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THE PHANTOM PHILOSOPHY? AN EMPIRICAL INVESTIGATION OF LEGAL INTERPRETATION

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This Article tests a model of judicial decisionmaking that incorporates elements of both the attitudinal model and the legal model, along with measures of institutional and judicial background characteristics such as collegiality and trial court experience. We develop a measure of interpretive philosophy relying primarily on judicial opinions, which we code for certain indicators of traditional interpretive approaches (i.e., the use of interpretive tools). The critical question is whether judges with similar interpretive philosophies are more likely to agree with one another when deciding cases. Our general finding is that ideology and interpretive philosophy are not significant predictors of agreement. Instead, experience on the bench together is a significant predictor of agreement, supporting the conclusion that judging is more about pragmatic problem solving and maintaining a collegial work environment. While further testing of the importance of the legal model is certainly warranted, our findings suggest that at least some of the sharp interpretive disagreements among academics are not reflected in the actual business of judging.

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Introduction

"[]]udges' decisions," according to one scholar, "are a function of what they prefer to do, tempered by what they think they ought to do, but constrained by what they perceive is feasible to do." Judges on the federal courts of appeals typically agree with one another. The vast majority of decisions are unanimous. But why, in a minority of cases, do they disagree? One explanation, a legal realist explanation, is that judges have different political or policy views. While some judges are more liberal and others more conservative, the judicial selection process insures that most judges are not too far from the ideological mainstream. Moreover, winning coalitions in Congress are typically bipartisan and much larger than a simple majority.² Therefore, judges should generally agree with one another, although their ideological differences will occasionally cause disagreement in the form of concurrences or dissents. Another explanation for disagreement, a more traditional one, is that judges have different approaches or philosophies toward legal interpretation. Some judges are more formalist or originalist, while others are less so. For the traditionalist, these interpretive differences are the real stuff of judicial disagreement. Judging, however, may be about both ideological and interpretive commitments. What judges consider preferable, proper, and feasible is likely based on their views of good policy and good legal interpretation.

In this Article, we consider the role of judges' interpretive philosophies from an empirical perspective.³ We focus on two basic questions: First, how can we measure or operationalize the interpretive philosophy of judges? Second, how can we test the importance of interpretive philosophy in judicial decisionmaking? For decades, political scientists have devoted most of their efforts to measuring ideology, particularly the ideology of Supreme Court Justices, with mixed results.⁴ Much less work has been devoted to measuring judges' inter-

^{1.} James L. Gibson, From Simplicity to Complexity: The Development of Theory in the Study of Judicial Behavior, 5 Pol. Behav. 7, 9 (1983).

^{2.} The average size of the winning coalition for all laws enacted by the 102nd and 103rd Congresses (1991-1994) is seventy-nine percent. Keith Krehbiel, Pivotal Politics 6 (1998).

^{3.} We do not mean to suggest that traditional legal scholarship is inherently non-empirical. A doctrinal analysis is often a qualitative, "small n" study. But in legal scholarship, the term "empirical" is often used to distinguish traditional doctrinal work from quantitative work. We simply follow this common usage.

^{4.} E.g., David E. Klein, Making Law in the United States Courts of Appeals 63-64 (2002); Jeffrey A. Segal & Harold J. Spaeth, The Supreme Court and the Attitudinal Model Revisited (2002); Donald R. Songer et al., Continuity and Change on the United States Courts of Appeals 103-04 (2000); Lee Epstein & Carol Mershon, Measuring

pretive views.⁵ This lack of attention is somewhat surprising. Judges are much more explicit in their opinions about their interpretive views than their ideological views, thereby providing more raw material for constructing measures of judges' interpretive philosophies. Since legal scholars are now active participants in empirical discussions of judicial decisionmaking, there should be more interest in evaluating the role of traditional interpretive approaches in the decisionmaking process.

Understanding the role of judges' interpretive views is not a purely academic exercise. Assuming interpretive differences matter, we would like to know the costs and benefits of various approaches to legal interpretation. For example, might formalism and bright line rules reduce litigation costs by making the law more predictable? Does originalism force the legislature to make costly corrections to statutes, corrections the judiciary might more efficiently handle? The federal judiciary offers thirteen "jurisprudential laboratories" for considering questions like these, but before we can compare and evaluate different interpretive approaches, we must determine whether we can measure their use—or whether empiricists who study legal interpretation are chasing phantoms even to try.

Political Preferences, 40 Am. J. Pol. Sci. 261 (1996); Sheldon Goldman, Voting Behavior on the United States Courts of Appeals, 1961-1964, 60 Am. Pol. Sci. Rev. 374 (1966); Jeffrey A. Segal & Albert D. Cover, Ideological Values and the Votes of U.S. Supreme Court Justices, 83 Am. Pol. Sci. Rev. 557 (1989); Michael W. Giles et al., Measuring the Preferences of Federal Judges: Alternatives to Party of the Appointing President (June 11, 2002) (unpublished manuscript, on file with the authors); Christopher Zorn & Gregory A. Caldeira, Bias and Heterogeneity in a Media-Based Measure of Supreme Court Preferences (Feb. 15, 2003) (unpublished manuscript), available at http://www.polisci.umn.edu/conferences/judicial/papers/zorn.pdf.

- 5. For notable exceptions involving stare decisis, see Stefanie A. Lindquist & Frank B. Cross, Empirically Testing Dworkin's Chain Novel Theory: Studying the Path of Precedent, 80 N.Y.U. L. Rev. 1156 (2005); Harold J. Spaeth & Jeffrey A. Segal, Majority Rule or Minority Will: Adherence to Precedent on the U.S. Supreme Court (1999). For an exception involving textualism and originalism, see Robert M. Howard & Jeffrey A. Segal, An Original Look at Originalism, 36 Law & Soc'y Rev. 113 (2002). For other empirical tests of the legal model, see Daniel R. Pinello, Gay Rights and American Law 131-43 (2003); Stefanie A. Lindquist & David E. Klein, The Influence of Jurisprudential Considerations on Supreme Court Decisionmaking: A Study of Conflict Cases, 40 Law & Soc'y Rev. 135 (2006); Sara C. Benesh & Jason J. Czarnezki, The Ideology of Legal Interpretation (unpublished manuscript, on file with the authors); Sara C. Benesh & Harold J. Spaeth, What Explains Dissensus? A Test of the Legal and Attitudinal Models (unpublished manuscript, on file with the authors). See also William M. Landes & Richard A. Posner, Legal Precedent: A Theoretical and Empirical Analysis, 19 J.L. & Econ. 249 (1976).
- 6. Cf. New State Ice Co. v. Liebmann, 285 U.S. 262, 311 (1932) (Brandeis, J., dissenting) ("It is one of the happy incidents of the federal system that a single courageous State may, if its citizens choose, serve as a laboratory; and try novel social and economic experiments without risk to the rest of the country.").

This Article is organized as follows: In Part I, we discuss why legal scholars ought to empirically evaluate interpretive approaches. In Part II, we describe the dominant models of judicial decisionmaking, the legal model and the attitudinal model. In Part III, we describe our combined model and explain the research methodology and data for this study. Part IV analyzes the judicial voting patterns of Seventh Circuit judges and addresses whether agreement between two judges on a three-judge panel can be explained by a variety of judicial characteristics, including both ideological and legal interpretive factors. Part V contains our results. Part VI suggests directions for future research.

I. THE NEED FOR EMPIRICAL ANALYSIS IN LEGAL INTERPRETATION

Scholars interested in legal interpretation are becoming more serious about empiricism. According to Gregory Sisk and Michael Heise, "empirical legal scholarship on judicial decisionmaking [has] emerged from obscurity to become the subject of disputation in a larger societal or academic arena."⁷ This new interest in legal empiricism on the part of legal scholars has occurred despite the doctrinal emphasis in legal training.8 While legal scholars and political scientists have yet to make significant progress in empirically testing the consequences of various interpretive approaches, more and more scholars are forcefully arguing that theorists must be attentive to the costs and benefits of the various interpretive alternatives that they consider. We refer to these alternatives in the broadest sense, including both general and specific interpretive approaches. Whether judges should prefer formalism or nonformalism would qualify as fairly general. Whether judges should rely upon the use of dictionaries is fairly specific. The list of possible alternatives is long, and the choices made by judges may have real consequences.

^{7.} Gregory C. Sisk & Michael Heise, Judges and Ideology: Public and Academic Debates About Statistical Measures, 99 Nw. U. L. Rev. 743, 745 (2005); see also Michael Heise, The Importance of Being Empirical, 26 Pepp. L. Rev. 807 (1999).

^{8.} See Gerald N. Rosenberg, Across the Great Divide (Between Law & Political Science), 3 Green Bag 2d 267, 268 (2000) ("While [legal academics'] desire to reach out to other disciplines, questions, and modes of analysis is commendable, on the whole they have done so without the knowledge or training necessary to do it well.").

^{9.} E.g., Elizabeth Garrett, Legal Scholarship in the Age of Legislation, 34 Tulsa L. J. 679, 687 (1999); see Cass R. Sunstein, Must Formalism Be Defended Empirically?, 66 U. Chi. L. Rev. 636, 641, 669 (1999) (arguing that formalism must be defended pragmatically and suggesting that one must look at the mistakes and injustices possibly caused by a formalist judiciary).

This Part addresses the importance of empirical analysis in legal interpretation and considers some key questions about interpretation that need empirical answers. While existing scholarship does not go far enough in telling us how one might test empirical questions about legal interpretation, it does make clear that empiricism offers important opportunities to answer critical questions about the costs and benefits of various interpretive strategies.

A. Are Normative Arguments Sufficient?

Many issues of legal interpretation are intertwined with normative concerns. While we certainly do not question the value of normative contributions to the study of legal interpretation, empirical research remains valuable for two reasons. First, normative arguments can only take us so far. Defenders of originalism, for example, argue that for reasons of democratic theory, judges must interpret the law according to its original meaning. Suppose we agree. How do we measure the original meaning? Which is more likely to reveal it, the canons of construction, dictionaries, or legislative history? Are some originalist approaches less costly than others? Similar questions could be raised about non-originalist interpretive methods, most of which are difficult to answer without empirical work. Legal philosophers are interested in the law both as it is and as it ought to be. 11 Empirical work can assist with both projects.

Second, when normative discussions are at an impasse, empirical findings may provide the only basis for reaching agreement. The theoretical arguments on many issues of legal interpretation are well developed, and many people are strongly committed to their positions. But if a particular interpretive approach turns out to be more costly than the alternative, its defenders might reevaluate their commitments. If originalism is a very costly methodology—maybe because the courts would need a platoon of political scientists and historians to achieve originalist outcomes—we might want to consider making a democratic commitment to something other than originalism, depending upon the costs of the alternatives.

 $^{10.\} E.g.$, Antonin Scalia, A Matter of Interpretation 12-14 (Amy Gutmann ed., 1997).

^{11.} Andrei Marmor, Interpretation and Legal Theory 1 (rev. 2d ed. 2005).

^{12.} See William N. Eskridge, Jr., Norms, Empiricism, and Canons in Statutory Interpretation, 66 U. Chi. L. Rev. 671, 672 (1999); Sunstein, supra note 9, at 643 ("[W]ith imaginable empirical findings, both formalists and antiformalists should be flexible enough to move in the direction of their apparent adversaries.").

B. The Relevant Questions

Focusing on formalism in particular, Cass Sunstein argues that the tools of legal interpretation must be empirically defended and suggests what results must be empirically identified in order for formalism to be considered a beneficial judicial strategy.¹³ While he does not offer any methods for finding these answers and mounting this defense, if his optimism in empiricism is realized, many disagreements over interpretive methods or tools might be resolved by the empirical findings.¹⁴

Empirical work may help us choose interpretive tools by providing a common basis for agreement, ¹⁵ provided we can figure out how to answer the important questions about interpretive approaches like formalism. In order to determine the merits of formalism or nonformalism—or the ideal point between the two extremes—we need to know whether a formalist or nonformalist judiciary will produce more mistakes; whether legislatures can anticipate and correct mistakes at a relatively low cost; and whether a nonformalist judiciary will be unpredictable, increasing the decision costs for the legal system. ¹⁶ We think these questions are susceptible to empirical study. However, we currently lack "the sort of analysis required to assess the empirical claims of those using statutory interpretation to improve legislative decisionmaking." ¹⁷

What is likely to happen on the judicial side of the relationship when courts adopt particular interpretive approaches? We need to ask "how actual judges would use any proposed approach, and to investigate the possibility that an otherwise appealing approach will have

^{13.} Sunstein, supra note 9, at 641.

^{14.} Sunstein hypothesizes "that it is disagreement over the underlying empirical issues—not over large concepts of any kind—that principally separates formalists and nonformalists." *Id.* at 642; *accord* Eskridge, *supra* note 12, at 672 (suggesting reluctantly that "[s]ubjecting theories of statutory interpretation to systematic factual testing . . . should be potentially attractive to both formalists and pragmatists [because such] [e]mpirical work might expand arenas of consensus among scholars and judges about the latter's appropriate role and reasoning in statutory cases").

^{15.} See Sunstein, supra note 9, at 643 ("Doesn't the choice between the competing approaches depend on predictive judgments about which a great deal remains to be learned? Don't the relevant disagreements turn, in large part, on those judgments?").

^{16.} Id. at 641; accord Garrett, supra note 9, at 681, 686-87. The answers relate to the question of how rigorously courts should enforce statutory provisions that produce outcomes the legislature would probably not have wanted. Or might forcing an absurd outcome encourage legislatures to draft statutes more carefully?

^{17.} Garrett, supra note 9, at 687.

unfortunate dynamic effects on private and public institutions,"¹⁸ and what are the consequences of using certain interpretive tools.¹⁹ Many of these questions can be addressed empirically.²⁰ Legal scholars have even studied a few of these questions.²¹ While a roadmap for actually addressing these questions does not yet exist, at least scholars are formulating the right questions.²²

II. MODELS OF JUDICIAL BEHAVIOR

Political scientists speak of two basic models of judicial behavior: the legal model and the attitudinal model.²³ As defined by political scientists, the legal model refers to traditional interpretive approaches familiar to lawyers, such as the language of legal texts (e.g., contracts, statutes, and constitutions), precedent, canons of construction, the intent of the framers, and legislative history.²⁴ A common thread

^{18.} Cass R. Sunstein & Adrian Vermeule, *Interpretation and Institutions* 1 (Univ. of Chicago Law Sch. Pub. Law & Legal Theory Working Paper Series, Paper No. 28, 2002), *available at* http://ssrn.com/rom.abstract_id=320245.

^{19.} See Eskridge, supra note 12, at 680 (suggesting that one might look at the differences in decisions when decisionmakers are provided only with specific canons, versus the more general guidance that might be available through legislative history, and considering whether the legislature is even aware of the canons and whether some canons are better than others).

^{20.} Some interpretive arguments depend upon the possibility of empirical measurement. E.g., Adrian Vermeule, The Cycles of Statutory Interpretation, 68 U. Chi. L. Rev. 149 (2001). Vermeule argues that the interpretive strategies used by courts may cycle, depending upon the behavior of other actors. Id. at 150-51. Courts, in reaction to the legislature's propensity to manipulate legislative history, may alternate between following and not following it. The legislature, in reaction to the courts' interpretive rule for legislative history, may alternate between manipulating and not manipulating it. Id. at 167-68. Yet he admits that he is unable to confirm whether any cycling is actually occurring. Id. at 182-83. The model depends, however, upon the ability of judges to detect manipulation in the legislative history and upon the ability of legislators to identify the prevailing interpretive rule for it, meaning that judges and legislators could determine whether cycling is occurring. Id. at 167-68. But if scholars cannot determine whether cycling is occurring, it is unclear how judges or legislators could do so.

^{21.} For a study of how often and under what conditions Congress is apt to override the Supreme Court's construction of a federal statute, see William N. Eskridge, Jr., *Overriding Supreme Court Statutory Interpretation Decisions*, 101 Yale L.J. 331 (1991).

^{22.} While legal scholars have raised the relevant questions, some have suggested these questions cannot be answered. E.g., Eskridge, supra note 12, at 672-73; Adrian Vermeule, Interpretation, Empiricism, and the Closure Problem, 66 U. Chi. L. Rev. 698, 699-700 (1999). For an example of mild skepticism about empirical findings while recognizing that empirical evidence is beneficial when available, see Douglas G. Baird, Bankruptcy's Uncontested Axioms, 108 Yale L.J. 573, 573-74 (1998).

^{23.} E.g., Segal & Spaeth, supra note 4, at 44. A third model is the separation of powers model. Id. at 103-10. Under this model, courts act to prevent legislative overrides of their decisions that will result in policies further from their ideal points than strategic alternatives that are irreversible under the legislatures' existing ideal points. Id. at 105.

^{24.} Id. at 48.

among these sources is that each is external to a judge's personal preferences or political views.²⁵ The attitudinal model, on the other hand, is essentially the political science version of legal realism, where judges "decide[] disputes in light of the facts of the case vis-à-vis [their] ideological attitudes and values."26 While the legal model assumes an almost mechanical form of jurisprudence, the attitudinal model represents the opposite extreme, suggesting that ideology alone determines judicial outcomes. Indeed, the frequent protests of Supreme Court Justices that they do not or must not make policy²⁷ are matched by some political scientists' complaints that legal arguments are deceptions.²⁸ Standing alone, neither model captures what most legal scholars think influences judicial decisionmaking. Recently, political scientists have begun to give more attention to the legal model, and legal scholars have begun to give more empirical attention to the role of ideology.²⁹ Nevertheless, much work remains to be done in developing and testing a model that incorporates ideological and legal influences. Both types of influences have strong backing in the theoretical literature on legal interpretation and deserve careful testing.

A. Combining the Legal and Attitudinal Models

The theoretical literature on legal interpretation offers strong support for a model combining elements of both the attitudinal and

^{25.} Id. at 49. Contra Richard A. Posner, The Jurisprudence of Skepticism, 86 MICH. L. REV. 827, 828 (1988) ("[T]he answers [to many legal questions] depend on the policy judgments, political preferences, and ethical values of the judges, or (what is not clearly distinct) on dominant public opinion acting through the judges, rather than on legal reasoning regarded as something different from policy, or politics, or values, or public opinion.").

^{26.} Segal & Spaeth, supra note 4, at 86; accord Cass R. Sunstein et al., Ideological Voting on Federal Courts of Appeals: A Preliminary Investigation, 90 Va. L. Rev. 301, 309 (2004); Cass Sunstein, The Right-Wing Assault, Am. Prospect, Mar. 1, 2003, at A2, available at http://www.prospect.org/print/V14/3/sunstein-c.html.

^{27.} E.g., Griswold v. Connecticut, 381 U.S. 479, 482 (1965) ("We do not sit as a superlegislature to determine the wisdom, need, and propriety of laws that touch economic problems, business affairs, or social conditions."); Osborn v. Bank of the United States, 22 U.S. (9 Wheat.) 738, 866 (1824) ("Judicial power is never exercised for the purpose of giving effect to the will of the Judge; always for the purpose of giving effect to the will of the Legislature; or, in other words, to the will of the law.").

^{28.} E.g., Harold J. Spaeth & Stuart H. Teger, Activism and Restraint: A Cloak for the Justices' Policy Preferences, in Studies in U.S. Supreme Court Behavior 221 (Harold J. Spaeth & Saul Brenner eds., 1990).

