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Case-By-Case Adjudication and the Path of the Law

Anthony Niblett

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How can a centrist president or governor best influence law through the appointment of judges? Imagine that there are two sitting judges and one of the positions becomes vacant. The other, veteran judge is on the extreme right, from the perspective of the executive, and the executive prefers centrist outcomes. Should the executive appoint a centrist or, instead, appoint a left-wing extremist who might offset the sitting, right-wing judge? Conventional wisdom holds that judges counteract, or balance, one another; that is, a left-wing appointment carries the best hope offsetting the existing, right-wing judge. Following this intuition, a moderate appointment would simply cause judicial outcomes to converge to a rule about halfway between the moderate and the right-wing position. There is, however, good reason to think that this conventional wisdom is misguided and that extremists do not necessarily offset one another.

We have strong intuitions that the views of judges balance one another. Our intuitions suggest that the path of the law takes the middle ground if judges are selected to offset one another. Our intuitions suggest that this balancing is likely to be stronger when judges decide cases narrowly, in a case by case manner, because the views of all judges are more likely to be heard. In this paper, I suggest that our intuitions, however strong, may not necessarily be correct. I illustrate, using a model of case-by-case adjudication, that the law will not likely reflect the middle ground between judges' different viewpoints. When judges are randomly selected to hear disputes—in, for example, federal courts of appeals—the law disproportionately reflects the biases of judges who are chosen to decide cases of first impression or cases of early impression. Even when judges decide cases narrowly, path dependence in judge-made law likely generates rules that do not reflect a compromise between the different views of judges.

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"*The eccentricities of judges balance one another.*"
Benjamin N. Cardozo[1]

"Things fall apart. The center cannot hold."
William Butler Yeats[2]

INTRODUCTION

How can a centrist president or governor best influence law through the appointment of judges? Imagine that there are two sitting judges and one of the positions becomes vacant. The other, veteran judge is on the extreme right, from the perspective of the executive, and the executive prefers centrist outcomes. Should the executive appoint a centrist or, instead, appoint a left-wing extremist who might offset the sitting, right-wing judge?

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This paper investigates the legal rules that emerge when judges with different policy preferences decide a sequence of cases.[3] I present a theoretical model of judging that challenges the conventional wisdom that the policy preferences of two extreme judges will offset each other. This paper suggests that the law will

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[1] BENJAMIN N. CARDOZO, THE NATURE OF THE JUDICIAL PROCESS, 177 (1921).

[2] WILLIAM BUTLER YEATS, *The Second Coming*, *in* MICHAEL ROBARTES AND THE DANCER § 12 (1921).

[3] The "attitudinal" model of judicial behavior, which claims that judicial decisions are best explained by policy preferences has been discussed in academic works too numerous to cite here. An excellent summary of this literature on the attitudinal model can be found in RICHARD A. POSNER, HOW JUDGES THINK § 2 (2008). *See also, infra* note 16.

disproportionately reflect either of the two extremes, rather than a moderate view that represents a compromise between the two extremes. That is: the center cannot hold. Or, to be more accurate, the center is far less likely to hold than the extremes. My model suggests there is good reason for a moderate appointer to prefer a bench with one moderate judge and one extremist judge, rather than a bench with two extremist judges at opposite ends of the spectrum.

Our intuitions about the balancing, compensating, and moderating effects of extreme judges at opposite poles are reflected in, at least, two broad areas of scholarship in the social sciences. The first intuition suggests that two extreme judges on the same panel will be forced to moderate their extreme views.[4] This scholarship essentially suggests that the rules created by courts are somewhat akin to rules created by legislatures; a group comes together to decide an outcome. Statutes enacted by a legislative body with heterogeneous voters often do not reflect the views of extreme voters, but rather reflect the views of the median voter.[5] The content of the law is, thus, a reflection of persuasion and bargaining amongst the different groups. This leads to a suggestion that moderate voting citizens, who are primarily concerned about the content of legislation, will prefer to vote for extreme parties to offset other voters' biases.[6] Similarly, appellate judges often decide cases in panels; the decisions

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[4] *See, e.g.*, Harry T. Edwards, *The Effects of Collegiality on Judicial Decision-Making*, 151 U. PA. L. REV. 1639 (2003) (arguing that then-Judge Cardozo's quote, *supra* note 1, primarily refers to the effects of collegiality and panels leading to greater balance between differing viewpoints on the bench).

[5] On the median voter theorem, *see e.g.*, the seminal work of Duncan Black, *On the Rationale of Group Decision-Making*, 56 J. OF POL. ECON. 23 (1948). *See also*, ANTHONY DOWNS, AN ECONOMIC THEORY OF DEMOCRACY (1957)*;* and Andrew Caplin & Barry Nalebuff, *Aggregation and Social Choice: A Mean Voter Theorem*, 59 ECONOMETRICA 1 (1991) (providing a multi-dimensional analog to the median voter result).

[6] *See, e.g.*, Orit Kedar, *When Moderate Voters Prefer Extreme Parties: Policy Balancing in Parliamentary Elections*, 99 AM. POL. SCI. REV. 185 (2005). *See e.g.*, Stuart Elaine Macdonald, Ola Listhaug, & George Rabinowitz, *Issues and Party Support in Multiparty Systems*, 85 AM. POL. SCI. REV. 1107 (1991); and Stuart Elaine Macdonald, George Rabinowitz, & Ola Listhaug, *Sophistry versus Science: On Further Efforts to Rehabilitate the Proximity Model*, 63 J. OF POL. 482 (2001).

in individual cases may be a reflection of the bargaining amongst judges with different views.[7] A series of empirical papers have shown that the ideological composition of panels can impact the decision.[8] One of the major findings is that there is a moderating effect of panels; a Democrat-appointee may vote differently depending on whether the other two judges on the panel are Republican-appointees or Democrat-appointees, for example.[9]

A second intuition about balance, compensation, and moderation in the judiciary is reflected in theoretical literature of law and economics scholars. Focusing almost exclusively on rulings by single judges—thereby bracketing the important panel effects—theoretical law and economists have suggested that common law

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[7] POSNER, *supra* note 3, 31-35, refers to this literature as fitting within the "sociological theory of judicial behavior." See also, Edward Schwartz, *Policy, Precedent, and Power: A Positive Theory of Supreme Court Decision-Making*, 8 J. L. ECON & ORG. 219 (1992); *Lewis A. Kornhauser, Modeling Collegial Courts, II: Legal Doctrine*, 8 J. L. ECON & ORG. 441 (1992); Jeffrey Lax & Charles Cameron, *Bargaining and Opinion Assignment on the U.S. Supreme Court*, 23 J. L. ECON & ORG. 276 (2007); Gregory Caldeira, John Wright, & Christopher Zorn (1999), *Sophisticated Voting and Gatekeeping in the Supreme Court*, 15 J. L. ECON & ORG. 549 (1999). Frank Easterbrook suggests that problems of the Arrow Impossibility theorem apply to the decisions of the multi-judge panels. *See* Frank H. Easterbrook, *Ways of Criticizing the Court*, 95 HARV. L. REV. 802 (1992) discussing Kenneth J. Arrow, *A Difficulty in the Concept of Social Welfare*, 58 J. OF POL. ECON. 328 (1950). See also, Frank H. Easterbrook, *The Supreme Court, 1983 Term, Foreword: The Court and the Economic System*, 98 HARV. L. REV. 4 (1984). See also, Lewis A. Kornhauser & Lawrence Sager, *Unpacking the Court*, 96 YALE L. J. 82 (1986) (arguing that such cycling may not be such a problem, but multi-judge panels may not satisfy community principles of coherency.)

[8] *See, generally*, Matthew C. Stephenson, *Statutory Interpretation by Administrative Agencies*, *in* RESEARCH HANDBOOK IN PUBLIC LAW AND PUBLIC CHOICE (Dan Farber & Anne Joseph O.Connell, eds., 2009), at 47; Nancy Maveety, *The Study of Judicial Behavior and the Discipline of Political Science*, *in* THE PIONEERS OF JUDICIAL BEHAVIOR 1 (Nancy Maveety, ed., 2005).

[9] See e.g., Richard L. Revesz, *Eniveronmental Regulation, Ideology, and the D.C. Circuit*, 83 VA. L. REV. 1717 (1997); Frank B. Cross & Emerson H. Tiller, *Judicial Partisanship and Obedience to Legal Doctrine: Whistleblowing on the Federal Courts of Appeals*, 107 YALE L. J. 2155 (1998); Thomas J. Miles & Cass R. Sunstein, *The Real World of Arbitrariness Review*, 75 U. CHI. L. REV. 761 (2008); Thomas J. Miles & Cass R. Sunstein, *The New Legal Realism*, 75 U. CHI. L. REV. 831 (2008); CASS R. SUNSTEIN, DAVID SCHKADE, LISA M. ELLMAN, AND ANDRES SAWICKI, ARE JUDGES POLITICAL? AN EMPIRICAL ANALYSIS OF THE FEDERAL JUDICIARY (2006).

rules are the result of a decentralized and sequential evolutionary process that involves over-ruling and distinguishing rules. These theories predict convergence to a legal rule. Such theories hinge on judges having the power to weaken the value of precedents that are either inefficient or precedents with which they disagree.

A wave of theoretical literature in law and economics in the late 1970s and early 1980s sought to explain why the common law may generate more efficient rules than the legislature.[10] Various explanations were proffered, such as judges having preferences for efficiency,[11] incremental improvements in the informational content of the law,[12] and litigant behavior.[13] More recently, researchers have

[10] See generally, Paul Rubin, *Judge-Made Law, in* ENCYCLOPEDIA OF LAW AND ECONOMICS (Boudewijn Bouckaert & Gerrit de Geest, eds. 2000); Lewis A. Kornhauser, *A Guide to the Perplexed Claims of Efficiency in the Law*, 8 HOFSTRA L. REV. 591 (1980); ALLAN C. HUTCHINSON, EVOLUTION AND THE COMMON LAW (2005); FRANCSICO PARISI & VINCY FON, SOURCES OF LAW: THE ECONOMICS OF LAWMAKING (2009).

[11] RICHARD A. POSNER, THE ECONOMIC ANALYSIS OF LAW (6th ed. 2003). *See e.g.,* 252, where Judge Posner argues that judges "cannot do much. . . to alter the slices of the pie that various groups in society receive, they might as well concentrate on increasing its size." An alternative explanation suggests that precedents alleviate judicial preferences for inefficient outcomes. *See*, Luca Anderlini, Leonardo Felli, & Alessandro Riboni, *Why Stare Decisis?* (May 2010) (unpublished manuscript available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1616708). The authors argue that judges are affected by a time-inconsistency problem that may lead to excessively lenient decisions. Judges, however, are incentivized toward making tougher, *ex ante* efficient, decisions because they take into account the fact that their decisions will bind courts in future cases.

[12] *See e.g.,* Robert Cooter, Lewis Kornhauser, & David Lane, *Liability Rules, Limited Information, and the Role of Precedent*, 10 BELL J. OF ECON. 366 (1979). More recently in this vein, *see* Scott Baker & Claudio Mezzetti, *A Theory of Rational Jurisprudence* (2010) (unpublished manuscript available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1697622). For an opposing view, suggesting that restricted information and precedent leads to inefficient rules, see Gillian K. Hadfield, *Bias in the Evolution of Legal Rules*, 80 GEO. L. J. 583 (1992).

[13] See e.g., Paul Rubin, *Why is the Common Law Efficient?* 6 J. OF LEGAL STUD. 51 (1977); George Priest, *The Common Law Process and the Selection of Efficient Rules*, 6 J. OF LEGAL STUD. 65 (1977); Robert Cooter & Lewis Kornhauser, *Can Litigation Improve the Law without the Help of Judges?* 9 J. OF LEGAL STUD. 139 (1980); John C. Goodman, *An Economic Theory of the Evolution*

investigated these evolutionary properties of case law when judges have heterogeneous preferences.[14] The assumption of heterogeneous judicial preferences follows the legal realism tradition that suggested personal biases of judges can influence the path of the law[15] and the vast empirical evidence that suggests judicial decisions are influenced by ideology.[16] Nicola Gennaioli and Andrei Shleifer show that when judges distinguish cases, the legal rules that emerge wash out judicial bias and provide greater precision in the law.[17] The authors call their central finding, the "Cardozo Theorem," in line with the aforementioned proposition that the eccentricities of the judges wash out.[18] Giacomo Ponzetto and Patricio Fernandez present a model

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of the Common Law, 7 J. OF LEGAL STUD. 235 (1979); R. Peter Terrebonne, *A Strictly Evolutionary Model of Common Law*, 10 J. OF LEGAL STUD. 397 (1981).

[14] *See, e.g.*, Nicola Gennaioli & Andrei Shleifer, *The Evolution of Common Law*, 115 J. OF POL. ECON. 43 (2007); and Giacomo A. M. Ponzetto & Patricio A. Fernandez, *Case Law versus Statute Law: An Evolutionary Comparison*, 37 J. OF LEGAL STUD. 379 (2008).

[15] *See, e.g.*, Oliver Wendell Holmes, Jr., *The Path of the Law*, 10 HARV. L. REV. 457 (1897); JEROME FRANK, LAW AND THE MODERN MIND (1930); Joseph C. Hutcheson, Jr., *The Judgment Intuitive: The Function of the "Hunch" in Judicial Decision*, 14 CORNELL L. Q. 274 (1929). *See, generally*, Brian Leiter, *Legal Realism*, *in* A COMPANION TO PHILOSOPHY OF LAW AND LEGAL THEORY (Dennis Patterson, ed., 1995) and references cited within. Following the legal realist tradition, political theorists began to suggest that private attitudes were becoming public law. *See, e.g.*, C. Herman Pritchett, *Divisions of Opinions Among Justices of the U.S. Supreme Court, 1939-1941*, 35 AM. POL. SCI. REV. 890 (1941).

[16] *See, e.g.*, Tracey George & Lee Epstein (1992), 'On the Nature of Supreme Court Decision-Making,' 86 AM. POL. SCI. REV. 323 (1992); SAUL BRENNER & HAROLD SPAETH, STARE INDECISIS: THE ALTERATION OF PRECEDENT ON THE SUPREME COURT, 1946-1992 (1995); Donald Songer & Stefanie Lindquist, *Not the Whole Story: The Impact of Justices' Values on Supreme Court Decision Making*, 40 AM. POL. SCI. REV. 1049 (1996); Jeffrey Segal & Harold Spaeth, *The Influence of Stare Decisis on the Votes of the United States Supreme Court Justices*, 40 AM. J. OF POL. SCI. 971 (1996); JEFFREY SEGAL & HAROLD SPAETH, THE SUPREME COURT AND THE ATTITUDINAL MODEL REVISITED (2002); Richard A. Posner, *The Supreme Court 2004 Term: A Political Court*, 119 HARV. L. REV. 31 (2005); THOMAS HANSFORD & JAMES SPRIGGS, III, THE POLITICS OF PRECEDENT ON THE U.S. SUPREME COURT (2006).

