

POLITICS AND AUTHORITY IN THE U.S. SUPREME COURT

Joshua B. Fischman[†]

Public discourse on the Supreme Court often focuses on the divide between the liberal and conservative Justices. There has been a second persistent divide in the Court, however, which has been largely overlooked by scholars, the media, and the public. This second divide has arisen most often in cases involving the jury trial right, the Confrontation Clause, the Fourth Amendment, punitive damages, and the interpretation of criminal statutes. This Article argues that this divide represents disagreements among the Justices over how to determine the limits of the authority of legal actors, particularly juries, executive officials, and trial judges. On one side of this divide are “authority formalists,” who interpret power-allocating laws literally and seek clear boundaries of authority. On the other side are “authority functionalists,” who interpret such provisions in a more flexible and purposive manner. Using classical multidimensional scaling, this Article demonstrates that this divide can be derived naturally from the disagreement rates among the Justices and has been robust and significant over the last two decades. Although political values strongly influence the Court’s decisions, legal principles play a larger role than many observers acknowledge. However, the two-dimensional issue space also creates the potential for many social choice pathologies to arise in the Court’s collective decision making.

INTRODUCTION	1514
I. EMPIRICAL FRAMEWORK: IDENTIFYING THE DIMENSIONS OF A COURT	1520
A. The Dimensionality of a Voting Body	1520
B. Estimating the Dimensions of the Supreme Court	1524

[†] Professor of Law, University of Virginia School of Law, jfischman@virginia.edu. I am grateful to Charles Barzun, Sara Sun Beale, Deborah Beim, Stuart Benjamin, Sam Buell, Josh Bowers, Michael Doran, John Duffy, Brandon Garrett, Michael Gilbert, Tara Leigh Grove, John Harrison, Toby Heytens, Fred Schauer, and audiences at Antonin Scalia Law School at George Mason University, the University of Pennsylvania School of Law, and the Conference on the Constitution in Trial Courts at Bar-Ilan University for helpful feedback.

II.	SCALING THE U.S. SUPREME COURT IN TWO DIMENSIONS	1529
A.	Data	1529
B.	Results	1530
	1. <i>Scaling the Three Natural Courts</i>	1531
	2. <i>Identifying the Second-Dimension Cases</i> ..	1535
III.	A THEORY OF THE SECOND DIMENSION	1537
A.	The First Dimension as a Political Dimension	1538
B.	Prior Commentary on Second-Dimension Cases	1539
C.	The Second Dimension: Disputes over the Boundaries of Authority	1543
IV.	CASES THAT DEFINE THE AUTHORITY DIVIDE	1547
A.	The Right to a Jury Trial	1548
B.	The Confrontation Clause	1552
C.	The Fourth Amendment	1558
D.	Interpreting the Scope of Criminal Statutes ..	1564
E.	Punitive Damages	1571
F.	Additional Examples	1575
	1. <i>Norfolk & Western Railway Co. v. Ayers</i> ...	1575
	2. <i>Adoptive Couple v. Baby Girl</i>	1577
G.	Conclusion	1580
V.	IMPLICATIONS	1580
	CONCLUSION	1584
	APPENDIX	1586

INTRODUCTION

Media coverage of the Supreme Court invariably emphasizes the political implications of its decisions and the ideological divisions among the Justices.¹ Political science research on the Court similarly views the Court as a thoroughly political body.² Even some legal scholars, who have historically been

¹ See, e.g., Jonah J. Horwitz, *Writing a Wrong: Improving the Relationship Between the Supreme Court and the Press*, 40 OHIO N.U. L. REV. 511, 522 (2014) (describing “the pains journalists take to emphasize the politics of the Court”); Adam Liptak, *The Polarized Court*, N.Y. TIMES (May 10, 2014), <https://www.nytimes.com/2014/05/11/upshot/the-polarized-court.html> [<https://perma.cc/3BFT-XEFB>] (discussing the Court’s frequent division along partisan lines).

² See JEFFREY A. SEGAL & HAROLD J. SPAETH, *THE SUPREME COURT AND THE ATTITUDINAL MODEL REVISITED* 86–97 (2002) (describing the attitudinal model, which holds that “the Supreme Court decides disputes in light of the facts of the case vis-à-vis the ideological attitudes and values of the justices”); Lee Epstein & Jack Knight, *Reconsidering Judicial Preferences*, 16 ANN. REV. POL. SCI. 19.1, 19.1 (2013) (“Among political scientists, not only is it uncontroversial to say that judges

skeptical of such claims, describe the Court as “political” or even “partisan.”³ Defensive Supreme Court Justices have occasionally felt the need to deny that they are merely “junior varsity politicians.”⁴

Amidst this persistent focus on the Justices’ ideological divisions, legal commentators have largely overlooked a second persistent divide within the Court over the last two decades. This Article argues that this second divide represents disagreements among the Justices about the allocation of authority within the legal system. In the most prominent examples of this divide, the Court splintered across traditional ideological lines in a series of cases, including *Apprendi v. New Jersey*,⁵ that involved the constitutionality of sentencing guidelines. Media coverage⁶ and academic commentary⁷ on these cases

seek to etch their political values into law; it would be near heresy to suggest otherwise.”).

³ See, e.g., MARK TUSHNET, *IN THE BALANCE: LAW AND POLITICS ON THE ROBERTS COURT* xvi–xvii (2013) (arguing that Supreme Court justices have “differing constitutional visions . . . systematically associated with the two parties”); Neal Devins & Lawrence Baum, *Split Definitive: How Party Polarization Turned the Supreme Court into a Partisan Court*, 2016 SUP. CT. REV. 301, 301 (2017) (characterizing the current Supreme Court as “partisan”); Richard A. Posner, *Foreword: A Political Court*, 119 HARV. L. REV. 31, 34 (2005) (contending that the Supreme Court acts as a political body in constitutional cases).

⁴ See Jamie Ehrlich, *Kagan: Confirmation Gridlock Makes Supreme Court Look Like ‘Junior Varsity Politicians’*, CNN (July 25, 2018), <https://www.cnn.com/2018/07/25/politics/kagan-kavanaugh-junior-varsity-politicians/index.html> [<https://perma.cc/RK4C-FNHC>]; Jessica Gresko, *Breyer: Court Isn’t ‘9 Junior Varsity Politicians’*, BOS. GLOBE (Sept. 13, 2010), <http://archive.boston.com/news/nation/washington/articles/2010/09> [<https://perma.cc/8XL4-69WX>].

⁵ 530 U.S. 466 (2000); see also *Blakely v. Washington*, 542 U.S. 296 (2004); *United States v. Booker*, 543 U.S. 220 (2005).

⁶ See Linda Greenhouse, *The Supreme Court: Trial by Jury; New Jersey Hate Crime Law Struck Down*, N.Y. TIMES (June 27, 2000), <https://www.nytimes.com/2000/06/27/us/the-supreme-court-trial-by-jury-new-jersey-hate-crime-law-struck-down.html> [<https://perma.cc/CY83-TK58>] (noting that *Apprendi* “cut across the court’s usual ideological lines”); Charles Lane, *Sentencing Standards No Longer Mandatory*, WASH. POST (Jan. 13, 2005), https://www.washingtonpost.com/archive/politics/2005/01/13/sentencing-standards-no-longer-mandatory/cef09fb3-7b95-48b2-9b8d-b142f3896540/?noredirect=ON&utm_term=.6b8985ed5640 [<https://perma.cc/RK4C-FNHC>] (noting the persistent “liberal-conservative alliance” in the jury trial cases).

⁷ See Rachel E. Barkow, *Originalists, Politics, and Criminal Law on the Rehnquist Court*, 74 GEO. WASH. L. REV. 1043, 1043 (2006) (describing these sentencing decisions as “the product of an alliance between Justices that the attitudinalists view as the extreme left and right of the Court”); Stephanos Bibas, *Originalism and Formalism in Criminal Procedure: The Triumph of Justice Scalia, the Unlikely Friend of Criminal Defendants?*, 94 GEO. L.J. 183, 194 (2005) (observing that the “more liberal Justices Stevens, Souter, and Ginsburg joined more conservative Justices Scalia and Thomas” in three prominent cases involving the jury trial right); Jeffrey L. Fisher, *Categorical Requirements in Constitutional Criminal Proce-*

noted the unusual majority coalition—consisting of Justices Ruth Bader Ginsburg, Antonin Scalia, David Souter, John Paul Stevens, Clarence Thomas—but treated it as an idiosyncratic coalition of conservative originalists and liberal Justices sympathetic toward criminal defendants.⁸ Scholars have also noted unusual alignments in cases involving punitive damages,⁹ search and seizure,¹⁰ the rule of lenity,¹¹ and statutory interpretation,¹² but these coalitions were often viewed as similarly idiosyncratic. Commentators have overlooked that many of these allegedly idiosyncratic alignments are remarkably similar to the divide in *Apprendi*. For example, the five-Justice majority in *Apprendi* reappeared in cases involving the Confrontation Clause,¹³ the Fourth Amendment,¹⁴ the federal

dure, 94 GEO. L.J. 1493, 1506–10 (2006) (discussing the divisions within the Court in Sixth Amendment cases); Pamela S. Karlan, *Foreword: Democracy and Disdain*, 126 HARV. L. REV. 1, 7 n.33 (2012) (characterizing the divisions within the Court as largely ideological, but acknowledging that “the Justices have split along a different dimension regarding two important but low-salience Sixth Amendment issues: the scope of the Confrontation Clause . . . and the scope of a judge’s sentencing authority”); Richard E. Myers II, *Restoring the Peers in the “Bulwark”*: *Blakely v. Washington and the Court’s Jury Project*, 83 N.C. L. REV. 1383, 1390 (2005) (“The odd lineup of votes in the *Blakely* line of cases . . . suggests that there is something more at play than the political scientists’ models can explain.”).

⁸ See Barkow, *supra* note 7, at 1046 (describing the *Apprendi* majority as “a partnership between the Court’s self-proclaimed originalists . . . and those members of the Court who are most sensitive to the role of the judiciary in protecting criminal defendants’ rights from majority politics”); Bibas, *supra* note 7, at 194 (“The originalist and formalist reading of the Sixth Amendment dovetailed well enough with solicitude for criminal defendants’ due process rights to forge this unusual coalition.”); Jamal Greene, *The Age of Scalia*, 130 HARV. L. REV. 144, 161 (2016) (describing the *Apprendi* majority as constituting a “deal between the Court’s liberals and its formalists”).

⁹ See Jim Gash, *The End of an Era: The Supreme Court (Finally) Butts Out of Punitive Damages for Good*, 63 FLA. L. REV. 525, 526 (2011) (attributing the “Supreme Court’s incursion into punitive damages jurisprudence” to “an unusual coalition of liberal and conservative Justices in the various closely divided decisions”); Neil S. Siegel, *Interring the Rhetoric of Judicial Activism*, 59 DEPAUL L. REV. 555, 575 n.111 (2010) (“Cases that concern limits on punitive damages . . . also implicate splits that are difficult to describe in ideological terms.”).