^{29.} E.g., Cass R. Sunstein, Why Societies Need Dissent 166-67 (2003); Howard Gillman & Cornell W. Clayton, *Introduction* to Supreme Court Decision Making 1, 1-12 (Cornell W. Clayton & Howard Gillman eds., 1999); Howard & Segal, *supra* note 5; Richard L. Revesz, *Environmental Regulation, Ideology, and the D.C. Circuit*, 83 Va. L. Rev. 1717 (1997).

legal models. The most basic reason is linguistic indeterminacy. To varying degrees, judges must exercise discretion or judgment in applying the law to many situations that are poorly described or not even considered by the legislature. Despite the recognition that interpretation is not a mechanical enterprise, judges are not at sea in interpreting legal texts. Judges should be "faithful" to the text and not force "extraneous matter" into it, the willing to abandon faithful interpretations if it would "slaughter justice."

These basic points, noted by Francis Lieber, are ones that most legal scholars would consider sound. Legal texts are not completely determinate. To varying degrees, they have gaps.³³ Gaps in the texts are easy and sometimes necessary entry points for judges' policy preferences. And at some point, even a relatively determinate meaning should be abandoned. Not surprisingly, there is significant disagreement over when to depart from a clear meaning. For some, the touchstone might be absurdity. For others, it might be to avoid injustice or terrible consequences. Nearly everyone would agree that a clear meaning should be abandoned if it would transform the law into a "suicide pact."³⁴

B. The Legal Model

There is no canonical definition of the legal model or legal interpretation, but we cannot measure something called "interpretive philosophy" unless we can give meaning to the concept. As an initial matter, we can be clear about what we do not mean by the term interpretive philosophy. We do not refer to judges' views on issues of epistemology. Like most people, most judges probably do not give much thought to this topic. We also do not refer to certain high-level legal questions confronted by legal philosophers. A comprehensive understanding of legal interpretation might require consideration of these questions, but we do not think these issues are closely related to

^{30.} Francis Lieber, Legal and Political Hermeneutics 121-22 (1839) (recognizing that interpreting legal texts inevitably requires some degree of "construction" because legislatures "cannot foresee all possible complex cases").

^{31.} Id. at 144.

^{32.} Id. at 115.

^{33.} Benjamin N. Cardozo, The Nature of the Judicial Process 113 (1921).

^{34.} See, e.g., Kennedy v. Mendoza-Martinez, 372 U.S. 144, 160 (1963) ("[W]hile the Constitution protects against invasions of individual rights, it is not a suicide pact."); Terminiello v. Chicago, 337 U.S. 1, 37 (1949) (Jackson, J., dissenting) ("There is danger that, if the Court does not temper its doctrinaire logic with a little practical wisdom, it will convert the constitutional Bill of Rights into a suicide pact.").

^{35.} See, e.g., BRIAN BIX, JURISPRUDENCE 38-41 (1996) (discussing John Austin's "command theory" of law and H.L.A. Hart's rule of recognition).

judicial decisionmaking at the "ground level." We think of a judge's interpretive philosophy as something like a congressperson's political philosophy. A philosophy, in our sense, is a package of beliefs about how to do a job responsibly. For a judge, this job is to interpret the law.

These packages of beliefs go by several names. Formalism and originalism are two of the most common, but they do not define the entire list. We can also add textualism, realism, and strict constructionism. Judge Frank Easterbrook has also suggested the term "legalist," which is, perhaps, someone who practices legalism. These categories, such as formalism, textualism, and strict constructionism, often blur together, and it is unlikely that each of these terms represents a different dimension of real-world judicial behavior. Congressional behavior is well explained by a single liberal-conservative dimension, so it would be quite surprising if judicial behavior falls along six or more dimensions. Some commentators argue that formalism, or at least particular types of formalism, even fail to describe any real-world judicial behavior. The descriptions of judicial decisionmaking offered by Chief Justice John Marshall in Osborn v. Bank of the United States v.

^{36.} Howard Bashman, How Appealing's 20 Questions Site, 20 Questions for Circuit Judge Frank H. Easterbrook of the U.S. Court of Appeals for the Seventh Circuit (Aug. 2, 2004), http://www.legalaffairs.org/howappealing/20q/2004_08_01_20q-appellateblog_archive.html.

^{37.} For a related discussion along these lines, see Lawrence B. Solum, *Judicial Selection: Ideology Versus Character*, 26 CARDOZO L. REV. 659, 666-72 (2005).

^{38.} Keith T. Poole & Howard Rosenthal, Congress: A Political-Economic History of Roll Call Voting 27-28, 53-54 (1997). Poole and Rosenthal actually prefer two dimensions, but the additional dimension offers only a small improvement. *Id.*

^{39.} But see Stephen Reinhardt, Judicial Speech and the Open Judiciary, 28 Lov. L.A. L. Rev. 805, 809 (1995) ("Judicial philosophies are as diverse as the judges themselves.").

^{40.} See RICHARD A. POSNER, LAW, PRAGMATISM, AND DEMOCRACY 19 & n.21 (2003) (discussing the formalist delusion that "all responsible legal professionals outgrew . . . a long time ago," but suggesting that Justice Scalia may be an exception); Thomas C. Grey, Hear the Other Side: Wallace Stevens and Pragmatist Legal Theory, 63 S. Cal. L. Rev. 1569, 1590 (1990) ("I am convinced that pragmatism is the implicit working theory of most good lawyers."); Richard Rorty, The Banality of Pragmatism and the Poetry of Justice, 63 S. Cal. L. Rev. 1811, 1811 (1990) ("I think it is true that by now pragmatism is banal in its application to law. I also suspect that [Thomas] Grey is right when he claims that 'pragmatism is the implicit working theory of most good lawyers.' To that extent, at least, everybody seems to now be a legal realist." (footnote omitted)).

^{41. 22} U.S. (9 Wheat.) 738 (1824). The Court notes, Judicial power, as contradistinguished from the power of the laws, has no existence. Courts are the mere instruments of the law, and can will nothing. When they are said to exercise a discretion, it is a mere legal discretion, a discretion to be exercised in discerning the course prescribed by law; and, when that is discerned, it is the duty of the Court to follow it. Judicial power is never exercised

Butler,⁴² for example, both suggest implausible versions of formalism. But these versions of formalism do not interest us. The goal, of course, is to identify plausible approaches to legal interpretation, whether the approach is labeled formalism or something else.

Three general questions seem to animate much of the discussion about legal interpretation: whether to prefer rules and predictability or standards and discretion; the proper use, if any, of extra-textual sources; and the amount of deference owed to the original meaning of the law. Cass Sunstein's definition of formalism captures the first two questions, while common definitions of originalism capture the third. According to Sunstein, formalist approaches include the following commitments: "to promoting compliance with all applicable legal formalities (whether or not they make sense in the individual case), to ensuring rule-bound law (even if application of the rule, statutory or contractual, makes little sense in the individual case), and to constraining the discretion of judges in deciding cases." 43

While other scholars would offer different definitions of formalism,⁴⁴ there is likely more agreement about the meaning of originalism. Keith Whittington describes "the critical originalist directive" as the position that "the Constitution should be interpreted according to the understandings made public at the time of the drafting and ratifi-

for the purpose of giving effect to the will of the Judge; always for the purpose of giving effect to the will of the Legislature; or, in other words, to the will of the law. *Id.* at 866.

^{42. 297} U.S. 1, 62 (1936) ("When an act of Congress is appropriately challenged in the courts as not conforming to the constitutional mandate the judicial branch of the Government has only one duty—to lay the article of the Constitution which is invoked beside the statute which is challenged and to decide whether the latter SQUARES with the former.").

^{43.} Sunstein, *supra* note 9, at 638-39.

^{44.} See, e.g., JEROME FRANK, LAW AND THE MODERN MIND 101 (1930); Richard A. Posner, Legal Formalism, Legal Realism, and the Interpretation of Statutes and the Constitution, 37 CASE W. Res. L. Rev. 179, 181 (1986) ("I want [formalism] to mean the use of deductive logic to derive the outcome of a case from premises accepted as authoritative. Formalism enables a commentator to pronounce the outcome of the case as being correct or incorrect, in approximately the same way that the solution to a mathematical problem can be pronounced correct or incorrect."); Frederick Schauer, Formalism, 97 Yale L.J. 509, 510 (1988) ("At the heart of the word 'formalism,' in many of its numerous uses, lies the concept of decision-making according to rule."); Mark Tushnet & Jennifer Jaff, Critical Legal Studies and Criminal Procedure, 35 Cath. U. L. Rev. 361, 361 (1986) ("We define legal formalism as the position which claims that results in any particular case are in some nontrivial sense determined by a set of general principles."); see also Sunstein, supra note 9, at 638 ("It is not easy to define the term 'formalism,' partly because there is no canonical kind of formalism." (footnote omitted)).

cation."⁴⁵ While Whittington's focus is on constitutional interpretation, the same principle applies to statutory interpretation.⁴⁶

Given these definitions, it is theoretically plausible to think of formalism and originalism as two important yet distinct aspects of the legal model, ones that should largely capture the ideas of textualism and other approaches as well. Although Sunstein does reference deduction and mechanistic decisionmaking, somewhat echoing Chief Justice Marshall's and Justice Roberts's unpersuasive descriptions of judging,⁴⁷ formalism can be considered not as a method for completely eliminating discretion or extra-textual sources, but as a preference for rules over standards and as a preference for the text of the law over other sources. Originalism can be seen as a preference for the original meaning of the law, regardless of whether this meaning involves rules or standards and regardless of whether the original meaning is sought in the text, dictionaries, legislative history, or elsewhere. These preferences can be relatively stronger or weaker from judge to judge and still remain achievable in the real world of judging.

Pragmatism is best understood not as a distinct alternative to formalism or originalism, but as a sort of legal centrism. Pragmatism is theory blunted. Judge Richard Posner describes it as a "middle way" between formalism and realism in particular, ⁴⁸ but it can also be seen as a middle way between originalism and non-originalism. ⁴⁹ It emphasizes "the primacy of consequences," ⁵⁰ "reasonableness," ⁵¹ and using "common sense to resolve problems." ⁵² Hence, pragmatism is not a separate dimension of interpretation, but a mid-range on whatever other dimensions are important, whether these dimensions are formalism, originalism, or something else. A pragmatist, for example, is not wholly unconcerned about original meaning, but pragmatists will be more likely to balance originalist goals with other goals. ⁵³ At least in theory, one pragmatist could be relatively more or less formalist or originalist than another pragmatist, ⁵⁴ but pragmatism makes dull the

^{45.} Keith E. Whittington, Constitutional Interpretation 35 (1999).

^{46.} E.g., ROBERT BORK, THE TEMPTING OF AMERICA (1997).

^{47.} Sunstein, supra note 9, at 638-39.

^{48.} RICHARD A. POSNER, OVERCOMING LAW 4 (1995).

^{49.} Id. at 252-53 (discussing pragmatism as an alternative to strict originalism).

^{50.} Id. at 252.

^{51.} Posner, supra note 40, at 59.

^{52.} Id. at 52.

^{53.} See POSNER, supra note 48, at 252-53 (noting that pragmatists place greater emphasis on the consequences of their decisions than originalists).

^{54.} See Posner, supra note 40, at 19 (noting that a pragmatist may "embrace formalism as a pragmatic strategy rather than just as a pragmatic rhetoric").

sharper edges of interpretive theory so commonly advocated in academic discussions of legal interpretation.

Making sense of legal interpretation in theory is not the same as making sense of it in practice. Too little is known about judges' actual interpretive commitments. Too little is also known about how commitments to formalism or originalism affect the choice of common interpretive tools, such as the use of dictionaries, canons of construction, or legislative history. In theory, an originalist can be formalist or nonformalist. Using Sunstein's terminology, hard originalists attempt to derive rules from the original meaning of the law. Soft originalists attempt to derive standards from it.55 In Sunstein's terms, "hard" and "soft" essentially refer to formalism and nonformalism, respectively. A hard originalist would presumably be less likely to rely on legislative history than a soft originalist. But suppose a judge dislikes legislative history. It might be because the judge is relatively non-originalist. Or it might be because the judge is relatively formalist. To take another example, do some judges like dictionaries because they believe dictionaries track the original meaning of the law or because dictionaries make the law more predictable by tying interpretation to publicly accepted definitions? We simply lack enough information about judges' actual interpretive philosophies to predict which justification is more common or to explain how the many elements of the legal model all fit together. Instead, we have only a rough understanding, based on conflicting theories, of common elements of legal interpretation. In addition to operational definitions of the various interpretive tools, we also need an empirical account of how these tools fit together in practice.

C. The Attitudinal Model

The attitudinal model of judicial decisionmaking in political science is several decades old. Among political scientists, Herman Pritchett is often credited as the pioneering force behind the study of judicial behavior.⁵⁶ He approached judicial behavior both empirically and "realistically," recognizing that, at least in some cases, "the private

^{55.} See Cass R. Sunstein, Legal Reasoning and Political Conflict 173-75 (1996) (discussing "hard originalism" as an attempt to make constitutional and statutory interpretation rulelike).

^{56.} See Lawrence Baum, C. Hermann Pritchett: Innovator with an Ambiguous Legacy, in The Pioneers of Judicial Behavior 57 (Nancy Maveety ed., 2003); see also C. Herman Pritchett, The Roosevelt Court: A Study in Judicial Politics and Values 1937-1947 (1948); C. Herman Pritchett, Divisions of Opinion Among Justices of the U.S. Supreme Court, 1939-1941, 35 Am. Pol. Sci. Rev. 890 (1941). For a discussion of the distinction between behavioralism and attitudinalism, see Michael Heise, The Past, Present, and Future of Empirical Legal

attitudes of the majority of the Court . . . become public law."⁵⁷ Glendon Schubert, however, receives the credit for developing and testing the attitudinal model,⁵⁸ with additional credit going to David Rohde and Harold Spaeth for making important contributions to the model in terms of both theory and evidence.⁵⁹ The leading discussion of the model is now contained in Jeffrey Segal and Harold Spaeth's *The Supreme Court and the Attitudinal Model Revisited*, an updated edition of their earlier book.

Segal and Spaeth focus on the U.S. Supreme Court in developing and testing the attitudinal model, not the courts of appeals. They describe the Justices as rational actors who make decisions based on their personal goals, the formal and informal rules in which the Justices operate, and the various situations in which the opportunities for decisions arise.⁶⁰ They describe the Justices' goals as policy goals.⁶¹ What makes the Supreme Court different from most other courts for the pursuit of policy goals is the control exercised by the Court over its own docket. 62 Segal and Spaeth describe this institutional rule as "requisite" for the Justices to vote their preferences. 63 Unlike lower court judges, the Justices are able to avoid "meritless cases," ones that do not have plausible legal arguments on both sides.⁶⁴ But the Justices are not without some constraints in acting on their preferences. Segal and Spaeth recognize some obvious limitations, such as the opinion-writing stage. In order to produce a majority opinion, the Justices must sometimes accommodate other Justices who have different policy goals.65

While bargaining may affect the ability of the Justices to achieve their desired policy, Segal and Spaeth find that the Justices' policy preferences are excellent predictors of their final votes on the mer-

Scholarship: Judicial Decision Making and the New Empiricism, 2002 U. ILL. L. Rev. 819, 833, 836 (2002).

^{57.} Pritchett, supra note 56, at 890.

^{58.} See Jeffrey A. Segal, Glendon Schubert: The Judicial Mind, in The Pioneers of Judicial Behavior, supra note 56, at 78, 87-88. See generally Glendon A. Schubert, Quantitative Analysis of Judicial Behavior (1959); Glendon Schubert, The Judicial Mind (1965); Glendon Schubert, The Judicial Mind Revisited (1974).

^{59.} David W. Rohde & Harold J. Spaeth, Supreme Court Decision Making (1976).

^{60.} SEGAL & SPAETH, supra note 4, at 92-97.

^{61.} Id. at 92.

^{62.} Id. at 93.

^{63.} Id.

^{64.} Id.

^{65.} *Id.* at 387-98; *see also* LEE EPSTEIN & JACK KNIGHT, THE CHOICES JUSTICES MAKE 1-9 (1998) (discussing the Justices' strategic options in the case of Craig v. Boren, 429 U.S. 190 (1976)).

its,⁶⁶ arguing that "Rehnquist votes the way he does because he is extremely conservative; Marshall voted the way he did because he was extremely liberal."⁶⁷ Despite the success of the attitudinal model, Segal and Spaeth's dataset is limited to civil liberties cases and search and seizure cases.⁶⁸ The attitudinal model may be limited in its application to other cases,⁶⁹ and it may be limited in its application to the courts of appeals.⁷⁰

Studies do offer some support for the application of the attitudinal model to the courts of appeals,⁷¹ but significant questions remain about how well it explains decisionmaking outside of the Supreme Court. One critical difference between the Supreme Court and the lower courts is their lack of control over their dockets. The courts of appeals cannot "cherry pick" the hard cases where strong legal arguments can be mustered on both sides, which are the cases where judges have the greatest opportunity to make purely policy-based decisions. Moreover, a greater portion of the Supreme Court's docket includes cases that are ideologically divisive or that are difficult to answer through the conventional approaches of legal interpretation. Nevertheless, a substantial percentage of the Supreme Court's decisions are still unanimous, ranging from 29.6% to 43.0% during the 1994 to 2003 terms, with an average during this period of 35.5%.⁷² Perhaps even the Supreme Court receives a fair share of legally easy cases. Whether or not these cases are easy or there is some other reason for unanimity in these cases, easy cases should be more common at the intermediate appellate level, suggesting that traditional legal considerations should matter more in the courts of appeals. The solution is to develop and test a model of appellate decisionmaking that combines both legal and attitudinal elements.

^{66.} SEGAL & SPAETH, supra note 4, at 312-26.

^{67.} Id. at 86.

^{68.} Id. at 322-26.

^{69.} See Jeffrey A. Segal et al., Ideological Values and the Votes of the U.S. Supreme Court Justices Revisited, 57 J. POLITICS 812 (1995) (extending prior research to additional Justices and to economics cases).

^{70.} Cf. C.K. ROWLAND & ROBERT A. CARP, POLITICS AND JUDGMENT IN FEDERAL DISTRICT COURTS 145-48 (1996) (arguing that the attitudinal model is the least applicable to trial court judges).

^{71.} E.g., KLEIN, supra note 4, at 15; SONGER ET AL., supra note 4, at 103; Goldman, supra note 4; Sheldon Goldman, Voting Behavior on the United States Courts of Appeals Revisited, 69 Am. Pol. Sci. Rev. 491 (1975); Donald R. Songer & Susan Haire, Integrating Alternative Approaches to the Study of Judicial Voting: Obscenity Cases in the U.S. Courts of Appeals, 36 Am. J. Pol. Sci. 963 (1992); Donald R. Songer et al., The Hierarchy of Justice: Testing a Principal-Agent Model of Supreme Court-Circuit Court Interactions, 38 Am. J. Pol. Sci. 673 (1994).

^{72.} Nine Justices, Ten Years: A Statistical Retrospective, 118 HARV. L. REV. 510, 520 tbl.IV (2004).

III. DATA AND METHODOLOGY

A. The Court and the Judges

The United States Court of Appeals for the Seventh Circuit covers the states of Illinois, Indiana, and Wisconsin, with most of its business conducted in Chicago.⁷³ This study concerns itself with sixteen current and former judges on the Seventh Circuit including those listed below. Prior to appointment on the Seventh Circuit, some of these judges were federal district court judges, state supreme court judges, state trial judges, academics, and many of them, at one time, were in private practice. Table 1 lists the judges.

