

Strategic Defiance and Compliance in the U.S. Courts of Appeals

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Why do lower courts treat Supreme Court precedents favorably or unfavorably? To address this question, we formulate a theoretical framework based on current principal-agent models of the judiciary. We use the framework to structure an empirical analysis of a random sample of 500 Supreme Court cases, yielding over 10,000 subsequent treatments in the U.S. Courts of Appeals. When the contemporary Supreme Court is ideologically estranged from the enacting Supreme Court, lower courts treat precedent much more harshly. Controlling for the ideological distance between the enacting and contemporary Supreme Courts, the preferences of the contemporary lower court itself are unrelated to its behavior. Hence, hierarchical control appears strong and effective. At the same time, however, a lower court's previous treatments of precedent strongly influence its later treatments. The results have important implications for understanding legal change and suggest new directions for judicial principal-agency theory.

In its landmark decision in *Bakke v. California* (1978), the U.S. Supreme Court ruled that universities may, under certain circumstances, take race and other factors into account when they make admissions decisions. But even before the justices had the opportunity to reconsider *Bakke* in *Grutter v. Bollinger* (2003), the U.S. Court of Appeals for the Fifth Circuit took matters into its own hands. In *Hopwood v. Texas*, it held “that the University of Texas School of Law may not use race as a factor in deciding which applicants to admit in order to achieve a diverse student body” (1996, 963). With these words, the judges of the Fifth Circuit, at least according to their colleagues in dissent, took the dramatic step of defying precedent established at the top of the judicial hierarchy, the Supreme Court of the United States.

Scholars and journalists alike spilt much ink over *Hopwood*, as well as decisions by other courts overturning well-established Supreme Court precedents—cases such as the Fourth Circuit's *United States v. Dickerson* (1999), holding that states under its supervision need not follow *Miranda v. Arizona* (1966); and the Missouri Supreme Court's overruling of *Stanford v. Kentucky* (1989) in *Simmons v. Roper* (2003). And, yet, these decisions are merely the most striking instances of a more general phenomenon, lower court deviation from earlier precedents set by a higher court—a phenomenon that can take far subtler forms (e.g., distinguishing or limiting precedents). Indeed, as one observer noted well over half a century ago, “[Many] precedents have been rejected through the stratagem of distinguishment; others

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have been the subject of conscious judicial oversight. As a consequence, judicial discretion among ‘inferior’ judges is not so confined and limited as legal theorists would have it” (Comment 1941, 1448–49; see also Canon and Johnson 1998; Murphy 1959).

This observation raises a question that, depending on one’s perspective, may be posed two different ways: *Why do lower courts defy higher court precedent*, or, given the minute percentage of lower court cases that are heard and reversed (currently well under 1%), *why do lower courts comply with higher court precedent?*

Scholarly attempts to address these questions take several forms.¹ One line of inquiry seeks to identify the circumstances that lead to deviations, subtle or overt. Baum (1978), for example, suggests that lower courts will be less responsive to the U.S. Supreme Court in controversial civil liberties cases, and that the clarity of the precedent, the perceived legitimacy of the Court’s ruling, and perception by lower court judges of the chances of review also affect the likelihood of compliance (see also Canon and Johnson 1998). Another has focused on socialization and conformity to legal culture as the critical causal mechanism. Robert Cover’s (1975) noted study of the enforcement of the Fugitive Slave Act by abolitionist judges, for example, emphasizes the moral quandary posed by the judges’ twin commitments to abolition and the rule of law (see also Howard 1981).

More recently, scholarly efforts, conducted both by social scientists and legal academics, have shifted focus from individual socialization to structural incentives created by the design and operation of organizations. In broad terms, this move is part of the new institutionalism that swept the social sciences in the 1990s. One powerful perspective on institutional design, especially of hierarchies, utilizes principal-agent theory. This perspective assumes heterogeneous preferences among participants and focuses on methods of control and evasion.

The goal of this article is to contribute to the burgeoning literature on new judicial institutionalism, empirically and theoretically, by addressing our primary research question: why do lower courts defy (or, alternatively, comply with) high court precedent? As we explain

¹This literature stresses, as we do, explanations for why lower courts defy higher courts (see, e.g., Benesh and Reddick 2002, who analyze lower court responses to precedent reversed by the Supreme Court). But there also are many, though somewhat narrower, studies seeking to describe or assess the extent of defiant or compliant behavior among lower federal court judges (e.g., Baum 1980; Canon 1973; Gruhl 1980; Johnson 1987; Peltason 1961; Reid 1988; Songer and Sheehan 1990). These studies have reached mixed conclusions, or, as Benesh and Reddick note, “The literature on judicial . . . compliance is voluminous, albeit somewhat contradictory” (2002, 535).

momentarily, this (seemingly simple) question involves untangling complex interactions between the original decision of the Supreme Court, subsequent interpretations of that decision by the Supreme Court and the relevant circuit court, as well as the preferences of the contemporary lower court panel and the contemporary Supreme Court.

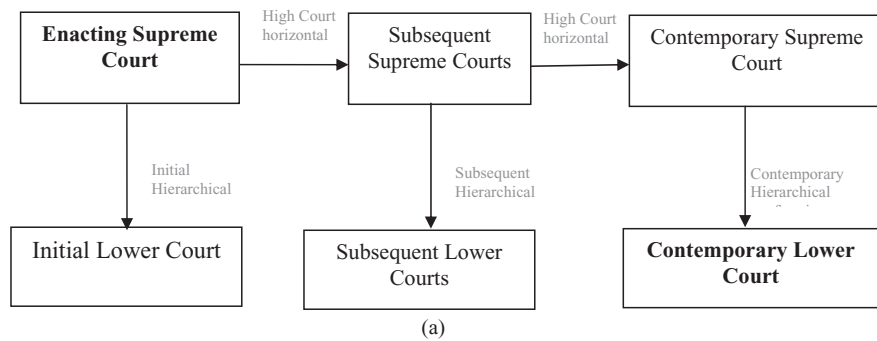
Following from this theoretical discussion, we use agency theory to structure an empirical analysis of a random sample of 500 Supreme Court cases, yielding 10,198 subsequent treatments in the U.S. Courts of Appeals. We find that the actual practice of hierarchical interpretation in the federal judiciary affords considerable support for contemporary principal-agent theory. In particular, panels of lower court judges treat precedent much more harshly when the ideological makeup of the contemporary Supreme Court diverges from that of the enacting Supreme Court. Moreover, controlling for the ideological distance between the contemporary and enacting Supreme Courts, the ideological makeup of the panel itself does not affect its treatment of precedent. Hence, hierarchical control appears quite effective. At the same time, however, a contemporary lower court’s behavior is very responsive to the earlier decisions in the circuit—a form of influence that is beginning to receive systematic empirical scrutiny from judicial scholars (see, e.g., Cross 2007; Hettinger, Lindquist, and Martinek 2006; Kim 2009). Yet it presents something of a puzzle for current principal-agent models of the judiciary. The results have important implications for the dynamics of legal change and suggest new directions for judicial principal-agent theory. They also have implications for strategic litigation and political control of the judiciary.