¹⁰ See Erin Murphy, *License, Registration, Cheek Swab: DNA Testing and the Divided Court*, 127 HARV. L. REV. 161, 187 & 187 n.176 (2013) (describing a “nascent alliance among Justices Scalia, Ginsburg, [Sonia] Sotomayor, and [Elena] Kagan” in Fourth Amendment cases).

¹¹ See WILLIAM N. ESKRIDGE, JR. ET AL., *CASES AND MATERIALS ON LEGISLATION AND REGULATION: STATUTES AND THE CREATION OF PUBLIC POLICY* 709 (5th ed. 2014) (observing “odd lineups” in cases involving the rule of lenity because it “appeals to both civil libertarians . . . and high formalists”).

¹² See Linda Greenhouse, *Justices Reject Immunity Below State Level*, N.Y. TIMES, Apr. 26, 2006, at A15 (“The unusual alignment of votes in this case was a reminder that the justices’ ideological alliances do not reliably predict outcomes, especially in cases of statutory interpretation.”).

¹³ See *Melendez-Diaz v. Massachusetts*, 557 U.S. 305, 306 (2009).

¹⁴ See *Arizona v. Gant*, 556 U.S. 332, 333 (2009).

money-laundering statute,¹⁵ and the Federal Employers Liability Act¹⁶ (FELA).¹⁷ With the defection of Justice Souter, the remaining Justices in the *Apprendi* majority formed the dissent in cases involving punitive damages¹⁸ and the Armed Career Criminal Act¹⁹ (ACCA).²⁰

While commentators invariably notice when the Court divides between liberal and conservative Justices, this second divide has remained largely invisible. For example, in a recent commentary on the FELA case, *Norfolk & Western Railway v. Ayers*,²¹ Richard Lazarus noted the “unusual breakdown of the Justices”²² and quipped that the common thread linking the dissenters was that they were alumni of Stanford University.²³ Yet Lazarus overlooked that the coalitions in *Ayers* were identical to the coalitions in *Apprendi*. Had the Justices divided along liberal-conservative lines, it would have been impossible to miss.

Analyzing the votes of the Justices from the 1994–2015 Terms, this Article argues that the Justices have regularly divided along two separate orthogonal axes. The first axis represents the familiar “political” divide between liberals and conservatives. The second axis, which arose in *Apprendi* and related cases, is best understood as representing divisions about the boundaries of legal authority. Cases implicating the “authority divide” typically address questions about “who decides”: which legal actors have authority to make which determinations under which circumstances. This divide arises when the Justices interpret laws that allocate decision-making authority among legal institutions, most notably juries, executive officials, and trial judges. This divide is especially salient in contexts where properly delegated authority is unconstrained or subject to limited review.

On one side of the authority spectrum are the *authority formalists*, a coalition that includes, at different points in time, Justices Ginsburg, Kagan, Scalia, Souter, Stevens, and

¹⁵ See *United States v. Santos*, 553 U.S. 507, 509 (2008). Justice Stevens concurred only in the judgment. *Id.* at 524 (Stevens, J., concurring in the judgment).

¹⁶ 45 U.S.C. §§ 51–60 (2006).

¹⁷ See *Norfolk & W. Ry. v. Ayers*, 538 U.S. 135, 139 (2003).

¹⁸ See *Philip Morris USA v. Williams*, 549 U.S. 346, 348 (2007).

¹⁹ 18 U.S.C. § 924(e)(1) (2012).

²⁰ See *James v. United States*, 550 U.S. 192, 195 (2007).

²¹ 538 U.S. 135 (2003).

²² Richard J. Lazarus, *Norfolk & Western Railway v. Ayers*, 538 U.S. 135 (2003), 127 HARV. L. REV. 451, 452 (2013).

²³ See *id.*

Thomas. These Justices are more inclined to follow literal interpretations of legal sources that allocate institutional authority. They are reluctant to interpret such sources in a purposive manner, perhaps out of concern that such a reading would encroach on the authority of the actors that exercise delegated authority. When laws delegating power have ambiguities, they are more willing to craft hard rules to ensure clear boundaries of authority.

On the other side are *authority functionalists*, consisting of Chief Justice William Rehnquist and Justices Sandra Day O'Connor, Samuel Alito, Stephen Breyer, and Anthony Kennedy, with Chief Justice John Roberts and Justice Sotomayor serving as swing voters. The authority functionalists are more receptive to purposive interpretations of authority-allocating laws. They are more inclined to presume the existence of a social consensus regarding the ends served by these laws and have greater confidence in the capacity of judges to identify these ends. They are willing to interpret authority-allocating texts flexibly when literal interpretations would undermine these social goals.

Using classical multidimensional scaling (MDS) to analyze the Justices' votes from the 1994–2015 Terms, this Article demonstrates that these divisions have been persistent throughout the last two decades.²⁴ The analysis relies purely on the Justices' rates of disagreement in voting coalitions, without any subjective assessment of the issues implicated in cases or the ideological directions of the votes. On the basis of these disagreement rates, the *Apprendi* coalition arises naturally as the second divide within the Supreme Court. The analysis reveals a two-dimensional voting structure that is robust, stable, and statistically significant, contrary to the view of many political scientists that the Justices occupy a one-dimensional ideological spectrum.²⁵ While the first dimension ex-

²⁴ The publication timeline for this Article did not allow analysis of the most recent terms that included Justices Neil Gorsuch and Brett Kavanaugh. A preliminary analysis of the 2018 Term suggests that the Court's voting structure is still two dimensional, with Justice Kavanaugh siding with the authority functionalists and Justice Gorsuch with the authority formalists. However, it would be premature to draw strong conclusions at this time.

²⁵ See Bernard Grofman & Timothy J. Brazill, *Identifying the Median Justice on the Supreme Court Through Multidimensional Scaling: Analysis of "Natural Courts" 1953–1991*, 112 PUB. CHOICE 55, 57–58 (2002) (concluding that the Supreme Court was largely unidimensional between 1953 and 1991); Andrew D. Martin & Kevin M. Quinn, *Dynamic Ideal Point Estimation via Markov Chain Monte Carlo for the U.S. Supreme Court, 1953–1999*, 10 POL. ANALYSIS 134, 145 (2002) (estimating ideal points for Supreme Court Justices in a unidimensional policy

plains most of the disagreement *between* the liberal and conservative blocs, the second dimension explains more of the disagreement among the Justices *within* each of these blocs.

From a normative perspective, the finding that the Court is two-dimensional has both positive and negative implications. On the positive side, the analysis of the authority dimension demonstrates that the Justices are motivated by legal principles even in some notably divisive cases. Although this does not necessarily undermine the perception of the Court as highly political,²⁶ it does refute some of the more reductionist portrayals of the Justices as “politicians in black robes.”²⁷

On the negative side, however, social choice theory shows that many pathologies arise in collective decision making when voters are operating in a multidimensional issue space. In cases implicating both dimensions, there is a potential for vote cycling, the doctrinal paradox, and splintered plurality decisions where no majority derives from a common rationale.²⁸ These effects may undermine the coherence of precedent over time.

The Article proceeds as follows. Part I provides a brief background on spatial voting models and explains the concept of the dimensionality of a voting body. It then turns to a discussion of scaling methods used to estimate judicial preferences. Part II reports the results of the scaling analysis as applied to the U.S. Supreme Court for the 1994–2015 Terms. Part III describes the political values at issue in many first-dimension cases and the debates about authority that arise in many second-dimension cases. It contrasts the authority theory of the second dimension with prior theories based on rules and standards, and it explains the conflicting perspectives of the authority formalists and functionalists. To support this theory of the second dimension, Part IV provides a detailed discussion of cases that divide along the authority dimension

space); Andrew D. Martin, Kevin M. Quinn & Lee Epstein, *The Median Justice on the United States Supreme Court*, 83 N.C. L. REV. 1275, 1281 n.26 (2005) (claiming that “[n]early all statistical work on the United States Supreme Court suggests that the issue space is single-dimensional”); Keith T. Poole, *The Unidimensional Supreme Court*, https://legacy.voteview.com/the_unidimensional_supreme_court.htm [<https://perma.cc/ZFQ5-78PN>] (last visited July 10, 2017) (characterizing the Supreme Court as “basically unidimensional”).

²⁶ See *supra* notes 1–3 and accompanying text.

²⁷ HENRY R. GLICK, *COURTS, POLITICS, AND JUSTICE* 259 (2d ed. 1988).

²⁸ Vote cycling occurs when there are more than two choices, and no choice dominates the others by majority vote. The doctrinal paradox arises when the rationales supported by different majority coalitions within the Court are inconsistent with the Court’s judgment. See *infra* Part V.

and explains the principles that tie them together. Part V discusses some important implications of the findings in this Article. Drawing upon social choice theory, it discusses several important complexities that arise in group decision making when the Court is two-dimensional. The Appendix provides details of the statistical analysis and a full list of cases that most directly implicate the authority divide.

I

EMPIRICAL FRAMEWORK: IDENTIFYING THE DIMENSIONS OF A COURT

A. The Dimensionality of a Voting Body

Many political scientists have claimed that Supreme Court Justices vote largely on the basis of one-dimensional policy preferences.²⁹ The primary disagreement among these scholars concerns whether the Justices are constrained or unconstrained in their pursuit of policy preferences. Proponents of the “attitudinal model” view the Justices as largely unconstrained.³⁰ According to proponents of the “strategic model,” however, the Court is constrained by Congress, the executive branch, and public opinion, so that Justices are not always able to vote their policy preferences.³¹

Scholars from both camps, however, often repeat the claim that the Justices’ underlying policy preferences can be characterized by a one-dimensional spectrum.³² This view is especially important in positive political theory, which largely relies on one-dimensional models of judicial behavior for the sake of tractability.³³ These scholars rarely question the notion of a unidimensional court, and indeed, it is not always clear what this claim even means. As an empirical matter, there is no universally accepted method for determining if a voting space is unidimensional.³⁴

²⁹ See *supra* note 25 and accompanying text.

³⁰ See SEGAL & SPAETH, *supra* note 2, at 92–97.

³¹ See LEE EPSTEIN & JACK KNIGHT, *THE CHOICES JUSTICES MAKE* 12–17 (1997); SEGAL & SPAETH, *supra* note 2, at 112.

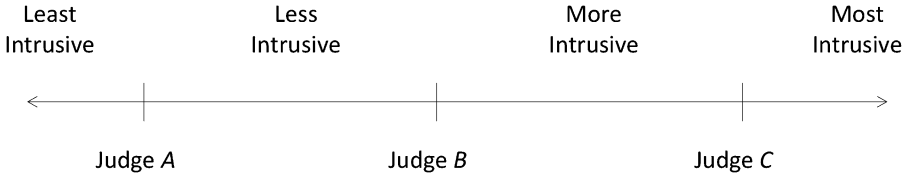
³² See *supra* note 25 and accompanying text.