TABLE 1

Thomas F. Fairchild	(Johnson, 1966)	Frank H. Easterbrook	(Reagan, 1985)
Walter Cummings	(Johnson, 1966)	Kenneth F. Ripple	(Reagan, 1985)
William J. Bauer	(Ford, 1974)	Daniel A. Manion	(Reagan, 1986)
Harlington Wood, Jr.	(Ford, 1976)	Michael S. Kanne	(Reagan, 1987)
Richard D. Cudahy	(Carter, 1979)	Ilana Diamond Rovner	(Bush, 1992)
Richard A. Posner	(Reagan, 1981)	Diane P. Wood	(Clinton, 1995)
John L. Coffey	(Reagan, 1982)	Terence T. Evans	(Clinton, 1995)
Joel M. Flaum	(Reagan, 1983)	Ann Claire Williams	(Clinton, 1999)
•			

B. The Cases

The cases on which we test our model—the cases represented by our dependent variable—are the non-unanimous decisions decided by the Seventh Circuit during the 1997 through 2003 terms (defined as August 1, 1997 to July 31, 2003), meaning cases that include some sort of concurring or dissenting opinion(s). Less than ten percent of all the cases decided in this time period are non-unanimous.⁷⁴ We do not include cases decided en banc, cases where the opinion was vacated by the court, dissents from denials of rehearing or rehearing en banc, dissents from petitions for rehearing or stay, or cases where Judge Jesse Eschbach participated (because he participated in so few cases in the selected terms). The dependent variable is not the outcome of these cases, but whether each pair of judges on the three-judge panels agreed in the outcome. For each case, there are three

^{73.} The Seventh Circuit is often ranked as one of most respected circuits in the country. See 2 Almanac of the Federal Judiciary, 7th Circuit 1 (2005) ("Lawyers interviewed ranked the Seventh Circuit as one of the top circuits in the country."); William M. Landes et al., Judicial Influence: A Citation Analysis of Federal Courts of Appeals Judges, 27 J. Legal Stud. 271, 303-04 (1998) (ranking the Seventh Circuit highest among the circuits for outsidecircuit citations and total citations).

^{74.} See infra tbl.3.

judges and three pairings or dyads of judges. As there are 324 cases in the dependent variable dataset, there are 972 observations. It is on these observations that we test our measure of interpretive philosophy.

Because we use only non-unanimous cases, our conclusions are necessarily limited. Scholars have shown that unanimous cases can mask disagreement among judges and may sometimes give the misleading impression that a particular case is "easy." While there are no doubt exceptions, perhaps where a collegial judge defers to his or her more interested colleagues, many unanimous cases are likely easy (or at least easier than the non-unanimous cases) either because the outcomes are clearly resolved by precedent or because the judges' policy preferences on the issue are similar. Regardless, it eludes us how to test whether agreement in a unanimous cases is based on legal or policy preferences, absent candid participant statements or more sophisticated information about the judges' preferences.

C. Methodology

Our model of judicial decisionmaking employs the following independent variables: (1) ideological distance between two judges, (2) "interpretive" distance between two judges, (3) trial court experience by one or both judges, (4) judicial collegiality defined by the number of terms the two judges served together on the court at the time the decision was made, and (5) case type. Agreement between a dyad of two judges, our dependent variable, is a function of our independent variables. We will address each of these variables in turn, explaining how we will operationalize each one in an effort to create measures that are both valid and reliable.

^{75.} See, e.g., Daniel R. Pinello, The Impact of Judicial-Selection Method on State-Supreme-Court Policy 25 (1995) (finding that two state supreme courts voted without dissent but reached opposite conclusions on identical legal issues in fourteen of thirty-six instances); Burton M. Atkins & Justin J. Green, Consensus on the United States Courts of Appeals: Illusions or Reality?, 20 Am. J. Pol. Sci. 735 (1976); Donald R. Songer, Consensual and Nonconsensual Decisions in Unanimous Opinions of the United States Courts of Appeals, 26 Am. J. Pol. Sci. 225 (1982) (finding that a substantial number of unanimous court of appeals's decisions are not consensual, but rather reflect ideological preferences of the court majority).

^{76.} See, e.g., Witcher v. City of Greenville, 95 F.App'x 187, 187 (7th Cir. 2004) (unpublished decision) ("Witcher's suit is frivolous."). The court's opinion indicates that this case was easily resolved under existing Supreme Court precedent. Id. The oral argument suggests that the appellant overlooked the controlling case and that the appellee kept quiet about this oversight for strategic reasons. Oral argument: Witcher, 95 F.App'x 187 (Apr. 9, 2004), available at http://www.ca7.uscourts.gov/fdocs/docs.fwx?caseno=03-4092&submit=showdkt&yr=03&num=4092.

Operationalizing Ideology.—Defining judges' ideological or policy preferences as a conceptual matter is fairly simple. They are the policies personally favored by the judges, independent of their judgments about the policies required by external sources of positive law, such as statutes or constitutions. Ideological preferences may be based on judges' conceptions of justice or natural law, which they might invoke to trump the positive law. Operationalizing judges' ideological preferences, however, is not at all simple. Scholars who study elites in general all face a similar problem, one that is no less acute for scholars of judicial behavior.⁷⁷ Ideally, scholars could persuade judges or other elites to participate in lengthy surveys about their policy preferences. Most scholars are not this persuasive.⁷⁸ We are therefore forced to struggle along with second-best measures. After considering several measures,⁷⁹ we conclude that the best available option is to rely primarily on Giles, Hettinger, and Pepper's (GHP) adaptation⁸⁰ of Keith Poole's "common space scores," 81 which are measures of ideology tied to congressional votes.82

For each appellate judge, GHP assigned him or her one of two common space scores. For judges nominated to sit in a state represented by a senator of the president's party, the senator's common

^{77.} See, e.g., KLEIN, supra note 4, at 144 ("[My] measures of ideology might be improved, . . . although the fact that scholars have struggled with this problem for decades does not inspire optimism."); Segal & Spaeth, supra note 4, at 320 ("Measuring the attitudes of political elites is a difficult task, as senators, justices, and Presidents are unlikely to fill out survey questionnaires provided by scholars, no less fill them out honestly.").

^{78.} For a study that determined judicial preferences by survey, see Theodore L. Becker, A Survey Study of Hawaiian Judges: The Effect on Decisions of Judicial Role Variations, 60 Am. Pol. Sci. Rev. 677 (1966).

^{79.} There are several alternatives. The first is coding policy preferences based on opinions. The second is relying on David Klein's ideology scores derived from profiles contained in the Almanac of the Federal Judiciary. KLEIN, supra note 4, at 63-64. The third is relying on the political party of judges or the party of the appointing president as proxies for their ideological preferences. See, e.g., Landes et al., supra note 73, at 319; see also Kevin L. Lyles, Presidential Expectations and Judicial Performance Revisited: Law and Politics in the Federal District Courts, 1960-1992, 26 Presidential Stud. Q. 447 (1996); Daniel R. Pinello, Linking Party to Judicial Ideology in American Courts: A Meta-Analysis, 20 Just. Sys. J. 219 (1999). And the fourth is relying on newspaper editorials published prior to the Justices' confirmation to the Supreme Court. See, e.g., Segal & Spaeth, supra note 4, at 321; Jeffrey A. Segal & Albert D. Cover, Ideological Values and the Votes of U.S. Supreme Court Justices, 83 Am. Pol. Sci. Rev. 557, 560 (1989).

^{80.} Giles et al., supra note 4. The GHP scores have been validated as a measure of ideology. Virginia A. Hettinger et al., Comparing Attitudinal and Strategic Accounts of Dissenting Behavior on the U.S. Courts of Appeals, 48 Am. J. Pol. Sci. 123, 131 (2004).

^{81.} See Keith T. Poole, Recovering a Basic Space from a Set of Issue Scales, 42 Am. J. Pol. Sci. 954 (1998). Poole's common space scores are available at http://voteview.com/readmeb. htm (last visited Apr. 9, 2006).

^{82.} Poole, supra note 81, at 982.

space score is used. The use of the senator's score rather than the president's reflects the tradition of senatorial courtesy, whereby a senator of the president's party may veto potential judicial nominees to his or her home state.⁸³ Scores for both senators and presidents are on the same scale, ranging from most liberal at -1.0 to most conservative at +1.0. In situations where both senators from a state are members of the president's party, they assign the judge the average of the two senators' scores. If neither of the two senators is of the same party as the president, then they assign the judge the president's score.⁸⁴ Presidential scores are as follows: Johnson is rated at -.385; Ford at .358; Carter at -.510; Reagan at .568; Bush at .546; and Clinton at -.456.⁸⁵

Using these scores for each appellate judge, GHP analyzed the relationship between the judges' common space scores and their voting records in civil rights/liberties cases and criminal cases. They found that the ideology of judges explains only a small percentage of the variance in these cases, regardless of whether ideology is operationalized by the party of the appointing president or the common space scores. As compared to six percent for measures based on party, the common space scores explain nearly eleven percent of the variance. This result is consistent either with the possibility that their measure of preferences is inadequate or that the legal model is an important element of judicial decisionmaking, one for which they did not control.

Table 2 reports the scores for each judge of the Seventh Circuit who has served in the past six years. Each of these judges continues to serve on the court except for Judge Walter Cummings, who served until his death in April 1999. Using this measure, Judge Cummings is the most liberal judge to sit on the court in the past six years and Judge Easterbrook is the most conservative.

2. Operationalizing Interpretive Philosophy.—Interpretive philosophy presents a greater challenge than our other variables. For ideology, collegiality, and trial court experience, the key question is whether the operational definitions are valid, but these definitions

^{83.} Donald R. Songer, The Policy Consequences of Senate Involvement in the Selection of Judges in the United States Courts of Appeals, 35 W. Pol. Q. 107, 107 (1982).

^{84.} Giles et al., supra note 80, at 4.

^{85.} A potential problem, however, is that nominees with judicial experience may be appointed because of their known legal preferences. For example, presidents and senators might care a great deal about a judge's expressed *legal* preferences on labor laws without caring much about any divergent policy preferences on the same issue.

^{86.} Id. at 9.

TABLE 2: COMMON SPACE SCORES FOR THE SEVENTH CIRCUIT (GHP)

Judge	Score
Walter Cummings	573
Thomas F. Fairchild	464
Terence T. Evans	451
Diane P. Wood	416
Richard D. Cudahy	388
Ann Claire Williams	345
William J. Bauer	026
Joel M. Flaum	026
Richard A. Posner	026
Harlington Wood, Jr.	026
John L. Coffey	.261
Michael S. Kanne	.369
Daniel A. Manion	.369
Kenneth F. Ripple	.369
Ilana Diamond Rovner	.546
Frank H. Easterbrook	.568

should be very reliable. Interpretive philosophy, however, presents challenges of validity and reliability. Our operational definition of interpretive philosophy is based on the coding of opinions written by the judges, with the goal of quantifying how frequently they use certain interpretive tools in their opinion writing. We have attempted to confirm the results of coding opinions by surveying former Seventh Circuit law clerks on a variety of questions about the use of interpretive tools by their own judges and three other randomly selected Seventh Circuit judges.

a. Coding Opinions.—Interpretive philosophy is a difficult concept to operationalize, but the most obvious starting point is to rely on judges' written opinions. One might, for example, take a sample of all cases decided by a full opinion in a circuit and count the number of opinions that demonstrate agreement or disagreement with a certain definition of an interpretive philosophy, such as Sunstein's three-part definition of formalism.⁸⁷ One might even make a comparative judgment about the extent to which cases are decided on, for example, formalist grounds by coding the opinions on a scale running from strongly formalist to strongly nonformalist. Another option is to identify how often judges employ specific types of legal reasoning. It is this last option that we employ because certain

^{87.} See supra Part I.B.

interpretive tools are thought to define judicial philosophies such as formalism. In addition, formalists and originalists do not always agree among themselves. Justice Antonin Scalia, for example, likes dictionaries. Judge Easterbrook does not. Focusing on specific tools may therefore provide a more sensitive measure of interpretive philosophy. We coded the cases for the following eight interpretive tools: the original meaning of the Constitution, the canons of construction, legislative history, the plain meaning rule, dictionaries, economic analysis, use of balancing tests, and preference for rules.

We picked these tools both because the literature and numerous professors we informally surveyed identified these tools as important. Scholars have suggested that balancing tests, ⁹⁰ dictionaries, ⁹¹ canons of construction, ⁹² concerns for original meaning, ⁹³ and the plain meaning rule ⁹⁴ are all important elements of judicial decisionmaking. In addition, many of these tools may characterize a number of interpretive philosophies. For example, a preference for rules, and the plain meaning rule specifically, may embody Sunstein's definition of formalism. While this list hardly exhausts the elements of the legal model, we make an assumption that the use of tools directly measured is correlated with the use of tools not directly measured—though as noted in Part II, we currently lack an empirical understanding of how the use of various tools fits together. Much like the standard measures

^{88.} The rise of dictionary usage is frequently linked to Justice Scalia's textualism. *See* William N. Eskridge, Jr. & Philip P. Frickey, Cases and Materials on Legislation (2d ed. 1995).

^{89.} Frank H. Easterbrook, *Text, History, and Structure in Statutory Interpretation,* 17 HARV. J.L. & Pub. Pol.'s 61, 67 (1994) ("[T]he choice among meanings must have a footing more solid that [sic] a dictionary—which is a museum of words, an historical catalog rather than a means to decode the work of legislatures.").

^{90.} See, e.g., Patrick M. McFadden, The Balancing Test, 29 B.C. L. Rev. 585 (1988).

^{91.} See, e.g., A. Raymond Randolph, Dictionaries, Plain Meaning, and Context in Statutory Interpretation, 17 Harv. J.L. & Pub. Pol'y 71 (1994); Samuel A. Thumma & Jeffrey L. Kirchmeier, The Lexicon Has Become a Fortress: The United States Supreme Court's Use of Dictionaries, 47 Buff. L. Rev. 227 (1999); Samuel A. Thumma & Jeffrey L. Kirchmeier, The Lexicon Remains a Fortress: An Update, 5 Green Bag 2d 51 (2001); Note, Looking It Up: Dictionaries and Statutory Interpretation, 107 Harv. L. Rev. 1437 (1994).

^{92.} See, e.g., Scalla, supra note 10, at 26 ("All of this is so commonsensical that, were the canons not couched in Latin, you would find it hard to believe anyone could criticize them.").

^{93.} See, e.g., Howard & Segal, supra note 5, at 124.

^{94.} See, e.g., William T. Allen et al., Judge "the Game by the Rules": An Appreciation of the Judicial Philosophy and Method of Walter K. Stapleton, 6 Del. L. Rev. 223, 262 (2003) ("[Judge] Stapleton balks when he perceives his colleagues deviating from plain-meaning readings of statutes in order to pursue what appears to him to be their own understanding of case-specific justice.").

of ideology, our measure of judges' interpretive philosophies is ultimately a proxy measure of something much more complex.

Although we incorporated a longer list of sixteen tools into our survey of judicial clerks, discussed below, we selected these eight because we were more confident in our ability to construct valid LEXIS search terms for these tools. ⁹⁵ Similar terms have been used in studies by other researchers. Howard and Segal, for example, searched for the terms "plain meaning" and "plain language" in U.S. Supreme Court briefs to code textualist arguments. ⁹⁶

We searched all opinions written by all sixteen judges while serving on the Seventh Circuit, including majority opinions, concurrences, dissents, and *dubitante* opinions. We excluded, however, all non-unanimous cases decided between August 1, 1997 and August 1, 2003, since these cases are the ones we seek to explain. This excluded set of cases is not a random sample of Seventh Circuit decisions; it is instead a block of six year's worth of non-unanimous cases. Excluding them may bias our coding results, but including them could create another problem: incorporating the same cases into both our independent and dependent variables would raise a concern about circularity. The concern would not be as serious as when judges' views are

^{95.} The search terms were as follows: the original meaning of the Constitution (("original understanding" or "original intent" or "originalism" or "original meaning" or ratifie!) / 10 (constitution! or amendment or clause)) or (Federalist or "founding fathers" or "constitutional convention") or (framers /5 constitution! or amendment or clause)); canons of construction ((canon! /5 statutory or construction or interpretation) or "expressio unius" or "noscitur a sociis" or "ejusden generis" or "surplusage" or "in pari materia" or (derogation /2 "common law")); legislative history ("legislative history" or "committee report" or "U.S.C.C.A.N." or "floor debate" or "committee statement" or "committee hearing" or "legislative counsel" or "H.R." or "S.J. Res." or "Cong. Rec." or "S. Res." or "H.R.J. Res." or "S. Doc. No." or "S. Rep."); plain meaning rule ((plain or unambiguous or clear) /2 (meaning or language)); dictionaries ("dictionaries" or "dictionary"); economic analysis ((cost! /3 benefit! /3 analysis) or "economic analysis" or ((economic or market!) /5 (efficien! or inefficien!)); use of balancing tests (balancing /2 test!) or "balancing approach"; preference for rules (("bright line" or categorical or blanket or "per se") /5 (rule! or test!)). We must note that an unusual and problematic LEXIS problem occurred many times when doing this study. Sometimes the same search would show one or two fewer hits. We used and coded the larger number of hits and ran searches multiple times to help ensure that cases were not missed. This problem, now uncovered, should be of great concern to practitioners and social scientists. When searching all of a judge's opinions for a certain phrase, you can certainly not be sure that all the cases that actually use the search terms will be generated by the search engine. Similarly, we note that the LEXIS date restriction frequently results in hits outside the selected time period.

^{96.} Howard & Segal, supra note 5, at 123.

^{97.} Some judges write dubitante opinions in order to express doubt about the majority opinion without dissenting. E.g., United States v. Zendeli, 180 F.3d 879, 887 (7th Cir. 1999) (Ripple, J., dubitante); see also Jason J. Czarnezki, The Dubitante Opinion, 39 AKRON L. REV. 1 (2006).

coded as conservative or liberal based on case outcomes and then these measures are used to predict case outcomes. We are not coding the outcomes, but the arguments contained within the opinions. Nevertheless, we decided to keep the sets of cases used to create the independent and dependent variables distinct to avoid any issue of circularity. Once we removed this set of non-unanimous cases from the mix, we counted the number of cases in which each judge used one of the eight interpretive tools. All cases that contained our search terms were individually coded to determine whether the judge used the relevant interpretive tool at least once in support of his or her legal analysis. As opinions often contain references to multiple tools, we coded many opinions multiple times. Across all tools, we coded 6936 non-unique opinions.

To create a percentage of how often a judge employs a specific interpretive tool, the number of opinions in which a judge used a tool was divided by the judge's total number of written opinions and then multiplied by 100. Percentages for each interpretive tool can be found in the tables in Part V and Appendix A. The interpretive tool distance between two judges is equal to the absolute value of the difference in their percentages. For example, Judge John Coffey used a dictionary in his legal analysis in 8.8% of the opinions he drafted, while Judge Terence Evans employed dictionaries 4.4% of the time. Thus, their dictionary usage distance is 4.4 percentage points.

We recognize that simple counts of references to dictionaries, invocations of the original meaning, and other references to these tools may be misleading. Judges frequently reference an interpretive tool even when it is not useful in deciding the case. In *Country Mutual Insurance Co. v. American Farm Bureau Federation*, for example, Judge Easterbrook refers to dictionaries as "word museums" and unhelpful in determining the evolving meaning of language. ⁹⁹ Judge Posner has lamented the "inadequacy of original understanding as a guide to

^{98.} Six individuals, including four research assistants and the two authors, coded cases. The four research assistants were each assigned a group of four judges and coded all eight tools for each of these judges. The groups were as follows: (A) H. Wood, D. Wood, Cudahy, Flaum; (B) Fairchild, Kanne, Ripple, Bauer; (C) Rovner, Manion, Coffey, Easterbrook; (D) Williams, Evans, Cummings, Posner. All cases that the research assistants found difficult to code or marked with a question mark were coded by the authors. Opinions written by each judge were coded according to a schedule based on the tools. During the first week, all coders coded "Flaum-Dictionaries" as practice. The timeline then proceeded as follows: dictionaries, balancing tests, legislative history, original meaning of constitution, canons of construction and preference for rules, plain meaning and economic analysis, and finally, inter-coder reliability testing.

