent to "shirk."

Empirical examinations of the principal-agent model, within the judiciary, traditionally focused on the impact of Supreme Court decisions on lower courts.³ Songer, Segal and Cameron (1994) were among the first scholars to rely on this theory to examine the degree of congruence and responsiveness between the Supreme Court and the Courts of Appeals. Using data on search and seizure cases, the authors demonstrate convincingly that "judges on the courts of appeals appear to be relatively faithful agents of their principal, the Supreme Court" (1994, 690). One of the primary components of this faithfulness involves the increased probability of losing litigants appealing a decision which deviates from the preferences of Supreme Court justices. However, they do note a substantial difference between liberal and conservative judges at the appellate court level. "These findings suggest that appeals court judges are substantially constrained by the preferences of their principal, but the complexity and tremendous variety of the fact situations presented on appeal frequently provide them with room to maneuver" (1994, 692-693).

Following this analysis, other scholars have employed principal agent theory to model relationships between the Supreme Court and the Courts of Appeals in confession cases (Benesh

³ One must remember that the judicial hierarchy is not equivalent to other bureaucratic organizations, since the Supreme Court does not possess authority over traditional sanctioning mechanisms, such as appointment, removal, promotion or salary for inferior judges (Fiss 1983).

2002), between the Supreme Court and state courts of last resort in search and seizure cases (Martinek 2000), and between the Supreme Court and state courts in confession cases (Benesh and Martinek 2002). Thus, it is becoming apparent that principal agent theory is a useful device for examining the impact of Supreme Court decisions on lower court behavior.

Nevertheless, because these models isolate narrow areas of law (i.e., search and seizure or confession cases) they do not account for broader areas where the established legal doctrine is less clear. Thus, the conclusions generated through a principal agent framework are consistent with the possibility that lower court judges adhere to higher court precedents – thereby appearing to be responsive to the principal in the bulk of their caseloads – but ignore their superiors when deciding questions where precedent is ambiguous (Klein 2002, 7). When such questions arise, how do the tenets of principal agency theory apply? The previous empirical evaluations of the principal-agent model hint at a form of anticipatory behavior, though this is never tested directly. As Songer, Segal and Cameron claim, “if an appeals court anticipates that it will be sanctioned in the form of a reversal, the anticipated response will keep the court in check” (1994, 693). The authors do not test this claim specifically, but speculate that lower court judges anticipate possible responses from their superiors; and in situations where a negative response is likely, these judges strategically alter their behavior to avoid the negative outcome. Songer, Segal and Cameron provide indirect evidence supporting this speculation and additional evidence provided by Benesh (2002) leads to the conclusion that appeals court judges factor potential responses by the Supreme Court into their decision calculus.⁴

Few scholars have addressed whether lower court judges engage in anticipatory behavior. Those that have, provide mixed evidence as to whether this behavior is employed in a systematic

⁴ For a contradictory argument, see Klein (2002) and Klein and Hume (2003).

manner. For example, Klein (2002) interviews several appellate judges and offers some anecdotal support for this notion. Two judges, in particular offer the following comments:

One thing I have done that's very useful: If I have a real gray-area case, I go to history – look at the Supreme Court cases from the beginning. I watch the issue develop and try to decide what the Supreme Court would do in this case.

Of course, we're bound by the Supreme Court, but sometimes there's a question of whether to adhere rigidly to the Supreme Court case or find elbow room to go, not contrary to what the Supreme Court has said, but in a way the Court might disagree with if it heard the same case. [Klein: Do you feel you should try to anticipate what the Supreme Court would do?] I like to try. Not all judges think that's proper (2002, 108).

The comments from these two appellate judges indicate that they do anticipate how the Supreme Court would decide a case currently under adjudication. However, Klein's empirical analysis of anticipatory behavior discovers, "little evidence that anticipatory decision making occurs and essentially no evidence that it results from fear of reversal" (2002, 126). In contrast, Caminker's doctrinal analysis indicates that lower court judges embrace anticipatory behavior (what he terms the 'proxy model') in two specific instances: when they believe an older Supreme Court precedent is so eroded that the Court will overrule itself if an opportunity arose; and, when discerning state law (1994, 19-22).

It is difficult to assess the conclusions of these analyses because neither one directly tested strategic behavior of Appeals Court judges. Caminker's qualitative analysis leads to the conclusion that anticipatory behavior is fairly common among lower court judges, but he does not provide a systematic analysis of this phenomenon. Klein's empirical evidence is more compelling – though it contradicts some of his anecdotal evidence. Yet, he acknowledges "the results should not be taken as conclusive" (2002, 126). His analysis, while offering valuable insights into the question of anticipatory behavior, does not explicitly model strategic interaction

among the Appeals Courts and the Supreme Court. Therefore, to ascertain directly the extent to which appellate judges strategically anticipate decisions from the Supreme Court, I initially develop a formal model in the next section, and later test specific hypotheses empirically.

FORMAL MODEL OF APPEALS COURT DECISION MAKING

Reliance on formal modeling for judicial behavior has increased over recent years. Scholars use formal models to help explain voting behavior in the U.S. Supreme Court (Stearns 2000; Hammond, Bonneau and Sheehan 2005), interactions between the Supreme Court and other branches of government (Segal 1997; Shipan 1997; Vanberg 2001) and between the Supreme Court and lower courts (McNollgast 1995; Cameron, Segal and Songer 2000; Lax 2007). “The principal advantage of formal modeling is the clarity and rigor afforded through deductive analysis. For game theoretic analysis this means identifying equilibrium conditions not predicting specific outcomes of a particular case” (Gates and Humes 1997, 7). Thus, one may explicitly state precise assumptions about expected behavior and mathematically derive general patterns of behavior (i.e., best responses) of individuals within a strategic environment. Following in this tradition, I present a formal model that helps explain when judges on the Courts of Appeals may feel constrained by the actions of the Supreme Court.⁵

Insert Figure 1 Here

Immediately, one can see in Figure 1 the sequential nature of the federal appellate process. Decisions on legal issues are first reviewed by the Courts of Appeals.⁶ The judges on the appellate panel can choose between ruling conservatively (C) or they can cast a liberal decision (L). Once the Courts of Appeals rule on a case, the Supreme Court can decide whether

⁵ Note that this model is a simplification of reality and therefore focuses on a narrow set of potential influences on judicial behavior.