³³ See Joshua B. Fischman, *Do the Justices Vote Like Policy Makers? Evidence from Scaling the Supreme Court with Interest Groups*, 44 J. LEGAL STUD. S269, S287 (2015).

³⁴ See Joshua B. Fischman and David S. Law, *What Is Judicial Ideology, and How Should We Measure It?*, 29 WASH. U. J.L. & POL’Y 133, 151 (2009) (observing that “there is no generally accepted methodology for assessing the dimensionality of an ideology space” and that available estimation techniques “yield disparate estimates of dimensionality”).

The concept of the dimensionality of a voting space is rooted in the theory of spatial voting models.³⁵ Figure 1 reproduces a canonical representation of a one-dimensional policy space provided by Jeffrey Segal and Harold Spaeth in their discussion of the attitudinal model.³⁶ The policy space in this example models Fourth Amendment cases based on the degree of intrusiveness of the search under review. Searches on the left end of the spectrum are the least intrusive; searches on the right are the most intrusive. Three judges are depicted in Figure 1, labeled as Judges *A*, *B*, and *C*. Their locations in the voting space represent *indifference points*, representing the point at which each judge would be indifferent between upholding and striking a search. Each judge would vote to uphold all searches to the left of her indifference point but invalidate all searches to the right of her indifference point. In this depiction, Judge *A* is the most liberal judge, in the sense of being the most willing to hold that searches violate the Fourth Amendment. Judge *C* is the most conservative in this regard, and Judge *B* is the moderate.

FIGURE 1: ONE-DIMENSIONAL MODEL OF SEARCH AND SEIZURE CASES



Suppose that a case falls on the spectrum between Judges *A* and *B*, in the region labeled “Less Intrusive.” According to this model, Judges *B* and *C* would vote to uphold the search while Judge *A* would vote to invalidate it. Similarly, Judges *A* and *B* would agree to invalidate a search in the region labeled “More Intrusive,” while Judge *C* would uphold it. In cases to the left of Judge *A*—the least intrusive searches—all three judges would uphold the search. All three would strike the most intrusive searches in cases to the right of Judge *C*.

If these judges formed a three-judge court, the one-dimensional model would predict three kinds of coalitions. First, cases at the extreme ends of the spectrum would be unanimous. Second, Judges *B* and *C* could form a majority against

³⁵ See generally JAMES M. ENELOW & MELVIN J. HINICH, *THE SPATIAL THEORY OF VOTING: AN INTRODUCTION* (1984) (providing an introduction to the spatial theory of voting).

³⁶ See SEGAL & SPAETH, *supra* note 2, at 90 fig.3.1.

Judge A, as in the first example. Third, Judges A and B could form a majority against Judge C, as in the second example. If the one-dimensional model is strictly correct, there should never be cases in which Judges A and C form a majority and Judge B dissents.

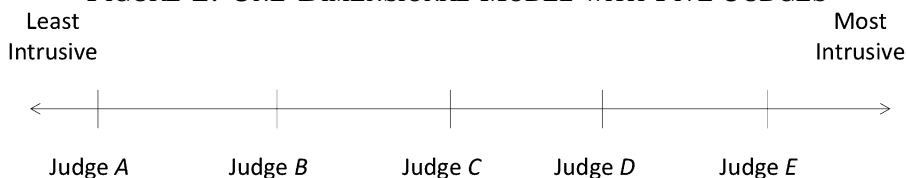
This implication of the one-dimensional model can be expressed in terms of the disagreement rates among the Justices. Let d_{AB} represent the rate of disagreement between Judges A and B, and similarly for the other pairs of judges. If Judges A and C never form a coalition against Judge B, then the following equation must hold:

$$d_{AC} = d_{AB} + d_{BC} \quad (1)$$

Equation (1) is depicted visually in Figure 1: d_{AB} represents the number of cases in the region labeled “Less Intrusive” while d_{BC} represents the number of cases in the region labeled “More Intrusive.” Thus, this comparison of disagreement rates can serve as a test for strict unidimensionality. If a court is one-dimensional, this equality must hold for *any* three judges, with the moderate judge in any trio taking the place of Judge B in the example.

In most settings, this strong version of unidimensionality will be violated. There will typically be some cases in which Judges A and C join together against Judge B. Such deviations from unidimensionality could be idiosyncratic or systematic. Idiosyncratic deviations are inexplicable, seemingly random events, such as if the judges occasionally changed their votes depending on what they ate for breakfast. Systematic deviations follow some recognizable pattern. If majorities consisting of Judges A and C occurred in cases involving a particular statute or legal issue, these would be systematic deviations from unidimensionality.

FIGURE 2: ONE-DIMENSIONAL MODEL WITH FIVE JUDGES



A second form of systematic deviation from unidimensionality is most easily seen in courts where there are more than three judges. Consider a court with five judges depicted in Figure 2. In this model, all nonunanimous decisions would consist of more liberal judges against more conservative ones,

such as Judges *A* and *B* against Judges *C*, *D*, and *E*. Suppose that most decisions in fact conform to this one-dimensional model. However, occasionally Judges *B*, *C*, and *E* form a majority against Judges *A* and *D*. Judge *A* never forms a dissenting coalition with any other conservative judge, and Judge *D* never dissents with any other liberal. This occasional coalition of Judges *A* and *D* could not be explained as random behavior, because their deviations from the unidimensional model are synchronous. It would be impossible to know *why* this coalition recurs without examining the cases in which it appears. Nevertheless, this synchronous voting behavior of Judges *A* and *D* would be sufficient to reject the notion that these deviations are random. These coalitions could be better explained by an additional dimension that aligns judges *A* and *D* together against judges *B*, *C*, and *E*.

The distinction between idiosyncratic and systematic deviations are key to understanding the dimensionality of a voting space. It is well known that the Justices do not conform perfectly to a one-dimensional voting model. To take a simple example, consider three Justices who could be ordered from liberal to conservative: Justices Sotomayor, Kennedy, and Alito. During the 2009–15 Terms, Justice Kennedy disagreed with Justice Sotomayor in 31% of cases and with Justice Alito in 27% of cases.³⁷ Using the same notation as above for disagreement rates, $d_{\text{Sotomayor, Kennedy}} + d_{\text{Kennedy, Alito}} = 58\%$. Yet Justice Sotomayor and Justice Alito disagreed 49% of the time, less than the sum of their disagreement rates with Justice Kennedy. In roughly 9% of the cases, Justices Sotomayor and Alito formed a coalition against Justice Kennedy. In fact, Equation (1) fails for every triple of Justices who have served since 1994.

Thus, when observers describe the Court as one-dimensional, they are typically claiming that a one-dimensional model provides a good approximation of the Justices' voting behavior. For example, a single dimension might explain a sufficiently large proportion of the Justices' votes.³⁸ Others,

³⁷ The Supreme Court Database, *Justice Centered Data, 2016 Release 01*, WASH. UNIV. SCH. OF LAW, <http://scdb.wustl.edu/data.php?s=2> [<https://perma.cc/9HBK-UR4Y>] (last visited July 13, 2017).

³⁸ See Grofman & Brazill, *supra* note 25, at 58 (choosing a one-dimensional representation of the Supreme Court because it accounts for a large proportion of the variance in the voting data); Martin & Quinn, *supra* note 25, at 145 (defending a unidimensional model because “approximately 93% of all cases fall on a single dimension”); Poole, *supra* note 25 (claiming that the Court is one-dimensional based on a number of fit measures, including the size of the first eigenvalue in the matrix decomposition, the stress from one-dimensional nonmetric scaling, and the percentage of votes correctly classified in the Optimal Scaling algorithm).

however, have questioned the conclusion that the Court is one-dimensional on the basis of different criteria.³⁹

This Article uses a concept of dimensionality based on statistical significance, considering whether deviations from perfect spatial voting are idiosyncratic rather than systematic.⁴⁰ The second dimension does not explain as many votes as the first, but it is statistically significant, robust over time, and recurs in particular areas of case law. Most importantly, it represents meaningful disagreements among the Justices about the allocation of authority to legal actors.

B. Estimating the Dimensions of the Supreme Court

Research in political science often uses spatial models to derive ideology scores for legislators from their voting behavior. In such models, the legislators have preferences in an issue space and each legislator has an ideal policy.⁴¹ For any bill, each legislator will vote ‘yea’ or ‘nay’ depending on whether the bill would be closer to the legislator’s ideal policy than the status quo. By analyzing the legislators’ votes on various roll calls, researchers can derive estimates of each legislator’s ideal point in the policy space. Such estimates can then be used to predict the legislators’ future behavior and to test hypotheses about their voting behavior. As a general matter, these models do not require the researcher to specify whether a particular vote is liberal or conservative. The dimensions of the policy

³⁹ See Paul H. Edelman & Jim Chen, *The Most Dangerous Justice Rides into the Sunset*, 24 CONST. COMMENT. 299, 310–19 (2007) (using three indices based on the coalitions that a Justice joins, a “Sophisticated Index,” “Naïve Index,” and “Modified Median Index,” to justify the conclusion that the Court is multidimensional); Joshua B. Fischman & Tonja Jacobi, *The Second Dimension of the Supreme Court*, 57 WM. & MARY L. REV. 1671, 1689–98 (2016) (claiming that the Court is two-dimensional on the basis of similarity of scaling diagrams across two distinct time periods); Benjamin E. Lauderdale & Tom S. Clark, *The Supreme Court’s Many Median Justices*, 106 AM. POL. SCI. REV. 847, 863–64 (2012) (concluding that the Court is multidimensional on the basis of unidimensional orderings of the Justices that vary across issue areas); Michael Peress, *Small Chamber Ideal Point Estimation*, 17 POL. ANALYSIS 276, 286–88 (2009) (estimating the fit of multidimensional models of the Supreme Court using log-likelihood, percent of votes correctly predicted, geometric mean probability, and Bayesian information criterion and concluding that the Court has between two and four dimensions); Lawrence Sirovich, *A Pattern Analysis of the Second Rehnquist U.S. Supreme Court*, 100 PROC. NAT’L ACAD. SCI. 7432, 7436 (2003) (concluding that the Court is multidimensional on the basis of the Shannon entropy of vectors of Justices’ votes).

⁴⁰ See James J. Heckman & James M. Snyder, Jr., *Linear Probability Models of the Demand for Attributes with an Empirical Application to Estimating the Preferences of Legislators*, 28 RAND J. ECON. S142, S169–S174 (1997) (rejecting goodness-of-fit measures of dimensionality in favor of statistical methods).

⁴¹ See KEITH T. POOLE, SPATIAL MODELS OF PARLIAMENTARY VOTING 1 (2005).

space are interpreted after the analysis on the basis of the bills and votes cast.