^{99. 876} F.2d 599, 600 (7th Cir. 1989) ("Dictionaries are word museums.").

constitutional interpretation"¹⁰⁰ and has questioned the usefulness of the plain meaning rule.¹⁰¹ These sorts of references do not count as uses for our purposes. Thus, merely counting references to the tools is insufficient. More sophisticated coding rules are required, ones that consider the context of each reference to an interpretative tool.

For our purposes, in order to count as a usage of a particular interpretive tool, a judge must have used the interpretive tool in support of his or her legal analysis (e.g., interpreting or applying a contractual, statutory, or constitutional provision). ¹⁰² Coding the cases was time consuming and varied in difficulty. Many cases were easy to code under our rules; others were quite difficult, depending upon the nature of the reference. The level of difficulty also varied by tool.

Our coding rules recognize that judges may discuss tools, which show up as search engine hits, without actually relying upon them to decide a case. We believe that our coding system took this into account in a manner that our coders could consistently apply. The results of a check for inter-coder reliability, using Cohen's kappa, bear out this success. Dictionary usage was coded with great accuracy with over ninety percent agreement between coders ($\kappa = .80$). Invo-

^{100.} Miller v. Civil City of S. Bend, 904 F.2d 1081, 1096 (7th Cir. 1990) (Posner, J., concurring) ("And one can reply that such arguments merely demonstrate the inadequacy of original understanding as a guide to constitutional interpretation; that they would if accepted change the Constitution from a living document into a petrified reminder of the limits of human foresight").

^{101.} See, e.g., Marozsan v. United States, 852 F.2d 1469, 1482 (7th Cir. 1988) (Posner, J., concurring) ("The idea that semantically unambiguous sentences—sentences clear 'on their face'—sentences whose meaning is 'plain'—can be interpreted without reference to purpose inferred from context is fallacious."); accord McElroy v. B.F. Goodrich Co., 73 F.3d 722, 726 (7th Cir. 1996).

^{102.} The Coding Worksheet is available from and on file with the authors. The Coding Memorandum can be found in Appendix E. Our coding procedures and rules can be found in the Coding Worksheet and the Coding Memorandum. The basic coding rule was that we coded a reference to the legal interpretive tool as a use in a judge's legal analysis provided the reference was not clearly dicta and the reference was not a rejection of the interpretive tool's value generally. The Coding Memorandum, supplied to all case coders, explains and provides examples of how we dealt with a number of the most difficult situations.

^{103.} In order to perform the inter-coder reliability check, one judge was assigned to each of the eight interpretive tools with two judges chosen from each original grouping. Coders were assigned a judge-tool match that they had not previously coded. We can think of no reason why some judges are easier to code than others, making this nonrandom distribution inappropriate. We also only chose tool-judge matches where the tool hits were between thirty-five and seventy, so that each coder would have a near even amount of cases to code. Despite this nonrandom distribution, the list includes both senior and recently appointed judges. Cases were then coded as a use of the tool in the judge's legal analysis or non-use.

^{104.} The kappa coefficient indicates the percentage of the agreement rate between random agreement and perfect agreement. The kappa coefficient can be read on the follow-

cations of the plain meaning rule (κ = .72), economic analysis (κ = .65), bright line rules (κ = .64), and legislative history (κ = .68) were coded with substantial success. Only canons of construction were coded with only fair success (κ = .31). Complete inter-coder reliability results can be found in Appendix B.

Regardless of the level of reliability, we have lingering concerns about the validity of the coding for two tools, the plain meaning rule and a preference for rules. The plain meaning rule holds that when a text's language is plain, the court may not resort to other sources of interpretation. We found coding this tool difficult because many judges reference the "plain" or "unambiguous" text without clearly following or rejecting the rule. Coding for a preference for rules was also quite difficult. While we attempted to code only bright-line and categorical rules, some rules are balancing tests themselves and some rules are exceptions to bright-line rules. Despite these validity concerns, these terms were coded with substantial reliability.

We must admit that even sophisticated coding rules may be undermined if judges invoke an interpretive tool only when it happens to support an outcome chosen for reasons unrelated to the tool. A judge might, for example, conclude that a particular outcome is correct and then later look for some legislative history to support the conclusion. This presents a more significant problem with relying on opinions, one that even a sophisticated coding scheme cannot solve.

There are other reasons why opinions are problematic indicators of the authors' interpretive views. First, judicial opinions on multimember courts are written in an environment that creates incentives for strategic interaction. The controlling opinions of appellate courts are majority opinions. They are the work of a coalition of at least two judges, which means they may be the result of a compromise between or among the judges in the majority. The incentive to compromise may be even stronger than the need to craft a simple majority. Judges are not necessarily indifferent to the size of the majority. Some judges may very well prefer to avoid dissents except in cases of strong disagreement. A two-judge majority on an appellate panel may therefore compromise with a third judge to avoid a dissent. The more the

ing scale: -1.00 - 0.00 (no agreement or poor agreement); 0.00 - 0.20 (slight agreement); 0.21 - 0.40 (fair agreement); 0.41 - 0.60 (moderate agreement); 0.61 - 0.80 (substantial agreement); 0.81 - 1.0 (almost perfect agreement). J. Richard Landis & Gary G. Koch, *The Measurement of Observer Agreement for Categorical Data*, 33 BIOMETRICS 159, 165 (1977).

^{105.} See Sheldon Goldman, Conflict and Consensus in the United States Courts of Appeals, 1968 Wis. L. Rev. 461, 479-80 (discussing the "give-and-take" of judicial decisionmaking on the courts of appeals); Cass R. Sunstein, Sober Lemmings, New Republic Online, Apr. 3,

opinion represents a compromise, the more it may be unrevealing of the true reasoning employed by any individual judge. We attempt to limit this concern by measuring dissents and concurrences written by judges. We could have included only these opinions, and not majority opinions, because they are more likely to reflect true preferences, but this would have greatly limited the number of cases where the specific interpretive tools are invoked. However, we only code those opinions written by the judges themselves, not all opinions in which they joined.

Second, judges write majority and nonmajority opinions for multiple audiences. Oftentimes, they may try to persuade members of at least some of these audiences. The primary audience for opinions probably consists of lawyers who must advise their clients on how to understand the law. Judges may therefore be more concerned about informing lawyers than persuading them. But judges may still write opinions to persuade various other groups, including reporters, scholars, or politicians. They may even occasionally write to persuade the public—though the level of public interest in judicial opinions suggests this will often be unproductive. Of course, another key audience is other judges.

At a minimum, judges want to persuade their colleagues on the same court, but they may also want to persuade judges on other courts as well. 107 Judges on the courts of appeals, for example, may try to persuade the Supreme Court that a particular decision is right or wrong. Even so, the Supreme Court decides relatively few cases, so the more common audience for majority and dissenting opinions may be the judges on their own court, along with the district and appellate judges in other circuits. Judges may even write opinions with future judges in mind. If judges are in fact attempting to persuade other judges, they will likely include arguments they think will persuade other judges, whether or not these arguments are important to their own thinking about a case. For example, suppose a judge thinks the meaning of a statute is clear and is personally persuaded to decide the

^{2003,} http://www.hws.edu/news/update/showwebclip.asp?webclipid=781 (describing the conformism of federal judges).

^{106.} See Charles H. Franklin & Liane C. Kosaki, Media, Knowledge, and Public Evaluations of the Supreme Court, in Contemplating Courts 352, 373 (Lee Epstein ed., 1995) (finding that citizens are generally unaware of Supreme Court decisions); John H. Kessel, Public Perceptions of the Supreme Court, 10 Midwest J. Pol. Sci. 167, 172-75 (1966) (revealing the public's lack of understanding about what the Court does).

^{107.} Even judges who do not feel obliged to follow the decisions in other circuits do at least consider whether the other circuits offer persuasive grounds for their decisions. See KLEIN, supra note 4, at 88-91 (reporting on interviews with judges).

case on this basis. The author might nevertheless add other arguments, such as discussions of the legislative history, for the benefit of judges who might not be persuaded by the plain meaning argument. Despite these potential problems, our assumption that judges use these tools at different rates was borne out by the coding results.

b. Surveying Clerks.—Surveying judicial clerks offers an alternative to coding opinions and several potential advantages. Former clerks should be in a good position to know the interpretive philosophies of the judges for whom they clerked. As much as anyone, they are experts on the judges. Clerks can learn this information not just from reading opinions, but also from informal discussions, drafting opinions, and oral arguments. In addition to discussing opinion drafts, oral arguments may be a particularly good opportunity to identify the interpretive issues that most concern a judge. Judges have a limited amount of time during arguments to ask questions, which may lead them to focus on what they consider the most important legal and policy questions.

Surveying clerks, however, is not a perfect solution. Individuals cannot be randomly assigned to clerk for each judge, nor do judges make random hiring choices. The biases in the clerkship selection process may bias our survey results as well. Clerks of each judge may have systematically different conceptions of how to classify the judges than clerks of other judges.

We sent out 114 surveys to former judicial clerks about multiple judges, asking questions about each clerk's own judge plus three additional judges, randomly selected. Names of former clerks were taken primarily from the *Judicial Yellow Books* (1997-2002). The survey included the following elements:

• Interpretive Tools: extra-textual sources beyond the case law or the regulatory, statutory, or constitutional language; precedent in statutory cases; precedent in constitutional cases; the original meaning of the Constitution; the original meaning of a statute; the canons of statutory construction; legislative history; the plain meaning rule; dictionaries; the underlying purpose of a statute; economic analysis; history and tradition when interpreting the Constitution; information on the consequences of a stat-

^{108.} We can conceive of two other alternatives, surveying judges or practitioners. With judges, the response rate might be low. Because panel decisions that included nonparticipating judges would have to be eliminated from the analysis, full or close to full participation by all of the judges would be needed. With practitioners, their assessment of the judges would likely be based primarily on reading opinions, which we can already code.

ute; applying procedural rules strictly; leaving the district courts with discretion in future cases; philosophy towards balancing tests.

• Judicial Labels: formalist; pragmatist; originalist; textualist.

The clerks were asked to rate their judges' and three other judges' preferences for the various interpretive tools on a seven-point scale. They were also asked to rate the applicability of the general labels on a similar scale. 109 Of the surveys sent, only thirteen were returned, a response rate of 11.4%. What accounts for this less than stellar response rate? While targeting a sample of clerks raises an ethical concern, participation in the survey should not be problematic under the general ethical guidelines for judicial employees. 110 None of the survey questions involve specific cases. Instead, they include only widely accepted alternatives to legal interpretation. Nevertheless, many clerks declined to participate in our study.¹¹¹ One factor might be some judges' negative views of empirical studies, 112 but unlike most other studies of judicial decisionmaking, we incorporate measures of traditional legal factors in our analysis, whereas many other studies incorporate only measures of judges' ideology. The more important factors were likely the busy schedules of the respondents and ethical concerns about the survey.

The precise nature of an ethical or confidentiality concern is unclear. It is a well-known practice for attorneys at law firms to ask colleagues about judges for whom they clerked. Asking a colleague

^{109.} A copy of the original survey is on file with authors.

^{110.} Judicial clerks serving in the 2003 term or later were excluded from the data set, pursuant to Canon 3D of the *Code of Conduct for Judicial Employees* and the *Ethics for Federal Judicial Law Clerks*, as to ensure they will not disclose any observations about a judge's decisionmaking process in a specific and pending case. Code of Conduct for Judicial Employees (Jud. Conf. of the United States 1996), *available at* http://www.uscourts.gov/guide/vol2/ch2a.html; Fed. Jud. Ctr., Maintaining the Public Trust: Ethics for Federal Judicial Law Clerks (2002), http://www.fjc.gov/public/pdf.nsf/lookup/Ethics01.pdf/\$file/Ethics01.pdf.

^{111.} We did receive a few letters and e-mails where former clerks offered their disapproval of the survey, or at least their discomfort with it, and declined to participate.

^{112.} Judge Harry Edwards wrote:

This Essay... aims to debunk the myth that ideology is a principal determinant in decision making on the United States Court of Appeals for the D.C. Circuit. My purpose in writing is to refute the heedless observations of academic scholars who misconstrue and misunderstand the work of the judges of the D.C. Circuit. I will show that, even when one looks carefully at the so-called 'empirical studies' that purport to analyze the work of my Circuit, it is clear that, in most cases, judicial decision making is a principled enterprise that is greatly facilitated by collegiality among judges.

Harry T. Edwards, Collegiality and Decision Making on the D.C. Circuit, 84 VA. L. Rev. 1335, 1335 (1998).

general questions about a judge's judicial philosophy is not thought to raise any ethical problems, even though this information may be helpful to members of the firm practicing before a particular judge or court. Indeed, clerks must acquire some knowledge about their judges' general views on legal interpretation while clerking. If this knowledge constituted confidential information, then it would be improper for former clerks to practice before the circuits in which they clerked. The former clerk's knowledge would impact the allocation of her or her firm's research efforts in litigation and the contents of filings before the court, therefore benefiting the former clerk and her clients. But the rules for former clerks are not so strict.

3. Operationalizing Trial Court Experience.—Appellate judges with trial court experience may view the actions of lower court judges differently than appellate judges without such experience. Judges with similar trial court experience may more readily agree with each other about the types of decisions deserving of deference and the types of decision that do not. Appellate judges consider the reputations of district court judges in reviewing their decisions, 113 and several judges on the Seventh Circuit previously served on a district court within the circuit. Given their personal experience, they may view the reputations of district court judges differently from the other Seventh Circuit judges. Additionally, recent research suggests that deference to inferior courts is an important element for modeling appellate decisionmaking. 114

Trial court experience, for the purposes of this study, is defined as any experience as a trial court judge at the state, municipal, or local level. For each dyad of judges, we used dummy variables for whether (0) neither judge has trial court experience, (1) one judge has trial court experience, or (2) both judges have trial court experience. Of

^{113.} For example, the court in FMC Corp. v. Glouster Engineering Co. observed:
And since appeals under 1292(b) are permitted only when they present controlling questions of law—as to which appellate review is plenary—the reputation of
the district judge for care and skill in resolving factual disputes and making the
many discretionary determinations confided to trial judges—a reputation better
known to the court of appeals for the transferee circuit than to the court of appeals for the transferor circuit—is not an important factor in deciding the appeal.

⁸³⁰ F.2d 770, 772 (7th Cir. 1987). See William Patry, The Patry Copyright Blog, How to Learn from Dick Posner (May 5, 2005), http://www.williampatry/blogspot.com/2005/05/how-to-learn-from-dick-posner.html (discussing Judge Posner's comment that the Seventh Circuit "considers the reputation of the district court judge below in determining the amount of deference to give").

^{114.} E.g., Frank B. Cross, Decisionmaking in the U.S. Circuit Courts of Appeals, 91 Cal. L. Rev. 1459, 1499-1503 (2003).

the judges included in the dataset, one-half served as trial court judges at the federal or state level. Judges Fairchild, Cummings, Cudahy, Posner, Easterbrook, Ripple, Manion, and Diane Wood lack trial court experience, though Judges Fairchild and Cudahy (along with Judge Coffey) served as justices of the Wisconsin Supreme Court. The other eight judges, Bauer, Coffey, Flaum, Kanne, Rovner, Evans, Williams, and Harlington Wood have trial court experience, either at the federal, state, or municipal level.¹¹⁵

- 4. Operationalizing Judicial Collegiality.—Judicial collegiality likely plays a substantial role on the courts of appeals. In all cases decided in the 1997 through 2003 terms, no two judges agreed any less than ninety percent of the time. Numerous sources speak of the importance of collegiality among chambers and judges. 116 Judge Harry Edwards claims that judicial decisionmaking is a product of collegiality and that deliberation among judges has a "moderating" effect on the judges. 117 This collegiality allows them to discuss cases in a way that will allow judges to reach a "mutually acceptable judgment based on their shared sense of the proper outcome." 118 If Judge Edwards is correct, perhaps judges who have spent more time together on a court can more effectively determine how to recognize and write these "mutually acceptable judgments." Over time, members of the court essentially can learn how to agree with particular colleagues. We therefore operationalize collegiality by adding a variable denoting the number of terms the two judges in the dyad were on the court together at the time the decision was made.
- 5. Operationalizing Case Type.—There is good reason to think that some areas of the law are more malleable than others or more ideologically divisive. In other words, the policy preferences of judges are likely to be more influential in some cases than others. Thus, the 972 dyads in our dataset were coded for case type using the thirteen different categories developed for Harold Spaeth's U.S. Supreme Court Judicial Database. 119 Constitutional cases may be more revealing of

^{115.} This information can be found in the Almanac of Federal Judiciary, supra note 73, at 1-45, and in the 2004 Judicial Yellow Book.

^{116.} See, e.g., Chicago Council of Lawyers, Evaluation of the United States Court of Appeals for the Seventh Circuit, 43 DEPAUL L. REV. 673, 687 (1994) (noting the importance and tradition of collegiality on the Seventh Circuit).

^{117.} Edwards, supra note 112, at 1358.

^{118.} Id.

^{119.} HAROLD J. SPAETH, THE ORIGINAL UNITED STATES SUPREME COURT JUDICIAL DATABASE 1953-2003 TERMS (2006), available at http://www.as.uky.edu/polisci/ulmerproject/allcourt_codebook.pdf. Spaeth's thirteen general categories include criminal proce-

judges' preferences, particularly cases involving ideologically divisive issues. At the Supreme Court level, the Justices' policy preferences are strongly correlated with their votes in civil liberties and civil rights cases. The correlation is likely to be weaker at the appellate level because the courts of appeal lack discretion over their docket and because the courts of appeal are subject to a higher court, these types of cases may still be revealing of appellate judges' policy preferences, albeit imperfectly. In contrast, there may be some case types where ideological preferences as typically defined are simply unclear. The conservative view of, say, copyright or trademark law is not clear.

D. Method of Analysis

The basic method of analysis is to test whether our independent variables predict which judges will agree with one another in our set of non-unanimous cases. The unit of analysis is not a case, but a twojudge dyad. In each appellate case decided by a three-judge panel, there are three opportunities for agreement or disagreement, since there are three pairs of judges. By hypothesis, agreement between each pair of judges is partially a function of their ideological disagreement, interpretive disagreement, trial court experience, collegiality, and the case type. We analyzed the data using two logit models, one dichotomous and one multinomial. We took into account that the decisions of each judge on a multimember court are likely to be correlated. Judges have incentives to reach agreement and avoid dissents, one being a desire to maintain collegiality and another to minimize the labor involved in producing dissenting opinions. In other words, each judge does not decide each case in a vacuum, independently of the other two judges on the panel.

We now briefly describe how we analyzed these relationships. The major issue is to determine what counts as "agreement." Should agreement in the *judgment* of a case be the focus? If so, then judges who agree in the outcome, regardless of any concurrences, would be classified as agreeing. The level of agreement would therefore be dichotomous: judges either agree or disagree over the judgment. Each dyad would be classified as being in agreement or disagreement,

dure, civil rights, First Amendment, due process, privacy, attorneys, unions, economic activity, judicial power, federalism, interstate relations, federal taxation, and miscellaneous. *Id.* at 42.

^{120.} SEGAL & SPAETH, supra note 4, at 322-23.

^{121.} See, e.g., Causeway Med. Suite v. Ieyoub, 109 F.3d 1096, 1113 (5th Cir. 1997) (Garza, J., concurring) ("For the second time in my judicial career, I am forced to follow a Supreme Court opinion I believe to be inimical to the Constitution.").

coded as "0" or "1." Simply put, only dissents would count as disagreement.

