

Political Constraints on Legal Doctrine: How Hierarchy Shapes the Law

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Abstract

I argue that hierarchical politics shape legal doctrine as higher court judges attempt to assert control over lower-court decision-making. I present a case-space model of choice between determinate doctrines (rules) and more flexible doctrines (standards). The structure of doctrine affects the application of and compliance with doctrine by lower courts, and a higher court's need to rely on lower courts affects choice among doctrinal structures. The separation of rule creation and rule application creates striking incentives for strategic rule formation. Doctrinal choice, doctrinal complexity, lower court discretion, and the allocation of judicial resources all depend on hierarchical conflict, the transparency of decisions, sensitivity to case facts, judicial expertise, salience, and issue complexity. These incentives have counterintuitive effects on lower court discretion and on legal complexity, and they create odd patterns of ideological and doctrinal alignment, connecting hierarchical politics to intra-court collegial politics and the rule of law.

1 Introduction

Given how the few cases Supreme Court justices hear, the full force of their decisions is not on these particular cases, but on the myriad potential cases and actual cases shaped by their decisions when decided by the lower courts. Almost every legal dispute in the federal court system ultimately ends at the District Court level or in the Courts of Appeals.

When appellate courts address legal policy more generally, they typically do so in opinions that establish or modify legal rules. That is, the top tier of the judicial hierarchy concentrates far more on rule creation and articulation, while the bottom tier concentrates on application. As (Shapiro 2006, 273) puts it, “the Court itself [does not] routinely apply the rules and standards it announces. Instead, the Court has cast itself in an ‘Olympian’ role—announcing rules and standards from on high.” The justices have to rely on the legal opinions they hand down as vehicles for their legal policy goals, and the Courts of Appeals, in the middle, rely on their opinions to govern dispute resolution in the bottom tier of the federal judicial hierarchy.

In these opinions, the higher court judges lay out the general rules and principles that will be applied by the lower court judges. The problem is that these lower court judges might differ in their preferred case outcomes, which is to say that they might for reasons of ideology or legal philosophy prefer very different rules for disposing of cases. Even where the lower courts are largely aligned with the higher court and simply seek to do their jobs well, it may still be difficult to convey exactly how the higher court wants a legal rule, generally stated, to be applied specifically, in the full range of possible cases that can arise.

How do the content and structure of legal doctrine affect its application in the lower courts? And, as higher court judges look ahead, as they construct legal doctrine so as to best get the outcomes they want, does reliance on hierarchical application of doctrine affect choice of legal doctrine in the first place? Does it drive the higher court to announce a different doctrine than it itself would apply were it directly decided cases? Can the higher court judges choose doctrine so as to increase their political control of the judicial hierarchy and legal policy-making? In short, do hierarchical politics shape law?

I present a model of legal doctrine that is designed to capture key incentives, constraints,

and complications attending doctrinal choice, given the separation of rule creation and rule application across levels of the judicial hierarchy. In this model, doctrine is endogenous, with the content, structure, and even “legal quality” of the doctrine in the hands of the justices themselves. Specifically, I study the incentives driving the choice between determinate doctrines (bright-line rules) and more flexible or indeterminate doctrines (standards), in the face of concerns over doctrinal application. Both bright-line rules and standards instruct lower courts as to which factual dimensions to take into account when deciding cases and how to weight them. The basic difference is that a standard incorporates a factual dimension that is qualitatively different—lacking full transparency or specificity—from dimensions that are capable of greater precision, specificity, and transparency. I argue that the nature of the factual inquiry at hand can itself shape strategic doctrinal choice.

Consider the Supreme Court’s rulings on death sentences for minors. The debate surrounding the use of the death penalty is these cases focused on, *inter alia*, the maturity and sense of responsibility of the defendants. The Court could have instructed lower courts to explore the maturity of each defendant according to some set of guidelines or perhaps a multi-pronged test, of which age or an IQ test could play some part as balanced against other information about maturity. Such a balancing test would be difficult to specify in the abstract and hard to monitor, and lower court judges might have been able to take advantage of this ambiguity to decide particular cases against the wishes of the higher court. It is indeed these very features that define a standard in the analysis below. The Court chose instead in favor of a clear determinate cut-off, a bright-line rule based on calendar age alone. In *Thompson v. Oklahoma* (1988), they barred execution of offenders under the age of 16. *Roper v. Simmons* (2005) extended this to those under the age of 18, overruling *Stanford v. Kentucky* (1989).

In other areas of the law the Court has rejected a bright-line approach, instead constructing more nuanced doctrines. Why does the Court choose hard and fast rules in some areas of the law or at some points in time but not others? It is unlikely that these bright-line rules always exactly capture what the justices of the Court would themselves do if they, say, heard every death penalty case themselves. Rather, I argue that they choose instruments of hierarchical control based on the strategic trade-off between them. I show how this trade-off is affected by

ideological conflict across the levels of the judicial hierarchy, judicial expertise, issue complexity, issue salience, and the sensitivity of the desired doctrine to varying case facts.

These results raise new questions and shed new light on old ones, and I draw out the implication of the model's results to address a series of substantive issues. First, what degree of discretion will remain in the hands of the lower courts given optimal doctrinal choice by the higher court? Second, how will the higher court allocate resources to the development of legal doctrine? Third, what is the relationship of ideology to doctrine? Does conventional wisdom correctly attribute a predilection for standards or balancing tests to moderate or centrist justices, such that more extreme justices tend to instead prefer bright-line rules?

In the next section, I discuss how the general approach of this paper fits into the larger judicial politics literature. I then place this paper in the context of existing work on doctrinal choice. Next, I discuss the types of doctrines I will be analyzing and introduce the concepts that underly the trade-offs between them. These concepts are then defined formally in the subsequent section, which analyzes optimal doctrinal choice, presents formal results, and draws out substantive implications. I conclude with a discussion of normative implications and suggestions for future work. Proofs are gathered in the Appendix.

2 Law and Judicial Politics

The founding debate of judicial politics—whether judges make law or find law—yielded an uneasy relationship with legal doctrine. In rejecting law as an exogenous constraint on choice, any role for legal rules or doctrine became suspect. In stressing ideological goals, the structure and substance of judicial preferences were set aside. In emphasizing the freedom of Supreme Court justices to pursue policy goals, the instruments by which they might do so were neglected. Perhaps for these reasons, even some legal scholars who agree that judging can be political argue that much political science trivializes law and the legal enterprise (e.g., Friedman 2006; Tiller and Cross 2006). Most models of adjudication, formal and otherwise, indeed tend to treat legal policy-making as a rather trivial act (a point I will return to below). When law and ideology do interact in political science, it is as competitors. “Attitudinal” variables

are pitted against “legal” variables and sometimes against “strategic” variables with the balance sorted out empirically, but rarely theoretically. Is there a mutually compatible theoretical relationship between legal concepts and policy-seeking behavior?

One approach is to think more about judge’s written opinions and not just the votes they cast. The concentration on votes stems in part from Segal and Spaeth’s Attitudinal Model, the dominant model or foil in most of the judicial politics field. Segal and Spaeth (2002, 92) argue that federal judges in the U.S. are largely unfettered policy-makers and that Supreme Court justices in particular are almost completely free to cast their final votes in each case as they wish in pursuit of their policy goals. Segal and Spaeth are largely right that the justices’ choices are free from concerns for achieving higher office, free from electoral and political accountability, and, sitting as court of last resort, free from fear of reversal in a higher court. Note that this perspective treats the final vote on the merits in each case as the end of the game, so that no sophisticated choices are necessary by construction, and so that the justices are free to cast sincere votes in the cases they take. Counting the number of liberal or conservative votes has thus become the focal point of most empirical analysis of the Court. This reduces even a case like *Roe v. Wade*, say, to seven “1”s and two “0”s.

But the final vote is *not* really the end of the game. It may end for a particular plaintiff and defendant, but it is only the start of the next stage of the larger game, wherein the Court’s policy is applied by lower courts and wherein other actors, political and public, react to the Court’s policy. As Segal and Spaeth themselves emphatically note (2002, 357), it is the opinions that accompany these final votes that “constitutes the core of the Court’s policymaking process.” This suggests that we need to pay attention to opinion content and to ask the question, are there incentives for a Supreme Court justice to announce a rule other than her sincerely preferred rule?

This raises a problem—the tools in the standard political science toolkit do not seem to fit judicial politics as well as they do, say, legislative politics. Opinions, rules, cases, and case facts are quite significant concepts—yet political models of judicial policy-making, formal and otherwise, often pay little attention to them. One goal of the paper at hand is to continue the development of a model, the “case-space” model, that can bring these concepts into play.

The case-space model is a variant of and supplement to the policy-space model common in political science. It is tailored to capture the substance and institutional features of *judicial* policy making, putting case facts and legal doctrine at the analytic center, without rejecting a role for judicial preferences. This model allows us to think about constituent elements of judicial choice and the politics of legal doctrine in new ways.¹ This model recognizes that a judge makes policy by resolving legal disputes, that is, by deciding cases. These cases present themselves as bundles of facts, discovered and revealed through legal processes such as trials. Of course, even the most ideological appellate judge must make policy by telling lower court judges what facts to consider and what those facts mean for case outcomes, just as a judge bound by legal principle would. And even a dictatorial judge could not list every possible case along with its desired dispositions. Rather, she must provide some framework for guiding lower court judges, a legal rule that sorts out winning cases from losing cases. A case-space model places judge-created case-sorting rules at the heart of judicial policy-making. This potentially reconciles disconnects between political science theories and legally oriented theories of how judges make decisions, integrating the practice of law with policy-seeking behavior. It also allows us to move from a focus on case votes alone, to the content of opinions, and to more general choices of legal doctrine and how future cases are decided.

However, even if legal policy-making is more about announcing legal rules and enforcing them than about simply casting votes, it is still not a straightforward process. Even if we build a model that focused on legal rules, we also need to think more about how legal policy-making works. The next step in my argument concerns the role of law in judicial policy-making.

The traditional debate between the legal and political views of judicial behavior recognizes only two roles for law, as a *constraint* on or as a *cloak* for policy-making. In the former camp are the traditional legalists (or at least the caricatures thereof), who see the choices of the justices as bound by existing precedents under *stare decisis* and by (sometimes mechanical) principles

¹This model has its origins in Kornhauser (1992*b,a*). For subsequent development, see Cameron (1993) and Grofman (1993), which explored spatial versions of this approach, as well as Cameron, Segal and Songer (2000), Lax (2003, 2007), Lax and Cameron (2007), Kastellec (2007), and Landa and Lax (2008, 2009).

of legal interpretation. Others in the constraint school argue that law is merely a normative constraint, but a constraint nonetheless. On the other hand, the Attitudinal Model conceives of law—the application of legal doctrines and principles, the citing of precedent, and the like—as a mere cloak for policy-making, a distraction from and disguise for ideological behavior. Law is used not to make policy, but to hide politics.