⁶ In reality, decisions are first adjudicated in the federal district courts.

to grant *certiorari* (G) or deny review (D).⁷ If the Supreme Court denies *certiorari* (or if no appeal emerges after the appellate panel decision), the game ends. However, if the Court grants *certiorari*, then the justices vote on the merits, either for a conservative (C) or a liberal (L) outcome.⁸

Determining equilibrium behavior for the game tree depicted in Figure 1 initially involves describing the preference ordering for both the Appeals Courts and the Supreme Court. As with most sequential games, one can begin at the end of the decision sequence and rely on backwards induction to infer accurate preference orderings. In this instance, determining the preference ordering for the Supreme Court is relatively straightforward because we can plausibly assume that if the justices rule on the merits of a dispute, the ruling will be based on their ideological preferences (Segal and Spaeth 2002). Consequently, it is plausible to assume that a more liberal Court would prefer to rule in a liberal fashion (L) and a more conservative Court would prefer to render conservative decisions (C). A potentially more important question for the Supreme Court is whether it will grant or deny *certiorari* to a particular case. Since the justices only review less than 1% of the cases heard by the Courts of Appeals, it is reasonable to assume that grants of *certiorari* will occur more often when the justices wish to reverse an appellate decision. And, this will occur only when the Appeals Court renders a decision contrary to the collective preferences of the Supreme Court (and even then, only in rare circumstances). If the decision at the appellate level is congruent with the preferences of the justices, then it is more

⁷ The author acknowledges that a losing litigant must first appeal the decision to the Supreme Court and petition for a writ of *certiorari* (i.e., the Supreme Court does not automatically review decisions from the Courts of Appeals). As Songer, Cameron, and Segal (1995) demonstrate, rational litigants will petition for *certiorari* if they believe the appellate panel rendered a decision beyond the preferences of Supreme Court justices. However, for the purposes of this model a non-appeal to the Supreme Court is treated the same as a denial of *certiorari*. This assumption is tenable since, in both cases, the legal policy is drafted by the Courts of Appeals and application of precedent only extends to the geographic boundaries of the specific Circuit.

⁸ Though the model includes only two choices for both levels of the judiciary, in reality judges possess a range of policy options beyond these choices.

likely a denial of *certiorari* will occur. Consequently, the most likely (and potentially most preferred) outcome for the Court is a denial of *certiorari*; with grants occurring when the Appeals Courts deviate from the collective preferences of the justices. Therefore, more liberal Supreme Courts prefer to deny *certiorari* in most cases and grant *certiorari* when they wish to rule in favor of a liberal outcome (D;G,L). Conversely, more conservative Supreme Courts prefer to deny *certiorari* in most cases and grant *certiorari* when they wish to rule conservatively (D;G,C).

Determining the preference orderings for the Appeals Court judges is a bit more complex because their decisions are potentially monitored by the Supreme Court, thereby increasing the possibility of reversal. Yet, even with this increased complexity we can plausibly assume that the most preferred outcome for Appeals Court judges is to rule according to their ideological preferences and have this decision affirmed on appeal. This is the greatest way for appellate judges to maximize their policy preferences because they receive positive utility from both their own case and the appellate decision. Thus, liberal appellate panels prefer to cast liberal decisions, followed by a grant of *certiorari* and an affirmance from the Supreme Court (L;G,L). Similarly, conservative appellate panels prefer to rule conservatively, followed by a grant of *certiorari* and an affirmance from the Supreme Court (C;G,C). However, since it was stated earlier that the Supreme Court is unlikely to grant *certiorari* and affirm a decision, it follows that the second most preferred outcome for Appeals Court judges is to rule according to their ideological preferences and have the Supreme Court deny *certiorari*. Therefore, liberal appellate panels would next prefer to rule liberally followed by a denial of *certiorari* (L;D); and conservative panels would prefer to conservatively followed by a denial of *certiorari* from the Supreme Court (C;D).

The complexity occurs when determining the preference ordering for the remaining alternatives; situations in which Appeals Court judges must weigh the utility of ruling according to their ideological preferences against the utility of having their decisions reversed by the Supreme Court. For those judges who believe the likelihood of reversal is low (or who do not fear reversal), they have incentives to continue rendering decisions according to their ideological preferences regardless of what happens on appeal,⁹ and their lesser preferred alternatives are to rule against these preferences (with the least preferable outcome to rule against their preferences and have the decision affirmed by the Supreme Court). Therefore, for liberal appellate panels who believe the probability of reversal is low (i.e., no fear of reversal) the entire preference ordering is (L;G,L) > (L; D) > (L;G,C) > (C;D) > (C;G,L) > (C;G,L) and for conservative panels the preference ordering is (C;G,C) > (C;D) > (C;G,L) > (L;D) > (L;G,C) > (L;G,L).

For Appeals Court judges who are motivated by a fear of reversal, and believe the probability of reversal is high, the preference ordering changes for the remaining alternatives. In contrast to the purely ideologically motivated judge, these judges abhor reversal by the Supreme Court and would rather rule against their ideological preferences (in congruence with the preferences of the Supreme Court) and have the justices deny *certiorari*. Consequently, though these judges most prefer to rule ideologically and have the decision affirmed by the Supreme Court (an unlikely outcome) or have the Court deny *certiorari*, the next preferable alternative is to rule against their ideological preferences and have the Court deny *certiorari*. The least preferred alternatives are to rule according to their ideological preferences and be reversed by the Court, or (even worse) rule against their ideological preferences and be reversed by the justices. Therefore, for liberal appellate panels who are motivated by a fear of reversal the entire

⁹ Even though a reversal sets precedent for the country contrary to the preferences of the appellate panel, they can continue to rule ideologically by distinguishing future cases from the contrary precedent or interpreting the contrary precedent in such a way as to minimize its effect (see Canon and Johnson 1999).

preference ordering is $(L;G,L) > (L;D) > (C;D) > (C;G,L) > (L;G,C) > (C;G,L)$; and for conservative panels the entire preference ordering is $(C;G,C) > (C;D) > (L;D) > (L;G,C) > (C;G,L) > (L;G,C)$.

To determine the equilibrium behavior of the actors, I rely on the Quantal Response Equilibrium (QRE) concept, where “best response functions become probabilistic (at least from the point of view of an outside observer) rather than deterministic. Better responses are more likely to be observed than worse responses” (McKelvey and Palfrey 1995, 1996). Over time, the players are more likely to choose better strategies than worse strategies, but they do not always play the best strategy with a probability of one (McKelvey and Palfrey 1998). Though the formal model may be represented in terms of complete information, Quantal Response Equilibrium allows for players to possess limited amounts of private information, introducing variation in the probability of Player 1 choosing strategy A. Thus, in Figure 1, the Supreme Court is allowed to possess private information over the exact nature of its preferences and the likelihood of a grant of *certiorari*, and the Appeals Courts retain private information of their policy preferences and their fear of reversal. This private information allows for variation within the formal model’s predicted responses, thereby facilitating empirical tests of my theoretical expectations.