[17] Gennaioli & Shleifer, *supra* note 14.

[18] In another paper, Gennaioli and Shleifer find that when judges overrule precedent in a similar model, the evolutionary process is unstable, and case law is

where case law is shown to be a continuous and never-ending process of evolution with probabilistic convergence toward efficiency.[19] Ponzetto and Fernandez also find that the biases of the judges balance one another over time, consistent with the Cardozo Theorem.[20]

There is, however, a third avenue for the intuition of why extreme judges balance one another: judges only decide one case at a time and they often decide cases narrowly. Judges will often decide a presented case without venturing to pronounce a bright line rule that would determine the result in all future cases of the same kind. For example, when the Supreme Court took on the task of determining whether punitive damages awards were excessive, it declined to decide the case of first impression with a clear rule, but instead heard several cases over some years and determined from the facts of each case whether the award under review was acceptable or excessive. That is, law develops as a result of case-by-case adjudication in many spheres, rather than as a result of broad, sweeping legal rules, which are subsequently weakened by other judges. Legal rules often develop gradually, the culmination of a number of narrow decisions on point.[21]

Under a judicial system with case-by-case adjudication, we may intuit that legal rules will take into account the different

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not conducive to either convergence or efficiency. Nicola Gennaioli & Andrei Shleifer, *Overruling and the Instability of the Law*, 35 J. OF COMP. ECON. 309 (2007).

[19] Ponzetto & Fernandez, *supra* note 14.

[20] Note that the Cardozo Theorem, here, in this branch of theoretical law and economics is different to the view of Judge Cardozo's thesis expounded by Judge Harry Edwards, *supra* note 4. In the theoretical law and economics literature, the attrition of different views towards more moderate outcomes occurs over time and over the course of multiple, sequential decisions. In Edwards' view, the balancing occurs at the panel level.

[21] William Landes and Richard Posner have contended that the rule created by one decision will be narrow in scope and broader rules usually require a series of decisions. *See,* William M. Landes & Richard A. Posner, *Legal Precedent: A Theoretical and Empirical Analysis*, 19 J. L. & ECON. 249, 310 (1976): ("for it is only from a series of decisions, each determining the legal significance of a slightly different set of facts, that a rule applicable to a situation common or general enough to be likely to recur in the future can be inferred").

ideologies on the bench.[22] Unlike broad rules, a narrow decision of one judge has the effect of leaving parts of the law undetermined, affording judges of future cases greater discretion to affect the development of the law. For example, a judge who believes in states' rights may hold constitutional a state court's award of punitive damages that is four times the compensatory damages. In doing so, the judge may avoid issuing a bright-line rule. This would allow another judge with strong federal views to hold unconstitutional a punitive damages award that is twenty times the compensatory damages in a subsequent case. If judges at both ends of the ideological spectrum are afforded the opportunity to decide cases and adjudicate disputes, we intuit that the legal rule that is generated, over time and over many decisions, will reflect both these extreme viewpoints. That is, our intuitions suggest the law will balance and offset the eccentricities of the judges.

My model suggests that, under very reasonable and sensible assumptions, judge-made law will, however, not balance and will not offset judges' eccentricities. These findings are drawn from a very simple model illustrating how judge-made law evolves when judges with heterogeneous preferences decide cases narrowly.

I illustrate incremental change in law and case-by-case adjudication using a very simple example. Drivers may be held to be contributorily negligent in railroad crossing accidents, but the question of whether the driver was afforded the opportunity to stop or not will depend on how much of the track the driver could see as he approached the railroad crossing. A case with a random fact pattern comes before the court and a judge is randomly selected to decide the dispute. If the fact pattern does not fall within the ambit of a previously-decided case, the judge has discretion to decide in line with his or her own views. If a fact pattern does fall within the ambit of a previous decision, the judge acts consistently with the previous decision. Over time, as more cases are heard, judges are afforded less discretion, as they seek to act consistently with a larger body of previously-determined cases. Eventually, the law converges on a

[22] *See, e.g.*, CASS R. SUNSTEIN, ONE CASE AT A TIME: JUDICIAL MINIMALISM ON THE SUPREME COURT (2001).

bright-line legal rule.[23] But where will that bright-line rule be drawn if judges have different views?

The solution is neither intuitively obvious, nor mathematically obvious. Imagine there are two judges, one who is very pro-railroad and one who is very pro-driver, my model suggests that it is unlikely that the legal rule will represent a compromise of the two views. The bright-line rule is not likely to be found in the middle ground of the judges' respective ideal points. In fact, in my model, the midpoint of the judges' ideal points is the *least likely* outcome. Judges who decide early cases have a disproportionate influence on the direction of the law, since a precedent-based system of adjudication exhibits strong path dependence. The bottom line is judges' biases do not necessarily counteract or balance one another.

Case-by-case adjudication is a key feature of our court system. It distinguishes the role of judges from other rule-makers in our legal system. This phenomenon has, however, received relatively little attention from economists and political scientists. Previous attempts to model legal evolution in law and economics have largely focused

[23] My model illustrates the situation of a standard hardening to a rule. This is consistent with the thinking of Oliver Wendell Holmes, H.L.A. Hart, and Richard Posner, among many others, who have suggested that standards evolve into rules over time if the courts act consistently with previously-decided cases. *See*, OLIVER WENDELL HOLMES, JR., THE COMMON LAW (1881)*;* H.L.A. HART, THE CONCEPT OF LAW 129 (1961); POSNER, *supra* note 11, 539; and Isaac Ehrlich & Richard Posner, *An Economic Analysis of Legal Rulemaking*, 3 J. OF LEGAL STUD. 257 (1974). *See also*, Louis Kaplow, *Rules versus Standards: An Economic Analysis*, 42 DUKE L. J. 557 (1992). More recently, scholars have suggested a less stable evolution of standards and rules. Jason Johnston and Adrian Vermuele have separately argued that there may be cycling between standards and rules. Standards may harden into rules if judges follow precedent, but may soften once again into a standard if, for example, judges disagree with the inflexibility that rules offer. *See*, Jason Scott Johnston, *Uncertainty, Chaos, and the Torts Process: An Economic Analysis of Legal Form*, 76 CORNELL L. REV. 341 (1991); Adrian Vermeule, *The Cycles of Statutory Interpretation*, 68 U. CHI. L. REV. 149 (2001). Frederick Schauer has suggested a different form of convergence, arguing that while standards concretize to rules, rules may become more standard-like over time. See Frederick Schauer, *The Convergence of Rules and Standards*, NEW ZEALAND L. REV. 303 [2003]. In my model, judges adhere to precedent and, over time, the law becomes less uncertain and the standard hardens to a rule. My model goes a step further and describes the content of this legal rule.

on situations where judges issue threshold rules when deciding cases. In these models, the facts of specific cases that come before the court are unimportant to the development of law.[24] My model departs from the literature on this point. Judges in my model do not set broad rules. Other law and economics scholars have examined rule-making as a result of the process of adjudication.[25] The paper that is perhaps most closely related to the model in this paper is Lewis Kornhauser's article exploring the property of path dependence in judge-made law.[26] I adopt many of the assumptions in Kornhauser's paper, such as dichotomous decisions and respect for the results of precedent. My model goes a step further and explicitly shows *where* the line of liability will be drawn and shows that this line of liability is unlikely to reflect a compromise between the two extremes.

There are, of course, limitations to the model. As with any model—and, indeed, with any hypothetical situation posed by legal academics—not all real world features can be captured. Nor should they be, for they would merely distract and detract from the key message. As with any model, the architect is merely attempting to capture the essence of the real world. The key question is: does the model capture the *essence* of case-by-case adjudication? I believe it does.

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[24] In a recent paper, Baker & Mezzetti, cited above in note 12, model a situation where the facts of the case are important to the development of the law. Glenn Ellison & Richard Holden model a situation where a rule is generated when a principal instructs an agent on how best to respond to idiosyncratic situations. An analogy can be drawn between these idiosyncratic situations and the facts of cases. *See*, Glenn Ellison & Richard Holden, *A Theory of Rule Development* (May 2008) (unpublished manuscript available at: http://faculty.chicagobooth.edu/richard. holden /papers/rules.pdf).

[25] William M. Landes & Richard A. Posner, *Adjudication as a Private Good*, 8 J. OF LEGAL STUD. 235 (1979). William M. Landes, *An Economic Analysis of the Courts*, 14 J. L. & ECON. 61 (1971); Lewis A. Kornhauser (1989), *An Economic Perspective on Stare Decisis*, 65 CHI.-KENT L. REV. 63 (1989).

[26] Lewis A. Kornhauser, *Modeling Collegial Courts, I: Path-Dependence*, 12 INT'L REV. OF L. & ECON. 169 (1992) (illustrating the decentralized nature of the common law in a system where judges do not issue broad rulings, but rather resolve the disputes before them.) On path dependence, *see also*: Oona A. Hathaway, *Path Dependence in the Law: The Course and Pattern of Legal Change in a Common Law System*, 86 IOWA L. REV. 601 (2001); and Alec Stone Sweet, *Path Dependence, Precedent, and Judicial Power*, *in* ON LAW, POLITICS, AND JUDICIALIZATION 112 (Martin Shapiro & Alec Stone Sweet, eds., 2002).

The model itself is a stand-alone contribution to the emerging literature on judicial decision-making that seeks to describe the content of law. The key finding of the model, showing that the case law does a poor job of finding the middle ground of judges' preferences, can be applied to other debates in legal scholarship. In this paper, I use the key finding to explore judicial appointments. I challenge the conventional wisdom that "balancing" an appellate court through appointments of extreme judges will wash away the biases of currently-sitting judges, with extreme views on the opposite side of the ledger. This conventional wisdom suggests that a centrist appointer who prefers moderate legal rules can offset the biases of extreme judges by appointing equally extreme judges in the opposite direction. For example, Democratic senator Charles E. Schumer contended in 2004 that Democrats should be willing to give more leeway to George W. Bush's conservative nominees to the Ninth Circuit in order to redress a perceived liberal imbalance on the court: "I am ready and willing to support the appointment of conservatives to this court. While it's gotten more conservative of late, it's still the most liberal court in the country, it's still out of balance, and it still needs some evening out."[27]

My model suggests that the appointment of putatively "offsetting" extreme judges leads, disproportionately, to extreme laws. Indeed, this lack of balancing suggests it may be preferrable for a moderate appointer to appoint moderate judges even when extreme judges tilt the bench in one direction or the other; the likelihood of a centrist law is greatly enhanced. That is, my model suggests good reasons why a moderate appointer would prefer to have a moderate judge and one extremist in one direction, rather than two extremists at opposite ends of the spectrum.

The intuition underlying this appointment story is akin to asking whether you prefer your office to be twenty degrees too cold with fifty per cent probability, and twenty degrees too hot with fifty per cent probability; or would you prefer your office to twenty degrees too cold with fifty per cent probability, and the perfect temperature with fifty per cent probability? In the former case, the

[27] Press Release, Charles E. Schumer, Senator for New York, *Remarks on the Nomination of William Myers to the 9th Circuit Court of Appeals*, (April 1, 2004).

expected temperature is perfect, but the variance is high. For the latter, the likelihood of getting the right temperature is greater. The intuition is the same in the judicial appointment example: the likelihood of rules reflecting the moderate outcome is low when appointing offsetting extremists, even if the expected legal rule is moderate, the variance is very high. The likelihood of a moderate legal rule is far greater if a moderate judge is appointed.

This result highlights a key difference between the appointment of judges to the bench and the election of politicians to a legislature. Political scientists suggest that if a moderate citizen is concerned with outcomes—that is, the content of legislation—they should vote for extreme politicians to offset other voters' biases.[28] Here, I suggest that moderate executives, concerned about outcomes, should appoint moderate judges. Attempting to offset may be misguided. The difference is driven by the random selection of judges, who deliver sequential opinions. Judges who are randomly chosen to hear early cases have a strong influence on the path of the law. Unlike legislation, judge-made laws are highly unlikely to reflect the expected legal rule.

The remainder of the paper is structured as follows. Section I provides motivating examples, illustrating how case law evolves when judges decide cases narrowly. Section II describes how the model operates and outlines the solution to the model. Section III uses the key finding of the model to analyze judicial appointments. Qualifications of the model and some limitations are discussed here. A final section concludes and suggests further applications of this model and future avenues of research.

I. ILLUSTRATIVE EXAMPLES OF CASE-BY-CASE ADJUDICATION

A. Grossly excessive punitive damages

In this section, I present stylized examples illustrating how case law evolves from standards toward rules when adjudication

[28] *See* references, *supra* note 6.

occurs case by case and judicial decisions are consistent. The first example looks at how the Supreme Court of the United States has determined whether punitive damages awards by state courts are excessive, violating the due process clause of the Constitution. A state court's award of punitive damages is deemed unconstitutional if it is too high, and not in proportion with the actual damage or potential damage caused by the defendant.[29] The Supreme Court has emphasized that it would not provide an explicit threshold rule, stating, "[w]e need not, and indeed we cannot, draw a mathematical bright line between the constitutionally acceptable and the constitutionally unacceptable that would fit every case."[30] The court instead has decided to provide a standard, resolving disputes case-by-case. Whether or not an award of punitive damages is "grossly excessive" is informed, in part, by looking at the ratio of punitive damages to the harm caused by the defendant. This ratio is not the only factor that the court looks at. The court also takes into account the aggravating behavior of the defendant and other civil and criminal penalties in similar areas of law and similar jurisdictions.[31] By simply isolating the ratio of punitive damages to harm, however, we can learn a great deal about how the law evolves when courts interpret cases narrowly. Before the first case on point, it was unclear to state courts what levels of punitive damages would be deemed excessive. What ratio would be acceptable? What ratio would be deemed unacceptable?