In contrast to the simple constraint or cloak perspectives, I argue for a third way of thinking about the role of law in legal policy-making, one that is compatible with policy-seeking behavior: law as the instrument by which judges make policy. This perspective recognizes that legal policy-making is inherently difficult, ambiguous, and complex. While legal discourse may at times serve as a cloak for policy-making, this cloak does more than just hide the ideological nature of judicial decisions; it is how judges give body to their preferences. Law is both the substance and means of policy-making in the judiciary. It is the tool for making policy, and, like any tool, its limitations can constrain its use. In this view, law is instrumental.

Even if the Supreme Court does have significant power, discretion, and freedom, the justices still need to worry about compliance from lower courts and still need to worry about how to best communicate with lower courts to get what they want. While casting a vote may be a relatively trivial act, crafting an effective legal opinion is not. Opinions do many things. One of them, which I am largely setting aside here, is the justification of the case disposition with a legally principled argument. Another thing opinions do, the focus of this paper, is to shape the law, which is to say that they enable and structure the application of legal rules by other actors. Crafting a good opinion is no trivial task. Rather, it takes the wielding of considerable time and expertise, and this too represents a constraint on judicial power and choice.

To effect their preferred policies, the justices have to (at the very least) communicate them to others. Thinking of judges as political creatures does not obviate the need to think about cases and rules. Even if the lower courts were perfect agents of the Supreme Court, it is no trivial matter to convey the exact set of outcomes that one might desire in each possible case. One may represent a justice's preferences as an ideal point, but expressing a desired policy to others is not so straightforward. These abstractions serve a purpose, but they also ignore the difficulty of achieving policy goals. Formal models thus can cause us to overlook a crucial

aspect of policy-making—a justice may act as though she has an ideal point of, say, .28, but she cannot simply write an opinion telling the lower courts to set policy at “.28”, nor can she list her preferred outcome in every possible case.

Rather, to make policy, a justice must use “law”—the language of judicial policy-making—to articulate a policy statement that will serve as an abstraction for the outcomes she desires. She must make use of the standard mechanisms of legal discourse as inculcated in law school, not to figure out the right answer but to enact *her* “right” answer.

These rules must translate vague constitutional and statutory language or general ideological attitudes into real-world applications. As Fallon (2001) puts it, at least in the context of constitutional cases, the judicial task is that of implementation. A judge seeking to implement her preferred set of case outcomes must choose from a varied judicial toolbox, containing “rules,” “formulas,” and “tests,” which themselves break down into “bright-line rules,” “standards,” “balancing tests,” multiple-“prong” tests, and the like.

She must make use of, and is constrained by, the entire legal web in which judicial behavior is embedded. To modify Bueno de Mesquita and Stephenson (2002), it is not that judges care about law instead of or in addition to policy; judges care about law *because* they care about policy. As they point out, she can cite precedent (positively or negatively). She can use actual case examples as “fixed points of analysis” to anchor lower court treatment of future cases; take up subsequent cases to give examples of how to apply a doctrine; use these specific cases to “highlight which factors it considers important or particularly likely to point to one result or the other”; and use “analogical anchoring” and “analogical reasoning... to giv[e] substance to standards that otherwise are phrased in very general terms, and, in the process, providing additional guidance to future courts that must apply those standards” (Shapiro 2006, 315,325). She can refer to and modify existing legal rules and rely on or reject legal arguments and principles. She can define equivalence classes of cases to be treated similarly or dissimilarly (see Kornhauser 1992*b*) and assign degrees of importance to potential facts. She can make use of previous opinions (including dissents), the briefs in a case, and even law review articles that unravel issues of doctrine and the application thereof. Her task will be easier to the extent of her expertise in the relevant area of the law and to the extent of the development of the

relevant body of law—these will make it easier to articulate and achieve her preferences. New or less familiar areas of adjudication can leave a justice more at sea.

The accuracy of policy-making through judicial opinions and decisions and even the compliance of lower courts with these opinions and decisions are, therefore, at least partially endogenous to the choices justices make. The justices *actively* craft their opinions so as to achieve their desired policy outcomes.² They are inhibited in their policy-making by uncertainty, ambiguity, and complexity. Crafting an opinion to induce a desired set of policy outcomes is not so simple. Legal discourse is inherently ambiguous. Using the law well is both difficult and costly, requiring significant expertise, and this itself will constrain judicial policy-making (and bargaining). Justices (like other political actors) are imperfect policy-makers.

This perspective informs the modeling choices below. While I have argued that political science has paid insufficient attention to the accoutrements of legal policy-making, there is one thread of research in particular that has taken such factors into account.

Theories of Doctrinal Choice

The analysis of doctrinal choice is emerging as a vibrant frontier in the bridging between legal theory and political science. Previous work on doctrinal choice has looked at, *inter alia*, the usage of precedent for communicative accuracy (Bueno de Mesquita and Stephenson 2002); how the Rule of Four increases compliance (Lax 2003); incremental doctrine formation (Cameron 1993; Gennaioli and Shleifer 2007); collegial court doctrine formation, the effects of judicial institutions thereon, and the coherence and structure of legal doctrine on collegial courts (Lax 2007; Landa and Lax 2008, 2009); and bargaining in a collegial court, incorporating the costs and uncertainty of rule-crafting (Lax and Cameron 2007) Also see Tiller and Cross (2006).

Four works are particularly relevant. Jacobi and Tiller (2007) model the choice between determinate and indeterminate doctrine given an exogenous degree of indeterminacy, conflict, and bias for certain types of litigants. As a complement to that work, I focus on different

²This view contrasts with that of Perschbacher and Bassett (2004, 48), arguing that only future application shows the content of doctrine, not the words chosen to express it.

issues (e.g., the transparency of decision-making, the precision of doctrine, the role of non-compliance, etc.); see the nature of constituent factual dimensions as a key driving force behind doctrinal choice; and make various components endogenous, such as the degree of lower court discretion and the active crafting of doctrinal quality/efficacy.

Second, (McNollgast 1995, 1676) studies how the Court might choose doctrine to maximize compliance: “choice of doctrine involves a statement by the Supreme Court about the range of lower court decisions that it finds acceptable.” The Supreme Court might induce lower courts to comply by granting permission (discretion) to be non-compliant in a wider range of cases, thus isolating the remaining lower courts for review. The Supreme Court is budget constrained in such reviewing, and, while it cannot tell the location of a lower court decision until it takes a case for review, it can tell whether the lower court has been compliant.

Third, Staton and Vanberg (2008) cast judges as actively crafting doctrine, in a rich analysis of opinion “vagueness,” in which justices are strategically vague to build institutional strength.³ Some incentives for doctrine formation they identify stand as complements to those herein. For example, in their model, high clarity maximizes the leverage courts have over the implementation of policy, whereas low clarity fully delegates authority to non-judicial policy-makers; here, the higher court invests in clarity to better control lower courts. It is intriguing that both models reveal non-monotonic relationships between clarity and political factors.

Finally, Friedman (2005, 295) comments, “Not much scholarship is devoted to the impact that lower courts have on the Supreme Courts exercise of its power of judicial review. Positive theory, however, indicates that the lower courts exert substantial influence over the Supreme Court. To the extent this is true, existing theories of judicial review are necessarily incomplete

³Staton and Vanberg argue that vagueness helps the judges manage limited resources, protect institutional prestige, and defer to those with informational advantages. This trades off against diminished policy control. Another tradeoff is that specificity can increase compliance by making noncompliance more visible to external monitors such as the public, but can risk laying bare judicial weakness if other actors will still not comply. Their analysis of these tradeoffs identifies incentives new to the analysis of the judicial hierarchy and adds to the general delegation literature (e.g., by not assuming noncompliance can be detected).

because they fail to take account of the gravitational pull of the lower courts.” Intriguingly, he posits that “whether the Supreme Court can rely on ‘rules’ or ‘standards’ when it decides cases—much mooted as a normative matter—may turn as much on questions of lower court compliance as on jurisprudential preferences.” He adds that “some empirical work, and some experience, suggest that [sometimes] the Court will have to employ very specific tests to ensure its mandates are followed”⁴ and that sometimes, “in order to assure lower court compliance, the Supreme Court [may] modify constitutional doctrine” (304-5). These insights are indeed the driving force in the model below.

The analysis herein also connects to both literatures on the judicial hierarchy: that of the agency (principal-agent) perspective (e.g., Cameron, Segal and Songer 2000; Lax 2003; Kastellec 2007), by including issues of control and compliance; and that of the team perspective (e.g., Cameron and Kornhauser 2006), by recognizing issues of error correction and reduction.

Types of Doctrine

One challenge is that scholars vary widely in their definitions of rule types, with much conflict in particular over the differences—or lack thereof—between rules and standards. For some sense of the contours of this debate, see Ehrlich and Posner (1974, 258-60), Sullivan and Amar (1992, 57-69), Kaplow (1992, 559-62), Fallon (2001), Johnston (1995), and Diver (1983). The most common definitional threads are that a rule is a determinate form of legal doctrine, in which the line of permissible conduct is specified in advance (*ex ante*), whereas a standard establishes a more flexible doctrine, in which the adjudicator of the case at hand need take additional facts or factors into account in applying the doctrine (adjudication is at least partially *ex post*). The former is more clear-cut; the latter more flexible.

It is possible that, as scholars have sought nuance, the terms have lost some of their usefulness: both rules and standards can be clear or unclear, simple or complex, transparent or

⁴Staudt (2004, 659), for example, finds that, in taxpayer standing law, “[w]hen the legal precedent is clear, unambiguous, and narrow (or it is perceived to be such) . . . judges adhere to it, apparently in an effort to achieve ‘correct’ outcomes.”

not, determinate or not, etc. For the purposes of this paper, I will adopt a somewhat crude distinction, no doubt omitting much that might be of interest in other contexts. To be sure, my usage differs from some of the most common definitions in some ways, but no part of my argument rests on the names “rules” and “standards,” and so it not a problem if the reader rejects my analogies to those terms (so long as he or she will forgive my borrowing of some of their connotations). My arguments also differ from much previous work in focusing on positive rather than normative concerns. In my terminology, a doctrine or rule is any logical classification of cases into winners and losers. A *bright-line rule* does so clearly and cleanly. I will define a bright-line rule (or, with some terminological abuse, a *rule*, for short, when the intent is clear) as a doctrine which is based on a straightforward factual dimension or dimensions. It can be communicated so that it can be applied precisely by faithful agents and monitored for compliance by non-faithful agents (potentially non-compliant lower courts), because it is defined (only) with respect to factual dimensions that are specifiable and transparent in their application. In these senses, a bright-line rule is determinate.