Although there are important differences between courts and legislatures, political scientists often use these ideal point models in an identical manner to estimate judges' ideal points.⁴² On a multimember appellate court, each judge can vote in favor of the appellant or the respondent, depending on which holding would be closer to the judge's ideal point. An ideal point model can then estimate the judges' ideal points from the voting coalitions in a set of cases.

These methods typically posit a policy space in a prespecified number of dimensions. However, there are no universally accepted methods or criteria for estimating the number of dimensions.⁴³ Indeed, there are numerous methods for estimating ideal points,⁴⁴ which can estimate sharply different numbers of dimensions from the same roll call votes.⁴⁵

The analysis in this Article uses classical multidimensional scaling (MDS) to scale the Justices in multiple dimensions. First developed in the 1950s,⁴⁶ classical MDS is one of the oldest scaling methods used to generate mappings of groups of objects. MDS uses a matrix of disagreement rates among the Justices to generate a mapping of the Justices in any number of dimensions. Classical MDS is a simple form of ideal point model⁴⁷ that is computationally simple to estimate and relies

⁴² See Michael A. Bailey, *Comparable Preference Estimates Across Time and Institutions for the Court, Congress, and Presidency*, 51 AM. J. POL. SCI. 433, 438–46 (2007) (applying an ideal point model to estimate the ideology of Supreme Court justices in a common space with presidents and members of Congress); Martin & Quinn, *supra* note 25, at 137–45 (developing a model that estimates dynamic ideal points for Supreme Court justices).

⁴³ See POOLE, *supra* note 41, at 141 (stating that there is no clear way to decide how many dimensions to estimate).

⁴⁴ See *id.* at 46–49, 88–89 (describing a variety of parametric and nonparametric ideal point models); Joshua Clinton, Simon Jackman & Douglas Rivers, *The Statistical Analysis of Roll Call Data*, 98 AM. POL. SCI. REV. 355, 356–66 (2004) (comparing three models for estimating ideal points).

⁴⁵ See Fischman & Law, *supra* note 34, at 151 & n.47 (observing that one scaling method generated two dimensions for Congress, while another yielded at least six); Timothy J. Brazill & Bernard Grofman, *Factor Analysis Versus Multi-Dimensional Scaling: Binary Choice Roll-Call Voting and the U.S. Supreme Court*, 24 SOCIAL NETWORKS 201, 222–23 (2002) (demonstrating that factor analysis estimates more dimensions than multidimensional scaling in both simulated and actual data sets).

⁴⁶ See W.S. Torgerson, *Multidimensional Scaling: I. Theory and Method*, 17 PSYCHOMETRIKA 401, 416–19 (1952).

⁴⁷ See Persi Diaconis, Sharad Goel & Susan Holmes, *Horseshoes in Multidimensional Scaling and Local Kernel Methods*, 2 ANNALS APPLIED STAT. 777, 783–84 (2008) (showing how multidimensional scaling is consistent with the assumptions of ideal point models).

on minimal assumptions. For this reason, it is often used as a preliminary approach before applying more sophisticated ideal point models.⁴⁸

MDS can be applied to any group of objects that has a matrix of dissimilarity measures for every pair of objects. MDS generates a map that represents the objects in a multidimensional space, where the distance between each pair of objects is meant to correspond to the degree of dissimilarity between the objects.⁴⁹ The goal is not to match the dissimilarities precisely, but rather to generate a mapping that provides insight into the structure of the objects.

To take a simple example, if the objects are cities and the dissimilarities are physical distances, then multidimensional scaling can generate a map of those cities.⁵⁰ If the objects are justices of the Supreme Court, MDS can generate a map in which their pairwise distances approximately correspond to their disagreement rates. In other applications, the mapping may be more abstract. MDS is often used in psychology to generate mappings of people's subjective perceptions, such as similarities among colors or facial expressions.⁵¹ In marketing research, MDS is used to generate mappings of product markets, such as for yogurt or breakfast cereals.⁵² In these applications, the mappings would be based on customers' perceived similarities among various brands.

Many recent studies in judicial politics favor ideal point models for analyzing roll call data.⁵³ However, MDS has several advantages for assessing the dimensionality of a voting body such as the Supreme Court. First, because it only relies on disagreement rates, it provides a direct and intuitive test of dimensionality. If the Justices fit within a single dimension, their disagreement rates will satisfy Equation (1) for every

⁴⁸ See POOLE, *supra* note 41, at 7–11.

⁴⁹ See INGWER BORG & PATRICK J.F. GROENEN, *MODERN MULTIDIMENSIONAL SCALING: THEORY AND APPLICATIONS* 3 (2d ed. 2005).

⁵⁰ See *id.* at 19–23.

⁵¹ See *id.* at 63–68, 73–76.

⁵² See TREVOR F. COX & MICHAEL A.A. COX, *MULTIDIMENSIONAL SCALING* 71–73 (2d ed. 2001) (mapping brands of breakfast cereals); L.M. Poste & C.F. Patterson, *Multidimensional Scaling – Sensory Analysis of Yoghurt*, 21 *CAN. INST. FOOD SCI. & TECH. J.* 271, 273–77 (1988) (mapping varieties of yogurt).

⁵³ See, e.g., Clinton et al., *supra* note 44 (advocating the use of Bayesian ideal point estimation for analyzing roll call data); Bailey, *supra* note 42, at 440–46 (using Bayesian ideal point model to estimate ideal points for presidents, members of Congress, and Supreme Court Justices in a common space); Martin & Quinn, *supra* note 25 (using Bayesian ideal point model to estimate ideal points of Supreme Court Justices).

triple, and the scaling algorithm will generate a mapping in which the judges fall along a straight line.

Second, MDS is consistent with prior studies that have mapped the Justices in multiple dimensions.⁵⁴ The most influential of these was a study by Bernard Grofman and Timothy Brazill, which claimed that the Court is one-dimensional.⁵⁵ Grofman and Brazill used a form of MDS to analyze the Supreme Court from 1953 until 1991 and found that a single dimension explained a large proportion of the variance in the Justices' votes.⁵⁶

Third, classical MDS in particular is ideally suited to estimating the dimensions of a voting space because it does not require specifying the number of dimensions of the voting space prior to the estimation.⁵⁷ By contrast, ideal point models and more modern forms of MDS require the analyst to specify the number of dimensions beforehand; in other words, one must guess the number of dimensions in order to estimate the number of dimensions. It is possible to hypothesize a number of dimensions that is clearly excessive and then determine how many of the estimated dimensions are meaningful. Even then, however, the conclusions may vary depending on how many dimensions are initially assumed.

Because the MDS analysis of the Court relies only on disagreement rates among the Justices, it does not require any categorization of the cases or coding of the outcomes. This means, however, that the axes of the MDS map have no intrinsic meaning. It is the task of the analyst to generate interpretations of these axes after the mapping is generated. This can be achieved in several ways. The analyst may compare the coordinates of the objects with their characteristics, to determine which of these characteristics correspond to each dimension. For example, an article that generated an MDS mapping of yogurt brands found that the first dimension corresponded to

⁵⁴ See Fischman, *supra* note 33, at S282–87 (using MDS to compare the positions taken by Supreme Court Justices and interest groups); Fischman & Jacobi, *supra* note 39, at 1689–98 (using MDS to analyze seven terms of the Roberts Court); Noah Giansiracusa & Cameron Ricciardi, *Computational Geometry and the U.S. Supreme Court*, 98 MATH. SOC. SCI. 1, 2–5 (2019) (applying MDS to the Supreme Court Justices to illustrate three voting models); Peter A. Hook, *The Aggregate Harmony Metric and a Statistical and Visual Contextualization of the Rehnquist Court: 50 Years of Data*, 24 CONST. COMMENT. 221, 254–55 (2007) (using MDS to analyze the last decade of the Rehnquist Court).

⁵⁵ See Grofman & Brazill, *supra* note 25, at 58.

⁵⁶ See *id.* at 57–58.

⁵⁷ See BORG & GROENEN, *supra* note 49, at 263.

texture characteristics while the second dimension captured sweetness and acidity.⁵⁸

When MDS or ideal point models are applied to Congressional roll calls or judicial coalitions, the dimensions can be interpreted by reference to votes that divide most directly along each dimension. For example, one analysis of Senate roll calls found a second ideological dimension occurring in bills involving race and civil rights⁵⁹ while another found a second dimension involving trade and international agreements.⁶⁰ A third examination of Congressional roll calls found multiple dimensions arising in bills involving subjects such as civil liberties, appropriations, and foreign aid.⁶¹ However, there is no guarantee that there exists a common theme that unifies the votes that divide along a particular dimension.⁶² The challenge for the analyst is to find the best interpretation of a dimension, with the caveat that it may not be possible to identify a theory that explains every vote.

An additional challenge is that any MDS solution is non-unique in the sense that it can be rotated or reflected and still preserve the distances in the original map. Thus, an analyst must choose how to rotate and reflect the mapping, ideally to make the result easiest to interpret. For example, MDS can generate a map of cities using their pairwise distances, but the algorithm will not know how to orient the north-south and east-west axes. Such a geographic mapping is most useful when rotated and reflected so that these axes are oriented vertically and horizontally, respectively.

In many other contexts, however, there is no natural choice for rotation and reflection. When scaling legislators or judges, most applications of MDS and ideal point models define the dimensions in terms of particular voters. One recent article, for example, defined the first dimension as the Ginsburg-Scalia

⁵⁸ See Poste & Patterson, *supra* note 52, at 274.

⁵⁹ See KEITH T. POOLE & HOWARD ROSENTHAL, *IDEOLOGY AND CONGRESS* 57–59 (2007) (describing the second dimension in Congress as corresponding to race-related issues such as slavery and civil rights).

⁶⁰ See Simon Jackman, *Multidimensional Analysis of Roll Call Data via Bayesian Simulation: Identification, Estimation, Inference, and Model Checking*, 9 *POL. ANALYSIS* 227, 239 (2001) (finding a second dimension involving trade in the Senate in 1997 and 1998).

⁶¹ See Heckman & Snyder, *supra* note 40, at S173–79 (finding that higher-order dimensions in the House of Representatives in the 1970s and 1980s implicated “agriculture, foreign aid, military spending, the debt ceiling, water projects, abortion, and congressional reform”).

⁶² See *id.* at S155 (observing that a dimension uncovered through scaling usually represents a linear combination of influences rather than a single influence).

axis.⁶³ One issue with this approach is that it becomes unwieldy with multiple dimensions; it is difficult to know *ex ante* which Justices should anchor the various dimensions. A second issue is that the interpretation of each dimension hinges critically on these choices. The first dimension would have a somewhat different meaning, for example, if it were defined as the Breyer-Thomas axis.⁶⁴

Classical MDS differs from other scaling methods in that it does not require the dimensions to be oriented by reference to particular judges or legislators. The first dimension generated is simply the dimension that explains the maximum amount of variation in the Justices' votes. The second dimension explains the maximum amount of residual variation after accounting for the first dimension, and so forth. Of course, this approach does not guarantee that the dimensions generated will be meaningful. However, dimensions that explain the maximum variation would at least be promising candidates for investigation, and this approach avoids arbitrarily choosing particular Justices to orient the axes.