This dichotomous approach sacrifices information about the relationship between the two judges in a dyad. Maybe the partial agreements or disagreements reflected in concurring opinions should also be considered. Concurrences are after all an important means for expressing disagreement with the legal reasoning in a case. A judge's preference for a rule instead of a balancing test might be made clear in a concurrence, despite the two judges' agreement on the outcome of the case. Concurrences are therefore an opportunity for judges with differing ideological or jurisprudential views to express their preferences. Thus, we should also analyze the data in terms of multiple levels of agreement for each dyad, which we will call complete agreement, partial agreement, second order partial agreement, third order partial agreement, and disagreement.

The five levels of agreement in the multinomial model are defined and coded as follows: Complete agreement occurs when two judges in a dyad sign the same opinion without any separate opinions, regardless of who wrote the opinion. Agreement in this situation is coded as a "0." Partial agreement between two judges in a dyad is defined as one judge concurring with the other judge's opinion and is coded as a "1." Second order partial agreement is defined as one judge concurring in part and dissenting in part with the second judge in the dyad and is coded as a "2." Third order partial agreement is defined as one judge concurring only in the judgment of the other judge's opinion and is coded as a "3." Disagreement is defined as one judge dissenting from the opinion of the other judge in the dyad. It is coded as a "4."

We think there are merits to analyzing the cases in both dichotomous terms and in terms of multiple levels of agreement. Whether to agree in the judgment is often the most important decision. On the other hand, we do not want to ignore the value of concurring opinions for making clear large and small disagreements between judges, some of which may be attributable either to interpretive rather than ideological disagreements.

We can now describe the analysis in more concrete terms. The dependent variable is agreement, whether measured with a dichotomous variable or a multinomial variable. For the dichotomous version of the dependent variable, we use a traditional logit model. For the multinomial version, we use a multinomial logit model. In each model, the independent variables are the same. The first is the absolute value of the ideological distance between the two judges in the

dyad. As noted earlier, we will use GHP's measure. The second is the absolute value of the interpretive distances between the two judges in the dyad. The third is the measure of collegiality. We also include a series of dummy variables representing different categories of cases and whether or not one or both judges in the dyad have trial court experience.

A typical Seventh Circuit non-unanimous case is one that includes two opinions (though three are possible), one opinion for the majority and one for the dissenter. Thus, the one dyadic relationship on the panel in complete agreement is coded as a "0." The other two dyads are both coded as a "4." In the dichotomous coding system, these two dyads would be coded as a "1." A very small number of cases present greater difficulty. Non-unanimous cases occasionally include three opinions, for which the dichotomous system of coding agreement is ill-suited.

Take *United States v. Amerson*, ¹²² a case involving several questions of criminal procedure. The Amerson panel included Judges Coffey, Evans, and Posner. Coffey wrote the majority opinion, Evans concurred with Coffey's opinion, and Posner dissented. For the dichotomous measure of agreement, Coffey and Evans would be coded as agreeing ("0"), Coffey and Posner would be coded as disagreeing ("1"), and Evans and Posner would be coded as disagreeing ("1"). But this dichotomous approach ignores the difference between Coffey and Evans, which is represented by Evans's concurrence. Using the multinomial approach, Coffey and Evans's relationship is one of partial agreement ("1"). Coffey and Posner are in full disagreement ("4"). What about Evans and Posner? This is the hard question. One might think Evans and Posner are closer to one another than Coffey and Posner, since Evans did not fully agree with Coffey's majority opinion. However, concurring judges are not necessarily closer in their views to the dissenting judge. Posner might very well have agreed with Coffey over Evans had he been required to side with one or the other.

Generally, it would be very difficult to figure out whether a dissenter is closer to the majority or concurring opinion, absent an express statement in the dissent, something along the lines of the judge saying, "If I was to come out the other way, I would adopt the standard of the concurrence rather than the majority opinion." In many cases, it may be nearly impossible to make this determination, even with a very close reading of the opinions—an approach not even feasible

^{122. 185} F.3d 676 (7th Cir. 1999).

with a large number of cases. Our intuition is to code Evans and Posner as being in disagreement ("4"), since they disagreed on the outcome of the case and there is no way to determine if Posner was any closer to Evans than Coffey. Figure 1 illustrates the relationships. Using GHP's scores, we have also calculated the policy distances for each dyad in this case. The ideological distance between Coffey and Posner, for example, is .287, the closest of the three dyads. As an example, the interpretive distance for dictionary usage between Posner and Coffey is 4.2%. Both Coffey and Evans have trial court experience. Lastly, Evans served with Posner and Coffey for three years at the time of the decision, while Posner and Coffey served together for sixteen.

Dependent Variable Agreement = 4 Independent Variables Coffey = |.261 - (-.026)| = .287 Ideology Majority Interpretive Philosophy (Dictionary) = 4.2 Trial Court Experience = 0 Collegiality = 16 Dependent Variable Agreement = 1Independent Variables = |.261 - (-.451)| = .712Posner Interpretive Philosophy (Dictionary) = 2.8 Dissenting Trial Court Experience = 1 Collegiality = 3Dependent Variable Agreement = 1 Independent Variables Ideology = |.451 - (-.026)| = .477Interpretive Philosophy (Dictionary) = 1.4 Evans Trial Court Experience = 0 Concurring Collegiality = 3

FIGURE 1: DYADIC RELATIONSHIPS FOR THE AMERSON PANEL

IV. **FINDINGS**

Descriptive Findings

Basic Rates of Agreement in the Seventh Circuit.—[udges in the courts of appeals agree in an overwhelming number of cases. In fact, the vast majority of three-judge panels are unanimous. However, this is not to say there is no disagreement among individual judges. In the Seventh Circuit, while some judicial pairs never disagreed over a sixyear period, some pairs disagreed nearly ten percent of the time. Table 3 summarizes the rates of disagreement on the Seventh Circuit for the period August 1, 1997 to July 31, 2003.

Table 3: Percent Disagreement

Judge	Bauer	Coffey	Cudahy	Cummings	Cummings Easterbrook Evans	Evans	Fairchild	Flaum	Kanne	Manion	Posner	Ripple	Rovner
Bauer		1.29%	6.48%	1.20%	1.16%	1.23%	0.00%	1.00%	0.00%	1.83%	1.35%	4.39%	4.87%
Coffey	1.29%		5.50%	4.00%	2.58%	8.75%	3.45%	3.60%	0.69%	2.06%	4.88%	4.00%	9.46%
Cudahy	6.48%	5.50%		5.56%	6.04%	3.00%	%00.0	6.09%	8.76%	6.73%	2.52%	4,10%	2.03%
Cummings	1.20%	4.00%	5.56%		3.61%	2.86%	0.00%	9.33%	3.70%	3.00%	3.39%	2.65%	4.69%
Easterbrook 1.16%	1.16%	2.58%	6.04%	3.61%		3.45%	3.33%	5.07%	1.60%	1.21%	1.57%	7.56%	7.80%
Evans	1.23%	8.75%	3.00%	2.86%	3.45%		1.54%	3.40%	2.27%	3.92%	2.74%	5.81%	3.43%
Fairchild	0.00%	3.45%	0.00%	0.00%	3.33%	1.54%	B	N/A (0/0)	7.69%	9.09%	3.12%	0.00%	0.00%
Flaum	1.00%	3.60%	6.09%	9.38%	5.07%	3.40%	N/A (0/0)	.	1.73%	3.17%	3.33%	4.15%	7.04%
Kanne	0.00%	0.69%	8.76%	3.70%	1.60%	2.27%	7.69%	1.73%		3.06%	2.81%	3.73%	7.07%
Manion	1.83%	2.06%	6.73%	3.00%	1.21%	3.92%	3.00%	3.17%	3.06%))	2.20%	6.04%	9.81%
Posner	1.35%	4.88%	2.52%	3.39%	1.57%	2.74%	3.12%	3.33%	2.81%	2.20%		7.61%	6.67%
Ripple	4.39%	4.00%	4.10%	2.65%	7.56%	5.81%	%00'0	4.15%	3.73%	6.04%	7.61%		5.99%
Rovner	4.87%	9.46%	2.03%	4.69%	7.80%	3.43%	%00.0	7.04%	7.07%	9.81%	6.67%	5.99%	
ALL	1.86%	3.40%	4.81%	3.74%	3,42%	3.17%	2.86%	3.81%	2.67%.	3.73%	3,48%	5.37%	6.54%

Norre: Includes En Banc Cases, and Orders Grant or Denying Hearing En Banc from 8/1/97 to 7/31/03 where rate of disagreement is defined as times disagreed divided by the number of times sitting on the same case. Dissents and dissents in part were counted as disagreement, but two judges can agree to dissent on the same en banc panel. The LEXIS search used was: JUDGE (A and B) = total, then subtract Focus DISSENT (A or B) from total, then add FOCUS DISSENT (A and B) = number of times agreed. We have chosen not to include rates of agreement for Judges Williams, D. Wood, and H. Wood, Jr. in this table because we are unable to get consistent results on the LEXIS search engine because of duplicative hits on the last name "Wood" (Diane Wood and Harlington Wood, Jr.) and on "Williams" (Judge Bauer's first name is William). Shaded areas = more than 5% disagreement. 2. Interpretive Philosophy: The Use of Interpretive Tools.—As stated in Part III, we coded the use of the eight interpretive tools in all the opinions written by each judge prior to December 31, 2004, excluding those non-unanimous cases used for the dependent variable. Table 4 contains the number of each judges' opinions we coded. Again, we coded some cases multiple times because they contained multiple search terms. The results of the coding effort suggest there is value to a complex coding scheme as opposed to simply counting the number of references found through a computer database search. The results also suggest that coding opinions is superior to surveying clerks, though the low response rate to the survey makes this conclusion very tentative.

Table 4: Total Number of Opinions Written as of December 12, 2004

Judge	Opinions	Judge	Opinions
Bauer	1353	Kanne	955
Coffey	1186	Manion	762
Cudaĥy	1368	Posner	2029
Cummings	1279	Ripple	1261
Easterbrook	1418	Rovner	586
Evans	429	D. Wood	451
Fairchild	622	H. Wood, Jr.	981
Flaum	1370	Williams	195

There was clearly an advantage to basing usage scores on coded opinions rather than raw LEXIS hits of our search terms. Judges do cite certain tools in an unfavorable manner or when they have no impact on their legal analysis, e.g., dicta. For example, Judge Ann Williams references dictionaries in 5.1% of her opinions, but uses them positively in a legal analysis in only 1.5% of her opinions. Table 5 below provides the dictionary usage information for all sixteen judges, including the results of the survey. The "unfiltered" results are based on the raw hits for our search terms in LEXIS. The "filtered" results are based on our coding of these LEXIS hits. For dictionary usage, both the unfiltered results and the filtered results partially maintain their ordering. Both before and after coding the opinions, Judge Coffey used dictionaries the most and Judge Posner the least. Other judges change their positions in the rankings, but Judges Williams and Harlington Wood moved quite a bit.

Unfilter	ed	Filtere	Filtered Survey		Filtered		
Coffey	(8.8%)	Coffey	(4.4%)	Kanne	(4.0)		
Manion	(6.6%)	Manion	(4.1%)	Flaum	(3.7)		
Cudahy	(5.6%)	Rovner	(2.9%)	Wood, D.	(3.7)		
Rovner	(5.2%)	Kanne	(2.8%)	Wood, H.	(3.5)		
Williams	(5.1%)	Cudahy	(2.4%)	Evans	(3.5)		
Ripple	(4.7%)	Wood, H.	(2.0%)	Easterbrook	(3.1)		
Kanne	(4.6%)	Ripple	(1.9%)	Manion	(3.0)		
Evans	(4.4%)	Bauer	(1.8%)	Ripple	(3.0)		
Wood, D.	(4.2%)	Evans	(1.6%)	Bauer	(2.7)		
Wood, H.	(4.2%)	Williams	(1.5%)	Rovner	(2.5)		
Bauer	(3.4%)	Fairchild	(1.4%)	Cudahy	(2.3)		
Fairchild	(3.1%)	Flaum	(1.4%)	Coffey	(2.0)		
Flaum	(2.9%)	Cummings	(1.2%)	Williams	(1.8)		
Cummings	(2.9%)	Wood, D.	(1.1%)	Posner	(1.8)		
Easterbrook	(2.7%)	Easterbrook	(0.6%)				
Posner	(2.3%)	Posner	(0.2%)				

TABLE 5: DICTIONARY USAGE RANKINGS

Note: Unfiltered results are based on raw hits for LEXIS search terms. Each opinion is counted only once regardless of the number of references to a dictionary. Filtered results are based on our coding of these LEXIS hits. Survey results are based on the responses of Seventh Circuit clerks.

Our coding results cast doubt on the validity of the survey data. Judge Easterbrook is one of the most well-known judges on the appellate bench, and in his opinions, he has publicly described his distrust of dictionaries as interpretive tools. The coding data confirm his statements, showing that Judge Easterbrook ranks near the bottom in dictionary usage—even when one relies on the unfiltered results. Yet the survey data suggest Judge Easterbrook views dictionaries more favorably than eight other judges (though Judges Daniel Manion and Kenneth Ripple are probably indistinguishable from Judge Easterbrook, given the difference of only .10). The survey results for Judge Easterbrook's use of legislative history better match his public statements, since the clerks rank him at the bottom. But the coding results, which indicate he uses legislative history in 6.1% of his opinions, are not obviously wrong. Judge Easterbrook does in fact use legislative history in his opinions.

The survey results are also quite misleading for Judge Coffey. He is the most frequent user of dictionaries, the most reliably coded tool,

^{123.} See Easterbrook, supra note 89, at 62 ("Am I not a notorious opponent of legislative history? That is indeed my position").

^{124.} See, e.g., Kham & Nate's Shoes No. 2, Inc. v. First Bank of Whiting, 908 F.2d 1351, 1361 (7th Cir. 1990) ("The legislative history reinforces the implication of the text.").

but the survey results rank him near the bottom. Clerks are presumably experts on the judges, but the results suggest that clerks may not be able to answer detailed questions about particular interpretive tools with a high degree of accuracy. We cannot conclude, however, that the coding results are without problems. Although Judge Coffey ranks as the judge most committed to originalism, which is quite plausible, 125 Judge Posner ranks as the second most committed to originalism, which is less plausible. Nevertheless, the coding results appear more accurate than the survey results. The interpretive tool usage rankings for the other seven tools can be found in Appendix A.

B. Regression Analysis

As explained above, in testing what factors influence judicial decisionmaking, the unit of analysis is agreement between a dyad of two judges. Before conducting the regression analysis, we consider whether to include the results for all of the interpretive tools in the analysis. One question is whether any tools are so highly correlated so as to be indistinguishable.¹²⁷ As can be seen from the results, we can make some meaningful decisions about which variables to use in the analysis.

First, as one would predict, dictionaries and the plain meaning rule are strongly correlated (.810), and the correlation is statistically significant (p = .000). Given this relationship and our doubts about coding plain meaning, we chose to keep dictionaries in our analysis and drop plain meaning. Despite our decision to exclude plain meaning, the relationship between the two tools reinforces the validity of our coding scheme.

Second, original meaning is moderately correlated with the GHP ideology score (.541), and the correlation is significant (.030). The direction of the relationship is what one would expect. The more conservative a judge, the more likely he or she is to be an originalist. Due to the low coding reliability for original meaning and its correlation with ideology, it is not included in our analysis.

Third, from a purely theoretical standpoint, a preference for standards, i.e., balancing tests, and a preference for rules are opposites, so both should not be retained in the final analysis. Given this theoretical concern and the difficulty in coding a preference for rules,

^{125.} Judge Coffey has recently described himself in originalist terms. *Marquette Lawyers on the Seventh Circuit*, Marq. Law., Spring 2005, at 4, 6. In the same article, Judge Evans described himself as a pragmatist. *Id.* at 7.

^{126.} See Posner, supra note 48, at 237-55 (criticizing originalism).

^{127.} The correlation matrix can be found in Appendix D.

we dropped rules from our analysis. In sum, we kept the following four variables in the regression as independent variables: (1) balancing, (2) dictionaries, (3) economic analysis, and (4) legislative history. Again, this list is a subset of all interpretive tools, one that may or may not be a good proxy for a larger package of interpretive beliefs.

Category	Frequency	Percent	Cumulative Percent
0	314	32.3	32.3
1	212	21.8	54.1
2	99	10.2	64.3
3	47	4.8	69.1
4	300	30.9	100.0

100.0

972

Total

Table 6: Category Frequency in Multinomial Regression

We generated binomial and multinomial logistic regressions, clustering by case citation because the observations for each panel are correlated. In the binomial logistic regression, agreement is coded as 0 (related by signing the same opinion or an opinion concurring, concurring in the judgment, or concurring in part and dissenting in part) or 1 (related by a dissent). At the outset, the results of the binomial model are potentially less revealing than those of the multinomial model. By considering anything but dissents as agreement, the binomial analysis ignores other forms of genuine disagreement. Table 6 shows that concurrences (category 1) in the multinomial model comprise a significant amount of the data (212 of 972 dyads). The multinomial results indicate that concurrences are an important form of moderate disagreement.

Although the variables for ideology and interpretive philosophy are not statistically significant in this model, collegiality and one of the dummy variables representing trial court experience (Trial court 2) did have a significant impact on agreement. As shown in Table 7, each additional year on the bench together for a pair of judges decreased the odds of disagreement by 3.6%, controlling for other variables in the model. Similarly, when both judges had trial court experience, the odds of disagreement declined by 47.9%. Some predicted probabilities can better illustrate the meaning of these odds

^{128.} Canons were deleted due to inter-coder reliability concerns. See supra Part III.C.2.a.

values. Assume that the variables for collegiality, ideological distance, and interpretive philosophy are held at their means. In criminal procedure cases, which represent the largest category of case types in the dataset (n=303), the probability of disagreement is 39.2% (plus or minus 9.2%) for a pair of judges with no trial court experience between them. The probability of disagreement declines to 34.6% (plus or minus 7.3%) when one judge has trial court experience. It declines even further to 25.1% (plus or minus 8.4%) when both judges have trial court experience. These particular probabilities must be interpreted with caution. Despite the statistical significance of the variable Trial court 2, the 95% confidence intervals for these predicted probabilities obviously overlap. Also, it must be noted that this model does not produce better predictions overall than simply predicting the modal outcome, i.e., agreement, for all observations. More complete results can be found in Appendix C.

Table 7: Binomial Logistic Regression on Dichotomous Agreement Variable

Variable	Odds Ratio	Std. Err.	Z	P> z		Conf. erval
Collegiality	0.964	0.016	-2.230	0.026	0.933	0.996
Dist. – ideology	1.000	0.003	-0.100	0.920	0.995	1.005
Trial court 1	0.823	0.144	-1.110	0.267	0.584	1.161
Trial court 2	0.521	0.136	-2.500	0.012	0.313	0.868
Dist balancing	0.743	0.134	-1.650	0.098	0.522	1.056
Dist dictionaries	1.026	0.078	0.340	0.732	0.884	1.191
Dist economic analysis	0.877	0.096	-1.200	0.230	0.709	1.086
Dist legislative history	0.970	0.032	-0.920	0.359	0.909	1.035

Note: Controls for case type included. Standard errors adjusted for clustering by case citation.

The multinomial model provides more interesting results than the binomial model because distinct categories of agreement or disagreement are not collapsed together. As with the binomial model, complete results for the multinomial model can be found in Appendix C. Table 8 provides partial results, comparing the odds of dissenting versus signing the same opinion, which is to say, full disagreement as compared to full agreement. At the outside, it is worth noting that this model, unlike the binomial model, does better predict the outcomes than simply guessing the modal categories.