A bright-line rule can be simple or more complicated, by balancing different factual dimensions to reach a disposition: a *balancing test* incorporates competing factual dimensions which must be weighed against each other. A balancing test need not be indeterminate, if the balancing is clear and straightforward, if it only includes factual dimensions that are clean and clear in the sense above. Rather, whether a balancing test is determinate will depend on what the relevant factual dimensions are and whether these dimensions themselves are problematic. A balancing test still can be a bright-line if all dimensions can be transparently and precisely specified along with the relationship between them. What makes a balancing test a *standard* is if it incorporates some dimension over which the doctrine cannot be so cleanly specified or applied. That is, what separates rules from standards is specificity and transparency, which in turn depend on the characteristics of the factual inquiries that the doctrine invokes.

A simple and familiar example will assist this exposition. The archetypal bright-line rule is a speed limit: “You may drive no faster than 55 miles per hour.” But a speed limit could also be defined as follows: “You must drive at a reasonable and prudent speed” (as the state of Montana once did). What counts as reasonable will depend on context, and this cannot

be defined with the same precision as a numerical speed limit nor as transparently applied as a numerical speed limit (that is, it would not be immediately obvious whether Judge A's application would be the same as what Judge B would mean by "reasonable"). This makes the a "reasonable" speed limit a standard, not a rule.

To determine whether a lower court applied this reasonableness standard as desired by the higher court, the higher court would have to look closely at numerous factors, including, say, weather conditions. To check whether a rule was "correctly" applied, the higher court would only have to know the car's objective speed. A standard thus contains a degree of subjectivity (due to the limits of specificity), raises the possibility of lower-court error (again due to imprecision in defining the limit), and even of noncompliance (due to the lack of transparency). If weather could be objectively and transparently defined, then the "reasonable speed" doctrine would be a rule, not a standard (by my terminology). For example, if "bad weather" simply meant low temperatures, then one could have a balancing test that was still a rule. Note that lower court discretion that accrues from the setting of a standard arises, not from higher court choice itself (that is, I am not studying why lower court discretion might be good for the higher court), but as an inevitable side effect from the usage of a standard instead of a bright-line rule (more precisely, from using a doctrine that can be applied only as a standard).⁵

To return to the death-penalty-for-minors example, consider an inquiry into maturity and responsibility beyond a simple calendar age rule. This would inevitably be imprecise and somewhat opaque—maturity is subjective and inherently lacking in specificity, whereas age is not. Or consider execution of the mentally retarded (in *Penry v. Lynaugh*, 1989, the Court permitted the execution of the mentally retarded, overruled by *Atkins v. Virginia*, 2002). The mentally retarded present an even greater problem in terms of precision and transparency, as mental age and ability cannot be determined as simply and straightforwardly as calendar age, so that any doctrine relying on the degree of mental retardation seems inevitably rather

⁵Shapiro (2006, 289,295) notes that the law reviews are filled with articles pointing to inconsistent applications of standards in the lower courts in various areas of the law (e.g., takings, punitive damages, admission of expert testimony, etc.) and that the Supreme Court itself has expressed concern over differing applications of standards across lower courts.

far along on the standard end of the rule-standard continuum. On the other hand, were a particular IQ test result used as the cut-off, this would again be a bright-line rule.

Or, consider differences in the application of the Fourth Amendment's prohibition of unreasonable search-and-seizures. In *Maryland v. Wilson* (1997), the Supreme Court explicitly chose a bright-line rule (police can require passengers to exit a vehicle during a legal, routine traffic stop) instead of a balancing test that would explore the reasons for the traffic stop and the situation faced by the police officer. Such a balancing test would likely be a standard, because (1) the Court would have to craft language, likely abstract language, to capture precisely the circumstances in they wanted to permit such exit commands, and likely winding up somewhat over- and under-inclusive in so doing even given eagerly faithful lower courts, and (2) since compliant application of the new test would not be obvious at first glance, the Court would have to look closely at cases decided under the new test to assess compliance and lower courts could use this to their advantage in evading full compliance.

Meanwhile, in other areas of Fourth Amendment law, the Court uses a "totality of the circumstances" test (e.g., *Illinois v. Gates* (1983): Does an informant's tip establishes probable cause?; *Ohio v. Robinette* (1996): Is a search after a traffic stop voluntary if the police have not informed the detainee of the right to refuse?). This is obviously a standard. Consider also the *Roe v. Wade* (1973) trimester structure of permissible abortion restrictions. It is not a one-dimensional rule, but rather one with three tiers, with judgment calls in the second and third trimesters. Still, this seems more rule-like than the "undue burden" standard first formulated in Justice O'Connor's dissent in *Akron v. Akron Center for Reproductive Services* (1983) and adopted by the plurality in *Planned Parenthood v. Casey* (1992).

It is likely that most sincerely preferred doctrines—that is, the doctrines the higher court would really like to implement—take the form of balancing tests or flexible rules. Few judges truly believe in absolute rules for all circumstances. Few areas of the law truly reduce to a single objective dimension like "speed." Even Justice Scalia will join or author decisions with flexible standards (e.g., *Montejo v. Louisiana*, 2009), despite his well-known preference for bright-line rules (Fallon 2001, 104). This suggests that, regardless of the doctrines we observe the justices handing down, and regardless to what they may say about the desirability for

bright-line rules, the trade-offs I study herein may be pervasive.

The Rule-Standard Trade-off

Let us return to the speeding example. Suppose cases have two dimensions: how fast the driver was going and what the weather conditions were at the time. Figure 1 shows three cases: the driver in case x^3 was caught going faster than the driver in x^2 who was going faster than in x^1 ; but the weather was the worst in x^1 and the best in x^2 . Each case has to be decided as safe driving (Y, a winner) or speeding (N, a loser).

If the higher court (H) truly prefers a constant speed limit, then she can simply announce that. H could announce a bright-line rule, such as 55 m.p.h. (rule A in the figure), under which only driver 3 is speeding and drivers 1 and 2 are off the hook. But suppose that she wants weather conditions taken into account, such that what speed is permitted depends on the weather dimension. She would now prefer a lower speed limit the harsher weather conditions were (rule B in the figure). This sliding scale has more flexibility than a constant speed limit of 55, in that it varies with weather conditions. Under rule B, only driver 1 is speeding.

Were H to prefer rule B but still announce rule A as a bright-line rule, only case 2 would be correctly decided (i.e., consistent with H 's preferences). Only case 2 would get the same result under both rules. Case 1 would be improperly decided as a reasonable speed, and case 3 would be improperly decided as speeding, at least given H 's referred definition of a reasonable speed (rule B). A bright-line rule inevitably incurs losses in terms of incorrect case dispositions, if the preferred doctrine is actually a flexible rule or balancing test.

If H heard all cases herself, she could simply apply her preferred balancing test. Suppose instead that H must delegate cases to lower courts. If speed and weather could be observed straightforwardly, then the balance between the dimensions could be laid out clearly and cleanly. There would be no wiggle room for lower courts to avoid compliance and the test would be a bright-line rule. Lower courts would apply H 's test as easily as would H herself.

However, while speed is a hard and fast measurement, weather conditions are not. The weather dimension differs in observability and specifiability. The crucial point is that, if H can

observe the case's position on the speed dimension perfectly, but on the weather dimension only imperfectly, H will not be able to tell directly whether her preferred doctrine has been applied in every case. Many speeds are reasonable under some weather conditions but excessive under others. Lower courts that disagree with H 's doctrine could evade the H 's preferred doctrine on the margins, and H would have to review a case herself to be sure. The informational gap will make noncompliance possible. It also means that a doctrine incorporating weather would be a standard, not a bright-line rule.

Or, suppose that the second dimension can be perfectly observed, but not perfectly quantified/specified. Then, even friendly lower courts will decide some cases in opposition to H 's preferred doctrine, not due to willful noncompliance but due to the inherent ambiguity of the second dimension. Again, a doctrine that incorporated a reasonableness requirement with respect to weather would be a standard, not a bright-line rule.

This means that H must make a choice between the problems that arise in announcing a standard and the problems that arise in using a bright-line rule. Bright-line rules lead to some "incorrect" dispositions due to over- and under-inclusive where flexibility is desired. Standards do so because of noncompliance and error. The next step is to formalize this trade-off.

3 Optimal Doctrinal Choice

I assume throughout that the Court wants to minimize the set of cases that are decided in opposition to its preferences, specifically that the Court suffers quadratic loss with respect to the area of the case space that is incorrectly decided: if the area is A , then the Court gets a payoff of $-A^2$ (i.e., there is increasing marginal loss). The Appendix contains a reference list of the variables defined below, the "moving parts" of the model.

Balancing Tests

If the Court's desired doctrine were already a simple bright-line rule, then it could simply announce it directly. Assume then that the Court's preferred rule is a balancing test across two dimensions. If both dimensions were purely objective, then the balancing test between them

would be in effect a bright-line rule, albeit one more complicated than a unidimensional bright-line rule. Or, if the Court only cared about a single objective dimension, it could just announce a bright-line rule. The bite in doctrinal choice comes from the inclusion of a subjective, or ambiguous, dimension. So, I assume that the Court’s preferred doctrine does incorporate a subjective factual dimension, which makes it difficult to identify case positions or rule limits.

In a two-dimensional case space, with cases given as a pair $\{x, y\}$, a simple balancing test takes the form $\hat{y} = b - ax$, where a case gets a *Yes* if and only if $y \leq \hat{y}(x)$. The slope captures the relative weights between the two dimensions. Let the first dimension (the x axis) be the subjective dimension, with the rule defined as the cut-off on the second dimension for a disposition of *Yes*. If $a = 0$, then the Court already prefers a bright-line rule (given that only the straightforward second dimension affects case outcomes). The larger a is, the greater the sensitivity of desired case dispositions to factual dimension 1 (the weather dimension).

Choosing a “Rule”

Since the first dimension is subjective, and a bright-line rule cannot include a subjective dimension, a bright-line rule for this case space can only include the second dimension. It must be a horizontal line that divides the case-space with all cases below getting a *Yes*, a fixed cut-off \bar{y} that does not vary with x , ignoring dimension 1. (See Figure 1.) Using a bright-line rule instead of the preferred balancing test means that there can be both over- and under-inclusion, since the bright-line rule does not take into account x when disposing of cases, but rather only y , where y is the straightforward dimension—the rule is “*Yes* if and only if $y \leq \bar{y}$ ”. Any case above \bar{y} but below \hat{y} should get a *Yes* but does not and any case below \bar{y} but above \hat{y} should get a *No* but does not. (See Figure 2a.) The loss to the Court from using a bright-line rule is based on the area of the region of the case space that is wrongly allocated.