Theoretical Framework

Precedent and Judicial Principal-Agent Theory

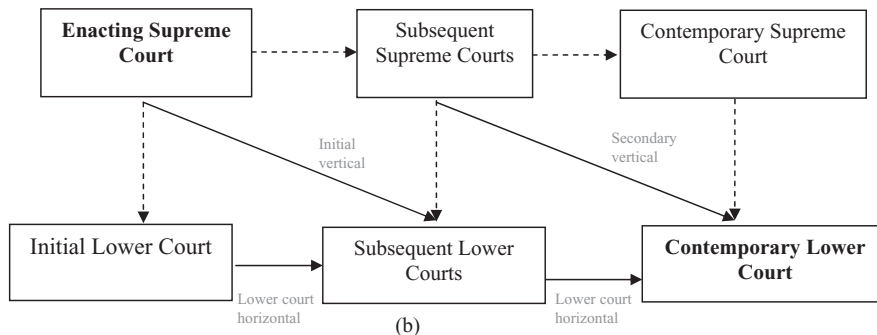
The basic issues in principal-agent relations arise from heterogeneous preferences. Consider a judicial “principal”—a High Court—that sets a policy x (a point on the real line) given the state of the world ω (also a point on the real line). The policy may indicate, for example, the maximum allowable intrusiveness of searches by the police, the maximum allowable entanglement of government with organized religion, and so forth. The “state of the world” may involve any legally relevant matters affecting the principal’s view of the “best” rule, including the policy preferences of the principal, available technology, the organization of society, and so forth. If the

FIGURE 1a Interpreting Precedent (1)



Shown are the linkages between a contemporary lower court and an enacting Supreme Court as explored in principal-agent models of the judiciary. The contemporary lower court is assumed to be influenced by the contemporary Supreme Court through contemporary hierarchical relations. However, the contemporary high court itself may be influenced by earlier Supreme Court decisions via high court horizontal stare decisis. Hence, the contemporary lower court may appear to be influenced by earlier high courts.

FIGURE 1b Interpreting Precedent (2)



Three other routes of influence are also possible: 1) lower court horizontal stare decisis, 2) initial vertical stare decisis, and 3) secondary vertical stare decisis. Though often discussed in legal writings, these paths of influence have yet to receive much attention by principal-agent theorists.

principal has utility $u_p(x, \omega) = -(x - \omega)^2$ the principal would prefer to set policy $x = \omega$.² But policy may be set or implemented by an “agent,” for instance, a lower court with somewhat different preferences. As an example, suppose the agent has utility $u_A(x, \omega, \beta) = -(x - \omega - \beta)^2$. Then the agent would prefer to set policy $x = \omega + \beta$, where β indicates the “bias” of the agent relative to the principal. In many situations, the principal can intervene and reverse “bad” decisions of the agent, at some cost to the agent. However, if the agent can take hidden actions or has private information about the state of the world, or if the principal faces such severe resource limitations

that it cannot intervene, the agent may be able to set or implement its preferred rule $x = \omega + \beta$ rather than the principal’s preferred rule $x = \omega$. To prevent this eventuality, the principal can employ a variety of organizational devices to enhance its control of the agent (discussed below).

The logic of principal-agent relations has implications—some obvious, others less so—for the operation of legal precedent. Figures 1a and 1b explore these in a heuristic fashion. In the figures, boxes indicate actors with potential influence on the interpretation of an **Enacting Supreme Court** decision by a **Contemporary Lower Court**. Between the time of the decision by the Enacting Supreme Court and the interpretation by the Contemporary Lower Court, two

²This utility function is simply illustrative (but see Spitzer and Tally 2009).

other sets of actors also may interpret the precedent: **Subsequent Supreme Courts** (those interpreting the precedent after the Enacting Supreme Court) and **Subsequent Lower Courts** (those interpreting the precedent prior to the Contemporary Lower Court). Finally, at the time of the decision by the Contemporary Lower Court, it is hierarchically supervised by the **Contemporary Supreme Court**.³ The arrows in Figures 1a and 1b denote potential sources of influence on the interpreting court.

Figure 1a focuses on sources of precedent analyzed in current principal-agent models of the judiciary. As shown, those models focus on *contemporary hierarchical relations* (the vertical lines in the figure) and *High Court horizontal stare decisis* (the horizontal lines in the figure). In the former, a contemporaneous Supreme Court influences the actions of a contemporaneous lower court. In the latter, an enacting High Court exercises a degree of influence over subsequent High Court decisions.

Judicial principal-agent theorists have identified several devices through which a hierarchically superior court can extract conformity from a hierarchically subordinate contemporaneous court with different preferences. Among these are strategic auditing by the High Court (Cameron, Segal, and Songer 2000; Lax 2003; Spitzer and Talley 2000), whistleblowing by allies within a lower court panel of judges (Cross and Tiller 1998; Daughety and Reinganum 2006; Kestel 2007), implicit tournaments among lower courts (Cameron 1993; McNollgast 1995), and en banc review of panels by lower courts (Clark 2009). Although each mechanism operates differently, all afford the High Court a degree of control over lower courts even absent many actual reversals.