^{129.} These confidence intervals are based on the delta method. See J. Scott Long & Jeremy Freese, Regression Models for Categorical Dependent Variables Using Stata 127 (2d ed. 2006).

Collegiality had a strong relationship to judicial agreement. As years of joint service increased, the odds of disagreement decreased. This result was strongest for the two largest categories of the dataset, concurrences and dissents. As compared to joining the same opinion, for each additional year of joint service, the odds of disagreement decreased 5.0% for a concurrence (category 1) to 5.8% for a dissent (category 4). (See Appendix C for category 1 results.)

Table 8: Multinomial Regression Analysis for Full Disagreement

Dissent vs. Full agreement	Odds Ratio	Robust Std. Err.	Z	P> z		Conf. rval
Collegiality	0.942	0.016	-3.540	0.000	0.912	0.974
Dist ideology	1.003	0.003	0.860	0.387	0.997	1.009
Trial court 1	0.600	0.119	-2.580	0.010	0.407	0.885
Trial court 2	0.291	0.077	-4.650	0.000	0.173	0.490
Dist balancing	0.790	0.159	-1.170	0.241	0.533	1.171
Dist dictionaries	0.995	0.081	-0.070	0.948	0.847	1.168
Dist economic analysis	0.832	0.106	-1.440	0.151	0.648	1.069
Dist legislative history	0.933	0.038	-1.690	0.092	0.861	1.011

Note: Controls for case type included. Standard errors adjusted for clustering by case citation.

Like collegiality, trial court experience was statistically significant in multiple categories. Having one judge (Trial court 1) or both judges (Trial court 2) with trial court experience decreased the odds of disagreement in all categories, though the result was not statistically significant for concurring in the judgment (category 2). Where one judge had trial court experience, for example, the odds of dissenting declined by 40.0%. Where both judges had trial court experience, the odds of dissenting declined by 70.9%. Once again, these results can be better illustrated with some predicted probabilities. Focusing on criminal procedure cases as before and holding other variables at their mean values, Table 9 shows the predicted probabilities for each level of agreement as the extent of trial court experience is adjusted. As the table indicates, the probability of full agreement increases as judges with trial court experience are added to a dyad. When no judges with trial court experience are in the dyad, the probability of full agreement is 22.0% Adding one judge with trial court experience results in a probability of full agreement of 32.3%. Adding a second judge with trial court experience raises this probability to 46.6%. At the same time, the probabilities of full disagreement (or dissent) decrease as judges with trial court experience are added to a dyad, going from 39.9% to 35.0% and then to 24.5% (though with overlapping confidence intervals).

					`	,			
Agreement Type	TCE=0	95%	C.I.	TCE=1	95%	C.I.	TCE=2	95%	C.I.
0	22.0%	(18.0%	26.1%)	32.2%	(28.4%	35.9%)	46.6%	(39.2%	53.9%)
1	24.5%	(15.7%	33.2%)	19.8%	(13.3%	26.3%)	14.0%	(7.5%	20.5%)
2	8.6%	(3.7%	13.6%)	11.0%	(5.9%	16.0%)	12.7%	(4.0%	21.4%)
3	5.0%	(0.4%	9.6%)	2.1%	(-0.2%	4.4%)	2.2%	(0.3%	4.7%)
4	39.9%	(30.3%	49.5%)	35.0%	(27.7%	42.3%)	24.5%	(16.4%	32.7%)

TABLE 9: PREDICTED PROBABILITIES FOR TRIAL COURT EXPERIENCE (TCE)

NOTE: Probabilities are for Case Type 1, criminal procedure. Other variables are set at their mean values.

The results for ideology and interpretive philosophy were not significant. In one category, concurring in the judgment, ideology was almost significant (p = .051) and was in the expected direction, but the effect was quite small (OR = 1.009). Similarly, the preference for certain interpretive tools had no statistically significant effect on agreement. In addition, no case types showed significant effects on agreement, except for judicial power cases (case type 9). Even for these cases, however, the effect was significant only for concurrences in the judgment (OR = .127, p = 0.049), the least frequent category in Table 6.

V. EVALUATION OF FINDINGS

The central task of this study was to operationalize judges' interpretive philosophies and to determine whether various approaches to legal interpretation help to explain decisions on the court of appeals. As seen in Table 3, judges agree with one another the vast majority of the time. The room for interpretive philosophy to play an important role appears to be confined to a relatively small minority of opinions, but the data suggest that differing approaches to legal interpretation, at least as we have measured them, have little effect even in the minority of cases where one might predict interpretive philosophy to be most important.

We do not claim that law does not matter; the Seventh Circuit, like every other court, frequently cites precedent and likely prefers to follow it. But even if law matters, academic conceptions of legal interpretation, with its great attention on the legitimate use of particular interpretive approaches, may be wide of the mark. Judges, unlike in-

^{130.} We excluded several case type dummy variables because few dyads (and even fewer cases) fell into these categories. Although forty-eight dyads (based on sixteen cases) fell into case type 3, we excluded this dummy variable because it caused anomalous results in the regression.

terpretive theorists, may lack strong commitments to particular modes of interpretation, instead being more pragmatic in their approaches. Varying rates of usage for the interpretive tools may be more a function of how individual judges think decisions should be explained rather than how they actually reach these decisions. Pragmatic judges are not lawless, but they may not be committed enough to the various theories of interpretation to allow us to measure the role of formalism or originalism (to think broadly)—or the use of dictionaries (to think narrowly). Even so, legislative history did have a statistically significant impact, but it is difficult to explain this result. Unless the use of legislative history is serving as a proxy for a larger package of interpretive approaches, it is difficult to understand why views on legislative history alone would affect judicial outcomes, especially when the effect is in the opposite direction that theory predicts.

The data suggest that ideological differences do not affect judicial disagreement. Either most cases do not implicate ideology as typically understood or the standard proxy measures for ideology are simply too rough to be serviceable, at least in a data set that is not confined to the most ideologically divisive issues. While many scholars have lamented the importance of ideology, 131 "to suggest that partisan or ideological preferences are prevalent influences in deciding most cases . . . is a dubious extrapolation from the empirical evidence." 132 The courts of appeals, unlike the U.S. Supreme Court, do not have a discretionary docket containing only highly controversial cases. This is not to say that the courts of appeals do not hear some ideologically charged issues, but these cases are a small minority of the docket. Hence, when looking at judicial decisionmaking in general on the lower courts, it is not surprising that the role of ideology would be limited. 133

The data do suggest that judicial decisionmaking is influenced by judicial relationships and experience. We defined "collegiality" as the number of terms a pair of judges served on the court together at the time a decision was made. (The term might be better described as "co-tenure.") Judges were less likely to disagree with one another the

^{131.} E.g., Sunstein et al., supra note 26, at 331-34. But see Sisk & Heise, supra note 7, at 758 (arguing that their "finding of ideological voting is rather contained").

^{132.} Sisk & Heise, supra note 7, at 746. In their study of religious cases, the "ideology of judges faded into the background." Id. at 766; see also Gregory C. Sisk et al., Searching for the Soul of Judicial Decisionmaking: An Empirical Study of Religious Freedom Decisions, 65 Ohio St. L.J. 491 (2004).

^{133.} Admittedly, while we do include collegiality and trial court experience, our included background variables are limited to these two. Further research may include more variables. *Cf.* Sisk & Heise, *supra* note 7, at 773-74.

longer they served together. There may be a number of reasons for this finding. First, as Judge Edwards has stated, judicial collegiality lends itself to agreeing. Second, after many years on the bench together, judges will better understand how to reach compromises with their colleagues. Third, perhaps judges goals may change. Judges are concerned with the quality of their work environment, a concern that may grow over time. Lastly, implicit vote trading may occur. If Judge A, despite some concerns, signed on to Judge B's opinion, then Judge B might sign on to Judge A's opinion more readily in the future. Indeed, the norm of collegiality may both suppress or amplify ideological disagreements. 134 At least in some types of cases, three Republicans or three Democrats are more likely to vote their predicted ideological preferences than mixed panels. Where the panel is mixed, collegial judges moderate their views. Our methodology does not pick up this sort of ideological voting, but it does offer support for the importance of collegiality.

Trial court experience also strongly affected agreement, especially when both judges served as trial court judges in the past. Judges with similar judicial resumes may be more likely to agree with one another because their similar experiences color how they view certain cases. Many Seventh Circuit judges are former U.S. District Court judges for the Northern District of Illinois, potentially providing very similar background experiences for several judges. However, if one judge was a former trial judge, they are also more likely to agree. One wonders whether former trial judges are considered "experts" on some lower court issues and, thus, are given substantial deference by their colleagues.

VI. FURTHER ANALYSIS AND POSSIBLE FUTURE RESEARCH

Our findings suggest that judges are not particularly committed to any particular interpretive approach. However, judges still "talk" in different ways, both in judicial decisions and publicly. In other words, judges clearly state preferences for different interpretive approaches and tools, and they express these preferences at different rates. Do judges want to be perceived as part of a certain interpretive camp? Do background characteristics impact how judges "talk"? These questions remain unresolved. Considering the opinions of the judiciary regarding collegiality, further study of this factor seems especially appropriate. For example, does the rate of agreement among judges increase over time, even when they have divergent ideological views? Is there a

^{134.} Sunstein et al., supra note 26, at 304-05.

relationship between presidential appointment cohort and agreement?¹³⁵

Despite our findings, more research on the role of interpretive philosophies is needed. If judges' interpretive approaches can be identified and cataloged, researchers can then move to the next question: determining the costs and benefits of various interpretive approaches. Obviously, evaluating costs and benefits raise some difficult definitional questions. "Errors" in terms of Supreme Court or legislative reversals is one cost. Legislative reversals raise complicated questions, 136 but we would like to know the frequency of formalist and nonformalist courts, judges, and opinions being "overruled" by Congress or state legislatures, a question similar to William Eskridge's research on congressional overrides of the Supreme Court. 137 Overrides are costly, however, and literature suggests Congress does not frequently overturn even the Supreme Court, 138 despite the frequent introduction of legislation to do so. 139 Congressional attempts to override the Supreme Court are more successful, however, as the level of amicus curiae participation increases. 140 Thus, we should also be interested in the role of interest groups in any discussion of congressional reversals as signals of appellate error.

As a final example, we might want to determine how often judges of the courts of appeals "invite" legislatures to overrule their decisions. If formalist judges are able to successfully "invite" legislative correction, then formalists may be able to achieve both their policy and legal

^{135.} In other words, is the significance of our collegiality variable not a result of judges learning to get along, but instead a result of judges appointed by the same president, e.g., Reagan, having served a long time together and, more importantly, having similar outlooks on the law in ways not picked up by our other variables?

^{136.} For a short discussion of political science literature on the institutional interactions between Congress and the courts, see Jamie L. Carson & Kirk A. Randazzo, LSS Newsletter Extension of Remarks, Emerging Multi-Institutional Analyses: Congress and the Courts, http://www.apsanet.org/~lss/newsletter/jan02/carson.html (last visited Apr. 9, 2006).

^{137.} Eskridge, supra note 21.

^{138.} E.g., Beth Henschen, Statutory Interpretations of the Supreme Court: Congressional Response, 11 Am. Pol. Q. 441, 454 (1983).

^{139.} Andrew D. Martin, Congressional Decision Making and the Separation of Powers, 95 Am. Pol. Sci. Rev. 361 (2001); Richard A. Paschal, The Continuing Colloquy: Congress and the Finality of the Supreme Court, 8 J.L. & Pol. 143, 175-78 (1991).

^{140.} Joseph Ignagni & James Meernik, Explaining Congressional Attempts to Reverse Supreme Court Decisions, 47 Pol. Res. Q. 353, 365-66 (1994) (concluding that interest group pressure based on the filing of amicus curiae briefs makes Congress more likely to respond to judicial decisions); James Meernik & Joseph Ignagni, Congressional Attacks on Supreme Court Rulings Involving Unconstitutional State Laws, 48 Pol. Res. Q. 43, 56-57 (1995) (concluding that the congressional response to Supreme Court decisions declaring state laws unconstitutional is impacted by the nature of the issue, the electoral concerns of members of Congress, and the degree of the impact of the Court's decision on the federal government).

preferences.¹⁴¹ Nonformalists (and especially pragmatists) may have no need to "invite" legislative action as they are less constrained in reaching a preferred result. But to what extent do legislatures act on these invitations by formalist judges? If legislatures frequently respond to the invitations of formalist judges—indicating that judges are good at identifying legislative preferences—then we might prefer that nonformalist judges save the legislature the costs of fixing easily identifiable problems.

Conclusion

Research on the role of interpretive philosophies is important because scholars continue to debate the role of certain interpretive approaches in the decisionmaking process. Scholars also make empirical claims about the impact of these interpretive approaches. 142 Our research suggests that interpretive approaches can, with difficulty, be empirically measured at some level, but we find little to no evidence that interpretive philosophy, as typically conceived, actually matters across cases generally. The conclusion is not that judicial law-lessness abounds. We have, for example, said next to nothing about the role of precedent, which we assume matters a great deal in the actual business of judging.

In his recent confirmation hearings, Chief Justice John Roberts, in response to a question about his approach to constitutional interpretation, offered this view:

I don't have an overarching view. As a matter of fact, I don't think very many judges do. I think a lot of academics do. But the demands of deciding cases and the demands of deciding cases by committee—either a group of three or a group of nine—I find with those demands the nuances of academic theory are dispensed with fairly quickly and judges

^{141.} See, e.g., Lori Hausegger & Lawrence Baum, Inviting Congressional Action: A Study of Supreme Court Motivations in Statutory Interpretation, 43 Am. J. Pol. Sci. 162 (1999); Pablo T. Spiller & Emerson H. Tiller, Invitations to Override: Congressional Reversals of Supreme Court Decisions, 16 Int'l Rev. Law & Econ. 503 (1996); see also C.K. Rowland & Robert A. Carp, Politics and Judgment in Federal District Courts (1996) (seeking to harmonize the internal judicial claims of commitment to the rule of law with the results of political science research using patterns of attitudinal decisionmaking).

^{142.} Howard & Segal, *supra* note 5, at 132 ("The role of text and intent in judicial decisions is very important. . . . [N]ormative scholars continue vigorously to debate the topic [S]cholars continue to make empirical claims that some Justices, at least, do in fact respond positively to textual and intentional arguments.").

take a more practical and pragmatic approach to trying to reach the best decision consistent with the rule of law. 143

On issues of interpretation generally, our findings are consistent with this view, with understanding the courts of appeals as pragmatic bodies of fairly like-minded individuals (on most issues), not ongoing battles between true-blue formalists and non-formalists or devout originalists and non-originalists. While further empirical testing is certainly warranted, along with alternative approaches to measuring judges' interpretive philosophies, our findings suggest that at least some academic discussions of legal interpretation poorly reflect the actual business of judging.

^{143.} Nomination of Judge John G. Roberts, Jr. to Be Chief Justice of the Supreme Court: Hearing Before S. Comm. on the Judiciary, 109th Cong. (Federal News Service 2005); see also Posner, supra note 40, at 355 (referring to pragmatism as "the secret story of our courts").

APPENDIX A: INTERPRETIVE TOOL USAGE RANKINGS

Balancing Tests Usage Rankings

Unfilter	red	Filtere	:d	Survey	
Flaum	(3.5%)	Flaum	(3.5%)	Wood, D.	(6.0)
Cudahy	(3.4%)	Cudahy	(1.9%)	Rovner	(5.5)
Manion	(2.9%)	Kanne	(1.7%)	Flaum	(5.3)
Rovner	(2.8%)	Rovner	(1.5%)	Evans	(5.0)
Ripple	(2.7%)	Wood, H.	(1.4%)	Ripple	(5.0)
Wood, H.	(2.7%)	Evans	(1.4%)	Williams	(4.8)
Kanne	(2.6%)	Coffey	(1.3%)	Kanne	(4.7)
Coffey	(2.4%)	Ripple	(1.3%)	Cudahy	(4.3)
Easterbrook	(2.2%)	Manion	(1.0%)	Wood, H.	(4.0)
Evans	(2.1%)	Bauer	(1.0%)	Bauer	(4.0)
Fairchild	(2.1%)	Williams	(1.0%)	Posner	(3.7)
Bauer	(2.0%)	Fairchild	(1.0%)	Manion	(3.3)
Cummings	(1.7%)	Cummings	(0.9%)	Easterbrook	(2.0)
Wood, D.	(1.6%)	Easterbrook	(0.6%)	Coffey	(1.0)
Posner	(1.3%)	Posner	(0.4%)		
Williams	(1.0%)	Wood, D.	(0.4%)		

Canons of Construction Usage Rankings

Unfilter	red	Filtere	d	Survey	
Cummings	(3.5%)	Kanne	(1.7%)	Ripple	(5.5)
Fairchild	(2.9%)	Fairchild	(1.4%)	Evans	(5.0)
Manion	(2.8%)	Manion	(1.3%)	Kanne	(4.7)
Wood, H.	(2.8%)	Evans	(1.0%)	Flaum	(4.3)
Cudahy	(2.7%)	Cummings	(0.9%)	Wood, D.	(4.3)
Williams	(2.6%)	Flaum	(0.9%)	Wood, H.	(4.0)
Coffey	(2.4%)	Coffey	(0.8%)	Easterbrook	(4.0)
Kanne	(2.2%)	Wood, H.	(0.8%)	Rovner	(4.0)
Easterbrook	(2.1%)	Ripple	(0.7%)	Williams	(3.8)
Posner	(2.0%)	Rovner	(0.7%)	Cudahy	(3.7)
Flaum	(2.0%)	Wood, D.	(0.7%)	Posner	(3.5)
Ripple	(1.9%)	Cudahy	(0.7%)	Manion	(3.3)
Wood, D.	(1.8%)	Easterbrook	(0.6%)	Coffey	(3.0)
Rovner	(1.5%)	Bauer	(0.5%)	Bauer	(3.0)
Evans	(1.4%)	Williams	(0.5%)		
Bauer	(1.3%)	Posner	(0.2%)		

Economic Analysis Usage Rankings

Unfilter	red	Filtere	d	Survey	,
Easterbrook	(3.8%)	Easterbrook	(2.0%)	Posner	(6.8)
Posner	(2.8%)	Posner	(1.7%)	Easterbrook	(5.9)
Cudahy	(2.5%)	Cudahy	(1.3%)	Wood, D.	(4.3)
Manion	(1.3%)	Flaum	(0.7%)	Kanne	(2.7)
Cummings	(1.2%)	Wood, H.	(0.5%)	Cudahy	(2.3)
Flaum	(1.2%)	Coffey	(0.4%)	Flaum	(2.0)
Wood, H.	(1.1%)	Cummings	(0.4%)	Evans	(2.0)
Williams	(1.0%)	Bauer	(0.2%)	Ripple	(2.0)
Ripple	(1.0%)	Manion	(0.1%)	Coffey	(2.0)
Wood, D.	(0.9%)	Ripple	(0.1%)	Bauer	(1.7)
Coffey	(0.8%)	Kanne	(0.0%)	Manion	(1.7)
Evans	(0.7%)	Rovner	(0.0%)	Rovner	(1.5)
Rovner	(0.7%)	Evans	(0.0%)	Wood, H.	(1.5)
Bauer	(0.5%)	Williams	(0.0%)	Williams	(1.3)
Fairchild	(0.5%)	Fairchild	(0.0%)	The second secon	
Kanne	(0.4%)	Wood, D.	(0.0%)		