Let the Court value this issue area with a salience weight s . The higher s is, the more the Court suffers when cases are disposed of incorrectly. The optimal bright-line rule is a function of both a and b , but not s :

Lemma 1. *The optimal bright-line rule is $\bar{y}^* = b - \frac{a}{2}$.*

The minimized losses are thus the shaded regions shown in Figure 2a. The combined area of these regions is $\frac{a}{4}$. Then, the payoff from the optimal bright-line rule is $-s \left(\frac{a}{4}\right)^2$. Where $a = 0$, there is no loss. The higher the value of a , the steeper the slope, the higher the desired tradeoff between dimensions, and the greater the cost of ignoring those tradeoffs and reducing the doctrine to a bright-line rule. How does simplifying doctrine in this way compare to sticking with the preferred balancing test?

Choosing a “Standard”

If the Court includes the subjective first dimension in its announced doctrine, then it invokes a standard. There are two potential sources of trouble. There will be a region of cases near the cut-line that might be decided improperly by lower courts and in which lower court decisions can vary. The first problem is that lower courts might be faithful but imperfect agents of the higher court and thus will make mistakes in case dispositions (mathematically, this will turn out to be a special case of the second situation). This might occur because of the inherent difficulties in defining the cut-line (what I define below as imperfect *precision*). The second source of trouble is purposeful non-compliance (a principal-agent problem), because the inherent ambiguity of the first dimension allows lower courts to strategically evade the Court’s preferences (due to imperfect *transparency*, again defined below).⁶

Let the width of the troublesome region extend v in either direction from the proposed standard, as shown in Figure 2b, so that the higher v is, the larger the more “standard-like” the standard is. As v goes to 0, this “standard” devolves to a bright-line rule. The area of this region is $a(2v - v^2)$. How this compares to choosing a bright-line rule will depend on (a) whether v is exogenously fixed or endogenous in that the justices can actively engage in affecting it through careful drafting of their opinions and (b) why case dispositions in this

⁶Much legal scholarship “take[s] for granted that lower courts... follow the mandate of higher courts” even though “study after study... makes [it] clear that ideology plays a role in lower court decisions.... Law may hold sway in the lower courts, but ideology plainly does as well” (Friedman 2005, 295,300-1).

region might be problematic. Within this region, let the probability of the wrong decision be p , so that expected losses from the balancing test are $ps(a(2v - v^2))^2$.

Exogenous Transparency

Assume that when a lower court decides a case, the higher court can easily observe its position on dimension 2, but can only imperfectly observe its position on dimension 1, the subjective dimension. Call the higher court's ability to assess the case on dimension 1 "transparency." The parameter v then captures the discretionary region in which lower courts can take advantage of this lack of complete transparency to evade the higher court and apply their own "discretion." This discretion is of course not a willing choice of the higher court, but a result of the difficulty of monitoring compliance given the subjective dimension.

Consider the model of higher court/lower court interaction in Cameron, Segal and Songer (2000), in which the higher court cannot tell without actually taking a case whether the lower court has complied, and so there exists just such a region in which a hostile lower court will not comply and it is not worth it for higher courts to audit their decisions. The parameter v can be understood as emerging from such a model. Since that model is one-dimensional, the Court does not have the choice of dodging the subjective dimension entirely. Indeed, doctrine is treated as exogenous in the paper. Here, I am, in effect, taking this game back one step, asking how the Supreme Court can set up a better compliance game for itself by crafting legal doctrine in anticipation of potential non-compliance.

Let p capture the likelihood of a hostile lower court and thus the percentage of case decisions in the discretionary region that will be in opposition to the higher court's preferred outcome. When $p = 0$, v is irrelevant. If $v = 0$, then both dimensions are perfectly observable, and the balancing test is already a bright-line rule. Otherwise, this region has positive width, and within it, lower courts can decide as they desire. Outside this region, compliance is perfect. The losses when using this balancing test are $ps(a(2v - v^2))^2$. We can now compare the utility from the optimal bright-line rule to the use of the balancing test:

Proposition 2. *Given an exogenous level of transparency, the optimal bright-line rule is preferable*

to the balancing test (standard) if and only if $p > \frac{1}{16v^2(2-v)^2}$ (equivalently, if $v > 1 - \frac{1}{2}\sqrt{4 - \frac{1}{\sqrt{p}}}$).

The choice between accepting the non-compliance associated with the balancing test and the automatic over- and under-inclusiveness of the bright-line rule depends on both the level of transparency and the extent of ideological conflict between higher and lower courts; it does not depend on either the sensitivity to the subjective dimension nor on issue salience. The greater the conflict between the two (higher p), the greater the desirability of the bright-line rule. The lower the degree of transparency (higher v), the greater the desirability of the bright-line rule. (Where conflict is low enough ($p \leq \frac{1}{16}$) or transparency high enough ($v \leq 1 - \frac{\sqrt{3}}{2}$), the balancing test is preferred no matter the value of the other parameters.)

The trade-off between conflict and transparency in driving doctrinal choice is shown in Figure 3. These results make sense intuitively: where ideological conflict is a problem, and so compliance is a problem, bright-line rules are preferred. The sensitivity of the balancing test to the subjective dimension and salience are both irrelevant because they affect equally the losses under the optimal bright-line rule and under the balancing test, so they drop out of the doctrinal choice calculus—at least when transparency is exogenous.

When affecting transparency is beyond the control of the Court, the substantive implications are that less transparent areas of the law will get bright-line rules; during times of ideological conflict between upper and lower courts, bright-line rules are preferable; for issues where there is hierarchical conflict, bright-line rules are preferred; standards are more likely to be chosen when the judicial hierarchy is more homogeneous; and the greater lower court opposition is, the greater transparency must be before a standard-like balancing test can be safely chosen. Some of these incentives change if the Court can affect the transparency of compliance by investing costly effort into crafting the balancing test.

Endogenous Transparency

I argued earlier that the justices actively craft their opinions to affect lower court application. Assume that the Court can invest in increasing the transparency of lower court compliance. Instead of dropping the subjective dimension altogether, the Court can work harder on spec-

ifying the doctrinal requirements so as to force the lower court to discuss the various aspects of the case facts that will help the higher court assess where precisely the case falls on both dimension and whether the lower court has been compliant, thus increasing the incentives for the lower court to preemptively comply. If the lower court does not include the relevant information, this will serve as a cheap signal of potential non-compliance. Legal scholars might also argue that greater legal quality, costly to produce, increases the lower courts impetus to comply with higher court doctrine.

Formally, I assume that the investment of costly effort reduces v . What is the optimal level of v ? And, given this optimal balancing test, should the Court instead choose the optimal bright-line rule? The answers to these questions depend on the cost of increasing transparency, the sensitivity to the subjective dimension, issue salience, and hierarchical conflict. The costs will depend on the ability, experience, and expertise of the judge/justice crafting the doctrine; how intensively fact-laded the issue area is; and its inherent complexity.

Let the cost of writing a balancing test be $c(1 - v)^4$, so that the payoff due to choosing the balancing test is $-ps(a(2v - v^2))^2 - c(1 - v)^4$. Then, we obtain the following results:⁷

Proposition 3. *The optimal endogenous transparency of the balancing test occurs at $v^* = 1 - \frac{psa}{\sqrt{ps(c+psa^2)}}$.*

Corollary 4. *Optimal transparency is decreasing in cost and increasing in sensitivity, conflict, and salience.*

Figure 4a shows the effects of the various parameters on optimal transparency. As cost increases, optimal transparency naturally drops. As conflict, sensitivity, or salience increases, the curve shifts upwards, so that for any fixed cost c , optimal transparency is higher. The intuition is that greater lower court hostility pressures the higher court to raise transparency to monitor them, while higher sensitivity to the subjective dimension means that a wider range of cases are subject to potential non-compliance, again pushing towards a greater investment

⁷This makes optimal v an interior solution. Otherwise, it can be a corner solution, which does not change substantive results, but does unnecessarily complicate them.

in transparency. These results define the optimal balancing test, which can then be compared to the optimal bright-line rule, yielding the following results:

Proposition 5. *Given optimal transparency, the optimal bright-line rule is preferable to the balancing test (standard) if and only if $c > \frac{psa^2}{16p-1}$.*

Corollary 6. *The incentive to choose the optimal bright-line rule over the optimal balancing test increases with higher costs and conflict and it decreases with higher sensitivity and salience.*

As cost increases, optimal transparency decreases, until eventually a balancing test is no longer itself optimal. In Figure 4a, higher conflict, higher sensitivity, and higher salience shifted the curves upwards—but they have different effects on the transition to a bright-line rule. Higher conflict lowers the transition point at which the cost of a balancing test becomes prohibitive, while higher sensitivity or salience raises this threshold, enlarging the range of costs for which a balancing test will be chosen.

A bright-line rule is preferable where costs are high, conflict is high, salience is low, and sensitivity is low. Figure 4b reveals more complicated trade-offs between these parameters in optimal doctrinal choice. The two panels represent two perspectives on this choice. Each panel considers a pair of parameters and shows the regions in which a bright-line rule should be chosen as opposed to choosing the balancing test. A dividing line is shown for higher or lower values of the remaining parameters.⁸

⁸Some implications are subtle. In the final panel, sensitivity and salience are substitutes for each other; the higher one is, the lower the other can be while still maintaining indifference between the two doctrinal forms. Moreover, each has a diminishing effect, in that the higher salience is, the less increasing salience matters for optimal doctrinal choice and the more sensitivity matters. The higher sensitivity is, the less increasing sensitivity matters and the more salience matters in doctrinal choice. I.e., salience is more likely to affect the choice of doctrinal form when sensitivity is high than when it is low. Sensitivity is more likely to affect choice when salience is high than when it is low. Turning to the top panels, we find that higher salience and higher sensitivity both dull the effects of conflict in driving doctrinal choice. And when conflict is low, the effects of salience and sensitivity are of lower consequence.

Discretion and Effort

These formal results can be interrogated further. To what extent will there exist the potential for non-compliance given optimal doctrinal choice? Or, to put this another way, what degree of discretion will remain after such choice? Next, what level of effort will be expended given optimal rule choice? The answers can be derived from Lemma 3 and Proposition 5. Define residual discretion d^* as the leeway a lower court will have given optimal rule choice. When a bright-line rule is chosen, it will take the value zero. When the balancing test is chosen, discretion will take the value $1 - v^*$, (that is, it maps to transparency, which is larger when the resulting region of potential non-compliance is larger). Effort is the cost paid by the Court (zero for a bright-line rule).