Rasmusen (1994) studies horizontal stare decisis by a succession of High Courts with heterogeneous preferences. The model starkly poses the fundamental dilemma of horizontal stare decisis in a setting with heterogeneous preferences: each High Court wants to annihilate and rewrite the opinions of its predecessors but desires immortality for its own opinions. Given this dilemma, one possible outcome is the total absence of horizontal stare decisis, so later courts simply overturn earlier precedent. But Rasmusen shows the possibility of other equilibria. In these equilibria, a future-minded court respects the opinions of earlier courts (at least to some degree), thereby upholding an implicit cross-generational deal. This deal is attractive to the contemporary judge because it affords

³The Enacting Supreme Court, Subsequent Supreme Courts, and the Contemporary Supreme Court are all assumed to be temporally and compositionally distinct from one another. Obviously, the Contemporary Supreme Court might be the enacting Supreme Court. But if so, one cannot distinguish vertical stare decisis from hierarchical conformity.

her own opinions a degree of durability in the future, when future judges will similarly defer to her opinions in accord with the implicit deal. Some deference to precedent is the cost for achieving durability for her own rulings.⁴

Two features of the “horizontal stare decisis” equilibrium stand out. First, adherence to precedent is less likely when the sitting court finds the precedent highly objectionable—in this sense, stare decisis is conditional. Defiance will be more likely if the policy preferences of the sitting court are distant from those of the enacting court. Second, adherence to precedent is less likely if the precedent is old. Essentially, the intergenerational log-roll involves a moving window: older precedents are discarded while younger ones are afforded respect, especially if they are not too objectionable. These two features seem likely to emerge in any model of horizontal stare decisis with actors whose policy preferences differ.

A third feature is not explicitly analyzed in Rasmusen’s formal model but seems worth considering: enacting High Court uncertainty or ambivalence about the best policy. If the initial enacting High Court is itself split or uncertain about the best policy—as manifest, for example, by numerous dissents and concurrences—this uncertainty may allow subsequent High Courts legitimately to deviate from the precedent. Subsequent High Court deference to precedent may require the enacting High Court to speak with a clear, unified voice, especially in complex cases.

The simultaneous operation of contemporary hierarchical conformity and conditional High Court horizontal stare decisis leads to perhaps the fundamental prediction about the relationship between the preferences of a contemporary lower court and those of an enacting High Court: a contemporary lower court should treat precedent more harshly as the contemporary Supreme Court becomes more ideologically distant from the enacting Supreme Court.⁵ In addition, if hierarchical control is as powerful as the models envisage, once one controls for the distance between the enacting and contemporary Supreme Courts, the distance between the contemporary lower court and the enacting court ought to have no influence on the lower court’s treatments of precedent.

⁴The model is similar to overlapping generations models and equilibria are constructed accordingly.

⁵This is similar to the critical distinction between enacting and contemporary legislative coalitions that is made in separation-of-powers models of judicial decision making (see Eskridge 1991). Typically in the SoP literature, a court attempts to predict current legislative preferences over the previously enacted legislation. However, separation-of-powers models usually do not have the same clear hierarchical structure that typifies principal-agent models.

There are several intercourt relations about which current principal-agent models of the judiciary say little. Figure 1b notes three such forms of precedent. We call these *initial stare decisis*, in which the enacting High Court's actions influence a later lower court; *secondary stare decisis*, in which a subsequent High Court's actions influence an even later lower court; and *lower court horizontal stare decisis*, in which earlier lower court decisions influence later lower court decisions.

We know of no agency theoretic analysis of direct relations between a lower court and a temporally prior but now defunct higher court (initial or secondary vertical stare decisis). Indeed, it is not obvious why in the context of heterogeneous preferences a lower court *would* defer to precedents set by a defunct higher court. If earlier high court treatments of a precedent revealed information about the preferences of the *contemporary* high court, those treatments could influence the behavior of a contemporary lower court via its anticipation of actions by the contemporary high court. But the crucial mechanism would remain hierarchical conformity, and adequate controls for contemporary high court preferences ought to eliminate the apparent impact of earlier high court treatments. In short, controlling for the preference difference between the enacting and contemporary Supreme Courts, the treatments (positive and negative) of *intervening* Supreme Courts ought not to affect the lower court's tendency to treat positively or negatively the precedents enacted by the earlier Supreme Court.

Current principal-agent models of the judiciary also say little about lower court horizontal stare decisis. The reason is straightforward: if there is little slack in the hierarchical relationship between the contemporary Supreme Court and the lower court, the lower court's earlier behavior is irrelevant for its current behavior. Rather, the lower court's action ought to conform to the contemporary High Court's preferences irrespective of the lower court's earlier treatments.

Empirical Expectations

What may be seen as the "core" principal-agent hypotheses involve the extent of heterogeneous preferences in the judiciary and the lower court's treatment of earlier High Court precedent. If hierarchical control and conditional High Court horizontal stare decisis act as predicted by the theoretical models, we have the following expectations:

1. (*Distance between Enacting High Court and Contemporary High Court*) As explained above, a lower

court should be less inclined to treat positively precedents enacted by a Supreme Court ideologically distant from the contemporary Supreme Court.

2. (*Distance between Enacting High Court and Contemporary Low Court*) Controlling for the difference in preferences between the enacting high court and the contemporary high court, increasing differences in preferences between the lower court panel and the enacting Supreme Court should *not* additionally increase the probability the panel deviates from Supreme Court precedent.
3. (*Distance between Contemporary High Court and Contemporary Low Court*) Controlling for the difference in preferences between the enacting high court and the contemporary high court, increasing differences in preferences between the lower court panel and the sitting Supreme Court should *not* additionally increase the probability the panel deviates from Supreme Court precedent.

The following hypotheses follow from the logic of High Court horizontal stare decisis:

4. (*Age of Precedent*) Controlling for the difference in preferences between the enacting high court and the contemporary high court, a lower court should be less inclined to treat positively older precedents.
5. (*Clarity of Precedent*) Controlling for the difference in preferences between the enacting high court and the contemporary high court, a lower court should be less inclined to treat positively precedents marred by many dissents and concurrences.

Finally, if hierarchical control is powerful and effective, we have the following two hypotheses:

6. (*Intervening Supreme Court Treatments*) Controlling for the difference in preferences between the enacting high court and the contemporary high court, the number of positive or negative treatments of the initial precedent by intervening Supreme Courts will *not* affect the tendency of the contemporary lower court to treat the precedent positively or negatively.
7. (*Earlier Lower Court Treatments*) After controlling for the difference in preferences between the enacting high court and the contemporary high court, the number of earlier positive or negative treatments of the initial precedent by a lower court will *not* affect the tendency of the contemporary lower court to treat the precedent positively or negatively.

Data and Methods

In order to explore the empirical implications of the principal-agent framework, we employ a four-step approach: (1) generate a random sample of U.S. Supreme Court cases; (2) track the responses of lower courts to the doctrine established in these cases (the dependent variable for all the hypotheses); (3) collect the data necessary to animate the independent variables; and (4) implement statistical models, testing for the influence of the suggested variables. Our focus throughout is the response of panels in the U.S. Courts of Appeals to precedent established by the U.S. Supreme Court.