Deriving the equilibrium probabilities for the actors, therefore involves calculating expected utilities for the decisions – in relation to the decisions of the other actors – combined with a private information component. Returning to the game depicted in Figure 1, estimates are necessary for the expected utilities for the Appeals Courts $U_A (C;D)$, $U_A (L;D)$, $U_A (C;G,C)$, $U_A (C;G,L)$, $U_A (L;G,C)$, and $U_A (L;G,L)$; and for the Supreme Court $U_S (C;D)$, $U_S (L; D)$, $U_S (C;G,C)$, $U_S (C;G,L)$, $U_S (L;G,C)$, and $U_S (L;G,L)$. Assuming that the random error component is independently and identically distributed (i.i.d) normal, then we can “work up the game tree” to

calculate the QRE probabilities. Let z equal probability that the Supreme Court will rule liberally after granting *certiorari* to an Appeals Court decision (where Φ is the standard normal cumulative distribution).

$$\begin{aligned}
 z &= \Pr [U_S (L,G,L) + U_S (C,G,L) + \pi_L > U_S (L,G,C) + U_S (C,G,C) + \pi_C] \\
 z &= \Pr [\pi_C - \pi_L < U_S (L,G,L) + (C,G,L) - U_S (L,G,C) + U_S (C,G,C)] \\
 z &= \Phi \left[\frac{U_S (L,G,L) + (C,G,L) - U_S (L,G,C) + (C,G,C)}{\sqrt{\sigma^2_{\pi_L} + \sigma^2_{\pi_C}}} \right]
 \end{aligned}$$

In a similar fashion, we can derive the equilibrium choice probability of the Supreme Court granting *certiorari*. Let w equal the probability of the Supreme Court granting *certiorari* to an Appeals Court decision. Estimating this probability involves a consideration of the utility for the Supreme Court to choose between a decision on the merits favoring the liberal outcome if it grants *certiorari*. Thus, estimating w involves the following:

$$\begin{aligned}
 w &= \Pr [U_S (G) + \pi_G > U_S (D) + \pi_D] \\
 &= \Pr [\pi_G - \pi_D < U_S (G) + U_S (D)] \\
 &= \Pr [\pi_G - \pi_D < zU_S [(L,G,L) + (C,G,L)] + (1 - z)U_S [(L,G,C) + (C,G,C)] - U_S (D)] \\
 w &= \Pr \Phi \left[\frac{zU_S ((L,G,L) + (C,G,L)) + (1 - z)U_S ((L,G,C) + (C,G,C)) - U_S (D)}{\sqrt{\sigma^2_{\pi_G} + \sigma^2_{\pi_D}}} \right]
 \end{aligned}$$

Finally, we must derive the equilibrium choice probabilities for the Appeals Courts in choosing either the liberal or conservative outcome. Determining these probabilities involves consideration of both the Supreme Court's decision to grant *certiorari* and its preferences on the merits. Therefore, let t equal the probability that the Appeals Courts renders a liberal decision.

Estimating t involves the following calculations:

$$\begin{aligned}
 t &= \Pr [U_A (L) + \pi_L > U_A (C) + \pi_C] \\
 &= \Pr [\pi_L - \pi_C < U_A (L) + U_A (C)] \\
 &= \Pr [\pi_L - \pi_C < \{w[zU_S [(L,G,L) + (C,G,L)] + (1 - z)U_S [(L,G,C) + (C,G,C)]] - (1 - w)U_S (D)\}] \\
 t &= \Pr \Phi \left[\frac{w[zU_S (L,G,L) + (1 - z)U_S (L,G,C) + (1 - w)U_S (D)] - v[yU_S (C,G,C) + (1 - y)U_S (L,G,C) + (1 - v)U_S (D)]}{\sqrt{\sigma^2_{\pi_L} + \sigma^2_{\pi_C}}} \right]
 \end{aligned}$$

While this last equation seems technically complicated, its substantive interpretation is fairly simple and is similar to the interpretation of expected utilities calculated for Figure 1. The values in the numerator correspond to the probability of the Appeals Courts choosing an action based on their expected utility, but also conditioned on the probability of the Supreme Court choosing, first, whether to grant or deny *certiorari*, and then, (if *certiorari* is granted) choosing to support a liberal or conservative decision. The values in the denominator correspond to the probability of a player's private information affecting his choices, combined with a variance term from the Normal distribution. Finally, the choice probabilities are assumed to follow the Normal cumulative distribution. This last assumption allows for the translation of the formal model into a statistical model (Leblang 2001, 14). Multiplying these choice probabilities, for all combination of actors' choices results in the equilibrium outcome probabilities depicted in Figure 2.

Insert Figure 2 Here

The outcome probabilities listed in Figure 2 assist in determining the equilibrium behavior of the Courts of Appeals and the Supreme Court. If we rely on backwards induction and “work up the game tree” as we did for the QRE probabilities, we can determine probabilistically the substantive behavior of these courts. For the Supreme Court, the choice to render a liberal decision (z) will be a function of the justices' collective ideological preferences. This leads to the first testable hypothesis (the Supreme Court Merits hypothesis):

Supreme Court Merits Hypothesis: The Supreme Court will render decisions according to its collective ideological preferences. Therefore, more liberal Courts will be more likely to rule in a liberal manner (z) and more conservative Courts will be more likely to rule conservatively ($1 - z$), ceteris paribus.

Determining the Supreme Court's *certiorari* behavior is also relatively straightforward. Previous research on the Court's agenda setting behavior (see Epstein et al. 1996) indicates that the justices are most likely to grant *certiorari* in order to reverse a lower court decision. This is due to the fact that the Court only accepts approximately 80-100 cases per year, and therefore decisions which contradict Supreme Court preferences are substantially more likely to receive a grant of *certiorari* so that the justices can reverse the decision. Consequently, as the Court becomes more liberal the justices will be more likely to grant *certiorari* (w) to those appellate cases which rule conservatively ($1 - t$). Conversely, as the Court becomes more conservative the justices will be more likely to grant *certiorari* (w) to those appellate cases with liberal decisions (t). This leads to a second testable hypothesis (the Supreme Court *certiorari* hypothesis):

***Supreme Court Certiorari Hypothesis:** The Supreme Court will be more likely to grant certiorari (w) to those cases that render decisions which contradict the Court's collective preferences. As the likelihood of the Supreme Court rendering a liberal decision (z) increases, the justices will be more likely to grant certiorari (w) to conservative cases. Conversely, as the likelihood of the Court ruling conservatively increases ($1 - z$), the justices will be more likely to grant certiorari (w) to liberal cases.*

For appellate judges who do not fear reversal (or, who believe the likelihood of reversal is low), they receive greater utility by rendering decisions according to their ideological preferences. Therefore, their decision calculus does not require strategically anticipating what might happen on review, because $t > w \geq z$ in every instance. Therefore, judges on the panels receive positive utility by voting ideologically regardless of whether the Supreme Court grants *certiorari* or whether it reverses the appellate decision. Consequently, for liberal appellate panels

the equilibrium behavior is $\{L;(G,D), (L,C)\}$ and for conservative panels the equilibrium behavior is $\{C;(G,D), (L,C)\}$. This leads to a third testable hypothesis (the no strategic anticipation hypothesis):