The results shown graphically in Figure 5. The level of residual discretion given optimal doctrinal choice depends on the sensitivity of the balancing test, the costs of reducing discretion, and the degree of conflict between the courts. The most striking feature of these results is that discretion and cost are non-monotonic and discontinuous functions of the key parameters. For example, as the cost of crafting doctrine increases (or as judicial skill decreases), discretion (and the possibility of non-compliance) increases as the Court's balancing test loses efficacy—but then the optimal choice transitions to a bright-line rule, under which some cases are automatically decided incorrectly and lower court discretion is nil. Hierarchical conflict reveals a similarly discontinuous effect when the Court breaks in favor of the bright-line rule, but here the effect of conflict is monotonic. The sensitivity to the subjective dimension reveals a pattern similar to that for cost, but in the other direction. As sensitivity increases, there is at first no effect on discretion as the Court will still make use of a bright-line rule, until the point at which the balancing test is optimal, but one where the residual discretion is high. Residual discretion increases then decreases as sensitivity continues to increase.

What do these formal comparative statics mean substantively? Doctrinal choice creates strange bedfellows. Low residual discretion is associated with both the lowest-skilled and highest-skilled justices (those who face, respectively, the highest or lowest costs of generating transparency). The former choose bright-line rules and thus get full compliance (albeit with a

non-ideal doctrine); the latter will craft high-quality balancing tests that still manage to rein in lower courts to a significant degree. The same is true for justices with high or low (as opposed to middling) concern for the substantive dimension—both types yield relatively low levels of residual discretion as compared to their more moderate brethren (the former invoke good balancing tests; the latter prefer bright-line rules). Shifted the focus from judicial ability to the nature of the issue area, the simplest and most complex areas (lowest and highest costs) will be associated with low residual discretion. Finally, note that increasing the higher court's resources (or choosing justices with greater legal ability increases higher court control but also can affect doctrinal choice, leading to great use of standards instead of bright line rules. More resources will also lead to greater doctrinal complexity.

Unlike McNollgast, I find that higher conflict within the hierarchy should lead to less discretion for lower courts, as the higher court increasingly turns to bright-line rules or at least invests in more constraining standards. The relationship of conflict to doctrinal development is more complicated given the non-monotonic relationship discussed earlier. We might expect to see the most development not when the lower courts are so allied with the higher court that specificity is unnecessary, nor when the lower courts are so hostile that standards are too dangerous, but rather in the middle ground when there are lower courts to constrain and it is necessary and feasible to keep them in line.

Ideology and Doctrinal Choice

What role does ideology play in doctrinal choice? Some argue that more extreme justices such as Justice Scalia tend to prefer bright-line rules whereas standards or balancing tests are associated with moderate justices such as Kennedy or O'Connor, those likely to be situated as swing justices in close cases (e.g., Shapiro 2006, 274). Why would this be so? A coincidence? Or can it be explained by incentives for doctrinal choice? In this section, I use the framework developed above to answer these questions and to unpack issues that are sometimes conflated or omitted in discussions of ideology and doctrine.

There are actually two potential relationships between ideology and doctrinal choice. The

first would be that liberals and conservatives (the extremes) are similar as compared to moderates. The other is that doctrinal choice corresponds to ideology directly, so that liberals and conservatives will disagree over doctrinal form. Is it a matter of “ends-against-the-middle”? Or does ideology directly correlate to preferred structure? I consider both potential relationships.

One preliminary possibility is that such justices are so extreme that they prefer a rule of “always” or a rule of “never”—but then they already prefer a bright-line rule and so face no doctrinal trade-off. More moderate justices will prefer balancing tests, but the extreme justices would prefer bright-line rules. But that makes the debate rather trivial. The more interesting questions of doctrinal choice arise for those justices short of such extremes, even barely so, where there is still “room” in the case space to place a balancing test across the two dimensions.

To continue, assume that each justice does prefer a balancing test. Let them agree on sensitivity (slope), only differing in how high or low the line is drawn (the intercept). The justices with the higher intercepts want more *Yes* outcomes; those with the lower intercepts/lines want more *No* outcomes. But they each prefer the same tradeoff between the two dimensions. In such a configuration, what role does the differing intercept play in preferences over doctrinal form? None, as by Proposition 5. The intercept (b) does not affect whether a bright-line rule or a balancing test is preferred. All else equal, either they all prefer bright-line rules (albeit set at a different “height”), or they all prefer parallel balancing tests (again, set at different “heights”). Ideology is then orthogonal to the choice of doctrinal structure.

Suppose that the justices instead vary in terms of sensitivity to the subjective dimension. Then, we should not find ends-against-the-middle, but rather that those with higher sensitivity prefer balancing tests (as shown in Figure 4b and by Corollary 6). It seems reasonable to suppose that liberalism might indeed positively correlate with sensitivity to such a dimension (for example, whether exonerating factors matter for sentencing), but so might conservatism in other areas of the law (how much should good faith exonerate an improper search and seizure?). Either way, we would expect a split along party lines on doctrinal structure.

Recall Figure 5, which shows that high and low levels of sensitivity induce lower levels of residual discretion than do moderate levels. When ideology correlates with sensitivity, this suggests that liberals and conservatives would both leave less discretion in the hands of the

lower court than moderates: one wing because it would choose a bright-line rule, the other because it would construct a high-quality balancing test.

The point remains, however, that it is not extremism in terms of the absolute number of “yes” or “no” dispositions that directly affects optimal doctrinal form, but rather sensitivity to the subjective dimension. Note also that the effects of sensitivity depend on the justices having influence over transparency—if they do not, then we return to the solution for exogenous transparency and Proposition 2, wherein sensitivity to the subjective dimension does not figure into doctrinal choice even if sensitivity does vary by ideology.

There are two further wrinkles to the ideology/doctrine debate, as two other parameters shown to affect the justices’ incentives might vary with ideology: salience and conflict. Salience might vary with ideology because the distribution of cases in the case space might vary. That is, there might be many more cases falling in the middle of the case space than at the extremes. The troublesome region might capture a greater number of potential lower court cases when it is in the moderate region of the case space than when it lies near one extreme or the other. The set of cases for which transparency might create a problem would then be much smaller for Scalia’s preferred balancing test, which would lie much higher in the case space than for Kennedy’s preferred balancing test. In the formal model, this is easily captured by the salience weight for this issue—Scalia would have to worry less about this region than Kennedy and so s would be lower for Scalia than for Kennedy. If transparency is exogenous, this is irrelevant, as salience is irrelevant for choice. If transparency is endogenous, then higher salience suggests a balancing test so that moderate justices would indeed be more likely to prefer the balancing test over the bright-line rule relative to more extreme justices.

Next, when justices are more extreme, they are likely to be positioned differently with respect to lower courts than are moderate justices. Much depends on the distribution of lower court judges. Suppose that, as might seem likely, the lower courts are roughly distributed around the center of the Supreme Court, and that the distribution of lower courts follows a bell curve, with many more lower courts concentrated near the center of the higher court with fewer in the wings. If that is the case, then a more extreme justice will find few allies in the courts below, and a more moderate justice will find it far more likely that a random

lower court will resemble her own preferences for case dispositions. This suggests that, all else equal, moderate justices face a lower likelihood of a hostile lower court (lower p) than a more extreme justice. In turn, this means that, if the concentration of lower courts is sufficiently high, then moderate justices should prefer balancing tests and more extreme justices should prefer bright-line rules (see Corollary 6 or Figure 4b). The intuition is that O'Connor is more willing to allow lower courts to make use of this residual discretion since she has a greater expectation they will decide as she would. Scalia will find fewer allies below and so will do better accepting the losses of a bright-line rule than using a balancing test.⁹

The salience argument and the compliance argument are mutually reinforcing, in that both suggest moderates will be more likely to prefer balancing tests than will more extreme justices. The patterns of residual discretion, however, would be less clear-cut (in Figure 5, discretion is monotonic with respect to conflict, but not so with respect to salience).

These arguments can be extended to consider how polarization might affect doctrinal outputs. A Court full of moderate justices would tend to produce a greater number of balancing tests, all else equal. But, in a polarized Court, with relatively extreme justices on both sides, each side would prefer bright-line rules. Indeed, even if only one wing of the Court is extreme, if it has the majority, it would be more likely to produce bright-line rules.

One final complication remains, one which to the best of my knowledge has not been explored in the literature on rules versus standards: the varying perspectives of opinion authors versus other members of the majority. On a collegial court such as the Supreme Court, justices face issues that a judge acting alone does not. When we say that Justice Scalia prefers bright-line rules and Justice O'Connor prefers balancing tests, do we mean that those choices represent what each would choose were he or she dictator? Or that Justice Scalia wants Justice O'Connor's preferred balancing test to be converted into the nearest bright-line rule? Such a bright-line rule would obviously differ from Scalia's preferred bright-line rule. That is, is he

⁹Further work might explore whether this leads to more errors of over- rather than under-inclusion, such that different weights should be applied to these two regions. Indeed, justices may well prefer to make errors of one type or the other; the model could be developed to accommodate such preferences.

disagreeing with her incorporation of the subjective dimension or the placement of the rule (upwards or downwards) in the case space? Does he simply want a more extreme test or one that rejects one of the constituent dimensions of the rule?

Moreover, suppose that the production of legal quality (transparency) is in the hands of the opinion author. The optimal choice of doctrinal form will depend on who exactly is crafting the doctrine. It is largely the opinion author's ability alone that matters—so that Justice Scalia might prefer a balancing test if he himself were doing the writing, but might prefer the doctrine to take the form of a bright-line rule if Justice Kennedy is to be the justice responsible for crafting it. Or, since it is the opinion author that must bear the costs of authorship, one justice might want another to invest in a balancing test when he himself would simply go with the cheaper bright-line rule. In any case, the results above clarify how these issues might play out.

Doctrinal Complexity

Legal complexity has an effect on doctrinal choice, but the incentives for doctrinal choice also have an effect on legal complexity. The simpler relationship has already been mentioned, but I highlight it again here. The more complicated the area of the law, the greater the cost of increasing transparency (if transparency is endogenous) or the lower transparency will be outright (if transparency is exogenous). Either way, this relationship pushes towards the use of bright-line rules. On the other hand, where transparency is exogenously high or “cheap” to produce because the legal issues are more clear-cut, balancing tests can be safely used. Figure 5 shows how complexity is affected given changes in the model parameters. Not all these effects would be intuitive without the model to guide analysis. For example, for any given cost parameter, as conflict increases, doctrinal complexity, in the sense of detailed specification, will increase to better control the lower courts... until it is so costly to do so given rising conflict that the higher court instead drops down to a straightforward bright-line rule.

There is another potential implication. The results above have been discussed in terms of a choice between a bright-line rule that simplifies a balancing test from two dimensions back to one dimension. Extending the logic to multiple dimensions, the same incentives should drive

the choice to add a marginal dimension to any area of the law—at least where that dimension is subjective in nature (where it is fully objective and transparent).