We drew a random sample (from Spaeth 2006) of 500 cases from all orally argued Supreme Court cases decided between the 1953 and 1990 terms.⁶ Next, following other studies, we employed *Shepard's Citations* to determine how circuit court panels responded to each U.S. Supreme Court case, through 2000 (Johnson 1987; Spaeth and Segal 1999; Spriggs and Hansford 2000, 2001). *Shepard's* (which we accessed via LEXIS) identifies every decision produced by a U.S. Court of Appeals that “treated” the Supreme Court cases. It also specifies the nature of the circuit court’s treatment (e.g., “followed,” “explained,” or “criticized” the precedent)—thereby enabling us to capture compliance with and deviations from extant rules in ways widely recognized as reliable, valid, and accessible by legal practitioners and scholars.⁷

The random sample of 500 U.S. Supreme Court cases generated 10,244 citations distributed over the *Shepard's* treatment categories, or a mean of 20.5 circuit court citations per case. Following Spriggs and Hansford (2000), we collapsed the finely articulated *Shepard's* categories into three broader categories: “Deviate,” “Neutral,” and “Comply.”⁸ “Comply” was the modal response, though roughly one out of three responses fell into the “Deviate” category.⁹ Of these, most resulted from the *Shepard's* cat-

⁶The random sample of size 500 represents about 10% of all orally argued cases ($N = 4,879$) during the time frame and using dec type = 1, 6, or 7 and analu = 0 in Spaeth (2006). We end with the 1990 term in order to provide a sufficient time horizon for lower court responses.

⁷Spriggs and Hansford (2000) demonstrate a high degree of reliability in the case treatment conducted by *Shepard's*. While *Shepard's* is surely not perfect, no other method has been shown to have a similar degree of reliability and efficiency, especially when coding large numbers of cases.

⁸We experimented with a dichotomous classification, alternative tripartite ones, and a five-category dependent variable. We report these results in our web appendix. Broadly speaking, the results are robust to these specifications.

⁹ Of the responses, 5,109 (49.87%) fell into the “Comply” category; 2,126 (21.11%) were “Neutral” (which included “explained”

egory “distinguished,”¹⁰ but “criticized” and “overruled” cases occurred as well. We code “Deviate” as the baseline category of 1, “Neutral” as 2, and “Positive” as 3. Therefore, negative coefficients indicate an increasing likelihood of a negative treatment, and positive coefficients indicate an increasing likelihood of a positive treatment.

Table 1 lists the key independent variables suggested by the principal-agent framework, as well as the measures and sources of data used. Table 2 presents the descriptive statistics. Because many are entirely conventional, they require little elaboration. We code issue complexity as the number of legal provisions plus the number of legal issues present in the precedent as coded directly from Spaeth’s U.S. Supreme Court Database. The database is also the source for the number of concurring and dissenting opinions in the precedent. Subsequent signals concerning the precedent that are generated by both the Supreme Court and the respective circuit are simply coded as the number of positive or negative treatments of the precedent by the Supreme Court and within the circuit prior to the panel’s decision. We also include the age of the precedent at the time of the panel’s decision.

Somewhat more novel are our measures for assessing ideological distances, which are at the center of the agency-theoretic framework. To enable these comparisons, we adopt the approach in Epstein et al. (2007). In brief, Epstein and her colleagues developed a measurement strategy designed to place Supreme Court justices and Court of Appeals judges into a policy space, the “Judicial Common Space” (JCS). To assess the preferences of justices, the authors relied on the Martin-Quinn scores (Martin and Quinn 2005); for circuit court judges, they invoked the inferential measure developed by Giles, Hettiger, and Peppers (2001), based upon the Poole and Rosenthal Common Space scores for the judges’ senatorial sponsors. The final step taken by Epstein et al. was to transform the scale of the Martin-Quinn scores into that of the Common Space scores, thus resulting in a comparable metric for the ideology of Supreme Court justices and Court of Appeals judges.

We employ these scores to measure ideological distances for the actors identified as critical in the agency-theoretic framework. More specifically, we attribute to the Enacting Supreme Court the JCS score of the

and “harmonized” treatments), and 2,973 (29.02%) were “Deviate” (which included “distinguished,” “questioned,” “criticized,” “overruled,” “not followed,” and “limited” treatments).

¹⁰Some commentators have suggested to us that “distinguished” treatments are not always deviations. While we agree that they may not be as harsh as, say, overrulings, *Shepard's* characterizes them as deviant treatments—as do Hansford and Spriggs (2006), who conducted extensive reliability and validity checks on *Shepard's*.

TABLE 1 Definitions of Variables

Concept	Measurement
Unclear initial signal from the Enacting Supreme Court	Measured by three variables, <i>Dissenting Opinions</i> and <i>Concurring Opinions</i> , the number of dissenting and concurring opinions in the original Supreme Court case, and <i>Case Complexity</i> , the number of legal provisions plus the number of legal issues present in the original Supreme Court case, both as coded by Spaeth (2006).
Earlier signals (treatments) by the Supreme Court	Number of treatments of the precedent by the Supreme Court before the lower court case. Coded as two variables, <i>Negative SC Treatments</i> and <i>Positive SC Treatments</i> .
Earlier signals (treatments) by the judges in the circuit	Similar to the earlier Supreme Court treatments, but the number of earlier positive and negative treatments of the precedent in the Circuit. Coded as two variables, <i>Negative LC Treatments</i> and <i>Positive LC Treatments</i> .
Age of Supreme Court precedent	<i>Age of SC Precedent</i> , age in years of the Supreme Court precedent
High court distances	<i>Contemporary-Enacting Distance</i> , the distance in the JCS between the Contemporary Supreme Court at the time of the panel's decision and the Enacting Supreme Court, with the Enacting Court measured by the location of the median member of the majority.
Contemporary Lower Court panel – Enacting Supreme Court distance	<i>Panel-Enacting Distance</i> , similar to <i>Contemporary-Enacting Distance</i> but measured from the median member of the contemporary panel to the Enacting Supreme Court.
Contemporary Lower Court panel – Contemporary Supreme Court distance	<i>Panel-Contemporary Distance</i> , similar to <i>Panel-Enacting Distance</i> , but measured from the median member of the contemporary panel to the median member of the Contemporary Supreme Court.