***No Strategic Anticipation Hypothesis:** Courts of Appeals panels that do not fear reversal (or that believe the likelihood of reversal is low) will render decisions according to their collective ideological preferences. Consequently, as ideological preferences become more liberal, the likelihood of ruling in a liberal manner increases (and vice versa for conservative panels), ceteris paribus.¹⁰*

As the likelihood of reversal increases, Appellate Court judges who fear reversal will become increasingly constrained from ruling ideologically. The QRE outcome probabilities reveal that fear of reversal occurs when $(1 - z) > w > t$ for liberal panels or when $z > w > (1 - t)$ for conservative panels. By extension one would expect the fear of reversal to become more pronounced as the inequality for z (or $1 - z$) becomes larger in relation to t (or $1 - t$) because the likelihood of the Supreme Court granting *certiorari* (w) will increase if the appellate panel issues an ideological ruling contrary to the Supreme Court's collective preferences. Consequently, the equilibrium behavior of liberal appellate panels shifts from $\{L; (G,D), (L,C)\}$ to $\{C; D, (L,C)\}$ as $(1 - z)$ increases; and, similarly for conservative appellate panels, the equilibrium shifts from $\{C; (G,D), (L,C)\}$ to $\{L; D, (L,C)\}$. This leads to the final hypothesis (the fear of reversal hypothesis):

***Fear of Reversal Hypothesis:** Appeals Court panels that are motivated by a fear of reversal will be more likely to render decisions against their collective*

¹⁰ Appellate panels who might be motivated by a fear of reversal, but believe the likelihood of the Supreme Court granting *certiorari* is low will also render decisions according to their ideological preferences, because of the belief that the Court will not review the decision. However, the equilibrium behavior becomes $\{L; D, (L,C)\}$ for liberal panels and $\{C; D, (L,C)\}$ for conservative panels.

ideological preferences as the probability of reversal (and the probability of a grant of certiorari) by the Supreme Court increases. Consequently, liberal panels will be more likely to rule conservatively (and conservative panels more likely to rule liberally) as the probability of reversal increases, ceteris paribus.

If the formal model depicted in Figure 2 provides any analytic leverage, it indicates that the proper form for evaluation is a strategic empirical model. Until recently, these models were too computationally intensive and complicated to use efficiently. However, the advent of certain methodological developments within the field of international relations – combined with increases in computational power – has generated a set of models which can assist in specifically determining whether lower court judges strategically anticipate responses from their colleagues on superior tribunals. With the inclusion of random variation, resulting from actors' private information, one can design a statistical model to evaluate empirically the impact of various exogenous and endogenous factors on the probability of predicted outcomes. However, it is essential that researchers employ correct statistical specifications when analyzing formal models, especially when the theory indicates the importance of strategic interdependence among the actors (as principal agency theory indicates). As Signorino observes:

[I]f game theory has taught us anything, it is that the likely outcome of such situations can be greatly affected by the sequence of players' moves, the choices and information available to them, and the incentives they face. In short, in strategic interaction, *structure matters*. Because of this emphasis on causal explanation and strategic interaction, we would expect that the statistical methods used to analyze [judicial] theories also account for the structure of the strategic interdependence. Such is not the case (1999, 279).

Unfortunately, previous empirical analyses of principal-agent models in the judiciary do not account for strategic interdependence among the actors. Instead, the authors utilize traditional maximum likelihood techniques (such as logit and probit models) to examine influences on a

single actor. For example, Songer, Segal and Cameron (1994) rely on a series of logit models to determine influences on appellate judges at various stages (i.e., corresponding to the decision nodes illustrated in Figure 1). Subsequent analyses by other scholars follow a similar methodology to address their various theoretical questions (Martinek 2000; Benesh 2002; Benesh and Martinek 2002; and Klein 2002). While I do not seek to criticize these previous analyses – especially since the initial examination employed a unique theoretical and methodological design for its time – recent advances in statistical methods offer more efficient techniques that are capable of modeling strategic interdependence.

In a series of working papers and published articles, Signorino (1999a, 1999b, 2000, 2001; and Signorino and Yilmaz 2000) argues the merits of incorporating strategic discrete choice models into analyses of interdependence. Traditional maximum likelihood techniques are limited to a single actor confronted with a single discrete choice (often binary). Relying on logit or probit models to estimate strategic formal models ignores two essential structural components: multiple (often sequential) decisions and multiple actors. Therefore, “logit and probit [models] induce a distributional misspecification. Even when that is negligible, the estimates of the effects of regressors – especially for the conditioning variables – are likely to be biased and inconsistent” (Signorino and Yilmaz 2000, 3-4). The consequences of this distributional misspecification are similar to omitted variable bias, which affects the estimates and leads to inaccurate conclusions.

To address these issues methodologically, Signorino (1999, 2002) has developed a set of discrete choice models that statistically incorporate the strategic interdependence derived from formal models. As he acknowledges, “using a statistical equilibrium concept such as the QRE, one can derive statistical versions of a strategic model in extensive form that directly

incorporates the structure of strategic interaction” (1999, 282). Essentially, strategic models are selection models “because the actors select themselves and others into ‘subsamples’ based on their choices” (Signorino 2001a, 3). However, whereas traditional selection models are useful at modeling sequential decisions, strategic choice models extend the analysis by also allowing for the incorporation of multiple actors within a sequential decision calculus.¹¹ While the strategic choice models initially were developed to model interactions among states in international relations, scholars increasingly are incorporating their predictive power to analyze strategic relationships in American politics and other areas.¹²

RESEARCH DESIGN AND METHODS

Data for this analysis are obtained from the Supreme Court Database (compiled by Harold J. Spaeth) and the Courts of Appeals Database (compiled by Donald R. Songer).¹³ Additionally, I include a bridge dataset which codes all of the cases litigated at the Courts of Appeals level that were subsequently reviewed by the Supreme Court.¹⁴ The total number of observations equals 14,184 (2100 observations for the Supreme Court, 2100 observations in the ‘bridge’ dataset, and 9984 observations for the Appeals Courts) from 1953 through 1988.

In the strategic choice probit model there are essentially three dependent variables, which are estimated in tandem: one equation for the Appeals Courts’ merits decision, one equation for the Supreme Court *certiorari* decision, and the final equation for the Supreme Court merits decision. The dichotomous dependent variable for each equation captures whether the court voted conservatively or denied *certiorari* (coded ‘0’) or whether the court voted in a liberal

¹¹ Signorino acknowledges that strategic choice models are deficient relative to traditional selection models in the assumption that errors or private information are independent. The strategic choice model does not capture correlation in the disturbances associated with each player’s decision. “Substantively, this implies that [players] learn nothing about each other’s incentives when viewing their own private information” (2001a, 14).

¹² Examples include Carson (2003) and Carson and Marshall (2003).