Precision

In the analysis of transparency, it was assumed that lower courts could seek to evade higher court control. Suppose instead that lower courts are faithful agents of the higher court. Do the dilemmas of doctrinal choice above disappear? Do balancing tests become “safe” choices? Another source of doctrinal misapplication remains—simple error due to the challenges of converting the dictates of broadly stated doctrines into the dispositions of simple cases. That is, as discussed earlier, the challenges in constructing and communicating a doctrine clearly and precisely will limit the ability of even a faithful agent to decide cases accurately. This is particularly true in the context of a more subjective dimension, as studied here. Lower courts, while seeking to obey the higher court, will not be sure exactly where the line is drawn. I call the degree to which lower courts can apply the higher court doctrine correctly *precision*.

Given faithful agents, we can simply assume the chance of an incorrect decision, rather than varying with lower court ideology, is fixed at some constant exogenous to the other parameters. Without loss of generality, I simply set the probability of error within this region to be $p = \frac{1}{2}$, allowing the radius v to capture how likely error is as a whole. (One might also vary the chance of error within the region vary, but in effect v already does this by denoting the size of the region of cases that could be erroneously decided.) We now can extend the transparency results to analyze exogenous precision and endogenous precision in turn.

Exogenous Precision Again let the parameter capturing the width of the troublesome region be v . Within v of the cut-line, the lower courts cannot tell what the correct disposition is. The harder it is to specify a limit on the troublesome dimension, given its complexity or inherent ambiguity, the higher v will be. For now, v is assumed to be exogenous, beyond the control of the higher court. Parameters a and s capture sensitivity and salience as before. The loss from sticking with the balancing test is then $\frac{s}{2}(a(2v - v^2))^2$, which leads to the following:

Corollary 7. *If the balancing test (standard) has exogenous precision, the optimal bright-line rule is preferable to the balancing test if and only if $v > 1 - \frac{\sqrt{4-\sqrt{2}}}{2}$.*

This means that when the difficulty in announcing the desired balancing test is solely a matter of the exogenous precision with which it can be specified, (1) the Court should announce a bright-line rule instead of this standard if the degree of inherent imprecision is sufficiently high and (2) this choice does not depend on how sensitive the preferred balancing test is to the subjective dimension. The intuition is that if the degree of inherent imprecision is sufficiently high, then the guaranteed losses due to the bright-line rule are preferred to the mistakes made under the standard. As in the exogenous transparency case, the sensitivity to dimension 1 affects both types of loss equally. What happens when v is endogenous instead of exogenous?

Endogenous Precision. Suppose that the more legally skilled the higher court is and the greater the legal work invested in crafting the balancing test, the greater the precision with which it can be applied (so that v will be lower). Assuming the same cost structure and weight c , now for increasing precision rather than increasing transparency, the payoff when choosing a balancing test is now $-\frac{s}{2}(a(2v - v^2))^2 - c(1 - v)^4$, so that we reach the following results:

Corollary 8. *Optimal endogenous precision of the balancing test occurs at $v^* = 1 - \frac{as}{\sqrt{s(2c+a^2s)}}$.*

Corollary 9. *Optimal precision is decreasing in cost and increasing in sensitivity and salience.*

Corollary 10. *The optimal bright-line rule is preferable to the optimal balancing test (standard) if and only if $c > \frac{a^2s}{14}$.*

Corollary 11. *The incentive to choose the optimal bright-line rule over the optimal balancing test increases with higher costs, and decreases with higher sensitivity and salience.*

The greater the sensitivity to the subjective dimension and the lower the cost of precision, the more work will be invested in lowering imprecision and the lower the optimal level of imprecision, v^* . The higher the cost of precision, the higher the optimal level of imprecision, but, once the cost is high enough, then it no longer is optimal to stick with the balancing test.

Having active control over the quality of the opinion and thus the precision of the balancing test again means that sensitivity to the subjective dimension does have an impact on doctrinal choice (like the endogenous transparency case). When precision is endogenous, the tradeoff between choosing the balancing test/standard and the bright-line rule depends both on the cost of specifying the test and on the sensitivity to the subjective dimension. Where precision is exogenous, the balancing test's sensitivity to the first dimension is irrelevant; where it is endogenous, higher sensitivity pushes towards choosing the bright-line rule outright.

Overall, this suggests that the justices will choose balancing tests (even when they will be somewhat standard-like) for legal issues in which they have greater expertise or skill and where they have a greater bank of precedent to draw upon, whereas bright-line rules will make the better tactical choice in more complex or newer areas of the law, or in areas that resist quantification (think Justice Stewart's "I know it when I see it" doctrine).

Figures 6a and 6b shows these results. Figure 6a shows the optimal precision level falling as the cost of precision rises as well as the cost level beyond which a bright-line rule becomes optimal. As cost increases, the level of precision that will be achieved will decline, until it drops (in effect) to zero when it becomes optimal to switch to a bright-line rule (one gives up on making the balancing test more precise and jettisons the troublesome dimension entirely).

Figure 6b shows how the preferred choice between the optimal balancing test and the optimal bright-line rule varies with sensitivity to the troublesome dimension and with the cost of precision. While judges who face higher costs (perhaps due to lower expertise in the issue area in question or greater legal complexity) will prefer bright-line rules, a greater concern for the first dimension will push towards a balancing test. When sensitivity is low, it is only those judges who face low costs or low complexity that will choose balancing tests.

4 Conclusion

The first layer of judicial politics questions whether judicial decisions depend on more than legal precedents, principles, and text. The second layer addresses whether and how external, collegial, or hierarchical politics shape law in the context of such "extra-legal" preferences.

Herein, I argue that justices (or other appellate judges) concerned about the impact of their opinions on future case outcomes are indeed constrained in their choices, and I show that the separation of rule creation and rule application creates striking incentives for the former. In other words, hierarchical politics do shape law.

The model captures some of the fundamental tensions driving doctrinal choice, specifically the choice between bright-line rules and standards. The resolution of these tensions depends in a nuanced way on the degree of lower court conflict, the salience of the issue at hand, the complexity of that issue, the expertise and abilities of the rule crafter, the sensitivity of the preferred doctrine to varying case facts, and the nature of the doctrine's constituent factual dimensions. These factors can induce insincere doctrinal choice and affect the care taken in crafting legal doctrine, that is, the investment in legal "quality" (as collegial bargaining does in Lax and Cameron 2007).

Doctrinal choice, doctrinal complexity, lower court discretion, and the allocation of judicial resources to an area of the law are all shown to be affected by hierarchical politics. Moreover, the model suggests that our understanding of how ideology impacts the law may be incomplete or naive, because intra-Court collegial politics may be connected in striking ways to hierarchical politics. A justice's underlying liberalism or conservatism can lead to nonintuitive incentives for doctrinal choice. These incentives create odd patterns of ideological and doctrinal alignment, with strange bedfellows on both wings of the court opposing the middle. Some may find it disconcerting for the rule of law that the selection of winners and losers can depend on how liberal or conservative a given Supreme Court justice is. It is even more disconcerting that doctrine can depend on judicial strategy. While disagreement on the bench can sometimes be attributed to sincere beliefs in different legal philosophies rather than crude ideological differences, strategic incentives that undercut such sincere choices undermine even that defense.

Future work might explore other forms of legal rules (e.g., other kind of balancing tests, purely conjunctive or disjunctive rules, higher dimensional rules) and the tradeoffs between them; analyze the tradeoff between establishing a rule now and hearing further cases later; analyze tradeoffs given different utility functions for case decisions or different distributions

of likely cases; and explore how decision transparency is achieved and how opinion content affects compliance, specifically how endogenous investment in opinion quality might work. Models of collegial bargaining also might be extended to deal with doctrinal choice.

I have set aside incentives to give lower courts discretion, such as making use of lower court expertise and the like. Future work might explore how doctrine might be chosen to pursue such goals, and for those questions models from the congressional/delegations literatures might also be useful. Indeed, the rules/standards model shares some insights with the traditional delegation literature, which tends to focus on congressional and bureaucratic institutions (e.g., Kiewiet and McCubbins 1991; Epstein and O'Halloran 1999). For example, the connection between doctrinal choice and intra-hierarchy conflict resembles the "ally principle" in standard delegation models (one gives more discretion to those with similar preferences). These analogies might be explored in future work, applying the model herein to those contexts to the extent that legislatures and bureaucracies also enact preferences by constructing rules for dividing up the space of possible actions into permissible and impermissible. Furthermore, the model herein might be extended to investigate other aspects of the principal-agent relationship flagged in the literature on congress, etc. For example, is doctrine chosen so as to maximize case outcomes given the current configuration of the lower courts or should the Supreme Court worry about future configurations as well? Should they "lock in" doctrine now? And, how do expectations about the future stream of cases affect doctrinal choice?

Next, this paper studied incentives for doctrinal choice in the context of vertical compliance, that is, compliance by lower court. However, to the extent that precedents bind future decisions at the same level, similar incentives might also exist horizontally, with standards leaving more room for future flexibility that a bright line rule might prevent. Expectations of membership change and loss of future political control could then induce bright-line rules now.

While the main point of this paper is to argue for the existence of strong incentives for doctrinal choice, future work could extend this analysis to data-ready predictions. Thinking about doctrine, of course, would also require thinking about new ways to measure legal preferences and output empirically, going beyond unidimensional ideal points or the percentage of votes cast in the liberal direction. One possibility is the "classification trees" method (Kastel-

lec 2009). Other promising possibilities for empirically measuring legal policy include citation analysis or opinion-content analysis (McGuire and Vanberg 2005; Hall and Wright 2006)

The findings in this paper might also inform future empirical tests of compliance. Much as Staton and Vanberg (2008) argue that strategic vagueness can undercut straightforward separation-of-powers tests, strategic doctrinal choice aimed at hierarchical compliance might undercut empirical analysis if not properly incorporated into the predictions being tested.

Appendix: Formal Proofs

The variables in the formal model are as follows: a – sensitivity to the subjective factual dimension (the slope parameter, capturing the trade-off between the two dimensions); s – salience of the issue area; v – lack of transparency (higher values of v mean a wider troublesome range); p – likelihood of a hostile lower court or an erroneous lower court decision; and c – cost weight for the issue area. For any value of x , there is some interior value of y that yields a Yes disposition. This requires $b \leq 1$ and $0 \leq a \leq b$, so that we have the configuration shown in Figure 2a, in which the rule does not intercept the x -axis.