In the 1991 case of *Pacific Mutual Life Insurance Co. v. Haslip*,[32] the majority of the court decided that a punitive damages award of $840,000 against an insurance company was not excessive when the actual compensatory damages were $200,000. Justice Blackmun wrote the main opinion stating: "We are aware that the punitive damages award in this case is more than 4 times the amount

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[29] In Browning-Ferris Inds of Vermont, Inc. v. Kelco Disposal, Inc., 492 U.S. 257 (1989), the Supreme Court held that punitive damages that were over 100 times the compensatory damages did not violate the Eighth Amendment. The appellant did not raise the due process argument before the District Court or the Court of Appeals.

[30] *See e.g.*, Pacific Mut. Life Ins. Co. v. Haslip, 499 U.S. 1, 18 (1991).

[31] B.M.W., Inc. v Gore, 517 U.S. 559 (1996).

[32] Pacific Mut. Life Ins. Co. v. Haslip, 499 U.S. 1 (1991).

of compensatory damages, is more than 200 times the out-of-pocket expenses of [the plaintiff], and, of course, is much in excess of the fine that could be imposed for insurance fraud [under Alabama legislation.]"[33] He concluded: "While the monetary comparisons are wide and indeed, may be close to the line, the award here did not lack objective criteria. We conclude, after careful consideration, that in this case it does not cross the line into the area of impropriety."[34]

In the next case in the sequence, *TXO Production Corp. v. Alliance Resource Corp.,*[35] the majority found the ratio of punitive damage to the potential damage that could have been caused by the defendant's behavior may have been less than two-to-one, but could be as high as ten-to-one.[36] Justice Stevens, writing the lead opinion, wrote that *if* the ratio were as high as ten-to-one, the punitive damages award in this case would not "jar one's constitutional sensibilities."[37]

In 1996, the Supreme Court decided *B.M.W., Inc. v. Gore.*[38] In that case, a car dealership was found to have caused $4,000 worth of damage to a buyer by repainting a car that was damaged pre-delivery and selling the car as new. The jury awarded $4 million in punitive damages which was later reduced by the state appellate court in Alabama to $2 million. The Supreme Court distinguished this case

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[33] 499 U.S. at 23.

[34] 499 U.S. at 23-24.

[35] TXO Prod. Corp. v. Alliance Resource Corp., 509 U.S. 443 (1993).

[36] The compensatory damages in this case were only $ 19,000 while the punitive damages award was $ 10 million. "While petitioner stresses the shocking disparity between the punitive award and the compensatory award, that shock dissipates when one considers the potential loss to respondents, in terms of reduced or eliminated royalties payments, had petitioner succeeded in its illicit scheme. Thus, even if the actual value of the 'potential harm' is not between $ 5 million and $ 8.3 million, but is closer to $ 4 million, or $ 2 million, or even $ 1 million, the disparity between the punitive award and the potential harm does not, in our view, 'jar one's constitutional sensibilities." See 509 U.S. at 462 (*per* Justice Stevens, citing *Haslip*, 499 U.S. at 18.)

[37] *Ibid*. (my emphasis). Justice Stevens emphasized the reprehensible and malicious behavior of the defendant in this case, suggesting that not all punitive damages awards that are ten times the potential damage caused by the defendant would be deemed constitutionally acceptance.

[38] B.M.W., Inc. v. Gore, 517 U.S. 559 (1996).

from the previous two, holding that the ratio of 500-to-one was grossly excessive. Justice Stevens noted: "When the ratio is a breathtaking 500 to 1. . . the award must surely 'raise a suspicious judicial eyebrow.'"[39] The majority held that the defendant did not behave in a manner that warranted such high damages. The *Gore* decision said nothing about the gray area of ratios between ten-to-one (not excessive) and 500-to-one (excessive).

In the 2003 decision of *State Farm Mutual Automobile Ins. Co. v. Campbell*,[40] a punitive damages award of $145 million was deemed to be grossly excessive when compared to the compensatory damages of $1 million. The court once again refused to impose a bright line ratio.[41] Justice Kennedy however noted that few awards that exceed single-digit ratios would probably be acceptable.[42] He stated: "Single-digit multipliers are more likely to comport with due process, while achieving the State's goals of deterrence and retribution, than awards in the range of 500 to 1, or, in this case, of 145 to 1."[43] The ratio of 145-to-one was held to be disproportionate, excessive, and therefore, unconstitutional.[44]

The ratios in the four cases Supreme Court cases are depicted in Figure 1.[45] The first case holds an award of four times the damage

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[39] 517 U.S. at 583, citing Justice O'Connor's dissent in *TXO*, 509 U.S. at 481.

[40] State Farm Mutual Automobile Ins. Co. v. Campbell, 538 U.S. 408 (2003).

[41] See, e.g., 538 U.S. at 425: "We decline again to impose a bright-line ratio which a punitive damages award cannot exceed" (*per* Justice Kennedy).

[42] *Ibid.*

[43] *Ibid*. (references to Gore have been removed).

[44] Other factors such as the wealth of the defendant and the fact that the defendants had been similarly punished elsewhere (Texas) were not held to be relevant. See 538 U.S. at 426-428.

[45] Philip Morris v. Williams, 549 U.S. 346 (2007) and Exxon Shipping v. Baker, 128 S. Ct. 2605 (2008) are not included in the figure. In *Philip Morris*, the compensatory damages award from the Oregon court was around $ 821,000 and the punitive damages award was about $ 79.5 million. The Supreme Court did not decide whether the ratio of 97:1 was grossly excessive or not. The decision of the majority instead focused on whether the punitive damages award was improperly calculated because it took into account harm to other smokers who were not party to the case. The *Exxon* decision is not included because it focuses on admiralty law,

to be constitutional (*Haslip*, 1991). The second case holds that a ratio of ten times would also not violate the fourteenth amendment (*TXO*, 1993). The third case (*Gore*, 1996) shows that a ratio of 500-to-one is grossly excessive, as is ratio of 145-to-one, from the fourth case (*Campbell*, 2003). The gray area has narrowed over time. My simplification of this jurisprudence in this area illustrates that as more cases are decided (and decided narrowly), the "gray area" of the law disappears and we begin to converge toward a rule.

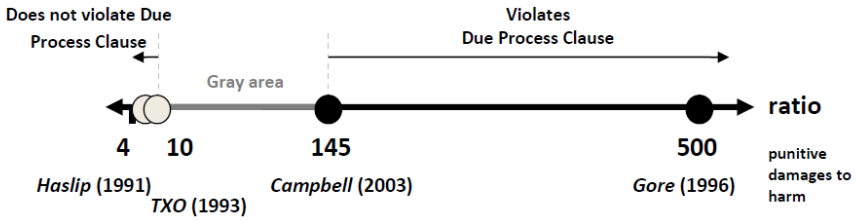

Figure 1: The four cases are shown on a spectrum that indicates the ratio of punitive damages to harm. Ratios lower than 10:1 have been found to be constitutionally acceptable. Ratios higher than 145:1 have been found to be unacceptable. In between ratios of 10:1 and 145:1 is a gray area.

B. Non-compete covenants in employment contracts

The example above is merely used to illustrate the incremental nature of legal evolution when decisions are narrowly-tailored to the facts of cases. Such decision-making may be strongly associated with the development of common law rules which, in the United States, evolve in state jurisdictions. Most state courts, for example, decide whether a non-compete covenant in an employment

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rather than state-court punitive damages awards. In this case, the Supreme Court ruled that a punitive damages award of $ 2.5 billion should be reduced to around $ 500 million, when the compensatory damages were around $ 507 million. The court held that under federal maritime jurisdiction the fair upper limit was a compensatory-to-punitive damages ratio of 1:1. This admiralty case does not affect state-court punitive damages awards.

contract is reasonable in a case by case manner.[46] Covenants against competition are tolerated only if they are strictly limited in time and territorial effect, and these limits are reasonable.[47] The Supreme Court of Georgia provides a nice example of how courts resolve these disputes narrowly and adhere to precedent.[48] In 1968, the court decided that a restrictive covenant that lasted for just one year and restricted the former employee from working within a 10 mile radius of the former employer was "reasonable both as to time and territory."[49] Two years later, the court decided that a covenant of two years covering an area of 31 states was an unreasonable restriction, because it was "oppressive to the party restrained and opposed to the interests of the public."[50] The 1970s and 1980s saw a series of decisions that filled the gap between these two cases.[51] The gap

[46] Not all state courts analyze non-compete covenants this way. Indeed, in some states, such as California, the use of non-compete covenants in employment contracts is prohibited. Forty-four states have not, however, prohibited such clauses in employment contracts.

[47] *See e.g.*, Shirk v. Loftis Bros. & Co., 148 Ga. 500 (1918).

[48] In this example, I include only cases where non-compete clauses (not solicitation or non-disclosure clauses) were included only in employment contracts. Non-compete clauses are also found in partnership, sales of business, and franchise contracts; but what is reasonable in these cases may differ to what is reasonable in employment contracts. *See, e.g.*, Rash v. Toccoa Clinic Medical Assoc., 253 Ga. 322 (1984) (partnership); Dalrymple v. Hagood, 246 Ga. 235 (1980) (sale of business); Johnson v. Lee, 243 Ga. 864 (1979) (sale of business); T. E. McCutcheon Enterprises, Inc. v. Snelling & Snelling, Inc., 232 Ga. 609 (franchise); and Farmer v. Airco, Inc., 231 Ga. 847 (1973) (sale of business).

[49] Baxley v. Black, 224 Ga. 456, 457 (1968).

[50] Moore v. Dwoskin, Inc., 226 Ga. 835, 837 (1970) (citing Rakeshaw v. Lanier, 104 Ga. 188, 202 (1898).)

[51] A covenant that covered a radius of approximately twelve miles for eighteen months was deemed reasonable. See Mike Bajalia, Inc. v. Pike, 226 Ga. 131 (1970). The territorial limit here was Lowndes Co., Georgia. This county is 511 sq. miles; approximately twelve miles radius. Covenants that covered a radius of 25 miles but lasted only a year were also held to be reasonable. *See*, *e.g.*, Preferred Risk Mutual Ins. Co. v. Jones, 233 Ga. 423 (1974); and Landmark Financial Serv., Inc. v. Tarpley, 236 Ga. 568 (1976). In 1976, "reasonable" was extended to include a covenant that covered a radius of 50 miles and lasted for one year. Edwards v. Howe Richardson Scale Co., 237 Ga. 818 (1976). Two years earlier, however, a covenant that covered an area of 50 miles and lasted one year was not enforced by the court. *See* Worley & Assoc., Inc. v. Bull, 233 Ga. 276

between covenants that were deemed unreasonable and those that have been deemed reasonable narrowed, and the gray area diminished. When cases fell within the ambit of a precedent, the court issued decisions that were consistent with precedent.[52]

The two examples, thus far, have looked at decisions handed down by supreme courts; however, as explained in the introduction, my model is not *per se* a model of Supreme Court judicial behavior. My model does not analyze how the same panel of justices decides cases. My model rather illustrates how the law evolves when the bench consists of *different*, randomly-selected judges with heterogeneous preferences disputes sequentially. In the context of the Supreme Court, the ideology of the median judge may change over time,[53] but the model is a better fit for all other courts where judges are selected randomly to hear cases. There are myriad other examples that one could point to involving standards that evolve toward rules in this manner in the court of appeals, district courts, and lower state courts. I provide two examples here; first, looking at contractual interpretation in Delaware; and secondly, examining the intersection of religion and discrimination law in the federal courts of appeal.

C. "MAC" clauses in merger agreements

(1974). In that case, the defendant former employee was working in a county where the plaintiff former employer had no customers. The court held that a non-compete clause was overly broad if it prohibits employment in areas where the employer does not do business. The injunctive relief sought by the former employer was not granted.

[52] For example, a covenant that covered a radius of 35 miles but lasted only six months was deemed reasonable and not unduly broad. *See* Beckman v. Cox Broadcasting Corp., 250 Ga. 127 (1982). Similarly, covenants that covered radii of five miles and ten miles for two years were deemed reasonable. See, respectively, Watson v. Waffle House, Inc., 253 Ga. 671 (1985) and Nunn v. Orkin Exterminating Co., Inc., 256 Ga. 558 (1986).

[53] *See, e.g.,* Andrew D. Martin, Kevin M. Quinn, & Lee Epstein, *The Median Justice on the United States Supreme Court*, 83 N.C. L. REV. 1275 (2005); Keith Krehbiel, *Supreme Court Appointments as a Move-the-Median Game*, 51 AM. J. OF POL. SCI. 231 (2007).

The line of liability may be drawn at one end of the spectrum very early in the evolution of a law, even if the disputes are decided narrowly. Take, for example, the way the Delaware Chancery Court has interpreted "material adverse change" clauses ("MAC" clauses) in merger contracts. A MAC clause in a corporate merger agreement allows the acquirer to walk away from the merger if the target suffers a material adverse change (or effect) between the time of signing and the time of closing; however, the Court of Chancery has never recognized a change or event as being materially adverse. In deciding cases, Delaware courts have placed "strong emphasis on the particular facts."[54]

The first case, *In re IBP, Inc. S'holders Litig.*,[55] represents an example of an early case in the evolution of law being decided narrowly, and implicitly resolved most potential disputes. Tyson Foods discontinued its purchase of IBP after signing the merger agreement, claiming that an unexpected forty per cent drop in the target's sales constituted a material adverse change, and gave rise to a right to terminate.[56] Vice Chancellor Strine found the case to be a close one,[57] but decided that the drop in earnings was not a material adverse change.[58] V.C. Strine wrote that this finding reflected his own personal perspective that a "reasonable acquirer" should be

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[54] R. Samuel Snider, Rahul Patel, & Will Smoak, *Accounting for the Unknowable: Risk Allocation & Current Insights on Material Adverse Change Clauses*, 2009 EMERGING ISSUES 3600 (Lexis) (2009).

[55] In re IBP, Inc. S'holders Litig., 789 A.2d 14 (Del. Ch. Ct., 2001).

[56] Poor weather conditions led to an unexpected "sharp drop" in earnings from $2.38 per share to $1.44 a share. 789 A.2d at 69. IBP could only point to "two weeks of truly healthy results in 2001 before the contract termination date." 789 A.2d at 71. The discovery that an IBP subsidiary had been a victim of fraud was also claimed. The fraud was expected to have a small effect upon the entire company however. The subsidiary was found to have "a tiny fraction of IBP's overall business and that a total shutdown of [the subsidiary] would likely have little effect on the future results of a combined Tyson/IBP." *See* 789 A.2d at 70.