¹³ These datasets are archived at the University of Kentucky’s S. Sidney Ulmer Project for Research in Law and Judicial Politics (www.as.uky.edu/polisci/ulmerproject.htm).

¹⁴ My sincere thanks to Don Songer for graciously providing these data.

manner or to grant *certiorari* (coded '1'). Similar to calculating the equilibrium choice probabilities (by working “up the game tree”), the strategic model estimates the likelihood of the Supreme Court rendering a liberal decision and then incorporates these predicted probabilities into the estimation of the *certiorari* decision. Both likelihood functions are then incorporated in the equation calculating the likelihood of the Appeals Courts ruling liberally. Thus, the behaviors of appellate judges are examined in relation to potential actions by the justices.

Evaluating the strategic aspects of judicial decision making also involves the inclusion of several independent variables to control for specific exogenous influences. In the Appeals Court Merits equation, I include one primary variable of interest and four additional control variables. The primary variable of interest is *Appellate Ideology* and to examine its effects, I rely on the measure developed by Giles, Hettinger and Peppers (2001). This measure combines ideological influences from the appointing president and also accounts for the presence of senatorial courtesy. Since the unit of analysis is aggregated to the court level, individual preference measures are combined. Therefore, the variable *Appellate Ideology* reflects the combined preferences of those appellate judges serving on the panel hearing a specific case.¹⁵ If appellate judges do not strategically anticipate decisions by the Supreme Court, then the likelihood of a liberal decision should increase as the panel ideology becomes more liberal. However, the hypothesis generated from Figures 1 and 2 indicates that Appeals Court judges will rule against their most preferred outcome if they believe the Supreme Court will grant *certiorari* and reverse the decision. Consequently, if appellate judges anticipate Supreme Court responses (according to principal agency theory), then I expect the relationship between *Appellate Ideology* and the dependent variable either to be non-significant or negative – in contrast to the positive

¹⁵ In the case of *en banc* decisions, this measure is aggregated for all judges in the circuit (or hearing the case if a subset of the circuit is used, such as in the Ninth Circuit).

expectation normally hypothesized. In addition to the primary variable of interest, I include four dummy variables which control for various case-specific stimuli. Specifically, I control for the presence of a *Constitutional Issue*, a *Threshold Issue*, and whether the litigation involves a *Criminal Case* or a *Civil Liberties Case*.

In the Supreme Court *Certiorari* equation, I include five dummy variables to control for the presence of specific factors. The variable *Circuit Conflict* measures whether multiple circuits have rendered contradictory decisions. As several scholars note (see Perry 1991), the presence of a circuit conflict substantially increases the likelihood of the Supreme Court granting *certiorari*. Therefore, this variable should be positively related to the dependent *certiorari* variable. I also control for an *Appellate Dissent* within a specific case. Similar to the presence of a circuit conflict, I expect that disagreement within an appellate panel will increase the likelihood of Supreme Court review (see Hettinger, Lindquist, and Martinek 2004). The third variable in this equation controls for the presence of an *En Banc* decision. Since *en banc* cases are rare, their use may signal the Supreme Court that an important issue is under consideration; thereby increasing the probability of review by the justices. The fourth variable measures whether the *Federal Government Appeals* a decision to the Supreme Court. Given the relationship between the Solicitor General and the Supreme Court (see Salokar 1992; Pacelle 2003), I expect that appeals from the federal government will increase the likelihood of Supreme Court review. Finally, I include a measure of *Lower Court Directionality* in the *certiorari* equation. I expect that as the preferences of the Supreme Court become more liberal, the likelihood of *certiorari* increases for conservative appellate decisions (and vice versa as the Supreme Court becomes more conservative).

The final set of independent variables is included in the Supreme Court merits equation. Similar to the Appeals Courts, I rely on the Giles et. al. measure of ideology to capture Supreme Court preferences. The variable *Supreme Court Ideology* reflects the aggregate preferences of the justices. As the Court becomes more liberal, the likelihood of liberal decisions should increase (and vice versa as the Court becomes more conservative). In addition to this primary variable of interest, I control for the presence of a *Minimum Winning Coalition*, and whether the justices review a *Criminal Case* or a *Civil Liberties Case*.

EMPIRICAL RESULTS

The coefficients listed in the first model in Table 1 represent the results of a strategic probit model for the entire dataset, from 1953 to 1988. Examining these coefficients leads to several initial conclusions. First, for the Appeals Court Merits equation it is apparent that *Appellate Ideology* exerts a significant influence on judicial behavior. The positive coefficient indicates that more liberal appellate panels are significantly more likely to render liberal decisions. Additionally, the presence of a *Constitutional Issue*, a *Criminal Case*, or a *Civil Liberties Case* also significantly increases the likelihood of a liberal decision from the appellate court. Second, for the Supreme Court *Certiorari* equation it is apparent that the presence of a *Circuit Conflict*, an *Appellate Dissent*, a *Federal Government Appeal*, or a liberal decision by the appellate panel (represented by the positive coefficient for *Lower Court Directionality*) significantly increases the likelihood of the Supreme Court granting review. Finally, for the Supreme Court Merits equation it is apparent that *Supreme Court Ideology* significantly influences voting behavior. As the Court becomes more liberal, the likelihood of a liberal decision increases. Additionally, the presence of a *Minimum Winning Coalition*, a *Criminal Case* or a *Civil Liberties Case* also significantly increases the likelihood of a liberal decision.

Insert Table 1 Here

While these results are interesting, once I calculated the predicted probabilities for these coefficients (not reported for this model) it became apparent that Model 1 was not capturing accurately the true relationship between the Courts of Appeals and the Supreme Court. Many of the calculated predicted probabilities were indistinguishable from zero, even though they possessed highly significant coefficients. This discrepancy prompted me to reexamine the data by separately analyzing effects under the Warren Court from potential influences during the Burger Court. Theoretically, this separation is understandable because of the ideological differences between the two Courts. If appellate panels strategically anticipate possible actions from the Supreme Court, it is likely that conservative appellate panels will experience more constraints during the Warren Court era and liberal appellate panels will experience these constraints during the Burger Court.