Proof of Lemma 1. If \bar{y} is set above the upper limits or below the lower limits of \hat{y} , then the full region of area $\frac{a}{2}$ is lost yielding a payoff of $u = \frac{-sa^2}{4}$. Otherwise, the area is $\frac{1}{2}(b - \bar{y}) \left(\frac{b-\bar{y}}{a} \right) + \frac{1}{2} \left(1 - \frac{b-\bar{y}}{a} \right) (\bar{y} - (b - a))$. The payoff is then $u = \frac{-((a^2 - 2a(b-\bar{y}) + 2(b-\bar{y})^2)^2 s)}{4a^2}$ and $\frac{\partial u}{\partial \bar{y}} = \frac{-((2a - 4(b-\bar{y}))(a^2 - 2a(b-\bar{y}) + 2(b-\bar{y})^2) s)}{2a^2}$ so the maximum occurs at $\bar{y}^* = b - \frac{a}{2}$ (payoff $u^* = \frac{-sa^2}{16}$). \square

Proof of Proposition 2. The payoff using the bright-line rule $\left(\frac{-sa^2}{16} \right)$ is greater than that using the balancing test $\left(-spa^2 (2v - v^2)^2 \right)$ when $p > \frac{1}{16v^2(2-v)^2}$ which is equivalent to $v > 1 - \frac{1}{2} \sqrt{4 - \frac{1}{\sqrt{p}}}$. \square

Proof of Proposition 3. The balancing test payoff is $-ps(a(2v - v^2))^2 - c(1 - v)^4$, so that $\frac{\partial u}{\partial v} = -4(-1 + v) \left(c(-1 + v)^2 + a^2ps(-2 + v)v \right)$ which is zero at $v^* = 1 - \frac{psa}{\sqrt{ps(c+psa^2)}}$ (unique for interior v^*). The second derivative is $\frac{\partial^2 u}{\partial v^2} = -4 \left(3c(-1 + v)^2 + a^2ps(2 + 3(-2 + v)v) \right)$, which at v^* is $-8pa^2$, which is negative making v^* a maximum. \square

Proof of Corollary 4. The comparative statics follow from the partial derivatives and can be signed as follows: $\frac{\partial v^*}{\partial a} = -\left(c\sqrt{\frac{ps}{(c+psa^2)^3}}\right) < 0$; $\frac{\partial v^*}{\partial p} = -\frac{ac}{2}\sqrt{\frac{s}{p(c+psa^2)^3}} < 0$;
 $\frac{\partial v^*}{\partial s} = -\frac{ac}{2}\sqrt{\frac{p}{s(c+psa^2)^3}} < 0$; and $\frac{\partial v^*}{\partial c} = \frac{as^2p^2}{2(sp(c+spa^2))^{\frac{3}{2}}} > 0$. □

Proof of Proposition 5. The payoff using the bright-line rule $\left(\frac{-sa^2}{16}\right)$ is greater than that using the bright-line rule $\left(\frac{-cpsa^2}{c+spa^2}\right)$ when $c + psa^2 < 16cp$. If $p < \frac{1}{16}$, then this cannot occur for positive values of the parameters, but otherwise it holds when $c > \frac{psa^2}{16p-1}$. □

Proof of Corollary 6. If c is higher, the condition is directly easier to satisfy. Otherwise, the partial derivative of the right-hand side of the condition on cost $\left(c > \frac{psa^2}{16p-1}\right)$ generate the comparative statics (assuming $p > \frac{1}{16}$): $\frac{\partial}{\partial a} = \frac{2spa}{16p-1} > 0$, $\frac{\partial}{\partial p} = \frac{-sa^2}{(16p-1)^2} < 0$, and $\frac{\partial}{\partial s} = \frac{pa^2}{16p-1} > 0$. The boundary on c for a bright-line rule is thus higher for higher a , lower p , and higher s , each of which make the balancing test more attractive. □

Proof of Corollaries 7, 8, 9, 10, and 11. These follow from Proposition 2 through Corollary 6, given fixed $p = \frac{1}{2}$. □

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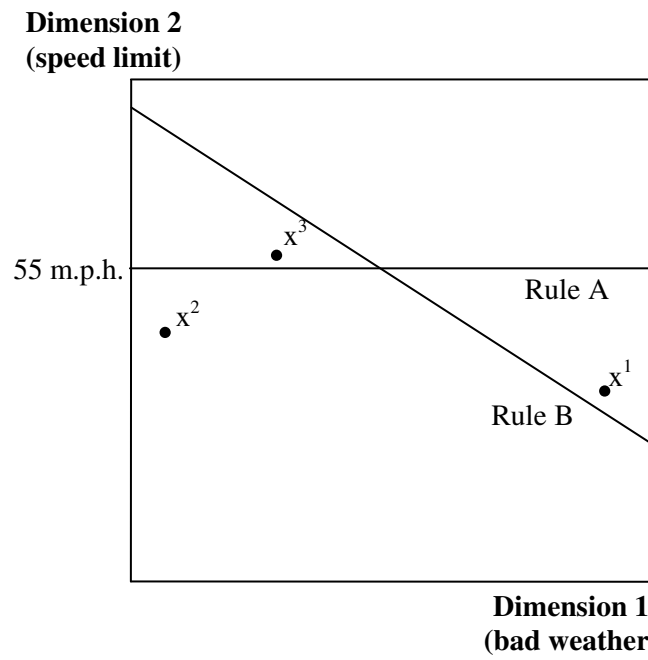
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Figure 1: Cases, Bright-Line Rules, and Balancing Tests



Rule A is a constant bright-line rule (a fixed speed limit). Rule B is a balancing test (the speed limit depends on the severity of weather conditions).

Figure 2a: Losses using a Bright-Line Rule

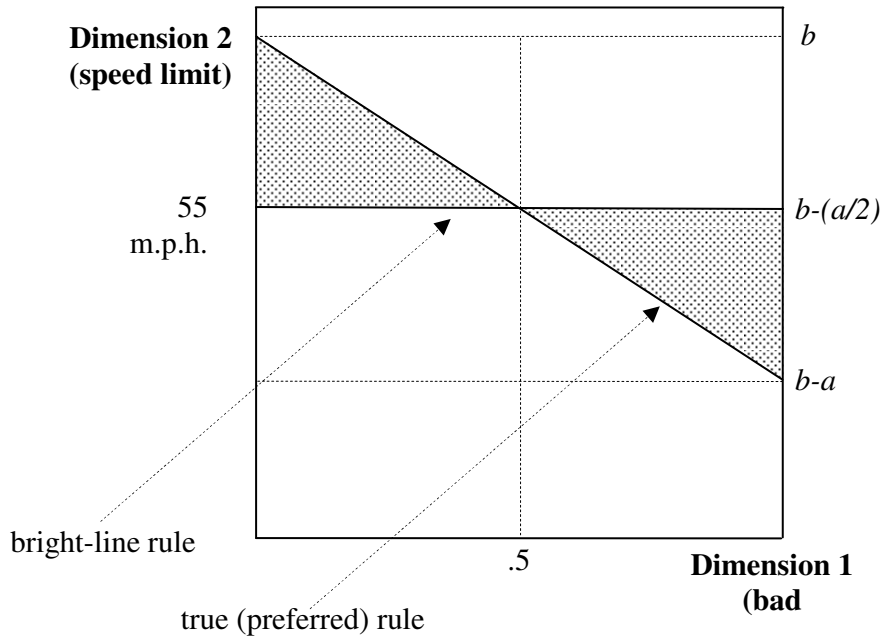
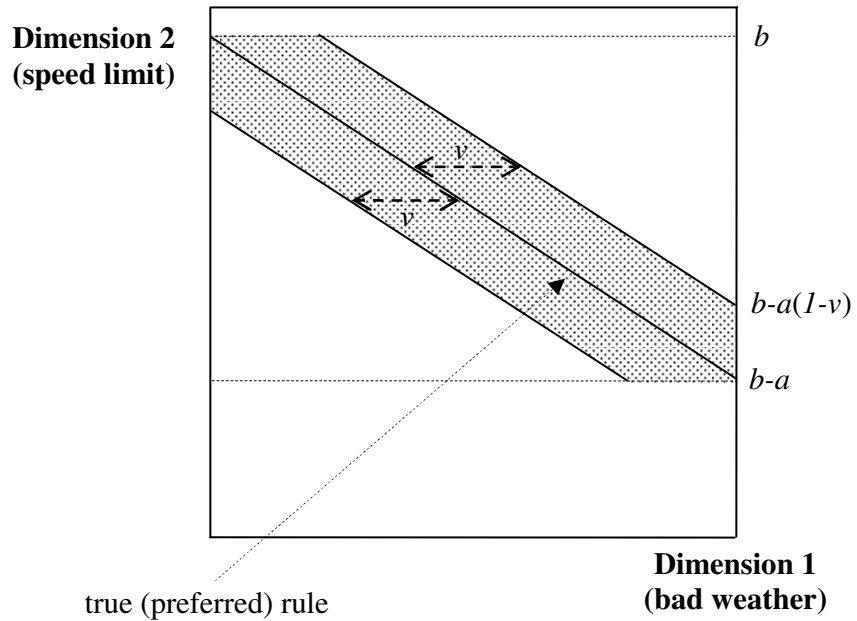
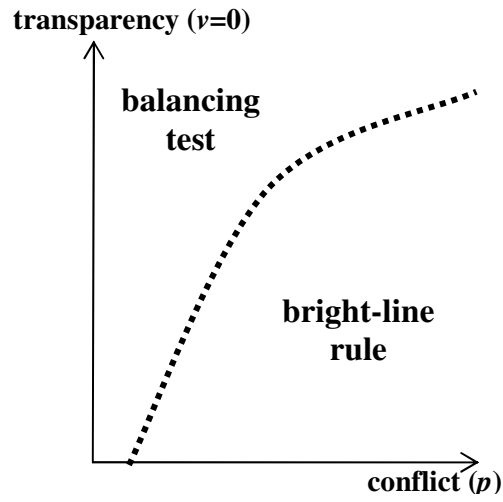


Figure 2b: Losses using a Balancing Test/Standard



In the top panel, the shaded regions shows the cases decided incorrectly (due to under-inclusion and over-inclusion respectively) if the (optimal) bright-line rule is used instead of the true preferred rule. In the bottom panel, the shaded regions can represent either the cases in which lower courts can potentially hide non-compliance (v captures the potential amount of manipulability) or those cases that are subject to error due to imprecision of doctrinal specification.

Figure 3: Exogenous Transparency and Doctrinal Choice



The dotted line shows the division between choosing a bright-line rule versus the balancing test, with higher v denoting lower transparency and p denoting the hostility of lower courts.