[57] V.C. Strine "admit[ted] to reaching this conclusion with less than the optimal amount of confidence." 789 A.2d at 71. Further, V.C. Strine noted: "I am confessedly torn about the correct outcome."

[58] Although the target did not perform as well as Tyson had hoped, V.C. Strine found that IBP was still "in sound enough shape to deliver results of operations in line with the company's recent historical performance." *Ibid.*

viewing takeovers from a "longer-term perspective";[59] explicitly noting that his own view was "seller friendly."[60]

The *IBP* decision was seen by commentators as surprising.[61] Commentators suggested that the interpretation of the materiality standard is "so demanding that—absent a cataclysm of biblical proportions—it cannot be met."[62] The benchmark was set "impossibly high," ensuring that the MAC clause will almost certainly not be invoked.[63] The line was drawn heavily in favor of sellers. It became very difficult for buyers to walk away under the auspices of a material change. This example illustrates how the decisions of early cases can lead to the law settling at one end of the spectrum relatively early in the evolution of the law. A standard that settles quickly is less likely to be litigated. Indeed, it took another seven years before the Delaware Chancery Court heard another case where a buyer sought to enforce a MAC clause.[64]

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[59] 789 A.2d at 68.

[60] The Vice Chancellor explains that his conclusion is heavily influenced by his own temporal perspective that may not be shared by other judges. *See* 789 A.2d at 71, n. 170. He also wrote: "Tyson has evinced more confidence in stock market analysts than I personally harbor." 789 A.2d at 71.

[61] *See, e.g.,* Andrew A. Schwartz, *A "Standard Clause Analysis" of the Frustration Doctrine and the Material Adverse Change Clause*, 57 U.C.L.A. L. REV. 789 (2010). There were precedents from New York suggesting a materially adverse change can be found if a target suffers a short-term decline in profitability. *See e.g.,* In Pan Am Corp. v. Delta Airlines, 175 B.R. 438 (S.D.N.Y. 1994) (Pan Am Airlines suffered a sharp decline in bookings over a three-month period), and Katz v. NVF Co., 100 A.D.2d 470 (N.Y. App. Div. 1984) (two merger partners agreed that one partner suffered a materially adverse change after making a loss over the course of one year of $ 6.3 million, compared to a profit the year before). There was, however, a more recent case, Bear Stearns Co. v. Jardine Strategic Holdings, No. 31371187, slip. Op. (N.Y. Supr. June 17, 1988), where Bear Stearn's losses on Black Monday, October 19, 1987 (up to $ 100 million) did not represent a materially adverse change, and the contract to purchase twenty per cent of Bear Stearns could not be avoided.

[62] *See* Schwartz, *supra* 61. *See also*, Jeffrey Thomas Cicarella, Note, *Wake of Death: How the Current MAC Standard Circumvents the Purpose of the MAC Clause*, 57 CASE W. RES. L. REV. 423, 450 (2007) (MAC case law uses "a test for materiality that can almost never be met").

[63] *See* Schwartz, *supra* note 61, 46.

[64] The facts of Hexion Speciality Chems, Inc. v. Huntsman Corp., 965 A.2d 715 (Del. Ch. Ct. 2008) suggest that the case falls within the ambit of the *IBP*

D. Ministerial exception to Title VII

Convergence and line drawing in the law, obviously, does not always involve cases where the facts can be described with quantitative values. Courts, obviously, rank and compare fact patterns when facts are not easily described by numbers. As an example, take the "ministerial exception" to Title VII. Federal courts have held that they do not have jurisdiction to apply Title VII to employment relationships involving a church and a minister because the state would be encroaching upon the forbidden area of religious freedom.[65] The Fifth Circuit in the landmark decision of *McClure v. The Salvation Army*[66] found that an exception applies to ordained ministers. This was later extended to include associates in pastoral care[67] and probationary ministers.[68]

A series of cases followed, with litigants testing where the courts draw the line. A typist-receptionist at a church was held not to

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precedent. The buyer, Hexion, contended that the target, Huntsman, had suffered a materially adverse change in conditions. In the *Hexion* case, Vice Chancellor Lamb noted the seller friendly philosophy of Vice Chancellor Strine in the *IBP* precedent, contending that a "buyer faces a heavy burden when it attempts to invoke a material adverse effect ('MAE') clause in order to avoid its obligation to close." *See* 965 A.2d at 738. Hexion suggested that there had been an MAE because of Huntsman's disappointing earnings performance in the year following the agreement. There was some dispute over which metric to use to measure Huntsman's performance. Hexion claimed that projections for earnings had fallen somewhere between 19 and 32 per cent from the year before. *See* 965 A.2d at 740. The judge found that a more accurate metric indicated a drop in earnings of around four per cent. *See* 965 A.2d at 743. V.C. Lamb held that such results "do not add up to an MAE". *See* 965 A.2d at 743.

[65] *See, e.g.,* McClure v. The Salvation Army, 460 F.2d 553 (5th Cir. 1972), Bryce v. Episcopal Church in the Diocese of Colo., 289 F.3d 648 (10th Cir. 2002), Minker v. Baltimore Annual Conference of the United Methodist Church, 894 F.2d 1354 (D.C. Cir. 1990).

[66] McClure v. The Salvation Army, 460 F.2d 553 (5th Cir. 1972).

[67] Rayburn v. Gen. Conf. of Seventh-Day Aventists, 772 F.2d 1164 (4th Cir. 1985).

[68] Young v. The Northern Illinois Conference of United Methodist Church, 21 F.3d 184 (7th Cir. 1994).

fall within the exception;[69] neither did an editorial secretary at a religious printing press[70] or a director of plant operations at a religious hospital.[71] On the other hand, a communications manager who acted a liaison between the church and parts of the congregation was held to fall under the ministerial exception.[72] Generally, teachers at religious institutions have not been found to fall within the ministerial exception;[73] but if the teacher's primary duty is spreading faith, religious participation, then the exception applies.[74] Over time, the gray area between what is covered and what is not covered by the exception has narrowed.

E. Contributory negligence of drivers in railroad crossing accidents

The narrowness of a legal decision does not necessarily emerge from a narrowly written decision. The narrowness may emerge from a narrow reading of a decision in subsequent cases. Judges may not decide cases narrowly all the time, but any dicta handed down by judges in early cases can be nullified in subsequent cases. In this way, judges are constrained in their attempts to set broad, sweeping rules. Take, for example, the cases determining the contributory negligence of plaintiff automobile drivers injured in railroad crossing accidents from the late 1920s and early 1930s.

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[69] Whitney v. Greater N.Y. Corp. of Seventh-Day Adventists, 401 F.Supp. 1363 (S.D.N.Y., 1975)

[70] EEOC v. Pacific Press Pub. Ass'n, 676 F.2d 1272 (9th Cir. 1982).

[71] Lukaszewski v. Nazareth Hospital, 764 F.Supp. 57 (E.D.Pa., 1991).

[72] Alicea-Hernandez v. Catholic Bishop of Chicago, 320 F.3d 698, 703 (7th Cir. 2003).

[73] *See* EEOC v. Fremont Christian School, 781 F.2d 1362 (9th Cir. 1986), Geary v. Visitation of the Blessed Virgin Mary Parish School, 7 F.3d 324 (3d Cir. 1993), EEOC v. Mississippi College, 626 F.2d 477 (5th Cir. 1980).

[74] EEOC v. Catholic Univ., 83 F.3d 455 (D.C. Cir. 1996) and EEOC v. Southwestern Baptist Theological Seminary, 651 F.2d 277 (5th Cir. 1981). Similarly, the exception applies to music directors at churches and religious schools if spreading religious faith. *See, e.g.,* Starkman v. Evans, 198 F.3d 173 (5th Cir. 1999) and EEOC v. Roman Catholic Diocese, 213 F.3d 795 (4th Cir. 2000).

Railroad companies could be held negligent if drivers were injured or killed on railroad crossings without bells and whistles to indicate an on-coming train. Drivers were sometimes held to be contributorily negligent. Courts took into account factors such as how much of the track the driver could see when he approached the danger zone. In the 1927 case, *Baltimore & Ohio Railroad Co. v. Goodman*,[75] the Supreme Court found that the driver was contributorily negligent in spite of the fact that he could only see 243 feet of track. Justice Holmes, writing for the unanimous court, added dicta stipulating that the driver always has a responsibility to stop, look, and listen—and even get out of his car—if he is not certain whether a train is coming.

The Supreme Court revisited the issue seven years later in *Pokora v. Wabash Rwy Co.*.[76] The court delivered a rule that was contrary to the dicta in *Goodman;* but the outcomes were entirely consistent. The court found that a driver who could see only 130 feet of the track was *not* contributorily negligent. The court held that the plaintiff could not have been protected by having such a short glimpse of the track. Justice Cardozo, writing for the unanimous court,[77] wrote that there "is no doubt that the opinion in [*Goodman*] is correct in its result,"[78] but noted that he was not bound by Justice Holmes's dicta.[79] The key, here, is that the outcomes of the decisions are not inconsistent. Although, the rules handed down are different, the outcomes in the two cases do not contradict one another. Further, even if early decisions are written broadly, they may be narrowed by subsequent readings.

I use the example of the contributory negligence of drivers in railroad crossing accidents as the basis for my model in section II; however, my model simply assumes that all opinions are written narrowly.

II. THE MODEL

[75] Baltimore & Ohio Railroad Co. v. Goodman, 275 U.S. 66 (1927).

[76] Pokora v. Wabash Rwy Co., 292 U.S. 98 (1934).

[77] Justices Van Devanter, McReynolds, Brandeis, Sutherland, Butler, and Stone were on both the *Goodman* and *Pokora* panels.

[78] 292 U.S. at 102.

[79] 292 U.S. at 104.

A. The Set-Up

In this section, I sketch my model. The model illustrates how case law evolves when judges resolve disputes narrowly. I do not address *why* judges resolve cases narrowly; it is rather assumed that they do.[80] I show how a rule emerges when judges sequentially resolve disputes and interpret vague standards such as "reasonable," "excessive," and "material." It is *ex ante* unclear what the dividing line will be between compliance and violation. A bright-line rule, however, emerges from judges resolving disputes and acting consistently with precedents.

I use a very simple example. Suppose there is a jurisdiction with just one level of court.[81] When a case comes before a court, a single judge—chosen at random—decides the case. The court has been asked to decide whether an automobile driver was contributorily negligent when injured or killed in a railroad crossing accident. I assume that the only key fact that all judges take into account is the field of vision the driver had of the railroad track as he approached

[80] An alternative way of thinking about this assumption is that the opinions may be written very broadly, but read very narrowly. That is, the dicta can be subsequently ignored, rendering all decisions narrow in effect—as in the *Goodman* and *Pokora* examples above in section I.E. How narrowly or broadly a decision is written is analyzed in Anderlini, Felli, & Riboni, *supra* note 11. How narrowly or broadly a decision is read is analyzed in Baker & Mezetti, *supra* note 12.

[81] In assuming only one level of court, my model abstracts from the important effects of hierarchy, control, and aspects of the appeals process. *See e.g.*, RICHARD A. POSNER, THE PROBLEMS OF JURISPRUDENCE 224 (1990); Donald R. Songer, Jeffrey A. Segal, & Charles M. Cameron, *The Hierarchy of Justice: Testing a Principal-Agent Model of Supreme Court-Circuit Court Interactions*, 38 AM. J. OF POL. SCI. 673 (1994); Lewis A. Kornhauser, *Adjudication by a Resource-Constrained Team: Hierarchy and Precedent in a Judicial System*, 68 S. CAL. L. REV. 1605 (1995); McNollgast, *Politics and the Courts: A Positive Theory of Judicial Doctrine and the Rule of Law*, 68 S. CAL. L. REV. 1631 (1995); Steven Shavell, *The Appeals Process as a Means of Error Correction*, 35 J. OF LEGAL. STUD. 1 (1995); Ethan Bueno de Mequita & Matthew C. Stephenson, *Informative Precedent and Intrajudicial Communication*, 96 AM. POL. SCI. REV. 755 (2002); DAVID E. KLEIN, MAKING LAW IN THE UNITED STATES COURT OF APPEALS (2002); Tonja Jacobi & Emerson H. Tiller, *Legal Doctrine and Political Control*, 23 J. L. ECON. & ORG. 326 (2007); Pauline T. Kim, *Lower Court Discretion*, 83 N.Y.U. L. REV. 383 (2007).

the crossing.[82] If the driver could not see any length of the track, he will not be held to be contributorily negligent; he did not have the opportunity to stop before the collision. If the driver could see a very long length of the track, however, he will be held to be contributorily negligent. The judge simply decides if the driver was contributorily negligent (that is, if the driver had a sufficient field of vision and should have stopped) or not.[83] Different judges, however, have different views about where the line should be drawn.

i. Facts

There exists a spectrum of facts along one dimension.[84] The facts of any case are described by a point on this line. The point is essentially a "bundle" of different key facts that will be relevant to liability. Bundles of facts are ranked in order of egregiousness. These facts are assumed to be objective and verifiable.[85] In my example, I make a very simple assumption about the nature of "facts." I assume that prior to any judicial intervention the length of track that the drivers can see when they cross a railroad track is uniformly distributed between 0 feet and 400 feet. That is, there are some crossings where the driver is afforded no visibility, there are some

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[82] See *Pokora*, 292 U.S. at 100, where Justice Cardozo makes reference to the "zone of danger."

[83] This assumption follows the assumption of Kornhauser, *supra* note 26, 171. Kornhauser explains that this assumption is representative of legal decisions. "Legal questions almost always have yes or no answers. While the plaintiff seeks a remedy from a potentially large number of possible outcomes, the question of law generally is simply whether she has a right to recover or not."

[84] A model that places factual scenarios on just one dimension may appear to have limited application. I discuss the effects and sources of multiple dimensions below in section II.C.i.