Examining the coefficients in Table 1 for Models 2 and 3 reveal several similarities. In the Appeals Court Merits equation the variable *Appellate Ideology* is statistically significant and positive for both the Warren Court and the Burger. This indicates that more liberal appellate panels are significantly more likely to render liberal decisions regardless of the composition of the Supreme Court. Additionally, the variables *Criminal Case* and *Civil Liberties Case* are significant and positive for both models; indicating that the presence of either these two issue areas significantly increases the likelihood of a liberal decision by the appellate panel. Only the control variable *Threshold Issue* exhibits different effects. During the Warren Court, this variable is significant and negative indicating that appellate panels are more likely to cast conservative decisions when confronted with a threshold issue. In Model 3 (Burger Court) the variable does not exert a significant influence on appellate behavior. Second, in the Supreme Court *Certiorari*

equation the variables *Circuit Conflict*, *Appellate Dissent*, and *Federal Government Appeal* are significant and positive in both models; indicating that the presence of these factors increases the likelihood of Supreme Court review. The variable *En Banc* decision is significant (and positive) only during the Burger Court. And, the variable *Lower Court Directionality* is significant in both models, but during the Warren Court the sign is negative and during the Burger Court the sign is positive. This indicates that the Supreme Court is significantly more likely to grant *certiorari* to conservative decisions during Warren's reign as Chief Justice; while the Court is more likely to review liberal appellate decisions under Chief Justice Burger. Finally, for the Supreme Court Merits equation we see that the variable *Supreme Court Ideology* is significant and positive for both Models; indicating that more liberal Courts are more likely to cast liberal decisions regardless of the time period. Additionally, the variables *Minimum Winning Coalition* and *Civil Liberties Case* are significant and positive for both the Warren Court and the Burger Court.

Furthermore, once one examines the predicted probabilities, the true advantage of the strategic choice probit model is revealed. Table 2 contains the predicted probabilities for those situations where the Appeals Court anticipate a denial of *certiorari* by the Supreme Court. In Model 2, one can see that liberal appellate panels are approximately 21% more likely to cast liberal decisions (and vice versa for conservative panels); reinforcing the *no strategic anticipation* hypothesis. When the Appeals Courts believe that the Supreme Court will deny *certiorari*, they are more likely to render decisions according to the collective ideological preferences.

Insert Table 2 Here

However, the Supreme Court's *certiorari* decision is influenced, in part, by the decision of the appellate panel. If the Appeals Court renders a conservative decision, and a circuit conflict

exists, the Supreme Court is approximately 7% more likely to review the case. Conversely, if the appellate panel renders a liberal decision and generates a circuit conflict, the likelihood of review by the Supreme Court increases to approximately 14%. Second, if the Appeals Court renders a conservative decision that includes a dissent the Supreme Court is 37% more likely to grant *certiorari*; whereas if a liberal decision contains a dissent the likelihood of Supreme Court review is 10%. Third, if the federal government appeals a conservative decision, the Warren Court is 40% more likely to grant *certiorari*; compared to only a 12% increase in the probability of review when the federal government appeals a liberal decision. Finally, Table 2 indicates that the Warren Court is approximately 19% more likely to grant *certiorari* to a conservative decision and only 3% more likely to review a liberal decision. Collectively, these probabilities reveal that the Warren Court is more likely to monitor conservative decisions issued by the Courts of Appeals.

Examining the predicted probabilities for the Burger Court (Model 3) reveals a similar pattern of behavior for appellate panels if they anticipate a denial of *certiorari*. More liberal panels are 33% more likely to render liberal decisions, and vice versa for conservative panels; thereby providing additional support for the *no strategic anticipation hypothesis*. When the Appeals Courts believe that the Supreme Court will deny *certiorari*, they are more likely to render decisions according to the collective ideological preferences.

Yet, the *certiorari* behavior of the Burger Court is starkly different from its predecessor. Table 2 reveals only a modest substantive impact on the likelihood of Supreme Court review when a circuit conflict occurs (only 3% more likely to grant *certiorari* after a conservative appellate decision that generates a circuit conflict and 8% more likely to review a liberal decision). Second, the presence of a dissent in a conservative appellate decision *decreases* the

likelihood of Supreme Court review by 28%; whereas the presence of a dissent in a liberal decision increases the likelihood of review by 13%. Third, it is apparent that the Burger Court closely monitors *en banc* cases, regardless of the ideological directionality of the decision; its presence increases the likelihood of review by approximately 13%. Fourth, the predicted probabilities indicate that the Burger Court is substantially more likely to grant *certiorari* when the federal government appeals a liberal decision (approximately 20% more likely) than when the federal government appeals a conservative decision (15% less likely). Finally, it is apparent that the Burger Court is more likely to review liberal appellate decisions (29% increase in the likelihood of *certiorari*) and not likely to review conservative decisions (13% decrease in the likelihood of *certiorari*). Collectively, these probabilities reveal that the Burger Court is substantially more likely to monitor liberal appellate decisions, and is a bit more tenacious than the Warren Court's monitoring of conservative decisions.

The patterns of behavior observed by the Supreme Court in its *certiorari* decision calculus lend some initial support to the notion that appellate judges may strategically anticipate actions by the justices when rendering decisions. Though the results in Table 2 reveal that appellate judges decide cases according to their collective ideological preferences when they anticipate a denial of *certiorari*, the results also reveal that the Supreme Court selectively grants *certiorari* based on characteristics of the Appeals Courts decisions. Therefore, it is plausible to assume that appellate judges curtail their ideological predilections if they anticipate the Supreme Court will grant *certiorari*. The predicted probabilities contained in Table 3 offer insights into this behavior.

Insert Table 3 Here

During the Warren Court era (Model 2), it is apparent that appellate judges adjust their ideological voting when they anticipate a grant of *certiorari* by the Supreme Court. The first column represents situations in which the Appeals Court renders a conservative decision and anticipates that the Supreme Court will grant *certiorari* and cast a conservative decision (C; G, C). In this situation, we see that liberal appellate panels are 11% less likely to rule according to their ideological preferences. Conversely, conservative panels are 11% more likely to rule conservatively when they believe the Supreme Court will grant review and affirm their decisions. However, this result changes dramatically when the appellate panels anticipate a reversal of a conservative decision (column 2). In this situation, more liberal appellate panels are 7% more likely to render liberal decisions (conversely, conservative panels are 7% less likely to render conservative decisions) when they anticipate a grant of *certiorari* by the Supreme Court followed by a liberal decision by the justices. Third, when the Appeals Court believes that the justices will grant *certiorari* to reverse a liberal decision (column 3) the appellate panels are 5% less likely to render decisions according to their ideological preferences. Finally, if the Appeals Courts anticipate that the justices will grant *certiorari* in order to affirm a liberal decision, they are 10% more likely to rule according to their ideological preferences. Collectively, these changes in predicted probabilities provide support for the *strategic anticipation hypothesis*. The change in sign between column 1 and 2, and also between column 3 and 4, indicates that appellate judges curtail the influence of ideology when they anticipate a reversal by the Supreme Court.