TABLE 2 Descriptive Statistics

	Mean	Standard Deviation	Minimum	Maximum
Case Complexity	2.264	.736	1	11
Concurring Opinions	.394	.633	0	3
Dissenting Opinions	.873	.666	0	4
Positive SC treatments	2.324	3.594	0	27
Negative SC treatments	1.348	2.770	0	16
Positive LC treatments	3.439	6.333	0	50
Negative LC treatments	2.419	5.509	0	44
Contemporary-Enacting Distance	.225	.161	0	.841
Panel-Enacting Distance	.305	.221	0	1.246
Panel-Contemporary Distance	.244	.163	0	.861
Age of SC precedent	10.838	8.300	0	45

median member of the majority coalition;¹¹ for the Contemporary Supreme Court and the contemporary

¹¹We use the majority median rather than the median of the Court. The intuition is simple: a majority opinion written by a coalition of Breyer, Stevens, Ginsburg, Souter, and Kennedy is unlikely to have the same policy content as an opinion created by Scalia, Thomas, Roberts, Alito, and Kennedy. If the median member of the Court always controls the final outcome, these two coalitions will produce identical opinions, assuming that Kennedy is the median justice. Nonetheless, how to measure the location of the Court's opinions remains an unanswered question in the literature (see Bonneau

panel, we employ the score of the median member of the respective court or panel.¹²

et al. 2007; Jacobi 2009; Lax and Cameron 2007). As a result, we also used the Court median as a measure of the Court's output. The results from Table 3 do not change in any meaningful statistical or substantive way using the median of the Court rather than the median of the coalition (See Supporting Information in our web appendix, Table-A3).

¹²The three distances measures show only minimal correlation with one another. The correlations are as follows:

TABLE 3 Regression Results

	Coefficient (Standard Error)
Contemporary SC-Enacting SC Distance	-.635* (.141)
Panel-Enacting SC Distance	-.069 (.099)
Panel-Contemporary SC Distance	.013 (.125)
Age of SC precedent	-.011* (.003)
Case Complexity	-.008 (.028)
Dissenting Opinions	-.002 (.031)
Concurring Opinions	.065* (.032)
Positive SC treatments	.014* (.007)
Negative SC treatments	-.006 (.011)
Positive LC treatments	.088* (.006)
Negative LC treatments	-.051* (.006)
Tau1	-1.013 (.079)
Tau2	-.079 (.079)
N	10198
AIC	2.025
BIC	-73378.932

The dependent variable is whether the lower court complies with Supreme Court precedent (=3), treats the precedent neutrally (=2), or deviates from the precedent (=1). Ordered logit estimates, robust standard errors in parentheses. * $p < .05$. LC = lower court; SC = Supreme Court. For more information about the variables, see Table 2.

Figure 2 illustrates the use of the JCS scores, depicting the scores for a lower court deviation mentioned earlier: *Dickerson* (a departure from *Miranda*). As shown, the enacting (*Miranda*) Court was well to the left of the Fourth Circuit panel and the Supreme Court in 1990 (the year *Dickerson* was decided). Thus, from an agency perspective, it is not surprising that the Fourth engaged in doctri-

Contemporary SC-Enacting SC distance and Panel-Enacting distance (-0.0004), Contemporary SC-Enacting SC distance and Panel-Contemporary distance (0.3227), and Panel-Enacting distance and Panel-Contemporary distance (0.3459).

nal deviation in *Dickerson*: its behavior can be seen as an example of hierarchical conformity to the Contemporary Supreme Court's doctrinal preferences.

Empirical Analysis

To test the seven empirical expectations derived from contemporary principal-agent models of the judicial hierarchy, we use an ordinal logit model (recall the dependent variable has three categories).¹³ The results are displayed in Table 3.

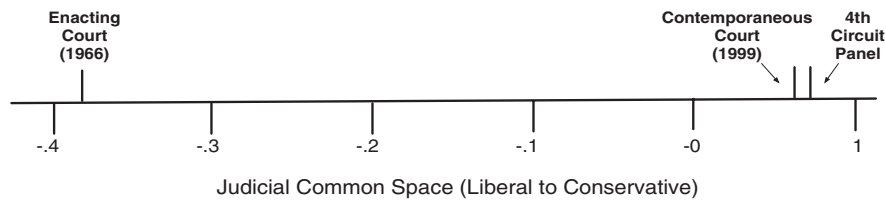
Expectation 1 addressed the impact of high court horizontal relations on lower court behavior: if the Contemporary Supreme Court is increasingly estranged from an Enacting Supreme Court, the Contemporary Lower Court's behavior should increasingly reflect that estrangement. In other words, increased distance between the Contemporary High Court and the Enacting Supreme Court should translate into a reduced likelihood by the lower court of favorable treatments for the Enacting Court's precedents. As shown by the first variable in Table 3, the distance between the Contemporary and Enacting Supreme Courts is statistically significant and displays the expected sign.

Figure 3 investigates the substantive significance of the finding by showing the impact of the distance between the Contemporary Supreme Court and the Enacting Supreme Court on the likelihood of compliance in a circuit. In the figure, the dark line with circles indicates the probability of a positive treatment of precedent by the lower court when all other variables in the model are set at their means. When the distance between the two high courts is small, the likelihood of a positive treatment is .54 (the 95% confidence interval is [.52-.56]). At this distance, the probability of a negative treatment—defiance—is only about 25% [.24-.27].¹⁴ Thus, the lower court is far more likely to comply than defy. However, when the distance between the two high courts is large (i.e., .8 to .9), the probability of a favorable

¹³The ordered logit model assumes that the effects of the estimated coefficients are constant across the choices (the proportional odds assumption). In the fully specified model, the Wald test shows some evidence that the number of dissenting opinions, the number of negative treatments by the circuit, and the age of the precedent fail the proportional odds assumption. We estimated a series of constrained and unconstrained ordinal logit models in which the necessary assumption is relaxed. Based on this diagnostic work and alternative model specifications, we find no need to alter the substantive conclusions presented here. We also estimated a multinomial logit model, and again, our substantive conclusions hold (see our web appendix, Tables 1 and 2).