Legislative History Usage Rankings

Unfilte	red	Filter	ed	Survey	
Cudahy	(20.5%)	Cummings	(14.2%)	Williams	(6.0)
Cummings	(19.1%)	Ripple	(11.3%)	Cudahy	(5.7)
Wood, H.	(17.0%)	Cudahy	(11.1%)	Evans	(5.5)
Ripple	(16.5%)	Wood, H.	(10.5%)	Ripple	(5.0)
Posner	(15.3%)	Coffey	(10.4%)	Wood, H.	(5.0)
Manion	(14.7%)	Posner	(10.3%)	Flaum	(5.0)
Fairchild	(14.6%)	Bauer	(8.6%)	Rovner	(5.0)
Flaum	(14.2%)	Flaum	(8.5%)	Wood, D.	(5.0)
Coffey	(14.1%)	Fairchild	(8.5%)	Bauer	(4.3)
Bauer	(13.0%)	Manion	(6.4%)	Manion	(4.3)
Easterbrook	(11.1%)	Kanne	(6.3%)	Posner	(4.3)
Williams	(9.2%)	Easterbrook	(6.1%)	Kanne	(4.0)
Kanne	(9.2%)	Rovner	(5.9%)	Coffey	(3.0)
Rovner	(9.0%)	Williams	(4.1%)	Easterbrook	(2.3)
Wood, D.	8.0%)	Evans	(3.8%)		
Evans	(7.7%)	Wood, D.	(3.3%)		

Original Meaning of the Constitution Usage Rankings

Unfilte	red	Filtere	d	Survey	
Posner	(2.4%)	Coffey	(0.9%)	Easterbrook	(5.6)
Coffey	(1.9%)	Posner	(0.5%)	Ripple	(5.0)
Easterbrook	(1.8%)	Kanne	(0.5%)	Kanne	(4.3)
Manion	(1.6%)	Manion	(0.5%)	Evans	(4.0)
Wood, D.	(1.6%)	Bauer	(0.4%)	Flaum	(3.3)
Rovner	(1.5%)	Flaum	(0.4%)	Manion	(2.7)
Cudahy	(1.5%)	Easterbrook	(0.4%)	Posner	(2.3)
Ripple	(1.4%)	Ripple	(0.2%)	Wood, D.	(1.7)
Flaum	(1.3%)	Cummings	(0.2%)	Rovner	(1.5)
Cummings	(1.1%)	Wood, D.	(0.2%)	Wood, H.	(1.0)
Kanne	(1.0%)	Rovner	(0.2%)	Bauer	(1.0)
Bauer	(1.0%)	Wood, H.	(0.1%)	Cudahy	(1.0)
Evans	(0.9%)	Cudahy	(0.0%)	Coffey	(1.0)
Wood, H.	(0.9%)	Evans	(0.0%)	Williams	(1.0)
Fairchild	(0.8%)	Fairchild	(0.0%)		
Williams	(0.0%)	Williams	(0.0%)		

Plain Meaning Rule Usage Rankings

Unfilte	red	Filter	ed	Survey	
Manion	(20.5%)	Manion	(10.9%)	Coffey	(7.0)
Ripple	(17.5%)	Ripple	(10.5%)	Bauer	(6.0)
Williams	(17.4%)	Coffey	(10.0%)	Easterbrook	(5.9)
Rovner	(17.2%)	Rovner	(8.6%)	Flaum	(5.3)
Coffey	(16.4%)	Flaum	(8.0%)	Kanne	(5.0)
Cudahy	(14.6%)	Kanne	(7.6%)	Ripple	(5.0)
Flaum	(14.2%)	Bauer	(7.1%)	Manion	(4.7)
Evans	(11.7%)	Cudahy	(6.6%)	Posner	(4.5)
Wood, D.	(11.5%)	Williams	(5.6%)	Wood, D.	(4.0)
Wood, H.	(11.5%)	Wood, D.	(5.1%)	Evans	(4.0)
Kanne	(11.4%)	Wood, H.	(4.9%)	Rovner	(4.0)
Bauer	(11.2%)	Evans	(4.7%)	Cudahy	(3.7)
Cummings	(9.8%)	Cummings	(4.1%)	Wood, H.	(3.5)
Fairchild	(6.9%)	Fairchild	(3.2%)	Williams	(2.3)
Easterbrook	(6.6%)	Easterbrook	(1.0%)		
Posner	(5.0%)	Posner	(0.3%)		

Rules Usage Rankings

Flaum (6.9%) Easterbrook (1.6%) Coffey Wood, D. (5.8%) Cudahy (1.4%) Easterbrook Rovner (5.5%) Cummings (1.0%) Manion Cudahy (5.1%) Flaum (0.9%) Posner Easterbrook (5.0%) Bauer (0.7%) Bauer Bauer (5.0%) Wood, D. (0.7%) Wood, H. Kanne (4.9%) Kanne (0.6%) Cudahy Ripple (4.8%) Manion (0.5%) Kanne Coffey (4.6%) Rovner (0.5%) Williams Wood, H. (4.4%) Fairchild (0.5%) Evans Manion (4.3%) Ripple (0.5%) Flaum Williams (4.1%) Posner (0.4%) Rovner Posner (3.6%) Coffey (0.3%) Wood, D.	<i>i</i> ey	Survey	d	Filtere	ed	Unfilter
Rovner (5.5%) Cummings (1.0%) Manion Cudahy (5.1%) Flaum (0.9%) Posner Easterbrook (5.0%) Bauer (0.7%) Bauer Bauer (5.0%) Wood, D. (0.7%) Wood, H. Kanne (4.9%) Kanne (0.6%) Cudahy Ripple (4.8%) Manion (0.5%) Kanne Coffey (4.6%) Rovner (0.5%) Williams Wood, H. (4.4%) Fairchild (0.5%) Evans Manion (4.3%) Ripple (0.5%) Flaum Williams (4.1%) Posner (0.4%) Rovner	(7.0)	Coffey	(1.6%)	Easterbrook	(6.9%)	Flaum
Cudahy (5.1%) Flaum (0.9%) Posner Easterbrook (5.0%) Bauer (0.7%) Bauer Bauer (5.0%) Wood, D. (0.7%) Wood, H. Kanne (4.9%) Kanne (0.6%) Cudahy Ripple (4.8%) Manion (0.5%) Kanne Coffey (4.6%) Rovner (0.5%) Williams Wood, H. (4.4%) Wood, H. (0.5%) Ripple Cummings (4.4%) Fairchild (0.5%) Evans Manion (4.3%) Ripple (0.5%) Flaum Williams (4.1%) Posner (0.4%) Rovner	(6.0)	Easterbrook	(1.4%)	Cudahy	(5.8%)	Wood, D.
Easterbrook (5.0%) Bauer (0.7%) Bauer Bauer (5.0%) Wood, D. (0.7%) Wood, H. Kanne (4.9%) Kanne (0.6%) Cudahy Ripple (4.8%) Manion (0.5%) Kanne Coffey (4.6%) Rovner (0.5%) Williams Wood, H. (4.4%) Wood, H. (0.5%) Ripple Cummings (4.4%) Fairchild (0.5%) Evans Manion (4.3%) Ripple (0.5%) Flaum Williams (4.1%) Posner (0.4%) Rovner	(4.7)	Manion	(1.0%)	Cummings	(5.5%)	Rovner
Bauer (5.0%) Wood, D. (0.7%) Wood, H. Kanne (4.9%) Kanne (0.6%) Cudahy Ripple (4.8%) Manion (0.5%) Kanne Coffey (4.6%) Rovner (0.5%) Williams Wood, H. (4.4%) Wood, H. (0.5%) Ripple Cummings (4.4%) Fairchild (0.5%) Evans Manion (4.3%) Ripple (0.5%) Flaum Williams (4.1%) Posner (0.4%) Rovner	(4.3)	Posner	(0.9%)	Flaum	(5.1%)	Cudahy
Kanne (4.9%) Kanne (0.6%) Cudahy Ripple (4.8%) Manion (0.5%) Kanne Coffey (4.6%) Rovner (0.5%) Williams Wood, H. (4.4%) Wood, H. (0.5%) Ripple Cummings (4.4%) Fairchild (0.5%) Evans Manion (4.3%) Ripple (0.5%) Flaum Williams (4.1%) Posner (0.4%) Rovner	(4.0)	Bauer	(0.7%)	Bauer	(5.0%)	Easterbrook
Ripple (4.8%) Manion (0.5%) Kanne Coffey (4.6%) Rovner (0.5%) Williams Wood, H. (4.4%) Wood, H. (0.5%) Ripple Cummings (4.4%) Fairchild (0.5%) Evans Manion (4.3%) Ripple (0.5%) Flaum Williams (4.1%) Posner (0.4%) Rovner	(4.0)	Wood, H.	(0.7%)	Wood, D.	(5.0%)	Bauer
Coffey (4.6%) Rovner (0.5%) Williams Wood, H. (4.4%) Wood, H. (0.5%) Ripple Cummings (4.4%) Fairchild (0.5%) Evans Manion (4.3%) Ripple (0.5%) Flaum Williams (4.1%) Posner (0.4%) Rovner	(3.7)	Cudahy	(0.6%)	Kanne	(4.9%)	Kanne
Wood, H. (4.4%) Wood, H. (0.5%) Ripple Cummings (4.4%) Fairchild (0.5%) Evans Manion (4.3%) Ripple (0.5%) Flaum Williams (4.1%) Posner (0.4%) Rovner	(3.3)	Kanne	(0.5%)	Manion	(4.8%)	Ripple
Cummings (4.4%) Fairchild (0.5%) Evans Manion (4.3%) Ripple (0.5%) Flaum Williams (4.1%) Posner (0.4%) Rovner	(3.3)	Williams	(0.5%)	Rovner	(4.6%)	Coffey
Manion (4.3%) Ripple (0.5%) Flaum Williams (4.1%) Posner (0.4%) Rovner	(3.0)	Ripple	(0.5%)	Wood, H.	(4.4%)	Wood, H.
Williams (4.1%) Posner (0.4%) Rovner	(3.0)	Evans	(0.5%)	Fairchild	(4.4%)	Cummings
	(2.7)	Flaum	(0.5%)	Ripple	(4.3%)	Manion
Posner (3.6%) Coffey (0.3%) Wood, D.	(2.5)	Rovner	(0.4%)	Posner	(4.1%)	Williams
	(2.0)	Wood, D.	(0.3%)	Coffey	(3.6%)	Posner
Fairchild (3.1%) Evans (0.0%)			(0.0%)	Evans	(3.1%)	Fairchild
Evans (2.6%) Williams (0.0%)			(0.0%)	Williams	(2.6%)	Evans

Note: The survey number represents the inverse of survey balancing test question score.

APPENDIX B: INTER-CODER RELIABILITY RESULTS

Cohen's kappa Inter-Coder Reliability Results

Interpretive Tool	Actual Agreement	Expected Agreement	Cohen's Kappa	Std. Error	Z	Prob.>Z
Balancing tests	81.25%	53.47%	.5970	.1430	4.17	.0000
Canons of construction	69.44%	55.56%	.3125	.1583	1.97	.0242
Dictionaries	90.91%	52.58%	.8083	.1508	5.36	.0000
Economic analysis	83.02%	50.48%	.6571	.1365	4.82	.0000
Legislative history	84.62%	52.37%	.6770	.1369	4.95	.0000
Original meaning	78.26%	52.27%	.5446	.1313	4.15	.0000
Plain meaning	86.00%	49.20%	.7244	.1359	5.33	.0000
Preference for rules	95.00%	86.00%	.6429	.1206	5.33	.0000

APPENDIX C: REGRESSION RESULTS

Binomial Logistic Regression Results

Variable	Odds Ratio	Robust Std. Err.	z	P> z	,-	Conf.
Collegiality	0.964	0.016	-2.230	0.026	0.933	0.996
Dist. – ideology	1.000	0.003	-0.100	0.920	0.995	1.005
Trial court 1	0.823	0.144	-1.110	0.267	0.584	1.161
Trial court 2	0.521	0.136	-2.500	0.012	0.313	0.868
Dist balancing	0.743	0.134	-1.650	0.098	0.522	1.056
Dist. – dictionaries	1.026	0.078	0.340	0.732	0.884	1.191
Dist. – economic analysis	0.877	0.096	-1.200	0.230	0.709	1.086
Dist. – legislative history	0.970	0.032	-0.920	0.359	0.909	1.035
Case type – criminal procedure	1.086	0.365	0.250	0.805	0.562	2.099
Case type - civil rights	0.534	0.204	-1.640	0.101	0.253	1.129
Case type – due process	0.959	0.465	-0.090	0.931	0.371	2.478
Case type – unions	0.980	0.488	-0.040	0.967	0.369	2.601
Case type – economic activities	0.715	0.271	-0.890	0.376	0.341	1.502
Case type – judicial power	1.517	0.544	1.160	0.245	0.751	3.065

N = 972 Wald chi2(14) = 25.15 Prob > chi2 = 0.0331 Pseudo (McFadden's) R²=.028 Percent Correctly Predicted=69.1% Percent Reduction in Error=0.0% Standard errors adjusted for clustering by case citation.

MARYLAND LAW REVIEW

Multinomi	al Logist	ic Regressi	on Result	s		
	Odds Ratio	Robust Std. Err.	z	P> z		Conf. erval
1. Concurrence vs. Full agreemen	nt	<u></u>				
Collegiality	0.950	0.019	-2.550	0.011	0.914	0.988
Distance – ideology	1.003	0.003	1.010	0.313	0.997	1.010
Trial court 1	0.554	0.111	-2.950	0.003	0.375	0.820
Trial court 2	0.270	0.086	-4.120	0.000	0.145	0.504
Distance - balancing	1.083	0.219	0.390	0.695	0.728	1.610
Distance – dictionaries	1.015	0.096	0.150	0.879	0.842	1.222
Distance – economic analysis	0.854	0.119	-1.130	0.257	0.650	1.122
Distance – legislative history	0.949	0.044	-1.110	0.267	0.866	1.041
Case type - criminal procedure	1.221	0.481	0.510	0.613	0.564	2.641
Case type – civil rights	1.781	0.700	1.470	0.142	0.824	3.848
Case type - due process	1.369	0.665	0.650	0.518	0.528	3.547
Case type – unions	1.283	0.731	0.440	0.662	0.420	3.922
Case type – economic activities	1.130	0.479	0.290	0.773	0.493	2.592
Case type – judicial power	1.346	0.570	0.700	0.483	0.587	3.086
2. Concurrence in the judgment	vs. Full a	agreement	•			
Collegiality	0.955	0.028	-1.590	0.112	0.902	1.011
Distance - ideology	1.009	0.005	1.950	0.051	1.000	1.018
Trial court 1	0.869	0.281	-0.430	0.665	0.461	1.639
Trial court 2	0.696	0.310	-0.810	0.415	0.291	1.665
Distance - balancing	1.229	0.358	0.710	0.480	0.694	2.176
Distance – dictionaries	0.876	0.124	-0.940	0.350	0.664	1.156
Distance – economic analysis	1.138	0.198	0.740	0.457	0.809	1.600
Distance – legislative history	0.922	0.049	-1.510	0.132	0.830	1.025
Case type - criminal procedure	1.401	0.834	0.570	0.572	0.436	4.500
Case type – civil rights	1.555	0.961	0.710	0.475	0.463	5.219
Case type – due process	0.973	0.850	-0.030	0.975	0.176	5.389
Case type – unions	1.371	1.165	0.370	0.711	0.259	7.248
Case type – economic activities	1.841	1.120	1.000	0.316	0.558	6.069
Case type – judicial power	0.357	0.320	-1.150	0.250	0.062	2.065
						

		Robust			050	Conf.
	RRR	Std. Err.	z	P> z		erval
3. Concurrence in part and disse	nt in pa	rt vs. Full a	agreemen	t		
Collegiality	1.012	0.038	0.310	0.754	0.940	1.090
Distance - ideology	1.005	0.006	0.900	0.365	0.994	1.017
Trial court 1	0.290	0.101	-3.540	0.000	0.146	0.576
Trial court 2	0.210	0.119	-2.760	0.006	0.069	0.636
Distance – balancing	1.105	0.442	0.250	0.804	0.504	2.420
Distance - dictionaries	0.713	0.141	-1.710	0.088	0.484	1.051
Distance – economic analysis	0.742	0.165	-1.340	0.180	0.479	1.148
Distance - legislative history	0.876	0.064	-1.820	0.069	0.760	1.010
Case type – criminal procedure	0.281	0.168	-2.130	0.033	0.087	0.905
Case type - civil rights	0.473	0.281	-1.260	0.208	0.147	1.517
Case type – due process	0.390	0.414	-0.890	0.375	0.049	3.128
Case type – unions	1.498	1.031	0.590	0.558	0.388	5.776
Case type – economic activities	0.420	0.266	-1.370	0.170	0.122	1.451
Case type – judicial power	0.127	0.133	-1.970	0.049	0.016	0.991
4. Dissent vs. Full agreement						
Collegiality	0.942	0.016	-3.540	0.000	0.912	0.974
Distance – ideology	1.003	0.003	0.860	0.387	0.997	1.009
Trial court 1	0.600	0.119	-2.580	0.010	0.407	0.885
Trial court 2	0.291	0.077	-4.650	0.000	0.173	0.490
Distance - balancing	0.790	0.159	-1.170	0.241	0.533	1.171
Distance – dictionaries	0.995	0.081	-0.070	0.948	0.847	1.168
Distance – economic analysis	0.832	0.106	-1.440	0.151	0.648	1.069
Distance – legislative history	0.933	0.038	-1.690	0.092	0.861	1.011
Case type - criminal procedure	1.058	0.271	0.220	0.827	0.640	1.747
Case type – civil rights	0.624	0.186	-1.580	0.114	0.347	1.120
Case type – due process	0.936	0.332	-0.190	0.852	0.467	1.877
Case type – unions	1.147	0.478	0.330	0.742	0.507	2.596
Case type – economic activities	0.731	0.212	-1.080	0.281	0.414	1.291
Case type – judicial power	1.306	0.346	1.010	0.314	0.777	2.196

N = 972Wald chi2(56) = 118.14Prob > chi2 = .000Pseudo (McFadden's) R2=.041

Percent Correctly Predicted=37.7%

Percent Reduction in Error=7.9%

Standard errors adjusted for clustering by case citation.

APPENDIX D: CORRELATION MATRIX

Correlations

		Balancing	Canons	Dictionary	Economic	LegHist	Orig_Mean	Plain_Mean	Rules	GHP Scores
Balancing	Pearson Correlation	1	.332	396	187	.145	102	.527*	960.	960:
	Sig. (2-tailed)	•	.209	.129	.489	.592	707.	.036	.726	.723
	N	16	16	16	16	16	16	16	91	91
Canons	Pearson Correlation	.332	1	.444	491	082	.047	.307	080:-	.040
	Sig. (2-tailed)	.209	•	.085	.053	.762	.862	.247	.768	.882
	N	91	16	16	91	16	16	16	91	91
Dictionary	Pearson Correlation	396	.444	ı	407	.003	.425	**018.	208	.409
	Sig. (2-tailed)	.129	.085		.118	066:	101.	000.	.440	.115
	N	16	16	16	16	16	16	16	16	16
Economic	Pearson Correlation	187	491	407	1	.291	.172	562*	**829.	.170
	Sig. (2-tailed)	.489	.053	.118		.274	.524	.023	600	.528
	Z	16	16	16	16	16	16	16	91	16
LegHist	Pearson Correlation	.145	082	.003	.291	1	.185	.023	.325	980
	Sig. (2-tailed)	.592	.762	066:	.274		.492	.934	913.	.753
1	N	16	16	16	91	91	16	91	91	16
Orig_Mean	Pearson Correlation	102	.047	.425	.172	.185	1	.298	.015	.541*
	Sig. (2-tailed)	707	.862	101.	.524	.492	٠	.262	.957	.030
	N	91	16	16	91	16	16	16	91	16
Plain_Mean	Pearson Correlation	.527*	307	**018	562*	.023	.298	1	200	.385
	Sig. (2-tailed)	.036	.247	000	.023	.934	.262		.458	.141
	Z	16	16	16	91	16	16	91	91	16
Rules	Pearson Correlation	.095	080	208	.628**	.325	.015	200	-	.132
	Sig. (2-tailed)	.726	.768	.440	600.	.219	756.	.458	-	.625
:	Z	16	16	16	16	16	16	91	16	16
GHP Scores	Pearson Correlation	960:	.040	.409	.170	980:-	.541*	.385	.132	1
	Sig. (2-tailed)	.723	.882	.115	.528	.753	030	.141	.625	
	N	16	16	16	16	16	16	16	16	16

^{*.} Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

APPENDIX E

CODING MEMORANDUM

To: Coding Group

From: William Ford & Jason Czarnezki

Re: Coding Rules 3.0

CODING RULES

We are looking for evidence that a judge finds a particular interpretive tool useful. The basic coding rule is that we code a reference to the legal interpretive tool as a "use," provided the reference is not clearly dicta and the reference is not a rejection of the interpretive tool's value generally.