II

SCALING THE U.S. SUPREME COURT IN TWO DIMENSIONS

A. Data

The data analyzed in this Article consist of all merits decisions by the U.S. Supreme Court from the 1994 until the 2015 Terms. This period includes three prominent natural courts: the last decade of the Rehnquist Court and two natural courts under Chief Justice Roberts, constituting the 2005–2008 Terms and 2010–2015 Terms. The classical MDS algorithm requires that each of these three periods be analyzed separately, so that every pair of judges in each period votes in the same cases.⁶⁵

⁶³ See Fischman & Jacobi, *supra* note 39, at 1692.

⁶⁴ A more serious problem may occur in interpreting the subsequent dimensions. For example, Fischman & Jacobi, *supra* note 39, rotated the MDS mapping so that the first dimension coincided with the Ginsburg-Scalia axis and the second dimension was perpendicular to that axis. See *id.* at 1692. One unfortunate consequence of this rotation was that Justices Ginsburg and Scalia necessarily had the same coordinates in the second dimension, by assumption. Thus, whatever characteristic the second dimension represented, it must have been one in which Justices Ginsburg and Scalia were precisely equal. This would be unlikely for any meaningful policy or jurisprudential characteristic.

⁶⁵ Shorter natural courts, such as the 2009 Term and the brief period between the appointments of Chief Justice Roberts and Justice Alito, are only analyzed in section II.B.2, *supra*, which identifies the second-dimension cases.

The data on the Justices' votes are derived from the Supreme Court Database.⁶⁶ The analysis is based on all cases decided with a written opinion following oral argument.⁶⁷ Disagreement rates for all pairs of Justices were based on how often they disagreed on the merits.⁶⁸ Justices who join a majority or plurality opinion or who write concurring opinions are coded as agreeing.

Table 1 provides the summary statistics for the three natural courts studied in this Article. There were a total of 1,557 cases during these three periods, 889 of which were nonunanimous. There were also 97 cases that were not part of these three natural courts.⁶⁹ These are not analyzed in the scaling diagrams but are considered in the following stage that identifies cases that divide along the second dimension.

TABLE 1: SUMMARY STATISTICS

Time Period	Number of Cases	Number of Nonunanimous Cases
1994–2004 Terms	872	492
2005–2008 Terms*	269	171
2010–2015 Terms	416	226
Total	1,557	889

* The 2005–2008 natural court excludes twenty-one cases at the beginning of the 2005 Term before Justice Alito was confirmed.

B. Results

This section presents the results from the scaling analysis of the Court from the 1994 through the 2015 Terms. It begins by presenting two-dimensional scaling diagrams for the three primary natural courts spanning this period, which reveal a common two-dimensional structure for all three natural courts. Next, this section identifies the cases that divide most clearly along the second dimension. These cases are analyzed

⁶⁶ The Supreme Court Database, *supra* note 37.

⁶⁷ In the Supreme Court Database, these cases correspond to Decision Type = 1, 6, or 7. *Id.*

⁶⁸ I conducted a separate analysis in which disagreement rates were calculated based on whether the Justices joined the same opinion. The results were substantially similar.

⁶⁹ Twenty-one of these cases were decided at the beginning of the 2005 Term, after Chief Justice Roberts replaced Chief Justice Rehnquist but before Justice Alito replaced Justice O'Connor. There were also seventy-six cases decided during the 2009 Term, when Justice Sotomayor had replaced Justice Souter, but Justice Kagan had not yet replaced Justice Stevens.

in Part III of this Article, providing the basis for the claim that the second dimension represents disputes over the boundaries of authority.

1. *Scaling the Three Natural Courts*

Figure 3 provides classical scaling diagrams for three natural courts spanning the 1994–2015 Terms. The scaling algorithm identifies positions for the Justices so that their spatial distances approximate their disagreement rates as closely as possible. The horizontal axis represents the first dimension; this is the single dimension that best reflects their rates of disagreement. The vertical axis is the second dimension, which best captures the remaining disagreement unexplained by the first dimension. Because these dimensions are determined solely by the disagreement rates, they have no intrinsic substantive interpretation. As a general matter, dimensions derived from such analysis can only be interpreted based on an examination of the justices' positions in the cases that divide along each dimension.

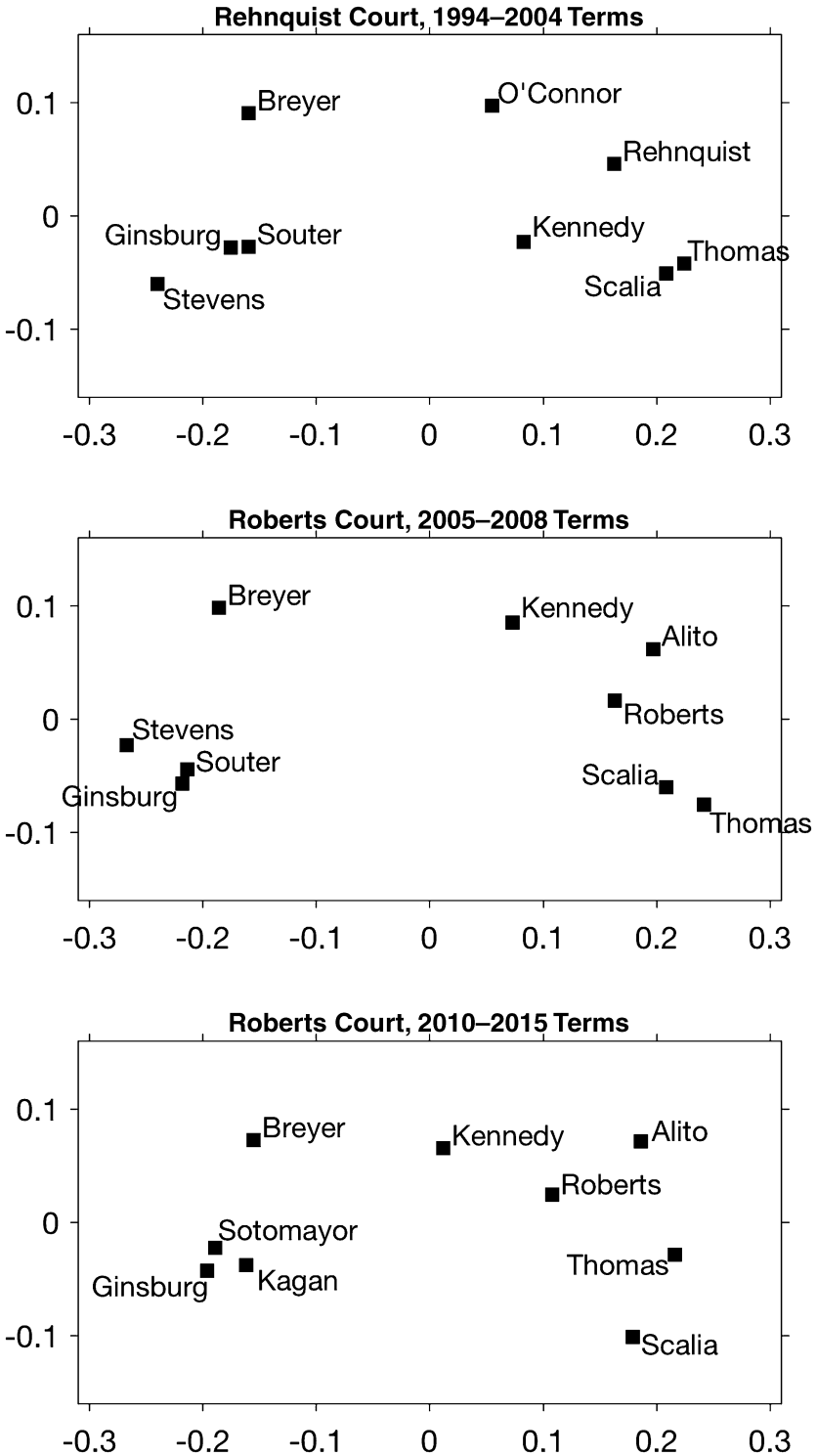
Each diagram is oriented so that the liberal Justices are on the left and the conservatives are on the right. The vertical axis in Figure 3 corresponds to the second dimension, which explains the maximum variation in the votes that are not explained by the first dimension. All diagrams are reflected vertically so that Justice Breyer is above Justice Scalia. The mappings are centered around the origin so that the average coordinate in each dimension is zero.

The first dimension corresponds closely to the familiar political divide within the Court. For 1995–2004, the four liberals—Justices Breyer, Ginsburg, Stevens, and Souter—form a bloc on the left, with Justice Stevens a bit further to the left than the others. Justices O'Connor and Kennedy occupy a place in the middle of the left-right dimension, although closer to the conservatives. Chief Justice Rehnquist is somewhat further to the right, and Justices Scalia and Thomas are at the extreme right. For 2005–2008, Chief Justice Roberts replaced Chief Justice Rehnquist and Justice Alito replaced Justice O'Connor, but the positions of the remaining Justices barely changed in the first dimension. For 2010–2012, Justice Sotomayor replaced Justice Souter and Justice Kagan replaced Justice Stevens, but the first-dimension alignment of the Court remained stable.

The second dimension is also stable across the three natural courts. For the first two natural courts, Justices Ginsburg,

Scalia, Souter, Stevens, and Thomas form a coalition below the horizontal axis. In the 2010–2012 natural court, Justices Kagan and Sotomayor replace Justices Souter and Stevens in the same coalition. Justice Breyer occupies the opposite position in the second dimension in all three natural courts. He is joined by Chief Justice Rehnquist and Justice O'Connor in 1995–2004 and Justice Alito in the subsequent time periods. Chief Justice Roberts occupies a middle position during this time period.

FIGURE 3: CLASSICAL SCALING DIAGRAMS OF SUPREME COURT, 1994–2015



There is relatively little drift in the second dimension. Justice Kennedy shifts from a moderate position from 1994–2004 to the upper part of the graph from 2005–2015. Justice Thomas is very close to Justice Scalia from 1994–2008 but moves toward the center of the second dimension from 2010–2015.