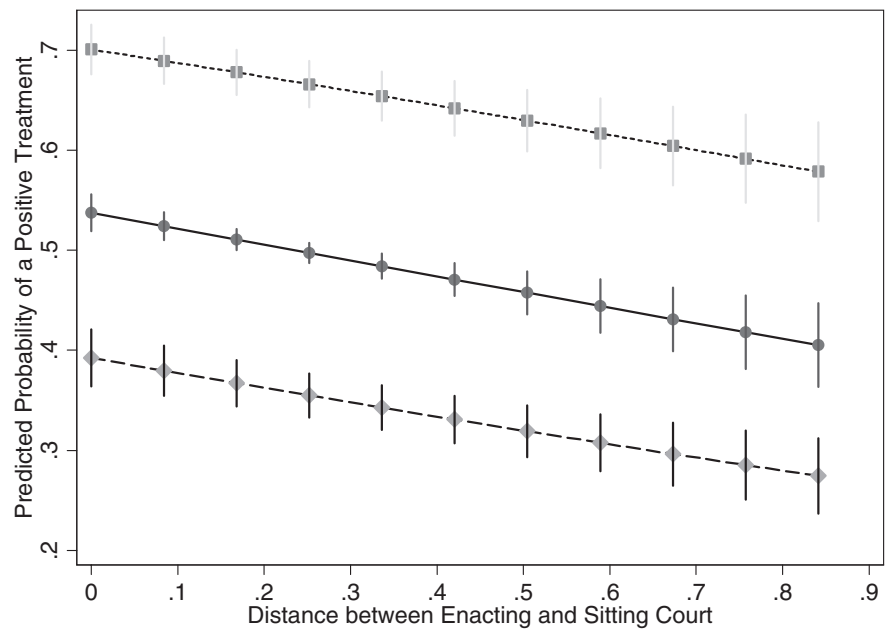
¹⁴The predicted probability for neutral treatment is .23 [.22-.24].

FIGURE 2 Enacting and Contemporaneous Judicial Regimes in the Judicial Common Space for the Fourth Circuit in *U.S. v. Dickerson* (1999)



The Enacting Court is the median of the majority coalition in *Miranda* (1966). The Contemporaneous Court is the median of the Supreme Court at the time the circuit decided *Dickerson*.

FIGURE 3 Predicted Probability of a Positive Treatment in the Circuits over the Range of the Distance between the Enacting and Contemporary Supreme Courts



The middle solid line is the predicted probability when the values of all other variables are set at the mean and the Enacting-Contemporaneous distance varies. The top dashed line with squares is the predicted probability with the number of positive circuit treatments at one standard deviation above the mean (10 positive treatments), negative treatments at 0, and the rest of the variables at the mean. The bottom dashed line with diamonds sets negative treatments at one standard deviation above its mean (eight negative treatments), positive treatments at 0, and the rest at the mean. The vertical lines represent 95% confidence intervals. To generate predicted probabilities, we used the *spost* package for Stata 10.1.

treatment falls to about .41 [.36–.45], while the probability of defiance increases to about .37 [.33–.41]. In sum, increasing ideological estrangement between the enacting and contemporary high courts has a substantial impact on the behavior of the contemporary lower court. (We discuss the other parts of the figure shortly.)

The second empirical expectation concerned direct vertical relations between the Enacting Supreme Court and the Contemporary Lower Court. Contemporary principal-agent models imply that the distance between the Enacting Supreme Court and the Contemporary Lower Court should have little or no impact on the lower

court's behavior once one controls for the difference in distance between the Enacting Supreme Court and the Contemporary Supreme Court. This expectation is tested by the second variable in Table 2, "Panel-Enacting SC Distance." As predicted, the variable has no discernible impact on the lower court's probability of positive treatments of precedent.

The third empirical expectation concerned hierarchical control between the Contemporary Supreme Court and the Contemporary Lower Court. Current PA models suggest that the distance between the two courts should have little impact on lower court treatment of precedents, once one controls for the distance between the Enacting and Contemporary Supreme Courts. This expectation is tested by the third variable in Table 3, "Panel-Contemporary SC Distance." Again as predicted, the variable appears to have no impact on the lower court's behavior. This finding, in tandem with the previous two findings, suggests effective hierarchical control in the federal judiciary.

The fourth empirical expectation returned to the impact of high court relations on lower court behavior. Contemporary models of high court horizontal stare decisis suggest that an increasingly aged precedent is unlikely to find support from the Contemporary Supreme Court (controlling for the ideological distance between the enacting and contemporary high courts). We argued that this declining support from the Contemporary Supreme Court implies a lower probability of positive treatments by the Contemporary Lower Court. This expectation finds support in the fourth variable in the table, "Age of SC Precedent." This variable appears to depress favorable treatments. Substantively, positive treatments are about 12% less likely for the oldest precedent in our sample than for a recent precedent.¹⁵

The fifth empirical expectation also addressed the impact of high court relations on lower court behavior. We suggested that unclear precedents might be less compelling to the Contemporary Supreme Court and hence to the Contemporary Lower Court (again, controlling for the ideological distance between the Enacting and Contemporary high courts). The fifth, sixth, and seventh variables in the table ("Case Complexity," "Dissenting Opinions," and "Concurring Opinions,") consider this possibility. Only the latter appears to affect lower court treatments of precedent and takes the unexpected sign.

¹⁵As a robustness check, we operationalized the age of the precedent in a variety of different ways. To examine possible nonlinearities in the impact of the age of precedent variable, we have included a squared term for the variable. However, the coefficient on the variable was not statistically different from zero.

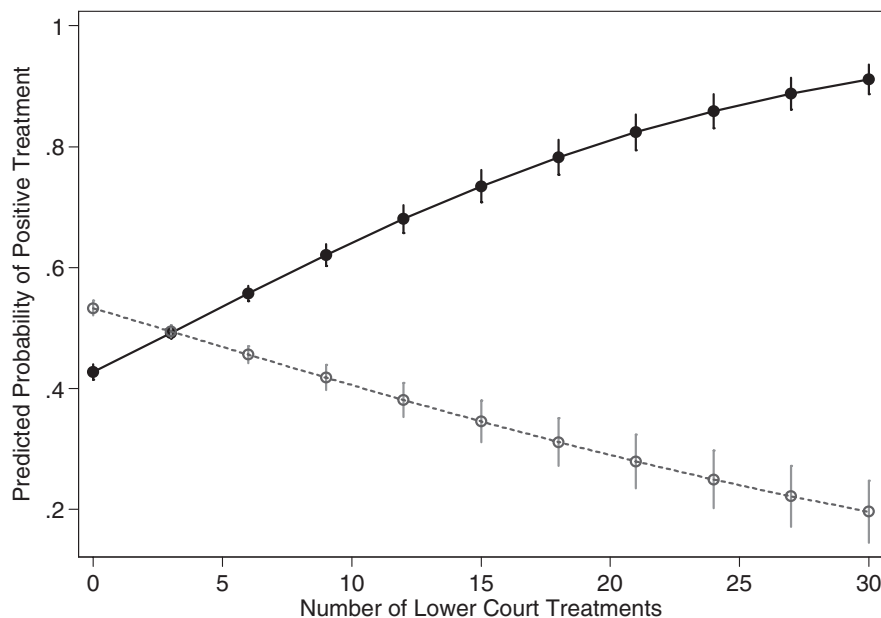
The sixth empirical expectation addressed what we called "secondary vertical stare decisis," the impact on lower court behavior of intervening Supreme Court treatments of the precedent. We argued that contemporary principal-agent theory provides little reason to expect such an impact if one controls for the ideological distance between the Enacting and Contemporary high courts. Variables 8 and 9 in the table, "Positive SC Treatments" and "Negative SC Treatments," examine this expectation. Negative treatments by earlier Supreme Courts do not appear to affect treatments by the Contemporary Lower Court. But, contrary to our expectation, positive treatments of the precedent by earlier Supreme Courts increase the probability of favorable treatments by the Contemporary Lower Court. We return to this finding in the Discussion.