[85] This abstracts away from any possibility of judicial fact discretion. In real cases, judges may have the ability to selectively choose which facts to emphasize in a decision or perhaps the ability to nudge the bundle of facts to give the impression that the facts of the case are more or less egregious than they are. This is a feature of legal realist thinking. *See, e.g.*, Jerome N. Frank, *Are Judges Human? Parts I and II*, 80 U. PA. L. REV. 17 and 233 (1931); JEROME N. FRANK, COURTS ON TRIAL: MYTH AND REALITY IN AMERICAN JUSTICE, § III (1949); Nicola Gennaioli & Andrei Shleifer (2008), *Judicial Fact Discretion*, 37 J. OF LEGAL STUD. 1 (2008) (exploring the economic effects of such discretion).

crossings where the driver is afforded a great deal of visibility, and there are many different intermediate types of crossing. The assumption of a uniform distribution merely suggests that there is some variation in the facts of potential cases, but the facts are not necessarily skewed toward the extremes, nor skewed toward the middle. The facts of cases that come before the court are drawn at random. The assumption of randomness abstracts away problems of selection effects.[86]

ii. Judges and ideal points

Different judges have different views of where the line of liability should be drawn. To align the model with the empirical literature in this area, I shall refer to each individual's threshold line as their "ideal point."[87] For the purposes of exposition only, I make a

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[86] The assumptions of the model can be tweaked to permit situations where facts are not drawn randomly. For example, if litigants only bring, or judges only allow, extreme cases early on in the development of the law, the law will converge much faster. There is a substantial literature in law and economics discussing the sources and effects of case selection by litigants, including Marilyn J. Simon, *Imperfect Information, Costly Litigation, and Product Quality*, 12 BELL J. OF ECON. 171 (1981); Steven Shavell, *The Social versus the Private Incentive to Bring Suit in a Costly Legal System*, 11 J. OF LEGAL STUD. 333 (1982); George L. Priest & Benjamin Klien, *The Selection of Disputes for Litigation*, 13 J. OF LEGAL STUD. 1 (1984). The assumption of random fact patterns is not in conflict with the Priest-Klein model when there are only two judges. Any fact pattern that is drawn between the two judges' ideal points will essentially present a fifty per cent chance of victory to the plaintiff and a fifty per cent chance of victory to the defendant. In this way, the abstraction away from selection effects and strategic litigation is sensible.

The selection of cases for trial is also affected by a court's discretion to choose the cases that come before it. In my model, if case selection is not random the distribution of facts will not be uniform. *See e.g.*, VANESSA BAIRD, ANSWERING THE CALL OF THE COURT: HOW JUSTICES AND LITIGANTS SET THE SUPREME COURT AGENDA (2007); Tonja Jacobi, *The Judicial Signaling. Game: How Judges Shape Their Dockets*, 16 SUP. CT. REV. 1 (2008); Jonathan P. Kastellec & Jeffrey R. Lax, *Case Selection and the Study of Judicial Politics*, 5 J. OF EMPIRICAL LEGAL STUD. 407 (2008); Steven Shavell (2010), *On the Design of the Appeals Process: The Optimal Use of Discretionary Review versus Direct Appeal*, 39 J. OF LEGAL STUD. 63 (2010).

[87] I assume, consistent with much of the law and economics literature, that judges receive utility from the outcomes of particular cases. In a world

few very simple and extreme assumptions. Suppose that there are just two judges with different views. One judge, Lewis, is very pro-railroad company. He has an ideal point of 0 feet. He believes that any driver who gets hit by a train is at fault. If the driver is unsure whether a train is coming as he drives toward a railroad crossing, he should get out of his car and look down the track. The other judge, Rita, is very pro-automobile driver. Her ideal point lies at the other end of the factual spectrum, at 400 feet. She believes that any driver who gets hit by a train should recover, unless the driver could see further than 400 feet when they crossed the track. The mid-point of the two judges' ideal points is 200 feet. After a random case comes to court, a judge to hear the case is randomly selected.[88] There is a fifty per cent chance of drawing Lewis and a fifty per cent chance of drawing Rita for each case. I have chosen these two "extreme" ideal points for the purposes of illustration only. I could have, for example, assumed that Lewis has an ideal point of 100 feet and Rita has an ideal point of 300 feet. Below, I point out how such a change in assumptions would affect the results.[89]

The assumption of just two judges is clearly not entirely realistic; however, one can think of these judges as "types" of judges. We do not draw from a pool of two judges, but rather we randomly draw judges from a large pool of judges, and this pool is divided into two equally-sized blocs of judges. Judges within each bloc share similar preferences and ideal points of the law. The assumption of two blocs of ideologically opposed judges is a simplification or abstraction of the empirical evidence relating to judicial ideal points. Empirical calculations of the "ideal points" of federal judges have been estimated by Andrew Martin and various co-authors.[90] If we

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unconstrained by precedent, each judge has preferences for the desired outcome in all factual situations. The dichotomous outcomes are labelled *L* and *NL*, for liability and non-liability respectively. The desired outcome in a case with facts is the outcome, either *L* or *NL*, which generates greater utility. The ideal point for judge is the fact pattern where the judge is indifferent between liability and non-liability.

[88] For a defense of the randomization of decision-makers in the adjudicative system, *see*, Adam M. Samaha, *Randomization in Adjudication*,' 51 WM. & MARY L. REV. 1 (2009).

[89] *See infra* section II.C.i.

[90] *See e.g.*, Andrew D. Martin & Kevin M. Quinn, *Dynamic Ideal Point Estimation via Markov Chain Monte Carlo for the U.S. Supreme Court, 1953-*

look at judges on the federal courts of appeal—a court where judges are drawn at random to sit on panels—the data reveal a bi-modal distribution of ideal points over the period 1953 to 2007.[91] The two blocs are roughly equally sized. There is a bloc of judges to the left of center; there is a bloc of judges to right of center. Thus, one can imagine every time a Chief Judge randomly selects a panel of three judges to decide a case at the federal court of appeal level, he or she randomly selects from a bloc of "Lewises" and a bloc of "Ritas".

iii. Judicial decisions: judicial discretion and aversion to inconsistency

It is commonly stated that judicial behavior is not adequately explained by either extreme realism or extreme legalism.[92] In some cases, a judge may have discretion to decide a case and may deliver a decision that reflects his or her own view of what the optimal law is. In other cases, however, the judge will feel bound by precedent. Even if the judge believes the decision is incorrect, over-ruling precedent can be costly. My model reflects this. It is assumed that the discretion is greater earlier in the lifespan of a law. Once the law becomes more certain, judicial discretion and influence is less apparent.

A judge, in my model, has full discretion to decide a case that does not fall with the ambit of a previous decision. An alternative way of thinking about this is that if legalist methods fail to provide an answer, the judge falls back to his or her ideological preferences. If the judge is not constrained by any precedent, he or she can resolve the dispute in a manner that reflects his or her own view of the

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1999,' 10 POL. ANALYSIS 134 (2001); Martin, Quinn, & Epstein, *supra* note 53; Lee Epstein, Andrew D. Martin, Jeffrey A. Segal, & Chad Westerland, *The Judicial Common Space*, 23 J. LAW. ECON. & ORG. 303 (2007).

[91] Epstein, Martin, Segal, & Westerland, *supra* note 90, use the NOMINATE Common Space scores of home state Senators and appointing Presidents to measure the ideology of federal judges. The measure uses the scores developed in Keith T. Poole, *Estimating a Basic Space From a Set of Issue Scales,* 42 AM. J. OF POL. SCI. 954 (1998) (legislative and executive) and Micheal W. Giles, Virginia A. Hettinger, & Todd C. Peppers, *Picking Federal Judges: A Note on Policy and Partisan Selection Agendas*,' 54 POL. RES. Q. 623 (2002).

[92] *See e.g.*, Kornhauser, *supra* note 25; POSNER, *supra* note 3; Klein, *supra* note 81.

optimal law. For example, suppose that the first case drawn involves a driver who could see 243 feet of track when he was in the danger zone. Lewis is selected at random to hear the case. Recall that he is pro-railroad company and has an ideal point of 0 feet. He finds the driver contributorily negligent.

A judge does not have discretion in every case though. Judicial decisions have some precedential effect. This may constrain judges that hear subsequent cases. Judges in my model, while not formally bound by precedent, have a strong desire to act consistently—or, more correctly, have a strong desire to avoid handing down decisions that are inconsistent with previous decisions. It is assumed that it is prohibitively costly for a judge to act inconsistently with an earlier ruling.[93] Acting consistently with a previous decision, however, is costless.

The assumption that judges have a desire to avoid inconsistency is incorporated into the model in the following way. After Lewis decides that a driver who could see 243 feet was negligent, an implicit rule is created: drivers who have a field of vision that is 243 feet or more will be held to be negligent. That is, not only does the first case cover the specific facts of 243 feet, but also all those cases where the driver could see more than 243 feet. Now, even if Rita hears a case where the driver had a field of vision of 300 feet, she does not wish to act inconsistently with Lewis's decision. She holds the driver negligent. This implicit rule is depicted in Figure 2.

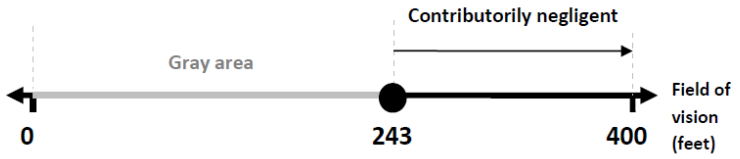

Figure 2: When the driver can see more than 243 feet of the track, he is held to be contributorily negligent. The decision says nothing about cases where the driver could see less than 243 feet. These fact patterns remain in the gray area.

[93] The cost of acting inconsistently with precedent is assumed to be greater than the largest differential in utility for any fact pattern.

There are, of course, limits to the strength of stare decisis. For the meantime, I shall simply assume that whenever a case falls within the determined area, it is very costly for judges to act inconsistently with such precedent.[94] I assume that cases falling within the implicitly determined area will never be litigated.[95] There are (at least) two justifications for this assumption. Drivers and railroad companies may change their behavior in response to changes in the law. For example, after Lewis's first case, drivers behave more cautiously. An alternative explanation suggests that parties know the law and cases where the driver could see more than 243 feet of the track will never be litigated.

Subsequent cases are, thus, drawn from the gray area, the set of factual scenarios where it is unclear whether the driver is contributorily negligent or not. After the first case is decided, the gray area shrinks from all possible fact patterns to scenarios where the driver can see between 0 feet and 243 feet of the track. The first judicial decision does not provide any information as to how cases within this range will be determined. If a case in this range arises, the judge will not be constrained by precedent. The judge has discretion to decide in accordance with his or her beliefs.

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[94] *See e.g.*, Cardozo, cited above in note 1, 149: "The labor of judges would be increased almost to the breaking point if every past decision could be reopened in every case, and one could not lay one's own course of bricks on the secure foundation of the courses laid by others who had gone before him."; Max Radin, *The Theory of Judicial Decision: Or How Judges Think*, 11 A.B.A. J. 357 (1925); Justice John Paul Stevens, *The Life Span of a Judge-Made Rule*, 58 N.Y.U. L. REV. 1 (1983).

[95] The non-ergodicity of cases is driven by this assumption that cases are not drawn—or at least are rarely drawn—from the determined or governed areas. If I drop this assumption and allow cases in the governed area to be brought, the following testable hypothesis emerges: judicial behavior becomes less attitudinal and more legalistic over time. Early decisions in the lifespan of a law are more likely to be correlated with judicial preferences; later decisions are more likely to legalistic. After some time, the bulk of cases would have determinate, predictable outcomes. This corollary appears at some odds with recent empirical literature which suggests that judges have more "discretion" in later cases. *See,* Stefanie A. Lindquist and Frank B. Cross, *Empirically Testing Dworkin's Chain Novel Theory: Studying the Path of Precedent*, 80 N.Y.U. L. REV. 1156 (2005).

Suppose the next case involves a driver who could see 130 feet of track. Rita is chosen at random to decide the case. She distinguishes this case from the only precedent on point. She notes that a field of vision of 130 feet is a lot less than 243 feet and holds in favor of the driver. This is depicted in Figure 3.

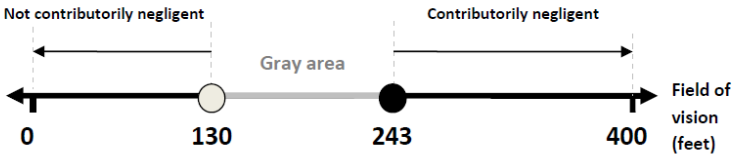

Figure 3: The second case narrows the gray area. The second case holds that if a driver could see 130 feet of track he is not contributorily negligent. Now the gray area shrinks to between 130 feet and 243 feet.

The gray area of the law shrinks over time. As more and more cases are decided, a greater portion of the spectrum of behavior becomes determined. Because of the assumption that judges strictly adhere to the implicit rules generated by precedents, the undetermined area never grows. The accumulation of decisions results in an explicit rule. For example, the law may converge to a bright line rule of 180 feet. Any driver that can see more than 180 feet of track and is hit by a train is contributorily negligent. Any driver that can see less than 180 feet of track is not negligent. This is illustrated in Figure 4.

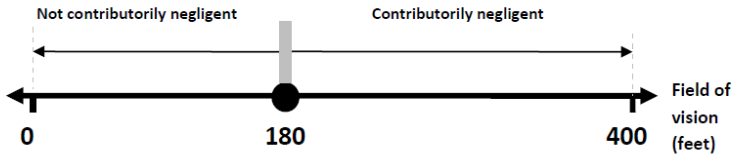

Figure 4: After a number of narrowly-decided and consistent opinions, the law converges to a threshold rule.

B. The solution

In the simulated example above, case-by-case adjudication generates a threshold rule of 180 feet. This simulated liability rule comports with our intuition that case-by-case adjudication should generate a rule in the neighborhood of the midpoint of the two extremes. In expectation, Lewis decides some cases narrowly, which will pull the rule down toward his ideal point, and Rita decides some cases narrowly, pushing the rule up toward her ideal point.

A bright-line rule in the neighborhood of this midpoint was, however, by no means guaranteed. The facts of the first case were drawn randomly. The first driver could have seen anywhere between 0 feet and 400 feet. The law may have converged to a different rule depending on the facts of that first case. More importantly, the first judge in that case was drawn at random. In our example, Lewis held the first driver negligent. If Rita were drawn first the law would converge to a different, more pro-driver rule.

How does case law aggregate the different preferences of Lewis and Rita? The solution is not intuitively obvious. One might hypothesize that if randomly-selected judges narrowly decide cases on the facts, the law will tend to converge toward the mean average of the judges' ideal points. Sometimes Lewis decides disputes, pulling the expected boundary of liability toward 0 feet; sometimes Rita decides the disputes, pushing the expected boundary toward 400 feet. This intuition suggests that the distribution of converged rules is a single-peaked bell-shaped function, with the peak at the midpoint of the two judges' ideal points, 200 feet.