A casual examination of the graphs in Figure 3 shows that the two-dimensional structure extracted from the classical scaling algorithm is robust across time periods. The fact that the orderings are stable in the second dimension suggests that they are the product of meaningful phenomena. Further calculations, detailed in the Appendix, confirm that Justices' locations are significantly correlated across periods.⁷⁰ The first two dimensions are significant at the 1% level in all three natural courts, while further dimensions fall far short of statistical significance.⁷¹

The two-dimensional mappings in Figure 3 provide a different perspective from one-dimensional models of the Court. The first dimension captures almost all of the disagreement between the liberal and the conservative blocs of the Court. Excluding moderate Justices Kennedy and O'Connor, the first dimension explains 88–90% of the variance in voting behavior *between* the liberal and conservative blocs for the three natural courts, whereas the second dimension only explains 5–6% of this variance.⁷² However, the second dimension explains 37–50% of the variance *within* the liberal and conservative blocs, while the first dimension explains 11–16% of this variance.⁷³ In the unidimensional view of the Court, Justice Breyer is often described as the most moderate of the liberal justices.⁷⁴ In the two-dimensional model, Justice Breyer differs from the other liberals primarily along the second dimen-

⁷⁰ See *infra* Appendix Table A2.

⁷¹ See *infra* Appendix Table A1.

⁷² See *infra* Appendix Table A3.

⁷³ See *id.*

⁷⁴ See, e.g., David G. Savage, *How the Two Justices from California are Moving the Supreme Court to the Left*, L.A. TIMES (June 29, 2016), <https://www.latimes.com/nation/la-na-court-breyer-kennedy-center-20160628-snap-story.html> [<https://perma.cc/2E7W-SWJF>] (describing Breyer as “the most moderate of the court’s four Democratic appointees”); David Cole, *Justice Breyer v. The Death Penalty*, NEW YORKER (June 30, 2015), <https://www.newyorker.com/news/news-desk/justice-breyer-against-the-death-penalty> [<https://perma.cc/6FAE-VRFF>] (describing Breyer as “the liberal Justice most likely to agree with his conservative colleagues”); Charles Cameron & John Kestellec, *How an Obama Supreme Court Nominee Could Win Confirmation in the Senate*, WASH. POST (Feb. 17, 2006), <https://www.washingtonpost.com/news/monkey-cage/wp/2016/02/17/how-an-obama-supreme-court-nominee-could-win-confirmation-in-the->

sion. Similarly, the unidimensional model of the Court often views Justices Scalia and Thomas as more extreme than Justice Alito.⁷⁵ In the two-dimensional model, these Justices differ primarily along the second dimension.

Although the divide between liberals and conservatives in the first dimension is instantly recognizable, the divide along the second dimension is less familiar. A visual examination of the top graph in Figure 3, detailing the 1994–2004 terms, confirms that it corresponds to the split in *Apprendi*⁷⁶ and other landmark cases about the constitutionality of sentencing enhancements. The majority coalition in *Apprendi*—Justices Ginsburg, Scalia, Souter, Stevens, and Thomas⁷⁷—all have negative coordinates in the vertical dimension. The dissenters—Chief Justice Rehnquist and Justices Breyer, Kennedy, and O'Connor—all have positive coordinates. However, this divide appeared in a variety of other cases as well, many of which did not involve sentencing. To develop a deeper understanding of the issues underlying the second dimension, the next section outlines a procedure for identifying cases that most strongly implicate this dimension.

2. Identifying the Second-Dimension Cases

The above findings show that the two-dimensional structure of the Court is significant and robust; some pairs of Justices consistently vote together more (or less) often than one would predict using a one-dimensional model. These findings thus generate an important question: what explains the divide in the Court's second dimension? To investigate this question, the next section begins by identifying those cases that divide most clearly along the second dimension. Part III will then analyze these cases to justify the hypothesis that it represents disputes about the boundaries of institutional authority.

The preceding analysis was based purely on the Justices' rates of disagreement. This section will examine the individual votes in each case. The votes in each case are coded as a series of ones and zeros, corresponding to whether each Justice votes with the majority or dissent, respectively. I generate scores for

senate/?noredirect=ON&utm_term=.3effde7dd28c [https://perma.cc/5MXE-ZK42] (describing Breyer as “the most moderate of the court's current liberals”).

⁷⁵ See, e.g., Lee Epstein & Andrew D. Martin, *Is the Roberts Court Especially Activist? A Study of Invalidating (and Upholding) Federal, State, and Local Laws*, 61 EMORY L.J. 737, 756 (2012) (describing Justices Scalia and Thomas as “more extreme conservatives” than Chief Justice Roberts and Justice Alito).

⁷⁶ 530 U.S. 466 (2000).

⁷⁷ *Id.* at 468.

each case along the first and second dimensions by taking the absolute value of the correlation between the Justices' votes and their coordinates in each dimension.⁷⁸ For example, in *Citizens United v. Federal Election Commission*,⁷⁹ the votes of the conservative Justices in the majority are coded as ones, while the liberal Justices' votes are coded as zeros. The first-dimension score for *Citizens United* is .96, the correlation between the Justices' votes and their coordinates in the first dimension. The second-dimension score for *Citizens United* is .10. *Apprendi*, by contrast, has a first-dimension score of .19 and a second-dimension score of .93. Thus, taking simple correlations between votes and scaling coordinates provide a simple method for identifying cases that divide along each dimension.

The fifty cases with the highest second-dimension scores are listed in Appendix Table A4, along with their voting alignments.⁸⁰ These cases have second-dimension scores exceeding 0.61. The votes are shaded to show the divides in the second dimension. The coalition below the horizontal axis in Figure 3 is shaded gray; the coalition above the horizontal axis is depicted in white. Justices who did not vote in a case are crossed out.

Certain areas of case law generated multiple second-dimension splits. Notably, there are twelve cases implicating the jury trial right. Five cases involve the Fourth Amendment, three involve the Confrontation Clause, three involve the interpretation of criminal statutes, and two involve punitive damages.

Calculating the dimension scores based on the Justices' merits votes as coded in the Supreme Court Database ignores much of the nuance in their written opinions. For example, when a Justice concurs in part and dissents in part, the Database classifies such votes either as concurring or dissenting, based on the judgment of the coder. A more nuanced examination would show that such opinions typically agree

⁷⁸ This correlation is roughly analogous to a factor loading used in factor analysis. For the purpose of calculating these scores, I use the weighted average of the justices' coordinates across the three natural courts.

⁷⁹ 558 U.S. 310 (2010).

⁸⁰ I omitted a few of these cases that had strong correlations in both dimensions and exaggerated second-dimension scores due to the fact that some Justices had not participated. Three of these involved 6–2 or 5–2 votes with Justices Scalia and Thomas in dissent. Another involved a 7–1 vote with Justice Breyer dissenting in part. I also omitted *Nike, Inc. v. Kasky*, 539 U.S. 654 (2003), which was dismissed as improvidently granted by a 6–3 vote with no majority opinion.

with the majority on some issues and disagree on others. Similarly, opinions concurring in the judgment disagree in some significant way with the majority. In some instances, such concurrences take positions that are much closer to the dissent on key issues but disagree on some minor point that affects the disposition of the case. In other instances, the vote is unanimous as to the merits, but concurring Justices express fundamental disagreement with the majority as to the reasoning in the case. Finally, some dissenting opinions use reasoning that is closer to the majority than to other dissenting opinions but disagree with the majority on narrow grounds.

Coding such opinions purely on the basis of merits voting sometimes misses coalitions that are similar to other divides with high second-dimension scores. For the purposes of exploring different areas of case law, I simply coded such ambiguous opinions alternatively as voting with the majority and the dissent. If a case had a high second-dimension score either way, I then examined whether the concurring opinion agreed with the dissent on any important issue. I include some of these cases in the subsequent discussions in order to better illuminate the motivations that underlie the second dimension.

III

A THEORY OF THE SECOND DIMENSION

The scaling analysis in Part II revealed a robust two-dimensional voting pattern within the Court. Because this analysis was derived purely from the Justices' rates of disagreement, it did not rely on any subjective judgments about the meaning of particular votes. For the same reason, however, it also does not explain what the dimensions represent. This Part of the Article makes the case that the second dimension represents disputes about the boundaries of institutional authority. Subpart III.A provides a brief overview of the first dimension, which is often understood as a "political" dimension. Subpart III.B discusses prior commentary on some of the cases that divide along the second dimension, many of which characterized the dimension as representing "formalism" versus "pragmatism" or related concepts. It then shows why these explanations are incomplete. Subpart III.B then explains the theory of the second dimension as capturing differing philosophies about the allocation of institutional authority. Part IV will then provide a detailed discussion of the second-dimension cases to support this theory.

A. The First Dimension as a Political Dimension

The first dimension uncovered by the scaling procedure corresponds to the familiar liberal-conservative divide and is often viewed as a “political” dimension.⁸¹ Indeed, many of the most politically charged cases in the last twenty years divided along this dimension, with Justices Kennedy and O’Connor serving as swing votes. This is true of many prominent decisions involving abortion,⁸² gun control,⁸³ gay rights,⁸⁴ affirmative action,⁸⁵ election law,⁸⁶ and the death penalty.⁸⁷

Yet the characterization of the first dimension as “political” is also incomplete. Many cases that divide along this dimension have low political salience. For example, in *Wisconsin Central Ltd. v. United States*,⁸⁸ the liberal and conservative Justices split 5–4 regarding whether stock options granted to employees should be taxable as “money remuneration” under the Railroad Retirement Tax Act.⁸⁹ In *SAS Institute, Inc. v. Iancu*,⁹⁰ the two factions divided over whether the Patent and Trademark Office must review every claim raised by a petitioner whenever it engages in *inter partes* review of a patent.⁹¹ Similarly, the two factions divided in *Stern v. Marshall*⁹² on the constitutionality of a provision of the Bankruptcy Code author-

⁸¹ See *supra* notes 2–3 and accompanying text.

⁸² See, e.g., *Whole Women’s Health v. Hellerstedt*, 136 S. Ct. 2292, 2299 (2016) (majority consisting of Justice Kennedy and four liberal Justices); *Gonzales v. Carhart*, 550 U.S. 124, 130 (2007) (majority consisting of five conservative Justices).

⁸³ See, e.g., *McDonald v. Chicago*, 561 U.S. 742, 747 (2010) (majority consisting of five conservative Justices); *District of Columbia v. Heller*, 554 U.S. 570, 572 (2008) (majority consisting of five conservative Justices).

⁸⁴ See, e.g., *Obergefell v. Hodges*, 135 S. Ct. 2584, 2591 (2015) (majority consisting of Justice Kennedy and four liberal Justices); *United States v. Windsor*, 570 U.S. 744, 747 (2013) (majority consisting of Justice Kennedy and four liberal Justices); *Lawrence v. Texas*, 539 U.S. 558, 561 (2003) (majority consisting of Justice Kennedy and four liberal Justices).

⁸⁵ See, e.g., *Fisher v. Univ. of Tex.*, 136 S. Ct. 2198, 2204 (2016), (4–3 vote with majority consisting of Justice Kennedy and three liberal Justices); *Grutter v. Bollinger*, 539 U.S. 306, 310 (2003) (majority consisting of Justice O’Connor and four liberal Justices).