The final empirical expectation addressed horizontal stare decisis between the Contemporary Lower Court and its lower court predecessors. We noted that contemporary PA models of the judicial hierarchy afford few grounds to expect such a relationship, once one controls for the ideological distance between the Enacting Supreme Court and the Contemporary Supreme Court. This expectation is addressed by the tenth and eleventh variables in the table, "Positive LC Treatments" and "Negative LC Treatments." As shown in the table, contrary to expectation, these variables do affect lower court behavior. In other words, if a circuit afforded positive treatments to a precedent in the past, the likelihood of another positive treatment by the contemporary circuit increases substantially—even controlling for the ideological postures of the Enacting and Contemporary Supreme Courts. Conversely, if a circuit had earlier offered negative treatments to a precedent, its contemporary probability of a negative treatment increased.

Highlighting the importance of lower court horizontal stare decisis is Figure 4, which examines the substantive effects of the number of positive and negative treatments of the precedent within a circuit. With no prior circuit positive treatments, the likelihood of a positive treatment by the contemporary circuit is .43. Precedents with merely three positive treatments are at even odds of a positive treatment. This probability increases to a predicted probability of .64 with 10 positive treatments and to over .91 with 30 positive treatments.

The number of negative circuit court treatments has a similar effect. Again, holding all other values at their means (including the number of positive circuit treatments), a case with three negative treatments is still at even odds for a positive treatment. However, a case with 12 negative treatments becomes slightly more likely to receive a negative reception (.39) than a positive one (.38).

FIGURE 4 Predicted Probability of a Positive Treatment in a Circuit Given Treatments within the Circuit Prior to the Panel Decision



The solid line represents the predicted probability of a positive treatment as the number of earlier positive circuit treatments increases, holding all other values at the mean. The dashed line represents the probability of a positive treatment given an increasing number of earlier negative treatments in the circuit, holding all other variables at the mean. The vertical lines represent 95% confidence intervals.

By 30 negative treatments, the probability of a positive treatment is less than .20, while the likelihood of a negative treatment increases to .62.

It is worth considering the (unexpected) impact of lower court treatments jointly with the (expected) impact of Enacting-Contemporary Supreme Court ideological estrangement. As shown in the upper line in Figure 3 (dashed line with squares), when a circuit has not negatively treated a precedent and lends its support to a past precedent (that is, when we set the number of lower court positive treatments at 1 standard deviation above its mean, or 10 positive treatments and negative treatments at 0), and when the distance between the Enacting and Contemporary Supreme Courts is minimal (0), circuits are extremely unwilling to act in defiance of the Court: close to 70% of the time they will comply. In less than 15% do they deviate. As the distance variable moves to maximum levels, the compliance percentage falls to about 58%. The defiance percentage increases to about 22%.

Now consider the willingness of the circuits to deviate from a precedent when negative treatments within a circuit accumulate with no positive treatments (shown in the lower line in Figure 3, the dashed lines with diamonds). Setting the number of negative circuit treatments at one

standard deviation above the mean (eight negative treatments), the probability of a positive treatment is only .39. Moving to the most extreme levels of distance between the Enacting and Contemporary Supreme Courts, the odds of defiance are slightly better than 50–50.¹⁶ The compliance probability falls to less than 30% (predicted probability of .28 [.24–.31]).

Discussion and Conclusion

What are the theoretical implications of the empirical findings? As illustrated in Figure 1a, judicial principal-agent models imply that the “motor” driving the Contemporary Lower Court’s treatment of earlier Supreme Court precedent is actually *the Contemporary Supreme Court’s preferred treatments of precedent*. (Of course, the Contemporary Supreme Court’s preferred treatments predictably reflect the high court’s practice of horizontal stare decisis.) The “transmission belt” for the Supreme

¹⁶Under these conditions, the probability of a negative treatment is .51.

Court's preferences is the hierarchical relationship between the Contemporary Supreme Court and the Contemporary Lower Court. Current models portray this hierarchical relationship as quite strong; hence, the "transmission belt" should work effectively.

Many of our empirical findings provide substantial support for this conception of the judicial hierarchy. Perhaps the central prediction is that ideological estrangement between the Contemporary and Enacting Supreme Courts should be reflected in harsher treatments of the Enacting Court's precedents by the Contemporary Lower Court—exactly the sort of behavior one saw in *Hopwood*. And indeed, the empirical findings strongly support this central prediction. Our model of dynamic interpretation by the lower courts has certain parallels to Eskridge's (1991, 1994) model of dynamic statutory interpretation. Under Eskridge's proposed model, the Supreme Court pays more attention to the preferences of the sitting legislature than to the enacting legislature, just as in our model the lower court pays more attention to the preferences of the contemporary higher court than it does to the doctrine established by the enacting higher court.¹⁷ While we do not examine cross-institutional constraints in this article, we find that the lower courts are well attuned to the preferences of their higher-court principal within the judicial hierarchy.

A related prediction about the age of the precedent finds support as well; a similar prediction about the "clarity" of the precedent does not, though our measures of clarity may capture this concept only poorly. The models' portrayal of a powerful "transmission belt" between the Contemporary Supreme Court and Contemporary Lower Court also finds strong support: ideological divergence between the Contemporary Lower Court and the Contemporary Supreme Court has little if any impact on the Contemporary Lower Court's treatments of precedent. Taken in tandem, the results suggest that the contemporary lower courts are quite faithful agents of their principal, the contemporary Supreme Court.