An alternative intuition may suggest the *ex ante* distribution of converged legal rules parallel the *ex ante* facts. Given that there is an equal likelihood of drawing a pro-railroad judge as there is of drawing a pro-driver judge, one might think that the distribution of converged rules would simply mirror the uniform distribution of facts. This hypothesis suggests that the probability that the converged rule will be between 0 and 10 feet is exactly the same as the probability that the converged rule will be between 200 and 210 feet.

Neither of these hypotheses, however, turns out to be correct. These intuitions fail to take into account the powerful effects of path dependence in the law when judges adhere to precedent. The mathematical solution to this model is by no means trivial.[96] It

[96] The formal derivation of the mathematical solution is available upon request from the author.

suffices, here, to merely illustrate the solution and emphasize important features of the distribution of possible legal rules.[97] The probability distribution of these converged rules is illustrated in Figure 5. It shows the probability of case law converging on any candidate rule. The probability density function is U-shaped; it blows up at 0 feet (Lewis's ideal point) and 400 feet (Rita's ideal point).

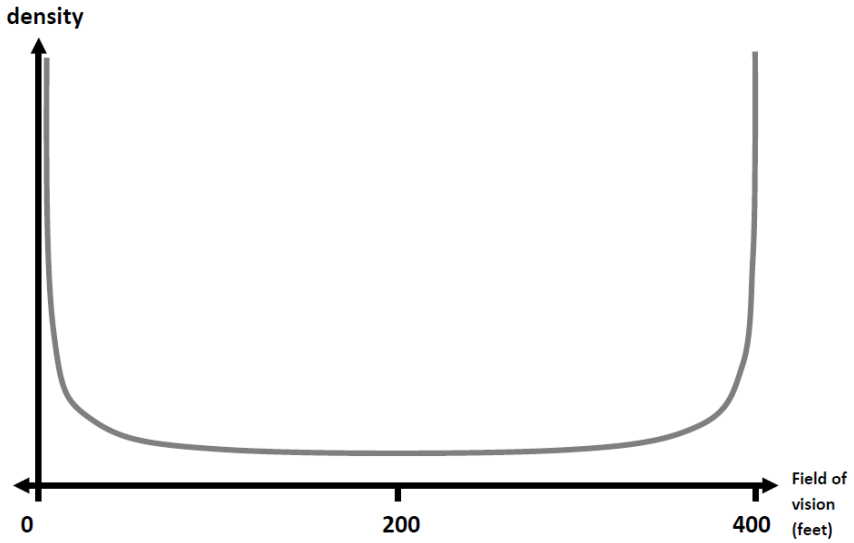

Figure 5: The probability density function of where the converged legal rule. The density function shows that the law is highly likely to converge to either of the ideal points of Lewis (0 feet) or Rita (400 feet).

It is important to point out two key properties of this density function of the converged rule: the expected rule and the variance.

The expected rule is the mean of the judges' ideal points. The expected value of the distribution in our example is 200 feet. This is both the mean and median of Lewis and Rita's ideal points.

[97] The formal solution for the density function, $h(x)$, is: $h(x) = 1 / (\pi\sqrt{(x.(400 - x))})$, where x is the candidate bright line rule, between 0 and 400 feet.

The variance of the distribution is extremely high. The density function blows up the judges' respective ideal points, 0 feet and 400 feet.

Although the expected law is 200 feet, the chances of the law converging to the neighborhood of 200 feet are very slim. Contrary to our intuitions, the density is at its lowest at 200 feet. That is, the chance of the law converging to the neighborhood of 200 feet is lower than any other candidate rule. The law is far more likely to end up near either ideal point than in the middle.

The tractable mathematical solution for this particular model allows me to be specific about probabilities. There is a greater likelihood of the law converging to a rule in the range of the lowest five per cent or highest five per cent than there is of the law converging to a rule in the middle forty per cent. That is, it is more likely that the rule will be below twenty feet or above 380 feet than the rule will be between 120 feet and 280 feet.[98] The chances of generating a law that reflects one of the judge's ideal points is comparatively *very* high.[99]

Why does case law do such a poor job of compromising and finding the middle ground when judges simply resolve the dispute before the court? First, let's examine why the likelihood of the law converging to the mean of the two judges' ideal points is so low. Think of the unlikely set of circumstances that need to occur in order for the law to converge to the neighborhood of 200 feet. Lewis would need to hear all the cases where the driver could see more than 200 feet and Rita would have to be selected to hear cases where the driver could see less than 200 feet. Since judges are chosen at random, the chance of this occurring is low.

Now let's turn our attention to the two ideal points: 0 feet and 400 feet. Why is it that the likelihood of converging to the

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[98] The probability that the law will converge to the lowest five per cent or highest five per cent of the domain between the two ideal points is 28.7 per cent. The probability that the law will converge to the middle forty per cent is around 26.2 per cent.

[99] The probability that the law will converge to the lowest one per cent or highest one per cent is around thirteen per cent. This is ten times as likely the law falling within a domain one per cent either side of the midpoint, around 1.3 per cent.

neighborhood of one of these points so high? Because the facts of potential cases are uniformly distributed and random cases come before the court, it might seem that the chance of getting a case with "extreme" facts (i.e., the facts of the case are close to either 0 feet or 400 feet) is quite slim. That intuition, however, focuses on the first draw of the urn only. There are multiple chances to draw facts close to one of the judges' ideal points. Even if we get an extreme fact pattern in the first case but the decision is not extreme (e.g., a driver who can see 380 feet is held to be contributorily negligent), we can still converge to the other end of the spectrum (e.g., toward a rule in the neighborhood of 0 feet) in subsequent cases. The chance of *eventually* getting an extreme case is high because there are multiple chances to draw such a case.

The model highlights the importance of path dependence in case law when judges adhere to precedent. The phenomenon of path dependence is well-recognized in the literature,[100] but my model goes a step further though and, in describing the content of the legal rule, illustrates that the case law converges disproportionately toward the respective ideal points of the judges. To be sure, there is *some* compromising of the views; but it is not strong moderation. The likelihood of the law converging to the neighborhood of the judges' ideal points is high. I now explore extensions to the baseline model and examine conditions under which we might expect greater moderation.

C.Extensions to the model

i.Other distributions of judges' ideal points

The model makes very simple assumptions about how judicial ideal points are distributed; there are either pro-railroad judges (with an ideal point of 0 feet) or pro-driver judges (with ideal point of 400 feet). In this section, I will highlight the effect of different distributions of ideal points.

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[100] *See*, Kornhauser, *supra* note 26; Hathaway, *supra* note 26; and Yeon-Koo Che & Jong Goo Yi, *The Role of Precedents in Repeated Litigation*, 9 J. L. ECON & ORG. 399 (1993).

The model highlights the importance of variance in judicial ideology, rather than simply focusing on the median or mean ideal point of different judges. Imagine a jurisdiction with just one judge, Michael, who has an ideal point that is the same as the mean and median ideal point as in the two-judge example above, 200 feet. It is trivial to show that, in this world, the law will converge to the Michael's ideal point, 200 feet. In my model with heterogeneous preferences, there is a strong chance that two jurisdictions with exactly the same distribution of judges could end up with very different laws. If the dispersion of ideological preferences is high, then the mean or median of the ideal points will not be a sufficient statistic for informing the content of the legal rule.[101] That is, we may learn very little information about judge-made law from simply looking at the ideology of the median judge on a state court or a circuit. There is some empirical evidence to support this assertion.[102]

Readers may be concerned that the key result of my model—the case law does a poor job of finding the middle ground of different views when judges decide cases narrowly—is being driven by the assumption of two "extreme" judges. The key result still holds true if we have two judges with different ideal points that are not located at

[101] There is an empirical literature that focuses on the effect of the median judge, but this has primarily looked at the influence of the median judge on the Supreme Court. *See e.g.*, Martin, Quinn, & Epstein, *supra* note 53; Lee Epstein & Tonja Jacobi, *Super Medians*, 61 STAN. L. REV. 100 (2008). This literature is not directly applicable to the point that I am making here as these papers focus on the influence of the median on one panel that hears all cases. My analysis rather focuses on the median ideal point of many judges who hear cases individually.

[102] In a recent paper, Richard Posner, Andrei Shleifer, and I detail the judicially-created idiosyncratic exceptions to a tort doctrine—the economic loss rule—that different state courts have used. *See* Anthony Niblett, Richard A. Posner, & Andrei Shleifer, *The Evolution of a Legal Rule*,' 39 J. OF LEGAL STUD. 325 (2010). We empirically show that state courts use different idiosyncratic exceptions. That is, the line of liability is drawn differently in different states. Further, we showed that the different lines of liability that state courts drew with respect to the economic loss rule are not correlated with a measure of average political ideology of the judiciary in each state. We use the average PAJID scores from each state supreme court, calculated in Paul Brace, Laura Langer, & Melinda G. Hall, *Measuring the Preferences of the State Supreme Court Judges*, 62 J. OF POL. 387 (2000). We investigate the correlation between the average political ideology of each state court and the incidence of judges circumventing the economics loss rule with well-recognized exceptions. We find no correlation.

the very ends of the fact spectrum. Suppose that the facts of potential cases are still distributed uniformly between 0 feet and 400 feet, but Lewis has an ideal point of 100 feet and Rita has an ideal point of 300 feet. Under these assumptions, the *ex ante* distribution of the rule is U-shaped, blowing up at 100 feet and 300 feet. The law converges disproportionately to the respective ideal points, 100 feet and to 300 feet. The case law still has a low probability of converging to the midpoint, 200 feet. This is illustrated in Figure 6.[103]

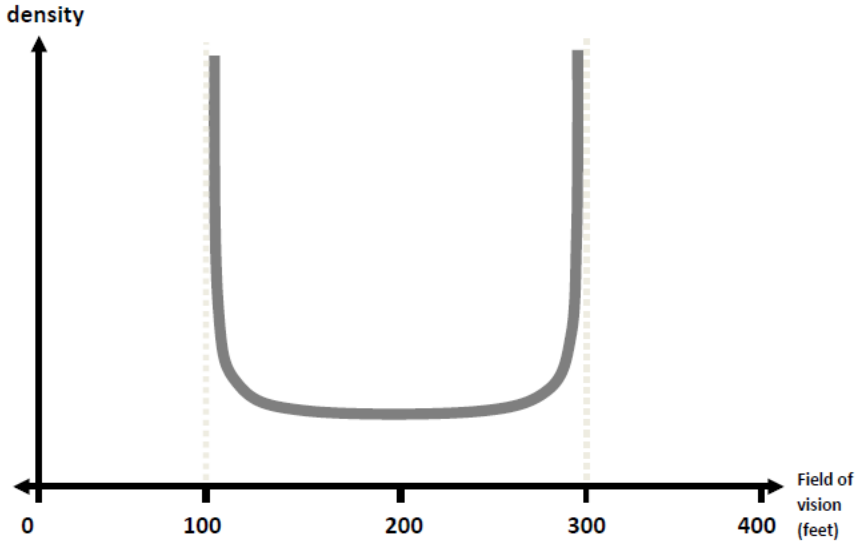

Figure 6: The *ex ante* distribution of the converged rule if there are two blocs of judges with ideal points at 100 feet and 300 feet.

Now, let's introduce more than two judicial ideal points into the story. Take, for example, the scenario where we have three judges: Lewis (ideal point, 0 feet), Michael (ideal point, 200 feet), and Rita (ideal point, 400 feet).[104] The *ex ante* distribution of converged rules again reflect the respective ideal points of the judges. It is illustrated in the left panel of Figure 7. The density function

[103] The formal solution of this model is on file with the author and is available upon request.

[104] Proofs of these propositions are not provided. The graphs of these figures were generated using simulations.

blows up at each of 0, 200, and 400 feet. As with before, there is slight moderation, and so the density is a little greater at 200 feet compared to the two outlying ideal points.

Let us now suppose that the judicial ideal points are uniformly distributed with ideal points ranging from 0 feet to 400 feet. This means that there are many, many different judges, each with a slightly different ideal point. The probability of a judge with an ideal point of 400 feet hearing the case is the same as the probability of a judge with an ideal point of 125 feet, or 288 feet, hearing the case. The *ex ante* distribution of the converged rule is now a single-peaked function. The peak is at the mean of the judges' ideal points. Now, the midpoint of the judges' ideal points has the highest probability, not the lowest probability. More starkly, the probability of getting the *most* extreme laws is now zero. The extreme views of judges essentially become nullified in a world where we have all viewpoints represented and judges decide cases narrowly. That is, if we have many different judges representing all different viewpoints, then the Cardozo Theorem appears to hold. This effect is illustrated in the right panel of Figure 7.

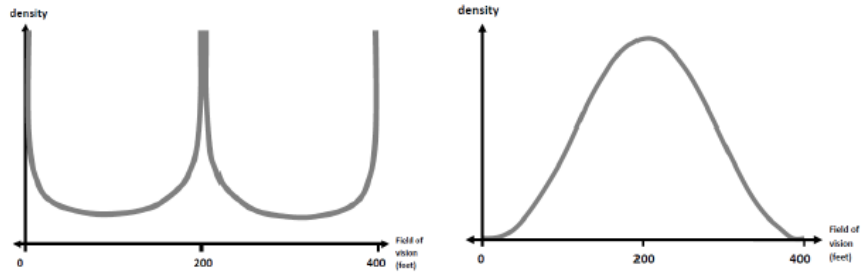

Figure 7: (*Left panel*) The *ex ante* distribution of the converged rule when there are three judges on the bench with ideal points of 0 feet, 200 feet, and 400 feet. (*Right panel*) The *ex ante* distribution of the converged rule when the judicial ideal points are uniformly distributed between 0 feet and 400 feet.