Because the coding judgments are highly contextual, the following rules supplement and clarify the basic rule. Note that cases discussed below may be non-unanimous decisions that we will not code because of the date on which they were decided.

- 1. We do *not* count a reference to our search terms that has nothing to do with legal interpretation. For example, the use of a medical dictionary to define a medical term in a malpractice case solely for the benefit of the lay reader would not count as a "use" for our purposes. In this situation, the dictionary is not being used as a *legal* interpretive tool (except in the trivial sense that the dictionary is being used in a legal opinion). Similarly, a reference to legislative history merely to offer interesting background on a statute would not count as a "use," since the history is not being used for interpretive purposes. *See United States v. Montes*, 381 F.3d 631, 634 (7th Cir. 2004) (opinion by Ripple, J.).
- 2. We do *not* count a reference to the interpretive tool if the reference is *clearly* dicta. For example, the following statement indicates the reference is clearly dicta: "While the appellant's argument based on the legislative history is not without merit, the issue is waived for purposes of this appeal and we do not consider it."
- 3. We do *not* count a reference to the interpretive tool if the judge merely summarizes an argument involving the tool made by someone else, most likely a party but possibly another court, and the judge offers no indication at all about the positive value or usefulness of the tool. If the reference is arguably positive, such as where the judge summarizes an argument containing a reference to the tool and then endorses the argument generally, then we count the

reference as a use—even if the judge did not specifically endorse the tool.

4. We do *not* count an explicit rejection of the interpretive tool. Put another way, we do not count a reference in which the court says the interpretive tool is unhelpful *generally*, such as a statement that dictionaries, legislative history, or a canon of construction is basically worthless. *See Unelko Corp. v. Prestone Products Corp.*, 116 F.3d 237, 240-41 (7th Cir. 1997) (opinion by Posner, J.) ("But this [discussion of dictionaries] is a sideshow. A dictionary is often and here useless for deciding a contract dispute. It is just a sampling of usages, with no pretense to exhaustiveness or to sensitivity to the full range of nuances that context lends to meaning.") (internal citation omitted).

The rejection need not be a blanket one, covering all potential uses of the tool. A reference does not count as a use where the judge rejects the tool in a substantial range or class of circumstances, including, presumably, the circumstances at issue in the case. See Mace v. Van Ru Credit Corp., 109 F.3d 338, 342-43 (7th Cir. 1997) (opinion by Cudahy, J.) ("[T]he defendants point to the absence of any indication in the legislative history of a congressional intent to change [the Truth in Lending Act] in 1980; this absence of comment from the legislative history, they argue, suggests that the Reform Act amendment only clarified the law. . . . But divining congressional intent from an absence of expression is a quagmire that we must try to avoid."); Marozsan v. United States, 852 F.2d 1469, 1495 (7th Cir. 1988) (opinion by Easterbrook, J.) ("Another of the majority's contentions is that we ought to construe [the statute] to avoid holding it unconstitutional, perhaps even to avoid addressing constitutional questions about it. . . . This canon properly may be invoked only when a substantial problem coincides with the possibility of fairly reading the statute to avoid that problem. This canon of construction does not give a court the prerogative to ignore the legislative will in order to avoid constitutional adjudication.") (internal quotation marks omitted). See also Campbell v. Greer, 831 F.2d 700 (7th Cir. 1987) (discussed below). Similarly, in Kramer v. Banc of America, 355 F.3d 961 (7th Cir. 2004), Judge Manion's opinion says, "Because the plain language of [the statute] limits its application to specific claims, it is inappropriate to expand the scope of the statute in reliance on legislative history to include [other] claims [not specified in the text of the statute]." Id. at 966. While the reference to plain meaning is coded as a use, the reference to

- legislative history is not, since Judge Manion rejects the use of legislative history in a wide range of circumstances.
- 5. As a clarification of the previous rule, we do count an attempt to use the tool even if the tool is unrevealing in the particular case before the court, what we might call a "failed attempt" to use the tool. An example is where the court turns to a dictionary or to the legislative history but concludes the tool does not resolve the dispute. This sort of discussion is plausibly considered an implicit endorsement of the tool's theoretical value. See Firstar Bank, N.A. v. Faul, 253 F.3d 982, 987 (7th Cir. 2001) (opinion by Flaum, J.) ("Unfortunately, [the dictionary] definitions do not provide much aid in our inquiry . . . these definitions would be a thin reed on which to rest our decision, given their own vagueness and that most of the definitions are unhelpful. Thus, the ordinary definition of [the word at issue] does not provide a clear answer to our question."); Commodity Trend Service, Inc. v. Commodity Futures Trading Comission, 233 F.3d 981, 989 (7th Cir 2000) (opinion by Flaum, J.) ("The existence of alternative dictionary definitions of a word, each making some sense under the statute, itself indicates the word is ambiguous as between the two meanings.") (internal quotation marks omitted). See also O'Hearn v. Educ. Credit. Mgmt. Corp., 339 F.3d 559 (7th Cir. 2003) ("The key phrase of the statutory provision, 'undue hardship,' is not defined in the statute. Nor does the legislative history provide meaningful guidance.") (opinion by Ripple, J.); Bob Evans Farms v. NLRB, 163 F.3d 1012, 1019 (7th Cir.1998) (opinion by Cudahy, J.) ("The Act is silent as to permissible forms of concerted activity, and neither side has directed us to any legislative history that would provide guidance in defining the limits of the term."). O'Hearn and Bob Evans Farms are perhaps close to involving clear dicta, but they suggest the court attempted to make use of the legislative history.

This clarification dealing with failed attempts likely applies only to interpretive tools whose use is inherently optional, e.g., dictionaries, legislative history, or the canons of construction. Searches for original meaning can also fail in this sense and still count for our purposes. See Trejo v. Shoben, 319 F.3d 878, 890 (7th Cir. 2003) (opinion by Coffey) (considering a debate between delegates to the 1970 Illinois Constitutional Convention but finding the discussion irrelevant to the issue before the court). By contrast, courts sometimes are required to apply a particular tool, such as a balancing test. A balancing test could not "fail" in the sense meant under this rule. Where a court actually engages in balancing two conflict-

- ing interests, it must decide upon a winner. It cannot decide the two interests are in equipoise, such that no one wins the case.
- 6. An opinion can only count once for a particular interpretive tool, regardless of the number of positive references to the tool. A single opinion can, however, count for more than one tool. See Doe v. Heck, 327 F.3d 492, 509-10 (7th Cir. 2003) (opinion by Manion, J.) (using both the original meaning of the Constitution and a dictionary).
- 7. We count a positive reference to a tool as a use even where the court is arguably or explicitly following precedent. See Bazan-Reyes v. INS, 256 F.3d 600, 608 (7th Cir. 2001) (opinion by Kanne, J.) ("Our finding [in a previous case] was based on the dictionary definition as well as the common understanding of the word 'use.'"). Our assumption is that where the judge notes the use of the interpretive tool in a prior case and relies on that case, he or she is implicitly endorsing the use of the tool (at least to some extent). Thus, where the court relies on a prior case but fails to note the use of the interpretive tool in the previous case, we do not count this reference as a use.
- 8. If a reference is truly difficult or ambiguous and cannot be resolved under the preceding rules, then we error on the side of counting the reference to the interpretive tool as a "use."

EXAMPLES OF HARD CASES

Example 1 (Original Meaning and Dictionaries): In *Doe v. Heck*, Judge Manion's opinion for the court said,

When the Fourth Amendment was ratified, as now, to "search" meant "'to look over or through for the purpose of finding something; to explore; to examine by inspection; as, to search the house for a book; to search the wood for a thief.'" *Kyllo*, 533 U.S. at 33 n.1 (quoting N. Webster, An American Dictionary of the English Language 66 (1828) (reprint 6th ed. 1989)).

327 F.3d 492, 509-10 (7th Cir. 2003). While the discussion lacks an explicit endorsement of originalism and dictionary usage, we count both references as uses. In the context of the discussion, both references are ambiguous, especially the reference to the dictionary, but both references are arguably positive.

Regarding the dictionary reference, Judge Manion explicitly notes the Supreme Court's reliance on the dictionary, which suggests a positive view of the tool. If he viewed the use of dictionary unfavorably, presumably Judge Manion would not draw attention to the Supreme Court's implicit endorsement their usage. His reference to the original meaning of the Fourth Amendment is somewhat easier to code, since he apparently referenced the original meaning to support the current interpretation of the Fourth Amendment. But to the extent these references remain ambiguous, they are covered by Rule #8.

Example 2 (Balancing Tests): In Moshe Menora v. Illinois High School Assoc., 683 F.2d 1030 (7th Cir. 1982), the issue was the Illinois High School Association's policy of forbidding basketball players from wearing any headgear other than headbands. The Association's concern was that any other type of headgear might fall off during a game and someone might trip or slip on it. Orthodox Jewish students challenged the policy as an infringement on their religious freedom to cover their heads with, for examples, yarmulkes.

Moshe Menora looks like an opportunity for the court to balance individuals' religious freedom against state policy. But Judge Posner's opinion for the court says, "A court, before attempting to balance competing interests, must define them as precisely as it can, since in the process of definition it may become apparent that there is no real conflict. . . . Weigh them and choose we shall if we must, but we want first to satisfy ourselves that the claims really are irreconcilable." Id. at 1034 (emphasis added). Judge Posner determined that there was no real conflict between religious freedom and the state's safety con-

cerns, since yarmulkes could be securely fastened to the players' heads such that they would be highly unlikely to fall off. While bobby pins might not be very secure, Judge Posner thinks the players could surely devise something else. Even though Judge Posner seems to have solved the problem by directing the parties to find a reasonable solution, he offered a balancing analysis anyway, just in case the state continued to insist that yarmulkes could not be worn. *Id.* at 1035. While this balancing analysis was explicitly dicta, it was implicitly a warning to the state about how the court would balance the interests if forced to do so.

Moshe Menora is a hard case to code, but it seems analogous to a case we recently discussed. At our Friday meeting on February 11th, we discussed Lakin Law Firm, P.C. v. FTC, 352 F.3d 1122 (7th Cir. 2003) (opinion by Evans, J.). Lakin was also difficult to code, but we decided it would count as a "use" for our purposes.

We suggested that the *Lakin* court never actually used a balancing test, since the appellant, Lakin, failed to identify a public interest. Identifying a public interest is a *pre-requisite* to balancing. The court said,

Finally, Exemption 6 [of the Freedom of Information Act] requires a balancing of individual privacy interests of consumer complainants against the public interest in disclosure to determine whether disclosure is "clearly unwarranted."... Lakin has failed to carry its burden of "identifying with reasonable specificity the public interest that would be served by release" of the withheld identifying information.

Id. at 1125 (internal citations omitted). Without an identified public interest, there was nothing for the court to balance. For this reason, perhaps this reference to balancing should not count as a "use" for our purposes.

After much discussion, we decided the reference in *Lakin* should count. Arguably, the court *did* use the balancing test, provided we understand the first part of the balancing test as identifying a public interest. The second half of the test is then to engage in the actual balancing of the identified interests. If this view of balancing tests is correct, then the court applied the test; Lakin just failed to identify something for the court to balance. Additionally, the court's reference to balancing tests was positive—it certainly did not reject the utility of balancing tests—which reinforces the conclusion that it should count. Hence, we decided this reference in *Lakin* would count as a "use" for our purposes.

Now, what about Judge Posner's opinion in Moshe Menora? Maybe there are three parts to balancing tests. First, identify a conflict (which in this case was between individuals' private religious practices and the Association's policy). Second, identify the interests on both sides (which in this case were the individual's interests in practicing their religion and the Association's interest in promoting safety). Third, balance the interests of the two sides (i.e., balance the interests of religious freedom verses safety). If this is the proper way to conceive of balancing tests, then Moshe Menora, somewhat like Lakin, simply failed to identify a true conflict, the first step of the balancing test. Of course, Moshe Menora, unlike Lakin, really got what it wanted in this case since the organization's goal was for the high school to change its policy, which was almost the certain outcome of the court's opinion. Moshe Menora's goal was not to persuade the court to balance just for the sake of balancing. The nature of judicial decision-making is our interest. It was not Moshe Menora's interest.

But *Moshe Menora* remains difficult. Arguably, Judge Posner cleverly avoided exactly what we are looking for. Instead of balancing the competing interests, Posner simply told the parties to find a reasonable solution. And he warned the state that if it failed to adopt a reasonable solution and subsequently forced the court to balance the competing interests in another case, the state would lose.

Despite the difficulties, we error on the side of counting references as uses and therefore count both *Lakin* and *Moshe Menora* as "uses." One reason is that we cannot give every case the level of deep scrutiny we have given these cases. A coding scheme that took into account all of these nuances would soon become unmanageable for any project involving hundreds of cases.

Example 3 (Balancing Tests): In Campbell v. Greer, 831 F.2d 700 (7th Cir. 1987), Judge Posner says a fair amount about balancing tests, but he actually narrows the opportunities to use them. In this case, Campbell, a prisoner in Illinois, sued the prison officials and guards in a civil suit for depriving him of his right to be free from cruel and unusual punishments. Id. at 701. At the trial, the judge allowed the defendants to ask about Campbell's rape conviction during cross-examination. Campbell appealed and claimed he deserved a new trial, since the fact of his prior conviction might have affected the jury's decision. Campbell claimed Rule 603 of the Federal Rules of Evidence was violated. This rule requires a balancing of the probative value of the information verses its prejudicial effect "to the defendant." Id. at 703. Campbell was the plaintiff.

While he could have done so, Judge Posner did not resolve the case based on a literal reading of the rule. He argues the rule required some "judicial patchwork," lest every defendant in a civil suit could freely introduce evidence about the plaintiff's criminal record while the plaintiff would have to pass a balancing test to introduce similar evidence. Such a rule would benefit whichever party happened to be the defendant, even though it is hardly pre-ordained who will be the plaintiff and who will be the defendant in a civil suit. So, the court determined the balancing test applies only in criminal cases. The important point for our purposes is that the court rejected balancing in the circumstances of the case. When the government attempts to introduce evidence of a defendant's criminal record in a criminal case. then the court must balance the probative value of the evidence against its prejudicial effect. In all other cases, including the one before the court in Campbell, evidence about a criminal record is always admissible under Rule 603. No balancing is needed—or even allowed.

In this case, Judge Posner expressly limited the permissible opportunities for using a balancing test. For this reason, we cannot plausibly count this case as a "use."

Example 4 (Legislative History): In *Little v. Ill. Dep't of Revenue*, 369 F.3d 1007 (7th Cir. 2004), Judge Manion states the Seventh Circuit's rule for resolving claims that an employer's purported reason for taking some action against an employee is a pretext for unlawful discrimination: The Seventh Circuit's rule is the honest-belief rule: "even if the business decision was ill-considered or unreasonable, provided that the decisionmaker honestly believed the nondiscriminatory reason he gave for the action, pretext does not exist." *Id.* at 1012. In a footnote, Judge Manion comments that the Sixth Circuit follows a different approach than the Seventh Circuit:

The Sixth Circuit, relying on legislative history, has rejected the honest-belief rule and required employers to show that the employer's nondiscriminatory reason not only is honest but also is "reasonably based on particularized facts." Smith v. Chrysler Corp., 155 F.3d 799, 806 (6th Cir. 1998) (citing 136 Cong. Rec. S 7422-03, 7437 (daily ed. June 6, 1990) (statement of Sen. Harkin)). We, however, have declined to follow this approach. See Flores v. Preferred Tech. Group, 182 F.3d 512, 516 (7th Cir. 1999). The indirect method is, after all, a means of proving intentional discrimination. Where the employment action is grounded in an honest and permissible reason, there can be no intent to discriminate unlawfully—

even if that reason is not reasonably based on particularized facts.

Id. at 1012 n.3 (emphasis in original). The Sixth Circuit clearly "used" the legislative history in the sense that matters to us, but what about the Seventh Circuit? Is this a "failed attempt" at using the legislative history? While Little is not an easy case, it should not count. Judge Manion simply summarizes the Sixth Circuit's rule, along with its use of legislative history, and concludes that its rule does not make sense. In this context, there is no evidence, implicit or otherwise, that Judge Manion finds the legislative history useful or helpful. Counter-factually, if the Seventh Circuit had followed the Sixth Circuit's approach, we would count Little as a use for Judge Manion since he went out of his way to note the Sixth Circuit's use of legislative history.

Example 5 (Legislative History): In Flores v. Ashcroft, 350 F.3d 666, 672 (7th Cir. 2003), Judge Easterbrook rejected the reasoning of the Board of Immigration Appeals in Matter of Martin, 23 I. & N. Dec. 491 (B.I.A. 2002). In discussing why the Board's decision was unpersuasive in Martin, he said the following: "Besides starting with legislative history rather than the text of § 16—the Board saw great significance in a footnote to the Senate Report, though this footnote did not purport to disambiguate any statutory language and thus lacks weight on the Supreme Court's view of legislative history's significance—the Board made two logical errors." In Judge Easterbrook's view, part of the problem with the Board's decision was its use of legislative history. Moreover, he said nothing more about the legislative history in his opinion, instead explaining why the Board's decision was wrong as a matter of logic. Since Judge Easterbrook's only reference to the legislative history was to fault's the Board's use of it, we do not count it as a "use" of legislative history.

Example 6 (Legislative History): In Endres v. United States, 349 F.3d 922, 929 (7th Cir. 2003), Judge Ripple, in dissent, criticized the majority for rewriting the statute. According to Judge Ripple, "Not only does the panel's decision here abandon the analytical framework of [the prior caselaw], it also ignores the clear language of the statute. It simply blue pencils the reasonable accommodation requirement from the statute as it applies to police and fire personnel. It relies on no language of the statute, no interpretive regulation, no legislative history." This reference is arguably in the category of an implicit endorsement of the tool. It also seems similar to references we are counting that include only the briefest comment about the legislative history. See O'Hearn v. Educ. Credit. Mgmt. Corp., 339 F.3d 559 (7th Cir. 2003) ("The key phrase of the statutory provision, 'undue hardship,' is not

defined in the statute. Nor does the legislative history provide meaningful guidance.") (opinion by Ripple, J.); Bob Evans Farms v. NLRB, 163 F.3d 1012, 1019 (7th Cir.1998) (opinion by Cudahy, J.) ("The Act is silent as to permissible forms of concerted activity, and neither side has directed us to any legislative history that would provide guidance in defining the limits of the term."). This case is a difficult one to code, but because we error on the side of counting references, we count this case as a "use" for Judge Ripple.