These empirical findings resonate with a variety of other empirical studies employing quite different methods and evidence. For example, Songer and Sheehan (1990) show that the appointment of liberal (Democratic) judges had no meaningful effect on their behavior in most areas of the law; instead, these judges tended to follow the Supreme Court's decisional patterns. Likewise, Brent (1999) finds that the lower courts, regardless of their ideological propensities, grew increasingly reluctant to rule in

favor of free exercise claimants after the Supreme Court's rulings in *Smith* and *Boerne*. Caminker (1994a) provides evidence that federal courts have adopted a "predictive" approach when discerning state law pursuant to the Erie doctrine. Many other studies can be cited to similar effect (e.g., Cross 2005; Kniffin 1982, *inter alia*).

Nonetheless, there is a set of intercourt relations that current principal-agent models neglect or implicitly treat as inconsequential. Two stand out: (1) the direct impact of earlier Supreme Court treatments on contemporary lower court behavior (the dark diagonal lines in Figure 1b), and (2) the impact of earlier lower court treatments on Contemporary Lower Court behavior (the dark horizontal lines in Figure 1b). We labeled the first "initial" and "secondary" vertical stare decisis; the second we labeled "lower court horizontal stare decisis."

Our empirical results provide a mixed verdict on secondary vertical stare decisis. Positive treatments of precedent by earlier Supreme Courts seem to increase the probability of positive treatments by the Contemporary Lower Court, at least modestly. However, negative treatments by earlier Supreme Courts do not depress positive treatments by the Contemporary Lower Court; rather, they have no effect. In the face of this mixed evidence, it is not clear at present how to evaluate secondary vertical relationships in the judicial hierarchy.

On the other hand, the empirical evidence on lower court horizontal stare decisis is unequivocal: earlier treatments of precedent by the lower court strongly influence the behavior of the contemporary lower court. We note that these results comport well with recent empirical findings by other scholars (Cross 2007; Kim 2009). In light of this accumulating evidence, the following conclusion seems inescapable: *intracircuit development of Supreme Court precedent is an essential component of the judicial hierarchy.*

If we accept this empirical finding at face value, we are confronted with a theoretical puzzle: what mechanism explains why intracircuit precedent is so consequential when—at the same time—the contemporary Supreme Court's hierarchical control of the contemporary lower courts seems so powerful and so effective? In other words, what is missing from current principal-agent models of the judiciary?

We cannot hope to answer this question here. But, we can point to a plausible suspect: *uncertainty and learning*. An initial Supreme Court precedent provides guidance in a particular legal situation or pattern of facts. Often, though, the participants—the lower courts, litigants, and the Supreme Court itself—remain somewhat unsure about the consequences of the precedent when applied to related but nonetheless different and

¹⁷We note that the evidence on whether or not the Supreme Court actually defers to the contemporary legislature's preferences over enacted legislation is decidedly mixed (see in particular Eskridge 1991, 650).

previously unconsidered fact patterns. The Supreme Court may well be open to different paths of doctrinal development consistent with its precedent, depending on the yet-to-be-discovered consequences of alternative paths. Consequently, the Supreme Court may rationally delegate a degree of freedom to the lower courts to explore different doctrinal paths, albeit ones *consistent with its initial decision*.

If this view is correct, a new Supreme Court precedent may initiate a period of learning within the circuits, as lower court judges hear cases presenting previously unconsidered issues and ponder how best to apply the Supreme Court's precedent. As the learning process unfolds, different lower courts may devise somewhat distinct doctrinal paths. And, awarded a degree of freedom by the High Court to explore these doctrinal extensions, the lower courts can develop a practice of horizontal stare decisis within their own circuits. At some point, though, the Supreme Court will intervene in the process, choosing one the developing doctrinal paths and imposing its favored alternative on all the circuits.

This picture of legal change is quite different from the purely top-down portrait on view in current principal-agent judicial models. Rather, it envisions Supreme Court action followed by lower court responsiveness, coupled with delegated lower court learning and experimentation, followed by Supreme Court selection and imposition of a doctrinal extension emerging from the experimentation. In essence, the principal and a group of ideologically motivated agents engage in dialogue as they puzzle out doctrine in the face of uncertainty.

We hasten to add that neither legal scholars nor political scientists have been insensitive to the logic of judicial learning. Klein (2001), for example, demonstrates the importance within circuits of creating "good" legal rules. And the branch of positive jurisprudential theory often called "judicial team theory" treats learning as a central aspect of the judicial hierarchy (see Caminker 1994a, 1994b; Cameron and Kornhauser 2005; Daughety and Reinganum 2000; Kornhauser 1995; Rogers 1995; Shavell 1995; more generally, see Marshack and Radnor 1972). But this perspective has yet to make its way into principal-agent models of the judiciary. Our empirical findings suggest the value of such a theoretical project.

In light of the findings, an obvious topic for future empirical research is the lower courts' practice of horizontal stare decisis when the Supreme Court selects and imposes another circuit's doctrine. Once the Supreme Court speaks in this fashion, do the previous treatments of a lower court become irrelevant in its behavior? Another useful extension of the present research would

examine circuit treatments of precedents created within the circuits rather than by the Supreme Court.¹⁸

Beyond theory and empirical extensions, the empirical findings have substantive implications for judicial politics. Particularly striking are the implications for *strategic litigation* and *political control of the judiciary*.

The implications for strategic litigation follow from the importance of intracircuit precedent. If legal change takes place at different rates or takes somewhat different directions in different circuits, distinctly different doctrines are apt to be active within the circuits at any given time. This creates a strong incentive for forum shopping by litigants, since the presence of negative and positive treatments within a circuit may be critical for the disposition of the case. More broadly, some circuits may be more receptive than others to the arguments of an interest group striving to move the law in a preferred direction. Again, the incentive for forum shopping is obvious.

The results also underscore the importance of appointments to the Supreme Court (Epstein and Segal 2005). Because our findings indicate the sensitivity of lower courts to even incremental alterations in the Court's ideology—alterations typically brought about by membership changes—presidents and senators who desire sweeping legal change "on the ground" may be able to achieve a considerable measure of success simply through manipulating the Supreme Court appointments process. As the composition of the high court changes, the doctrine in the lower courts will tend to track along.

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¹⁸Other extensions include the relationship between state courts of last resort and the Supreme Court, and between the circuits and the federal trial courts. See, e.g., Haire, Lindquist, and Songer (2003).

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