The punchline of this analysis is that moderate judges are required if moderate laws are likely to emerge in my model. The eccentricities of the more extreme judges *only* wash away if we introduce moderate judges into the story. Simply placing judges on either side of the spectrum and hoping to balance, or counterweight, the eccentricities of the judges, does not work.

ii.Multiple dimensions of facts

In real life, the salient facts of cases are rarely described along one dimension. For example, when the Supreme Court investigates the constitutional validity of state courts' punitive damages awards, they look not only to the ratio of damages to harm, but they also look to the egregiousness of the defendant's behavior. Similarly, when deciding whether non-compete covenants are reasonable or not, state courts look at multiple factors such as the length of time that the covenant covers and the territorial restriction. In the real life contributory negligence cases of *Goodman* and *Pokora*, the court took into account other factors such as the driver's speed, the number of tracks that needed to be crossed, the weather, and the time of day.[105]

As already noted, the use of one dimension in the model is a simplification. Each point on the line represents a bundle of facts. In the contributory negligence cases, for example, the bundle may include all the relevant facts, such as the time of day and the number of tracks. The use of one dimension simply suggests that all the bundles of facts can be ranked from the most egregious behavior to the least egregious behavior. At one end of the spectrum, we have the driver who is most likely to be found contributorily negligent; a driver who was very familiar with the one-track crossing, who could see 400 feet of track when the weather was fine and it was the middle of the day. At the other end of the spectrum, we have a driver who is least likely to be found contributorily negligent; a driver who was unfamiliar with the many-track crossing, who could see 0 feet of track during a storm in the middle of the night. In between these extremes, we can imagine a variety of different fact patterns. The assumption of one dimension assumes that these fact patterns are ranked in the same way by all judges. That is, the model can easily incorporate multiple dimensions provided that judges agree on the

[105] For example, see *Goodman*: "He had been driving at the rate of ten or twelve miles an hour, but had cut down his rate to five or six miles at about forty feet from the crossing." 275 U.S. at 69. See also, *Pokora*: "The defendant has four tracks on Tenth Street;" 292 U.S. at 100. "Pokora made his crossing in the day time." 292 U.S. at 101.

ordinal ranking of cases or have high correlation between their respective ordinal rankings of fact patterns.

But judges may have very different views of what factors are important. For example, some judges may place greater emphasis on the field of vision that the driver had; while other judges focus on the number of tracks. Different judges will rank the bundles of facts differently. Under this assumption, we still get convergence to a rule provided that judges adhere to precedent.[106] Convergence, however, is slower under this assumption. The more dimensions that judges deem relevant the slower the rate of convergence to a rule.[107] A further complication arises if judges rank bundles of facts differently. Decisions of different judges may appear to be inconsistent if try to impose ordinal rankings upon the bundles of facts.

The major results of the analysis do not appear to be affected by adding in multiple dimensions in this way. Although formal solutions are not available, simulations suggest that the law still converges, disproportionately to the preferred lines of liability of the judges, rather than to a compromised view, in the middle of the two judges' views.[108]

III. APPLICATION OF THE MODEL: JUDICIAL APPOINTMENTS

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[106] For example, in the two dimensional model, the rule converges to a line. The boundary between liability and non-liability may not, however, be a simple "linear" relationship. *See, e.g.,* Cameron M. Cameron & Lewis A. Kornhauser, *Modeling Law: Theoretical Implications of Empirical Methods*, (2005) (unpublished paper presented at the N.Y.U. Law School Conference on Modeling Law); and Jonathan P. Kastellac, *The Statistical Analysis of Judicial Decisions and Legal Rules with Classification Trees*, 7 J. OF EMPIRICAL LEGAL. STUD. 202 (2010).

[107] Gennaioli & Shleifer, *supra* note 14, assume that only relevant dimensions are introduced by judges. In their model, they assume two relevant dimensions. Patricio Fernandez & Giacomo Ponzetto suggest that judges can introduce irrelevant dimensions when distinguishing cases. Patricio A. Fernandez & Giacomo A. M. Ponzetto, *Stare Decisis: Rhetoric and Substance*, J. L. ECON. & ORG. (2010) (forthcoming): "In practice. . . nothing ensures that distinguishing occurs only on the basis of those empirical attributes that determine the efficient rule. On the contrary, each court has wide discretion in selecting the elements to be considered legally material." following JULIUS STONE, THE PROVINCE AND FUNCTION OF LAW (1946).

[108] Formal solutions are not available for the multiple dimension case.

When executives appoint judges they commonly seek to advance political goals through judge-made law.[109] The statistical evidence on appointees to federal courts is overwhelming. In the 140 years from 1869 to 2008, about 92% of the 3,200 appointments to the lower federal courts went to candidates affiliated with the party of the appointing president.[110]

There exists a view among some legal scholars that newly-appointed judges should offset or counterbalance the biases of currently seated judges. Cass Sunstein, for example, has written: "President Clinton chose two centrist judges for the Supreme Court, Ruth Bader Ginsburg and Stephen Breyer. . . [B]ecause of their centrism, they cannot be seen to as ideological counterweights to Justices Antonin Scalia and Clarence Thomas."[111] Empirical evidence suggests that the conservative Justices Antonin Scalia and Clarence Thomas have voted in a way that is *more* conservative than the

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[109] *See, generally*, SHELDON GOLDMAN, PICKING FEDERAL JUDGES: LOWER COURT SELECTION FROM ROOSEVELT THROUGH REAGAN (1997); and LEE EPSTEIN & JEFFREY A. SEGAL, ADVICE AND CONSENT: THE POLITICS OF JUDICIAL APPOINTMENTS (2005). Although, *see*, Sheldon Goldman, *Judicial Selection Under Clinton: A Mid-Term Examination*, 78 JUDICATURE 276, 279 (1995) (discussing President Clinton's nomination procedure: "there was a determined effort not to screen nominees ideologically. The president told Democratic senators and other officeholders that there should be no ideological screening. Excellence in intellectual ability and judicial temperament were of paramount importance as well as a firm understanding of the role of district courts to follow precedent and to be fair.").

[110] *See*, Epstein & Segal, *supra* note 109, at 26-7, for a summary of data from 1869 to 2004. Epstein and Segal obtain data on party affiliation of lower federal courts were obtained from DEBORAH J. BARROW, GARY ZUK, & GERARD S. GRYSKI, THE FEDERAL JUDICIARY AND INSTITUTIONAL CHANGE (1996); Sheldon Goldman, Elliot Slotnick, Gerard Gryski, Gary Zuk, & Sara Schiavoni, *W. Bush Remaking the Judiciary: Like Father Like Son?* 86 JUDICATURE 282 (2003); and Sheldon Goldman, Elliot Slotnick, Gerard Gryski, & Sara Schiavoni, *W. Bush's Judiciary: The First Term Record*, 88 JUDICATURE 244 (2005). I have updated the data to include George W. Bush's appointments from 2005-09 using data from Sheldon Goldman, Sara Schiavoni, & Elliot Slotnik, *W. Bush's Judicial Legacy*, 92 JUDICATURE 258 (2009).

[111] CASS R. SUNSTEIN, RADICALS IN ROBES 14 (2005).

records of their appointing presidents, Ronald Reagan and George H. W. Bush.[112]

This desire to counterbalance judicial ideology on courts is not limited to the Supreme Court.[113] The Senate Judicial Committee has preached the importance of balance on the D.C. circuit.[114] As noted above in the introduction, there has been a desire to generate balance on the Ninth Circuit by appointing more conservatives to offset what was perceived as a liberal bias.[115]

In this section, I use the model described in section II to challenge the idea that appointing ideological counterweights will generate balance in the law. The model suggests that the eccentricities of judges do not balance one another. The model suggests that ideological counterweights are not likely to generate moderate rules on the bench, even if judges decide cases very narrowly. First, I spell out why it may be better for a moderate executive to appoint a moderate judge, rather than appoint an extreme judge that offsets the sitting extreme judge. Then, I present a number of extensions to this, exploring the bounds of this prescription.

Take the scenario previewed in the introduction. A moderate executive needs to fill a judicial vacancy. The only other judge on the

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[112] *See*, Michael Bailey & Kelly H. Chang, *Comparing Presidents, Senators, and Justices: Interinstitutional Preference Estimation*, 17 J. L. ECON. & ORG. 477, 495 (2001)

[113] *See, generally*, Lee Epstein & Jeffrey Segal, *supra* note 109, 52, who noted in 2005 that the Federalist Society prominently lobbied George W. Bush to "counterbalanc[e] what it decries as the 'orthodox liberal' ideology that 'dominates' the legal community." On this point, *see also*, *Blocking Judicial Ideologues*, N.Y. TIMES, Apr. 27, 2001, at A24.

[114] *See e.g.*, Committee on the Judiciary, United States Senate, *The District of Columbia Circuit: The Importance of Balance on the Nation's Second Highest Court* (September 24, 2002);

[115] See the comments of Senator Charles E. Schumer, *supra* note 27. Further, take the example of the nomination by Bill Clinton of William Fletcher to the Ninth Circuit. The Republican Senate refused to appoint the liberal Fletcher unless the president appointed Republican Senator Slade Gordon as well. *See* Sarah Wilson, *Appellate Judicial Appointments During the Clinton Presidency: An Inside Perspective*, 5 J. OF APP. PRAC. & PROCESS 29, 43-7 (2003).

bench is Rita, a judge whose views clash with the executive. She is too pro-driver for the executive's liking. If Rita hears all cases looking at drivers' contributory negligence—and even if she decides all the cases narrowly—the law will converge to a threshold rule of 400 feet. This is costly for the centrist appointer who believes the optimal rule is 200 feet. There are two candidates for the vacant judicial position: Lewis and Michael. Lewis has an ideal point of 0 feet. His extreme ideal point appears to be a counterweight to Rita's extreme view of 400 feet. If Lewis is appointed, the average ideal point will be 200 feet, which is the same as the appointer's ideal point. Michael, on the other hand, is a moderate and shares the appointer's ideal point. He believes that the optimal rule is 200 feet.

My model helps determine the content of the law if either judge is appointed. If Lewis is appointed, a judge with an ideal point of 0 feet, the law will converge to a U-shaped distribution, exploding at 0 feet and 400 feet. The likelihood of the law being 200 feet is slim. This is the *ex ante* distribution in section II. It is illustrated in the left panel of Figure 8. If Michael is appointed, the *ex ante* distribution of laws will be different. With this distribution of judicial ideal points, there is no chance that the law can converge to a rule below 200 feet. If a case arises with a driver who can see, say, 100 feet, then it matters not whether Rita hears the case or whether Michael hears the case. Both judges believe that this driver is not negligent. This is true for all cases where the driver can see less than 200 feet, precluding the possibility of the law converging to a rule within this range. The *ex ante* distribution of the law is illustrated in the right panel of Figure 8.

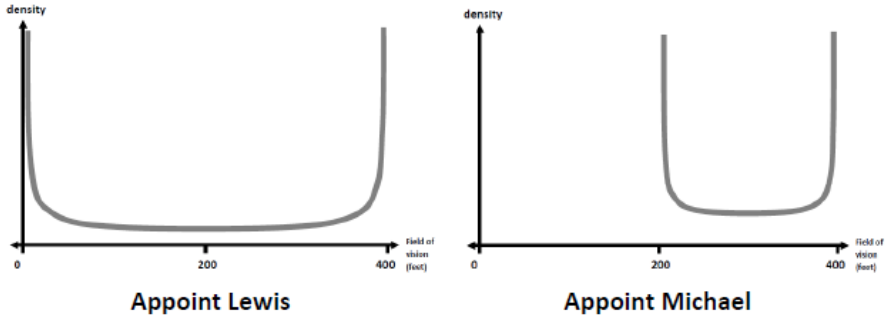

Figure 8: (*Left panel*) The *ex ante* distribution of laws if Lewis, ideal point 0 feet, is appointed to sit with Rita. (*Right panel*) The *ex ante* distribution of laws if Michael, ideal point 200 feet, is appointed.

If the executive appoints an extreme judge like Lewis to balance out Rita's extreme views, the mean position of the *ex ante* law is 200 feet. The mean position of the law, however, is not the only factor to be taken into account. The *ex ante* variance of the final position of law is also important. Such variance is costly. If the executive appoints Lewis it is highly likely that the law will converge to the neighborhood of 0 feet or 400 feet. If, on the other hand, the executive appoints Michael, there is still a chance that Rita's views will dominate and the law will converge to 400 feet. But now there is a strong chance that the law will reflect the centrist's view and a rule in the neighborhood of 200 feet will emerge.

I assume that, for a centrist executive, extreme rules to the left are just as costly as extreme rules to the right. Deviations away from his ideal point in either direction are equally costly. That is, the cost functions are *symmetric*.[116] I also assume that these cost functions are continuous functions, minimized at the executive's ideal point, and monotonically increasing as the law deviates from the ideal point. That is, for the appointer who prefers that the legal rule is 200 feet, a rule of 300 feet is just as bad as a rule of 100 feet; and both are worse than a rule of 280 feet. Under these conditions, it is better for the executive to appoint Michael, the moderate, to the bench.[117]

My approach has taken the view that the executive's objective in appointing judges is *outcome* driven. That is, the executive cares only about the content of the legal rule. There are, of course, other factors that weigh into the appointment decision. For example, the

[116] A *symmetric* cost function implies that the executive with an ideal point of 200 feet experiences the same cost under a rule of 100 feet as he does with a rule of 300 feet. Further, the executive is punished equally under rules of 0 feet and 400 feet.

[117] The mathematical formulation of this result is on file with the author and available upon request. The result, that an appointer with moderate views should not select judges to provide a counterweight to extreme judges, is not driven by the shape of the appointer's cost function. There are some assumptions about the appointer's cost function—such as symmetry, continuousness, and monotonicity—that do limit this result, however.

executive is constrained by other political players who have the power to block judicial nominees, such as the Senate.[118] Since extremists are more likely to be blocked, the argument for appointing a moderate judge is strengthened.[119] On the other hand, the executive must appease the party base and various interest groups which *may* lead toward nominations of more extreme candidates.[120] Other factors such as age,[121] friendship, and, of course, the quality of the judge may affect the appointment.[122] I hold these factors fixed in my analysis.

I now explore six extensions to this example. The main result that appointing extreme judges to offset each other will not generate moderate law is robust to some of these extensions. Some of the extensions may, however, under certain circumstances, dampen the main result.

First, consider panel effects. My model captures a situation where a single judge is randomly selected to decide a case. One might argue, however, that the precedential value of the decisions of a single judge is, in reality, generally quite low.[123] Judges, it may be

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[118] "[The President] shall have Power, by and with the *Advice and Consent* of the Senate, to make Treaties, provided two thirds of the Senators present concur; and he shall nominate, and by and with the Advice and Consent of the Senate, shall appoint Ambassadors, other public Ministers and Consuls, Judges of the supreme Court, and all other Officers of the United States, whose Appointments are not herein otherwise provided for, and which shall be established by Law: but the Congress may by Law vest the Appointment of such inferior Officers, as they think proper, in the President alone, in the Courts of Law, or in the Heads of Departments." U.S. CONST. art. II, § 2, para. 2 (my emphasis).

[119] *See e.g.*, discussions of the failed nominations by President Ronald Reagan of Robert Bork and Douglas Ginsburg to the Supreme Court in STEPHEN L. CARTER, THE CONFIRMATION MESS (1994); and JAN CRAWFORD GREENBURG, SUPREME CONFLICT (2007).