⁸⁶ See, e.g., *Shelby Cty. v. Holder*, 570 U.S. 529, 533 (2013) (majority consisting of five conservative Justices); *Citizens United v. FEC*, 558 U.S. 310, 316 (2010) (majority consisting of five conservative Justices); *Bush v. Gore*, 531 U.S. 98, 100 (2000) (per curiam).

⁸⁷ See, e.g., *Kennedy v. Louisiana*, 554 U.S. 407, 411 (2008) (majority consisting of Justice Kennedy and four liberal Justices); *Roper v. Simmons*, 543 U.S. 551, 554 (2005) (majority consisting of Justice Kennedy and four liberal Justices).

⁸⁸ 138 S. Ct. 2067 (2018).

⁸⁹ *Id.* at 2069–70.

⁹⁰ 138 S. Ct. 1348 (2018).

⁹¹ *Id.* at 1352–53.

⁹² 564 U.S. 462 (2011).

izing bankruptcy courts to enter final judgments on state law counterclaims.⁹³ The left-right divisions in such cases do not appear to be the product of crude political motivations.

Although a full exploration of the first dimension is beyond the scope of this Article, one possible explanation is that Justices' interpretive methodology correlates with their political values. In cases where the political stakes are low, interpretive differences may generate left-right splits. In both *Wisconsin Central* and *SAS Institute*, the conservative Justices interpreted the statutes according to their plain meaning⁹⁴ while the liberal Justices looked to legislative purpose.⁹⁵

Thus, the labeling of the first dimension as "political" should be understood as a convenient shorthand. Many prominent cases that divide along the first dimension implicate the Justices' political values. Nevertheless, this dimension appears in a broad mix of cases, including some that have low political salience.

B. Prior Commentary on Second-Dimension Cases

Although the second dimension has generated far less discussion than the first, some scholars have sought explanations for the persistent alignments in cases involving areas such as the jury trial right and the Confrontation Clause.⁹⁶ Much of the discussion treats these alignments as idiosyncratic, and there has been little effort to provide a coherent explanation of the Justices' motivations that applies across different doctrinal areas.

Some commentators have characterized these coalitions as representing a divide between rule-based decision making versus balancing. In a series of widely read online commentaries on the Supreme Court, Walter Dellinger and Dahlia Lithwick repeatedly described the divides in the jury trial and Confrontation Clause cases as representing "legalism" versus "pragmatism."⁹⁷ Several academic and popular discussions of these

⁹³ *Id.* at 467, 469.

⁹⁴ See *Wisconsin Central*, 138 S. Ct. at 2074 (holding that a court should interpret the words of a statute consistent with "their ordinary, contemporary, common meaning . . . at the time Congress enacted the statute"); *id.* at 2076–78 (Breyer, J., dissenting) (considering Congressional purpose).

⁹⁵ See *SAS Institute*, 138 S. Ct. at 1354 (finding that "the plain text" of the statute "supplies a ready answer"); *id.* at 1363 (Breyer, J., dissenting) (finding the text unclear and looking at "the likely purposes of the statutory provision").

⁹⁶ See *supra* notes 6–7 and accompanying text.

⁹⁷ See Walter Dellinger, *Where Sotomayor Might Make a Real Difference*, SLATE (June 25, 2009 6:45 PM), <https://slate.com/human-interest/2009/06/where-sotomayor-might-make-a-real-difference.html> [<https://perma.cc/2QNX-SSZY>]

cases adopted similar formulations.⁹⁸ Jeffrey Fisher, who argued several of these cases before the Supreme Court,⁹⁹ has described them as pitting “categorical rules” against a “balancing approach” to criminal procedure.¹⁰⁰ In the Fourth Amendment context, Erin Murphy has argued that alignments in cases implicating the warrant requirement represent “the classic divide between rules and standards.”¹⁰¹

The distinction between categorical rules and balancing certainly captures an important aspect of the conflicting approaches taken by these two coalitions in criminal procedure. The majorities in *Apprendi* and *Blakely* undeniably sought to cast the jury trial right in a more categorical form, as did the main opinion in *Crawford* for the confrontation right.¹⁰² The dissents and concurrences opposing these holdings could like-

(describing divides in prominent confrontation and jury trial cases as generating coalitions of two “conservative legalists” and three “liberal legalists” against four “pragmatists”); Walter Dellinger, *Showtime for the Supremes*, SLATE (June 28, 2004 5:37 AM), <https://slate.com/news-and-politics/2004/06/showtime-for-the-supremes.html> [<https://perma.cc/G7T9-BBWE>] (describing the vote in *Blakely v. Washington*, 542 U.S. 296 (2004), as representing a “split between the five legalist justices and the four pragmatist justices” and observing the same split in *Norfolk & W. Ry. v. Ayers*, 538 U.S. 135 (2003)); Dahlia Lithwick, *Confrontations Over a Clause*, SLATE (June 23, 2011, 4:24 PM), <https://slate.com/news-and-politics/2011/06/confrontations-over-a-clause.html> [<https://perma.cc/P3SC-RMYP>] (describing coalitions in confrontation and jury trial cases as involving legalism against pragmatism); Walter Dellinger, *My Secret Plan*, SLATE (June 24, 2002 5:51 PM), <https://web.archive.org/web/20030415054723/http://slate.msn.com/id/2067003/entry/2067324/> [<https://perma.cc/G7AT-X56X>] (characterizing the split in *Apprendi v. New Jersey* as between “the Legalists and the Pragmatists”).

⁹⁸ See, e.g., Jonathan H. Adler, *Getting the Roberts Court Right: A Response to Chemerinsky*, 54 WAYNE L. REV. 983, 1011 (2008) (describing the divisions in the sentencing guideline cases as between formalists and pragmatists); Bibas, *supra* note 7, at 188 (contrasting Justice Scalia’s formalism with Justice Breyer’s pragmatism in Sixth Amendment cases); Mark Chenoweth, *Using Its Sixth Sense: The Roberts Court Revamps the Rights of the Accused*, 2008–2009 CATO SUP. CT. REV. 223, 245 (describing the *Apprendi* vote as a split between formalism and pragmatism); Fischman & Jacobi, *supra* note 39, at 1709–13 (hypothesizing that some of the Court’s second dimension cases represent legalism versus pragmatism); Siegel, *supra* note 9, at 575 n.106 (describing the jury trial cases as implicating “differences in methodology—specifically, legalism versus pragmatism”); Jeffrey Rosen, *Divide and Rule*, NEW REPUBLIC (July 26, 2004) <https://newrepublic.com/article/67690/divide-and-rule-0> [<https://perma.cc/87B6-DBAF>] (describing *Hamdi* and *Blakely* as generating a conflict between “pragmatists” and “legalists”).

⁹⁹ Fisher argued a number of prominent cases that divided along the second dimension, including *Ohio v. Clark*, 135 S. Ct. 2173 (2015); *Bullcoming v. New Mexico*, 564 U.S. 647 (2011); *Melendez-Diaz v. Massachusetts*, 557 U.S. 305 (2009); *Exxon Shipping Co. v. Baker*, 554 U.S. 471 (2008); *Blakely v. Washington*, 542 U.S. 296 (2004); and *Crawford v. Washington*, 541 U.S. 36 (2004).

¹⁰⁰ See Fisher, *supra* note 7, at 1495–96.

¹⁰¹ Murphy, *supra* note 10, at 187.

¹⁰² See *infra* subpart IV.B.

wise be considered cautious and pragmatic. Nevertheless, a closer look at the broader set of cases reveals that the disagreements are more complex than the common explanation.

First, there are serious disputes regarding whether the majority holding in these cases can be accurately characterized as rule-like. The principle underlying *Apprendi* and its progeny has been criticized for being “opaque” and “incoherent,”¹⁰³ and the result in these cases was to overturn a rule-bound sentencing regime. As Judge Jeffrey Sutton has observed, “[o]ne might think that legalists would have preferred the pre-*Booker* Guidelines regime” and “that pragmatists would have preferred the standards of the post-*Booker* Guideline system.”¹⁰⁴ Frederick Schauer has similarly described these jury trial and Confrontation Clause holdings as expressing “hostility for rigid rules” and a preference for “case-by-case development of the law.”¹⁰⁵ At a minimum, proponents of rules could easily make arguments for both sides in any of these cases, as could proponents of balancing.

Second, a broader examination of the cases dividing along the second dimension reveals several striking counterexamples that are inconsistent with the rules-versus-balancing explanation. In *Arizona v. Gant*, for example, the same majority as in *Apprendi* overturned a longstanding clear rule that governed vehicle searches of suspects incident to arrest, holding instead that such searches must be evaluated under a reasonableness standard.¹⁰⁶ In another Fourth Amendment case, *Missouri v. McNeely*,¹⁰⁷ a similar coalition rejected a per se rule permitting warrantless blood tests for drunk driving suspects, insisting instead on a “case-by-case evaluation of reasonableness.”¹⁰⁸ In both cases, the so-called pragmatists advocated bright-line rules to give more guidance to law enforcement. Similarly, coalitions of “pragmatists” endorsed hard rules to limit punitive damages, while the “formalists” were willing to tolerate wildly

¹⁰³ Frank O. Bowman, III, *Train Wreck? Or Can the Federal Sentencing System be Saved? A Plea for the Rapid Reversal of* *Blakely v. Washington*, 41 AM. CRIM. L. REV. 217, 219 (2004); see also Benjamin J. Priestler, *From Jones to Jones: Fifteen Years of Incoherence in the Constitutional Law of Sentencing Factfinding*, 47 U. TOL. L. REV. 413, 413 (2016) (describing the doctrine in the *Apprendi* line of cases as “fraught with instability, unpredictability, and analytical incoherence”).

¹⁰⁴ Jeffrey S. Sutton, *A Review of Richard A. Posner, How Judges Think (2008)*, 108 MICH. L. REV. 859, 874 (2010).

¹⁰⁵ Frederick Schauer, *Abandoning the Guidance Function: Morse v Frederick*, 2007 SUP. CT. REV. 205, 231.

¹⁰⁶ 556 U.S. 332, 333, 335 (2009).

¹⁰⁷ 569 U.S. 141 (2013).

¹⁰⁸ *Id.* at 143–44, 158.

unpredictable verdicts.¹⁰⁹ The formalists, on the other hand, have endorsed aggressive application of the void-for-vagueness doctrine, which has been criticized for being notoriously “un-rule-like.”¹¹⁰

Finally, many cases involving categorical rules and balancing split along the first dimension rather than the second. In many prominent left-right splits during the last decade, commentators have associated the conservative coalition with rule-based decision making and the liberal coalition with balancing.¹¹¹ Liberal Justices Ginsburg, Souter, and Stevens joined Justices Scalia and Thomas in many of these second-dimension cases, but they are more often associated with pragmatism and balancing.¹¹² It would be odd to describe them as “formalists” or “legalists.”¹¹³

Thus, the characterization of the second dimension as involving rules versus balancing or formalism versus pragmatism is incomplete. Of course, no theory can possibly explain every voting alignment in every case. The next section develops a richer theory of the second dimension, which is based on differ-

¹⁰⁹ See *infra* subpart IV.E.