This behavior by the Appeals Courts changes somewhat when Chief Justice Burger joins the Supreme Court. During the Burger Court, when appellate panels anticipate that the justices will grant *certiorari* to affirm a conservative decision (column 1) the more liberal panels are 33% less likely to rule according to their ideological preferences (conversely, conservative panels are

33% more likely to cast conservative decisions when they anticipate an affirmance by the Burger Court). Yet, when the appellate panels anticipate a reversal of a conservative decision (column 2), the impact of *Appellate Ideology* decreases to 8.6%. We do not observe a change in sign for the predicted probability as seen during the Warren Court; indicating that conservative appellate panels continue to render conservative decisions even if they anticipate a reversal by the justices. However, the same pattern is not observed when the Appeals Courts render liberal decisions. In column 3 we observe that liberal appellate panels are 9% less likely to rule according to their ideological preferences when they anticipate a reversal by the Supreme Court. Yet, when the Appeals Courts anticipate that the justices will affirm a liberal decision, we observe a 16% increase in the likelihood of a liberal decision. Collectively, the pattern of behavior exhibited by appellate panels during the Burger Court provides partial support for the *strategic anticipation hypothesis*. Conservative appellate panels did not substantially alter their likelihood of ideological voting when they anticipated a reversal by the Supreme Court. However, the more liberal appellate panels encountered more obvious constraints during the Burger Court era and were likely to curtail their ideological influences if a reversal was anticipated.

CONCLUSIONS

This paper commences with a statement from Burbank and Friedman (2002) that questioned whether the familiar hierarchical legal system would change if the primary deciding factor in cases shifted from the law to ideology and reversal rates. Specifically, I ask do judges on the Courts of Appeals guess the preferences of their Supreme Court colleagues, and does this anticipatory behavior exert a significant constraint on their ability to maximize their personal policy preferences? To examine these questions initially, I develop a formal model derived from the tenets of principal agency theory (as modified to conform to the federal judiciary). Using a

Quantal Response Equilibrium, the model demonstrates that appellate judges will render decisions according to ideological influences when they believe the Supreme Court will deny *certiorari*. However, when the judges believe the Supreme Court will review a case in order to reverse a decision, then strategic appellate judges will render non-ideological decisions (or mask their ideological preferences).

Using a strategic choice statistical framework to evaluate the predictions from the formal, I generate several conclusions. Initially, the empirical results indicate that Appeals Court judges do anticipate responses from the Supreme Court, and adjust their behavior according to this perceived constraint. However, this constraint is not experienced by all appellate judges. During the Warren Court era it is apparent that the constraint is experienced by all appellate panels, regardless of ideology; yet, the likelihood of the Supreme Court granting *certiorari* is substantially higher for conservative decisions than for liberal ones. During the Burger Court era it is apparent that more liberal appellate panels experience this constraint to a higher degree than conservative appellate panels (and the likelihood of Supreme Court review increases substantially for liberal decisions).