[120] See Epstein & Segal, *supra* note 109, at § 1. Greenburg, *supra* note 119, has an interesting discussion of the factors underpinning judicial nominations for, amongst others, Bork, Ginsburg, and Anthony Kennedy (§ 2), David Souter (§ 4), and Clarence Thomas (§ 5).

[121] Steven G. Calabresi & James Lindgren, *Term Limits for the Supreme Court: Life Tenure Reconsidered*, 29 HARV. J. L. & PUB. POL'Y 769 (2006).

[122] *See, generally*, Goldman, *supra* note 109.

[123] This is commonly true; however, the decisions of single judges may have strong precedent effect. Take, for example, the famous copyright law decision of

argued, are only constrained to act consistently with previous decisions when the decision is of an appeal court—and appeal courts typically hear cases on panels. My model can, under certain assumptions, accommodate the presence of panels. Suppose decisions are made by panels of three judges. If we draw any three judges, the median voice on any panel will be drawn from one of the two blocs—essentially, the median voice on the panel is the single judge in my model. In this respect, the presence of panels has no effect upon the results.[124] This story does not, however, address some of the important moderating effects of panel composition noted in the introduction, which my model does not capture.[125] Such moderation clearly dampens the effect of appointing extreme judges. If panel effects are particularly acute, then it may be in the interests of the appointer to not only appoint offsetting extremes, but to enforce a rule, where all panels are composed of a mix of judges, representing both sides of the ledger.[126]

Second, the executive may wish to overturn the precedents of existing or earlier judges. Such appointments usually occur in the context of the Supreme Court (to which my model does not specifically apply). For example, the Reagan and Bush administrations hoped to appoint judges who would roll back some prominent Warren and Burger-era precedents, such as *Roe v. Wade*.[127] More recently, there has been some discussion over whether Obama nominees will roll back the decisions of the Rehnquist and Roberts courts.[128] This is not a recent phenomenon. In the Lincoln-

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Folsom v. Marsh, 9 F. Cas. 342 (1841). Further, the decisions of the Delaware Chancery Court may have strong precedential effect.

[124] If the judges' ideal points are uniformly distributed, then there *is* an effect of panels here. The median voice is even less likely to be extreme, and therefore, the law will be even more likely to converge to the median judge's ideal point.

[125] *See* references, *supra* notes 4 to 9, and accompanying text.

[126] *See e.g.*, the policy prescriptions of Miles and Sunstein, *supra* note 9.

[127] Roe v. Wade, 410 U.S. 113 (1973). On the question of courts, judges, and other lawmakers factoring into presidential elections and campaigns, see William G. Ross, *The Role of Judicial Issues in a Presidential Campaign*, 42 SANTA CLARA L. REV. 391 (2002).

[128] *See e.g.*, Patrick Healy, *Seeking to Shift Attention to Judicial Nominees*, N.Y. TIMES, Oct. 5, 2008.

Douglas debates of 1858, then-Senate candidate Abraham Lincoln promised to appoint judges that would overrule the *Dred Scott* decision.[129] If this rationale of over-turning prior precedents is captured by the model, and judges can act inconsistently with previous decisions that they disagree with, does this change the conclusion over which should be appointed? The answer is not necessarily.

If judges are able to act inconsistently with precedent,[130] then executives should still appoint judges who have similar preferences to themselves. A centrist executive, for example, would prefer judges to overturn extreme precedents in favor of moderate laws rather than have extreme precedents overturned in favor of equally extreme rulings at the other end of the spectrum.[131] By appointing an offsetting judge in this world, the center cannot hold. The law does not converge in a world of costless, or low cost, inconsistenct judicial rule-making.[132]

Third, consider the effect of appointing a judge in a situation where precedents already exist—instead of the legal *tabula rasa* in my model—but judges do not act inconsistently with existing precedents. For example, let's suppose that the first case was decided by Lewis and he held that the driver who could see 243 feet of track contributorily negligent. But then Lewis retires. At the time of the new appointment the gray area of the law is the domain between 0

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[129] Dred Scott v. Sandford, 60 U.S. (19 How.) 393 (1857). On the Lincoln-Douglas debates, see HAROLD HOLZER (ed.), THE LINCOLN-DOUGLAS DEBATES (1993).

[130] A recent empirical study tracks inconsistent decisions in disputes involving the unconscionability doctrine in California. A key finding of that paper is that ideology of different judges is a significant driver of inconsistency between decisions. *See* Anthony Niblett, *Tracking Inconsistent Judicial Behavior*, (2010) (unpublished manuscript available at: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1434685).

[131] Saul Brenner & Marc Stier find that extreme judges are more likely to vote against the precedent than centrist judges. Saul Brenner & Marc Stier, *Retesting Segal and Spaeth's* Stare Decisis Model, 40 AM. POL. SCI. REV.1036 (1996). As the authors note in n. 2, at 1037, however, "[t]his finding is partly tautological, for strong ideologues achieve their high or low scores, in part, because of their failure to conform to precedents that are in conflict with their preferences."

[132] The results on overturning are consistent with the findings of Gennaioli & Shleifer, *supra* note 18.

feet and 243 feet. Here, the issue is not overruling but rather operating within the constraints of existing precedents. It is still the case that the executive should appoint a judge who shares his ideal point rather than a judge who will offset Rita's pro-driver preferences. Even if the precedent precludes any chance that the law can converge on the executive's ideal point, it is still in the interest of the executive to appoint a judge with similar preferences.

Fourth, consider the effect of judges issuing broader rulings. If judges issue broad rulings (and these rulings are respected by judges in subsequent cases), this merely strengthens the claim for appointing the moderate judge. If a judge, upon hearing the first case, simply sets a rule that comports with his or her ideal point, then it is in the interests of the centrist executive to appoint Michael rather than Lewis. If Michael is appointed there will be a 50 per cent chance of a rule of 200 feet; if Lewis is appointed there is a 0 per cent chance of such a rule.

Fifth, consider the possibility that the ideology of judges is not perfectly known at the time of appointment. For example, a nominated judge, perceived to be a moderate at the time of appointment, may turn out to be either left or right of the center when sitting. This ideological shift is best seen by looking at Supreme Court appointees. President Eisenhower is said to have regretted the appointments of Earl Warren and William J. Brennan, Jr. to the Supreme Court. Empirical evidence suggests that notable "ideological shifts" of judges such as Harry Blackmun, John Paul Stevens, Sandra Day O'Connor, and David Souter took place following appointment.[133] Overall, however, the empirical evidence suggests that, with respect to the Supreme Court at least, the ideological divergence between appointing presidents and appointed judges are only slight. The voting behavior of judges and the political ideology of the nominating president is strongly correlated.[134] The

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[133] *See*, Epstein & Segal, *supra* note 109, at 119-20; and Martin, Quinn, & Epstein, *supra* note 53, at 1310, who illustrate the ideological shift in the voting behavior of Sandra Day O'Connor over time (from more conservative to more liberal).

[134] Epstein & Segal, *supra* note 109, for example show that the correlation between liberal votes cast by the justice (percent) and the president's ideology from Presidents Eisenhower through to President Clinton is +0.64 (Justices Warren through to Breyer), at131. Epstein and Segal use data from Keith Poole on presidential ideology (*see e.g.*, Nolan N. McCarty & Keith T. Poole, *Veto Power*

data, however, also suggest that the correlation drops for justices with more than ten years service.[135] At the court of appeal level—which is more relevant for the purposes of my model—the positive correlation between the president's ideology and the voting behavior of judges is slightly weaker.[136]

In my model, the effects of an ideological shift depend on whether ideological shifts are biased or not. If judiciary ideology can shift both ways over time—and the expected ideological shift is zero—then the effect is neutral. Anecdotal evidence may suggest that it is more likely that justices become more liberal over time. Justices Stevens and Souter are notable examples. If this bias were both true and endemic in all judges, then the executive may wish to offset this bias by appointing judges who are further to the right. In my stylized example, the argument for appointing the moderate judge would be even stronger. However, the empirical evidence does not necessarily bear this out, suggesting that some judges become more liberal on the bench than expected and others become more conservative than expected.[137]

Sixth and finally, what if there are other candidates besides Lewis and Michael? The model is simplistic in assuming that the

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and Legislation: An Empirical Anlaysis of Executive and Legislative Bargaining from 1961-1986, 11 J. L. ECON. & ORG. 282 (1995)); and Harold J. Spaeth's data on Supreme Court voting, available at: www.as.uky.edu/polisci/ulmer-project/UlmerProject/databases.htm. In 1985, Laurence Tribe suggested that the problem of ideological shift is a myth, because "in areas of particular and known concern to a President, Justices have been loyal the ideals and perspectives of the men who have nominated them." *See* LAURENCE TRIBE, GOD SAVE THIS HONORABLE COURT 60 (1985).

[135] Epstein & Segal, *supra* note 109, show that the correlation drops to +0.49 for this subset of Supreme Court justices.

[136] *See e.g.*, Cass R. Sunstein, David Schkade, & Lisa M. Ellman, *Ideological Voting on the Federal Courts of* Appeals, 90 VA. L. REV. 301 (2004)

[137] Epstein & Segal, *supra* note 109, at 125 compare the perceived ideology of the judge at the time of nomination to the voting behavior of each judge on the Supreme Court. The data used are from Jeffrey A. Segal & Albert D. Cover dataset that creates a score of perceived ideology for each supreme court justice since 1953 using newspaper editorials at the time of the nomination (*see e.g.*, Charles D. Cameron, Albert D. Cover, & Jeffrey A. Segal, *Senate Voting on Supreme Court Nominees: A Neo-Institutional Model*, 84 AM. POL. SCI. REV. 525 (1990)) and Harold J. Spaeth's website on voting behavior, *supra* note 134.

executive's choice set consists only of Lewis and Michael. Restricting the choice set of judges in this way adduces the bold claim that centrists should not counterbalance the biases of sitting judges. Suppose now that the pool includes potential judges with all ideal points. Under these conditions, it may be optimal for the executive to appoint a judge whose preferences *slightly* offset the preferences of an existing judge—but it is not in the executive's best interests to fully offset or counterbalance these biases. Suppose, for example, that the executive has a "linear" cost function. That is, as the law diverges further from the executive's ideal point of 200 feet, his costs increase at a constant rate. It is twice as costly if the rule is 300 feet than if the rule is 250 feet. The functional form of the executive's cost function now *does* affect the selection of the judge now; but, the punchline remains the same, under all sensible cost functions, the law better reflects a centrist appointer's view if he does not try to completely offset the ideology of extreme judges.

CONCLUSIONS

Our intuitions on how case law washes out the biases of extreme judges are strong. These intuitions essentially mirror our intuitions about how other groups, such as legislatures, bargain over an outcome. There are, however, very good reasons that suggest judge-made law is different. There are very good reasons that suggest our strong intuitions are misguided. Judge-made law is sequential and decisions have precedential value. Such decisions are often made by randomly-selected judges. The identity of the judge chosen to decide a case and the facts of cases that come before the court both strongly influence the path that the law will take. In particular, judges who decide early cases—that is, cases of first impression or cases of early impression—will strongly dictate the path of the law.

In this context, aggregating the preferences of an equal number of opposite and extreme judges is very unlikely to generate a law that reflects a moderate position. Rather, either of the extreme positions is likely to dominate. The model illustrates the difficulty of balancing extremes on the judicary when judges are selected randomly. The judges randomly selected to decide early cases are likely to dominate. They have far greater power to dictate the path of the law.

It is important to reiterate clearly that my model does not analyze the effects of differing viewpoints when judges decide a case in a panel. The aggregation of preferences in my model does not take place *within* a particular decision or on a particular panel; but rather over many cases over time. To use a salient example, my model does not analyze the effect of having an extreme left-wing judge and an extreme right-wing judge on the same panel. The dynamic effects of intra-panel bargaining are, of course, important influences on judicial outcomes.[138] My model, however, focuses on a different dynamic effect. I analyze the effect of having a Brennan deciding one case narrowly on the facts, and a Scalia deciding a subsequent case narrowly on the facts. Panel effects may, of course, moderate the claims made in this paper.

The model has strong normative implications. In this paper, I have explored the normative implications upon judicial appointments. The conventional wisdom of appointing judges to offset or balance one another has been challenged, and the model suggests that it may be wiser to appoint moderate judges if moderate outcomes are preferred.

The theory also speaks to other important questions that have not been explored in this paper, but present exciting opporutnities for future research. For example, the method by which judges are selected may have important, and yet untold, effects on the substantive law.[139] Take two states, for example: state *A* and state *B*. Both states have a bench with the same mean and median judicial viewpoint, but the variance of viewpoints in state *A* is much greater than in state *B*. That is, state *A* has more extreme judges, in both directions, than state *B*. Most law and economics theories would predict that there would not be major differences in the legal doctrines of state *A* and state *B*. My theory suggests, however, there may be large differences. One might think that appointments by an executive would be closer in reality to state *B* (for example, executive appointments may be constrained by the legislature); while partisan elections would be closer to state *A* (reflecting the polarization of

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[138] *See* references *supra* note 9.

[139] One of the few studies examining the issues of selection methods of judges is Stephen J. Choi, G. Mitu Gulati, & Eric A. Posner, *Professionals or Politicians: The Uncertain Empirical Case for an Elected Rather than Appointed Judiciary*, J. L ECON. & ORG. (2010) (forthcoming).

party voters). If this intuition holds true, the theory suggests that the method by which judges are appointed will have a strong influence upon legal doctrine; a point that has received little attention in the literature.

Further, the conclusions of the model can be used to explore the effects of the judicial philosophy of minimalism. My model of case-by-case adjudication and narrow decision-making may be thought of as a type of minimalist decision-making. Scholars, such as Cass Sunstein, have suggested that decisional minimalism ("nudging" the law by deciding cases narrowly) is preferable to maximalism (causing "earthquakes" by setting broad rules).[140] One of the reasons proffered is that minimalism reduces error costs: if judges set rules and they are "wrong", then the error costs will be high. My model suggests that even when judges write narrow decisions, the law will still disproportionately reflect the biases of judges. The difference in error costs when judges hand down minimalist decisions, compared to broad, sweeping rules, may not actually be that large. That is, minimalism may be, substantively, very similar to maximalism. Achieving balance between the extremes of judicial viewpoints cannot necessarily be overcome by narrowing the scope of decisions.

[140] Sunstein, *supra* note 22