Figure 4a: Optimal Transparency

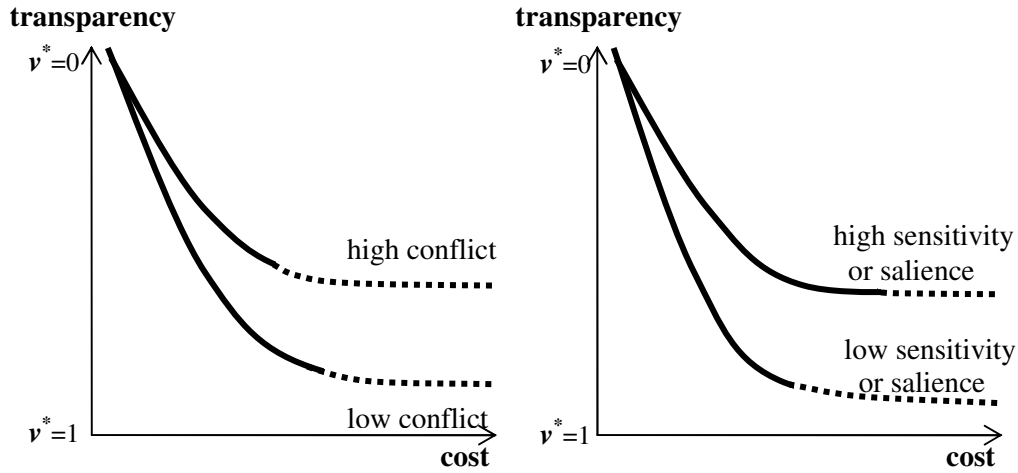
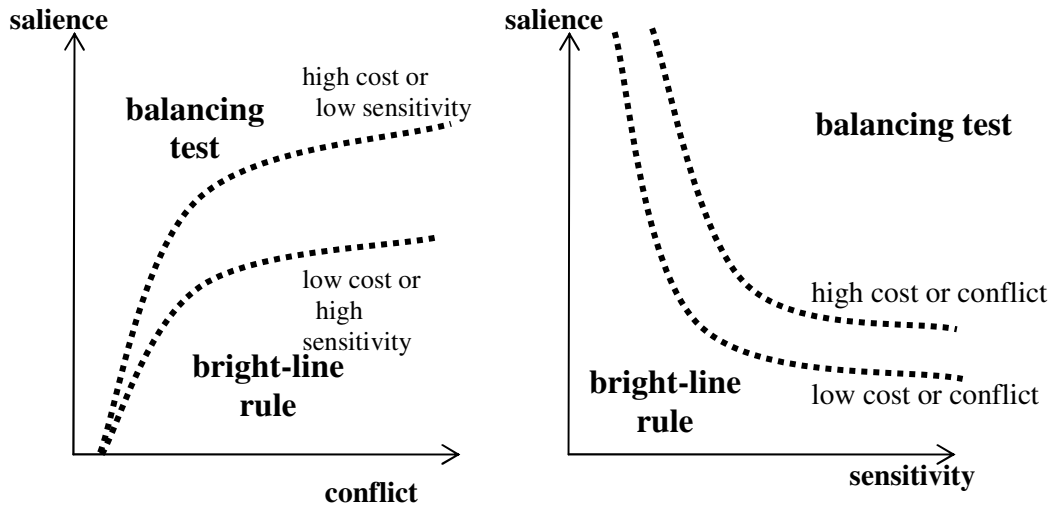
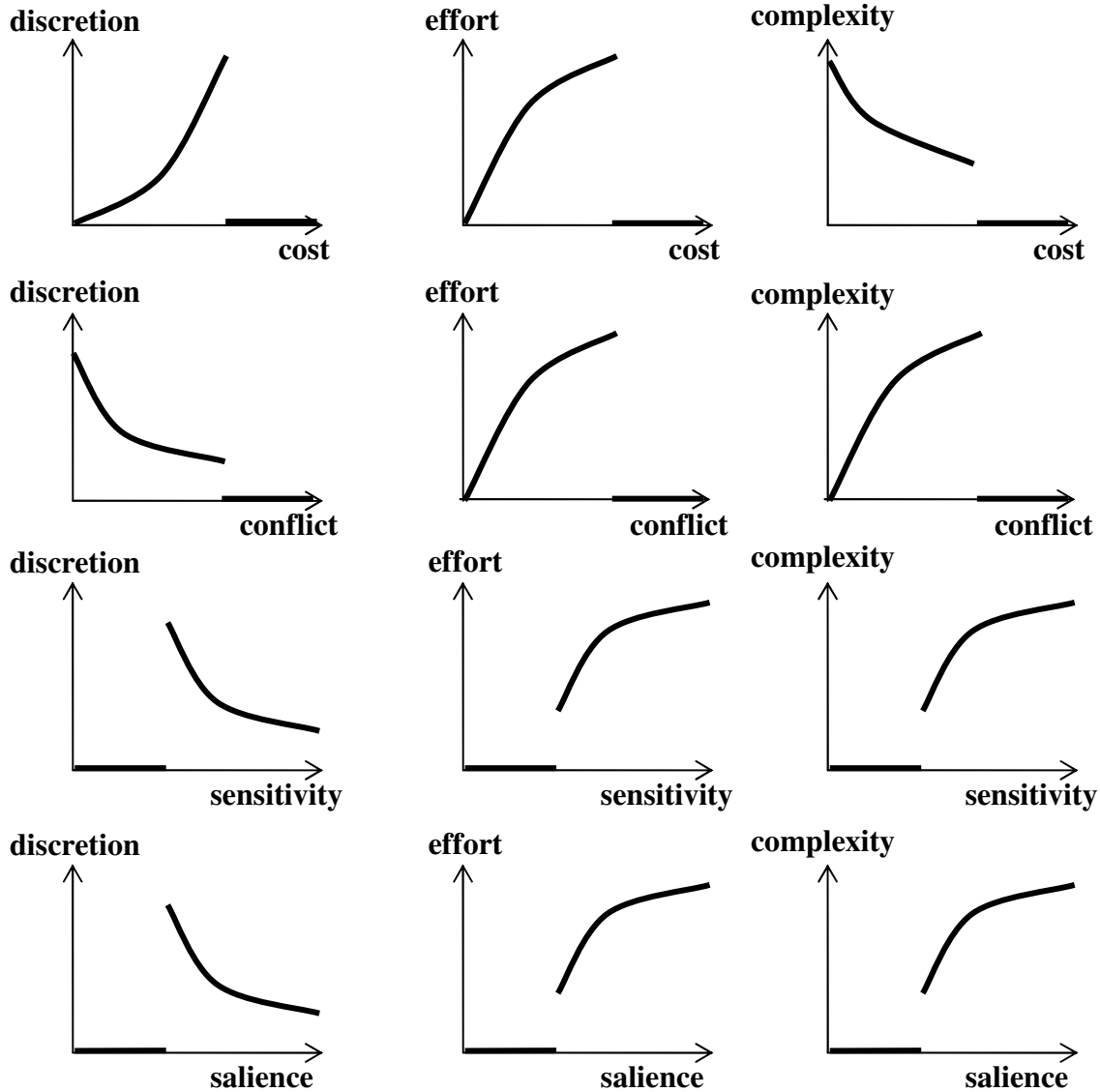


Figure 4b: Doctrinal Choice given Optimal Transparency



The top panels show the optimal level of transparency the Court will invest in, for various levels of conflict or sensitivity (to the subjective dimension), given the cost of increasing transparency (lowering v). As conflict increases or as sensitivity increases, the curve shifts upward, lowering v and increasing optimal transparency. The dotted portion of the curves show the region where the cost is so high that the Court should instead choose a bright-line rule instead of the balancing test (with this optimal degree of transparency). Unlike the effect on optimal transparency, the two parameters have opposite effect. High conflict shifts this cut-off leftward (extending the region in which a bright-line rule is chosen), but high sensitivity shifts this cut-off rightward (shrinking the region in which a bright-line rule is chosen). The bottom panels show two perspectives on the optimal choice of doctrine is shown given the tradeoff between cost, salience, sensitivity, and conflict. In the left panel, the salience and sensitivity labels could be swapped to see yet another perspective.

Figure 5: Comparative Statics--Residual Discretion, Effort, and Complexity



These curves show, for optimal doctrinal choice, the relationship between the parameters of the model (cost, conflict, sensitivity, and salience) and three quantities of interest—the amount of residual discretion lower courts will possess, the amount of effort the higher court will invest in crafting the doctrine, and the complexity of the doctrine announced (reduction of the troublesome region under a standard, zero for the bright-line rule).

Figure 6a: Optimal Precision of the Balancing Test

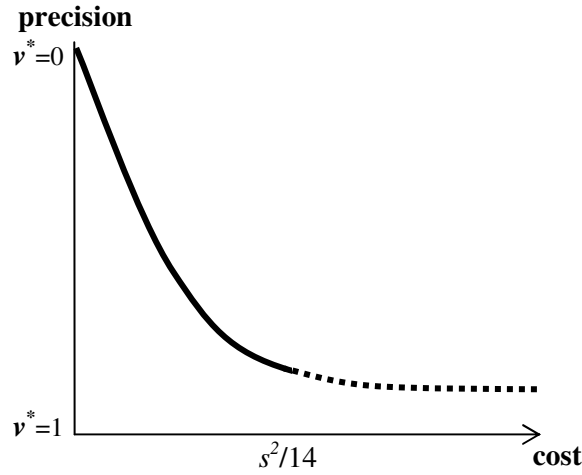
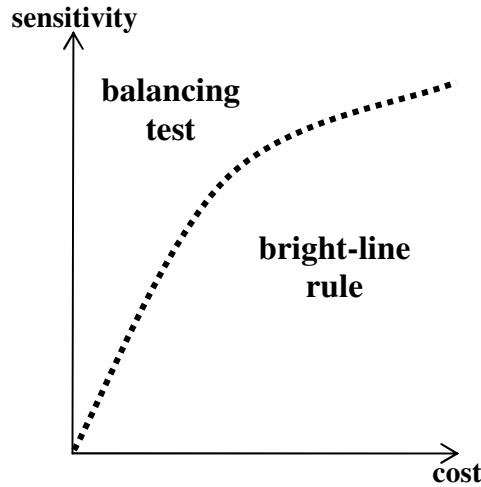


Figure 6b: Doctrinal Choice given Optimal Precision



The top panel shows the optimal level of precision of the balancing test given the cost c of increasing precision (reducing v). The curve is solid where the balancing test would be chosen and dotted where the bright-line rule would be superior to the balancing test with optimal precision. This occurs once the cost is sufficiently high, relative to the sensitivity to the subjective factual dimension. In the bottom panel, the optimal choice of doctrine is shown given values of sensitivity (s) and cost (c), with the bright-line rule optimal below the line (where the cost of precision is high and sensitivity to the subjective dimension low) and the balancing test optimal above (where the cost is low and sensitivity high).