FIGURE 1: DECISION SEQUENCE

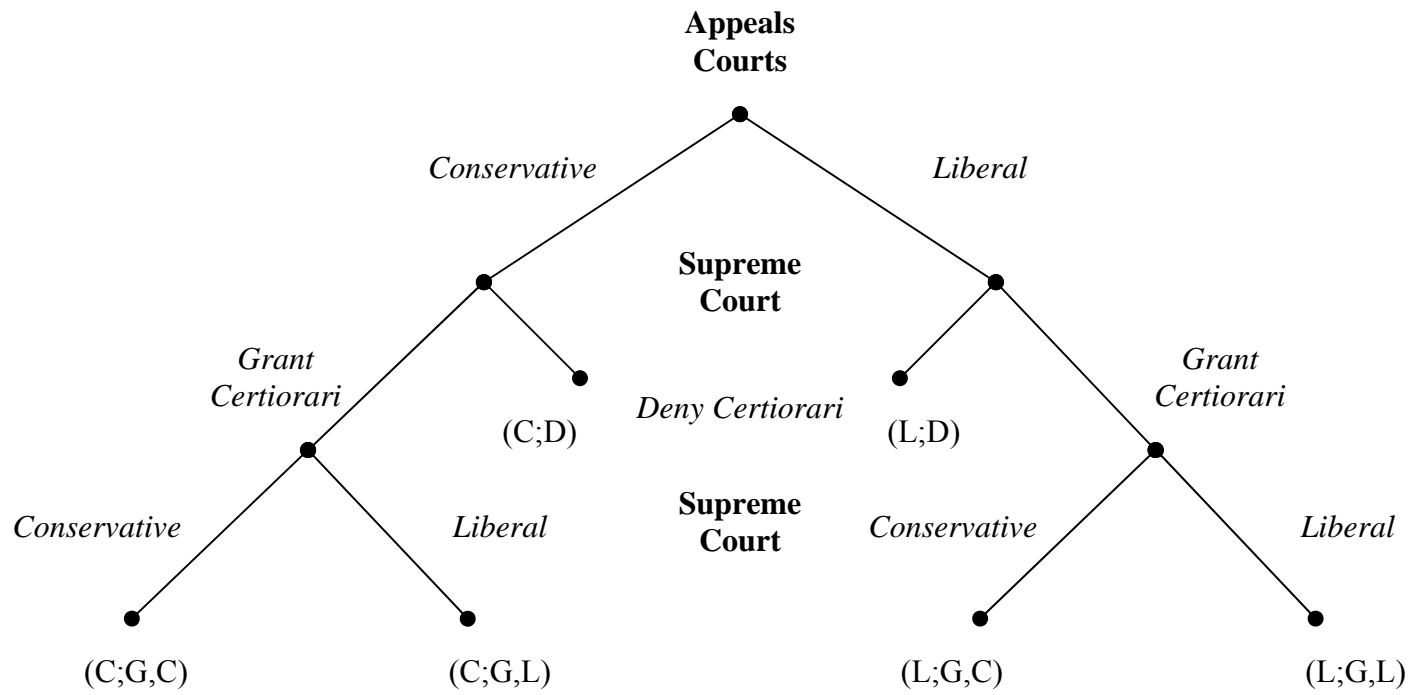


FIGURE 2: EQUILIBRIUM OUTCOME PROBABILITIES

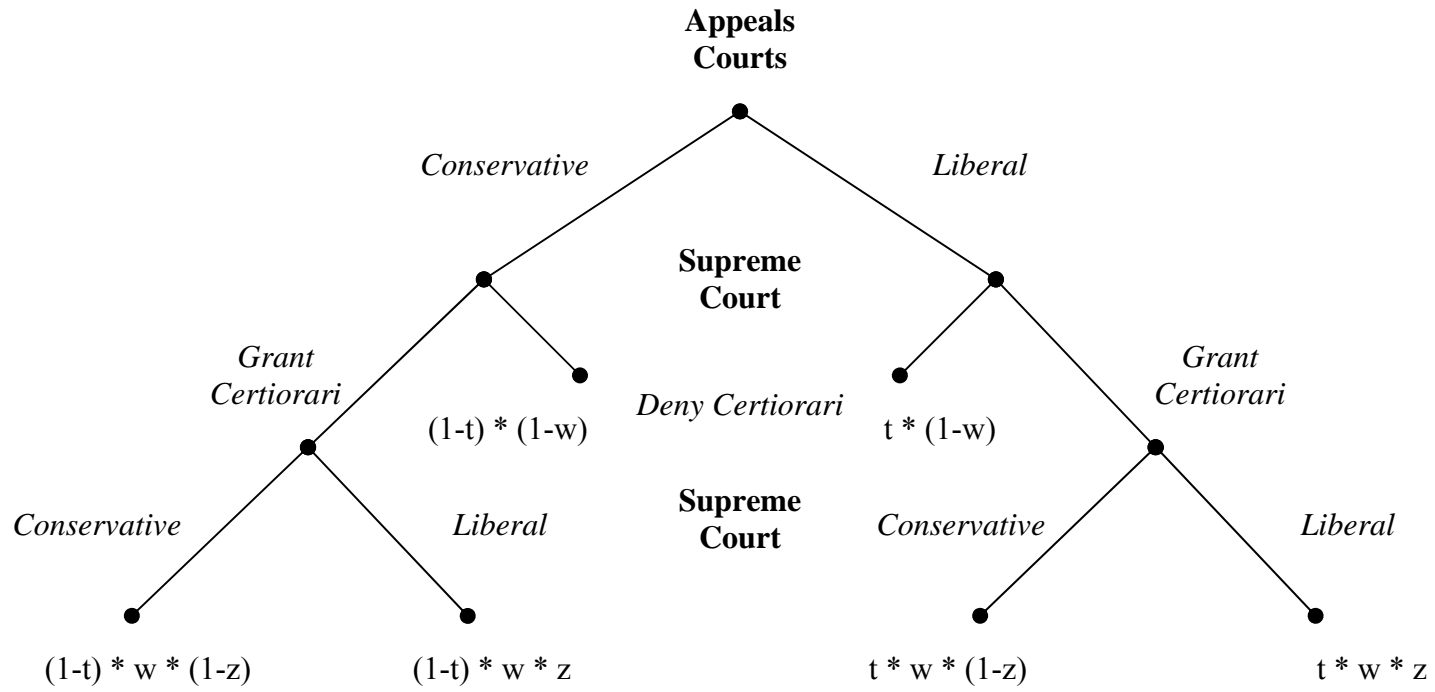


TABLE 1: STRATEGIC PROBIT RESULTS

	Model 1 Pooled Data	Model 2 Warren Court	Model 3 Burger Court
Appeals Court Merits			
Appellate Ideology	7.296*** (.187)	5.578*** (.239)	7.910*** (1.043)
Constitutional Issue	.632* (.264)	.522 (.627)	.319 (.239)
Threshold Issue	-.305 (.193)	-1.685*** (.441)	-.292 (.173)
Criminal Case	.810*** (.194)	2.004*** (.359)	1.394*** (.386)
Civil Liberties Case	.358* (.178)	.731** (.233)	.987* (.392)
Supreme Court <i>Certiorari</i>			
Circuit Conflict	.440*** (.039)	1.403*** (.177)	.321*** (.059)
Appellate Dissent	.201*** (.028)	1.165*** (.247)	.227*** (.046)
En Banc Decision	.193 (.108)	-.025 (.297)	.559** (.151)
Federal Government Appeal	7.705*** (.5401)	3.926*** (.411)	1.025*** (.123)
Lower Court Directionality	1.080*** (.019)	-2.571*** (.139)	1.895*** (.073)
Supreme Court Merits			
Supreme Court Ideology	1.325*** (.097)	2.030*** (.124)	.288*** (.056)
Minimum Winning Coalition	.738*** (.061)	.802*** (.117)	.732*** (.059)
Criminal Case	.259*** (.069)	.489*** (.102)	-.042 (.067)
Civil Liberties Case	.287* (.101)	.377* (.163)	.243** (.089)
N	14184	5474	8710
% Correctly Predicted	52.0%	57.3%	52.1%

* p < .05 ** p < .01 *** p < .001

Dependent Variable: likelihood of a liberal vote (merits) or likelihood of *certiorari* grant (*certiorari*)

Strategic Choice probit coefficients listed with the standard errors in parentheses

TABLE 2: CHANGES IN PREDICTED PROBABILITIES

	When Appeals Courts decide conservatively while anticipating a denial of <i>certiorari</i> (C, D)	When Appeals Courts decide liberally while anticipating a denial of <i>certiorari</i> (L, D)
Model 2 Warren Court Appeals Courts Merits		
Appellate Ideology	-.206	.206
Threshold Issue	-.049	-.049
Criminal Case	-.059	.059
Civil Liberties Case	-.034	.034
Supreme Court <i>Certiorari</i>		
Circuit Conflict	.067	.137
Appellate Dissent	.366	.100
En Banc Decision	.005	.001
Federal Gov't Appeal	.403	.115
Lower Court Directionality	.187	.034
Model 3 Burger Court Appeals Courts Merits		
Appellate Ideology	-.328	.328
Threshold Issue	-.015	.015
Criminal Case	-.068	.068
Civil Liberties Case	-.049	.049
Supreme Court <i>Certiorari</i>		
Circuit Conflict	.027	.076
Appellate Dissent	-.276	.133
En Banc Decision	.128	.132
Federal Gov't Appeal	-.145	.196
Lower Court Directionality	-.134	.292

Note: Changes in predicted probabilities are calculated by moving the variable of interest from its minimum to its maximum value while simultaneously holding the remaining variables at their minimum values.

TABLE 3: CHANGES IN PREDICTED PROBABILITIES

	When both courts decide conservatively (C; G, C)	When Supreme Court reverses a conservative decision (C; G, L)	When Supreme Court reverses a liberal decision (L; G, C)	When both courts decide liberally (L; G, L)
<i>Model 2 Warren Court</i>				
Appeals Courts Merits				
Appellate Ideology	-.106	.065	-.048	.103
Threshold Issue	-.022	-.033	.025	.025
Criminal Case	-.025	-.040	.030	.015
Civil Liberties Case	-.029	-.023	.028	.032
Supreme Court Merits				
Supreme Court Ideology	.015	.056	.087	.261
Minimum Winning Coalition	-.028	-.075	.101	.029
Criminal Case	-.056	-.044	.008	.009
Civil Liberties Case	-.046	-.033	.006	.008
<i>Model 3 Burger Court</i>				
Appeals Courts Merits				
Appellate Ideology	-.328	-.086	-.088	.159
Threshold Issue	-.015	-.008	-.007	.007
Criminal Case	-.068	-.021	.035	.033
Civil Liberties Case	-.049	-.024	.025	.024
Supreme Court Merits				
Supreme Court Ideology	.054	.020	.025	.284
Minimum Winning Coalition	-.105	-.052	.108	.059
Criminal Case	-.004	-.006	.002	.004
Civil Liberties Case	-.024	-.033	.012	.023

Note: Changes in predicted probabilities are calculated by moving the variable of interest from its minimum to its maximum value while simultaneously holding the remaining variables at their mean values.

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