¹¹⁰ Mark Kelman, *Interpretive Construction in the Substantive Criminal Law*, 33 STAN. L. REV. 591, 660 (1981); see also *Winters v. New York*, 333 U.S. 507, 524 (1948) (Frankfurter, J., dissenting) (observing that unconstitutional indefiniteness “is itself an indefinite concept”); Josh Bowers, *Probable Cause, Constitutional Reasonableness, and the Unrecognized Point of a “Pointless Indignity”*, 66 STAN. L. REV. 987, 998 (2014) (observing that “the constitutional test for vagueness is a standard and not a rule”).

¹¹¹ See William D. Araiza, *Citizens United, Stevens, and Humanitarian Law Project: First Amendment Rules and Standards in Three Acts*, 40 STETSON L. REV. 821, 823–24 (2011) (describing the conservative majority in *Citizens United v. FEC*, 558 U.S. 310 (2010) as employing “rigid, categorical analysis” and the liberal minority as taking a balancing approach to the First Amendment); Joseph Blocher, *Categoricalism and Balancing in First and Second Amendment Analysis*, 84 N.Y.U. L. REV. 375, 405–13 (2009) (describing the conservative majority in *District of Columbia v. Heller*, 554 U.S. 570 (2008), as adopting a categorical approach and the liberal dissent as adopting balancing).

¹¹² See Charles L. Barzun, *Justice Souter’s Common Law*, 104 VA. L. REV. 655, 703 (2018) (characterizing Justice Souter as a “holistic pragmatist”); Gregory P. Magarian, *The Pragmatic Populism of Justice Stevens’s Free Speech Jurisprudence*, 74 FORDHAM L. REV. 2201, 2201 (2006) (“If any single word can describe Justice John Paul Stevens’s approach to judicial decision making, the word is ‘pragmatic.’”); Connor N. Raso & William N. Eskridge, Jr., *Chevron as a Canon, Not a Precedent: An Empirical Study of What Motivates Justices in Agency Deference Cases*, 110 COLUM. L. REV. 1727, 1760 (2010) (describing Justice Ginsburg as “pragmatic”); Kathleen M. Sullivan, *The Justices of Rules and Standards*, 106 HARV. L. REV. 22, 90 (1992) (describing Justice Stevens as the pragmatist heir to Justice Holmes).

¹¹³ See Bibas, *supra* note 7, at 184 (noting how Justices Stevens, Souter, and Ginsburg joined the majorities in *Crawford* and *Blakely* despite not being formalists or originalists).

ing approaches to drawing the boundaries of institutional authority.

C. The Second Dimension: Disputes over the Boundaries of Authority

Many of the cases that divide along the second dimension involve disputes over the boundaries of institutional authority, particularly involving juries, trial judges, and executive officials. These cases typically involve situations where institutional actors have largely unconstrained authority within a particular domain and disputes arise regarding the boundaries of that authority. Some implicate authority to make purely discretionary decisions, such as the exercise of prosecutorial discretion or policymaking by states and agencies. Others involve fact-finding by juries, which is subject only to limited review. Finally, some of the decisions involve applying law to facts in ways that require open-ended balancing or moral judgment, such as assessing the reasonableness of a search or determining the best interests of a child in a custody dispute. Decisions in this last category are legal rather than discretionary, but they are typically multifaceted inquiries based on particularized facts and are not easily scrutinized by appellate courts. The disputes in all of these cases concern the procedures that must be followed before these broad forms of authority can be exercised.

The divisions in many of these cases can be characterized as representing a divide between a *formal* versus a *functional* approach to allocating institutional authority. Authority formalists view delegations of authority as imposing settlements between competing interests and are reluctant to infer the underlying purposes of these delegations or the best means of achieving them. They are careful to avoid policy considerations when determining the boundaries of authority in order to avoid substituting their own policy views for those of the authoritative actors. Thus, they tend to apply more literal interpretations to texts that allocate authority. When such texts are ambiguous, they flesh them out in ways that maintain the clarity and coherence of these boundaries.

The authority functionalists, by contrast, are more willing to identify the substantive purposes served by institutional delegations and interpret them in ways that promote those purposes. They will not override clear limits on authority in order to further controversial moral positions, but they are more willing to find exceptions to such rules, especially when

doing so would avoid an undesirable outcome. They are willing to rely on their own moral views to determine which agent is best suited to exercise government authority and which preconditions must be met before such authority is exercised. They interpret institutional texts more flexibly but are also more willing to second-guess the exercise of such authority after the fact.

Some of the disagreements that arise between authority formalists and functionalists involve multiprong tests that must be satisfied before an institutional actor can exercise broad authority. The authority formalists view each prong as a condition that must be independently satisfied, just as jurisdiction must be established before a court can consider the merits of a lawsuit. The authority functionalists are more inclined to aggregate such prongs, treating them as factors to weigh when determining whether such exercise of authority is reasonable. In the Fourth Amendment context, for example, the authority formalists view the requirements for a warrant and probable cause as preconditions for determining whether a search is reasonable. The authority functionalists view these as factors to weigh in assessing reasonableness.

Although the empirical literature on judicial decision making has paid scant attention to judges' views about institutional authority, these considerations have long occupied a central place in American public law. Arguably the most prominent treatment comes from the legal process school, particularly the teaching materials of Henry Hart and Albert Sacks that influenced a generation of law students in the mid-twentieth century.¹¹⁴ Legal process jurisprudence is sometimes considered passé, but it was in its heyday when many of the current and recent Justices attended law school. In fact, several of the Justices studied with prominent figures in the legal process movement.¹¹⁵

¹¹⁴ See generally HENRY M. HART, JR. & ALBERT M. SACKS, *THE LEGAL PROCESS* (William N. Eskridge, Jr. & Philip P. Frickey eds., Foundation Press 1994) (1958) (providing teaching materials for the "legal process" school of jurisprudence). More recently, Richard Pildes has introduced a distinction between "institutional formalism" and "institutional realism." See Richard H. Pildes, *Institutional Formalism and Realism in Constitutional and Public Law*, 2013 SUP. CT. REV. 1, 1-4. Although Pildes's concepts bear some similarity to authority formalism and functionalism, he focuses more on their application to the president, state courts and legislatures, and Congress. See *id.* at 6, 12, 30, 36.

¹¹⁵ See William N. Eskridge, Jr. & Philip P. Frickey, *The Making of The Legal Process*, 107 HARV. L. REV. 2031, 2047 (1994) (noting that five recent Justices—Scalia, Kennedy, Souter, Ginsburg, and Breyer—enrolled in the Legal Process course at Harvard Law School); Adam J. White, *The Burkean Justice*, WEEKLY

The divide between authority formalism and functionalism mirrors the tension between two of the central concepts in legal process jurisprudence: the principle of “institutional settlement” and the requirement of “reasoned elaboration.”¹¹⁶ For the authority formalists, the principle of institutional settlement is paramount. As Hart and Sacks wrote, this principle “expresses the judgment that decisions which are the duly arrived at result of duly established procedures of this kind ought to be accepted as binding upon the whole society unless and until they are duly changed.”¹¹⁷ Legal judgments derive their legitimacy from their conformity with “duly established procedures,” without regard to any substantive conceptions of morality.

The authority functionalists, by contrast, emphasize another central feature of legal process jurisprudence: the view of law as “a purposive activity, a continuous striving to solve the basic problems of social living.”¹¹⁸ They evaluate legal judgments less by their conformity with “duly established procedures,” but focus instead on whether they promote identified social objectives. There are limits to such functionalism; these Justices will not typically override clear rules in order to reach a result they perceive as socially beneficial. However, when institutional provisions have ambiguities, they will be more inclined to ascribe social purposes to such rules and interpret them in ways that further those purposes.

Indeed, many of the cases that generate divides along the second dimension involve conflicts between these rationales. For the authority formalists, procedural rules and institutional allocations serve an important settlement function. They are

STANDARD (July 18, 2011), <https://www.weeklystandard.com/adam-j-white/the-burkean-justice> [<https://perma.cc/8S6A-EEDW>] (describing how Justice Alito was influenced by Alexander Bickel, a prominent legal process scholar).

¹¹⁶ See Charles L. Barzun, *The Forgotten Foundations of Hart and Sacks*, 99 VA. L. REV. 1, 30 (2013) (noting the “tension between (a) Hart and Sacks’s insistence that courts interpret directives in a way that best fulfills their underlying substantive purposes and (b) their suggestion that the chief purpose of law is to provide clear and settled terms for social living”); William N. Eskridge, Jr. & Gary Peller, *The New Public Law Movement: Moderation as a Postmodern Cultural Form*, 89 MICH. L. REV. 707, 724 (1991) (noting that the “emphasis on institutional competence and proceduralism, if carried too far, might undermine the very idea that leads off the Hart and Sacks materials—the purposiveness of law as a way to facilitate our social interdependence”); Richard H. Pildes, *Forms of Formalism*, 66 U. CHI. L. REV. 607, 614–15 (1999) (describing these two concepts as the “twin pillars” of the legal process school and discussing the tension between purposive interpretation of texts and “apurposive rule-following” implicit in the principle of institutional settlement).

¹¹⁷ HART & SACKS, *supra* note 114, at 4.

¹¹⁸ *Id.* at 148.

more inclined to resolve conflict about the meaning or application of law by following "duly established procedures."¹¹⁹ However, there may be ambiguities about the procedures themselves or the limits of the delegated authority. In such circumstances, the authority functionalists will go beyond text to consider social purposes and policy implications. By contrast, the authority formalists will avoid such considerations in order to avoid infringing upon the authority of actors exercising delegated authority.

The authority divide typically arises when there is ambiguity about the scope of an institutional delegation, such as jury fact-finding or open-ended determinations of reasonableness by trial judges. The authority formalists are most concerned with ensuring that these actors have satisfied the relevant preconditions and that they have stayed within the textually delimited bounds of their authority. The authority functionalists are less willing to parse texts to determine an agent's authority and more willing to consider whether the delegation of power is sensible and properly exercised. These divides occur most often when one interpretation of an ambiguous text is supported by common sense, so that the authority functionalists are not divided on policy grounds. In such cases, the authority formalists will be more concerned about interpreting texts and precedent to ensure that the boundaries of authority remain clear.

A number of these cases also involve conflicts between maintaining clear lines of authority and concerns about proportionality. As a substantive concern, proportionality necessarily requires the exercise of moral judgment across multiple cases. Because juries, prosecutors, and trial judges do not participate in a representative sample of cases, they are ill equipped to make such judgments. Authority functionalists are more willing to interpret the limits of authority flexibly in order to serve the broader goal of promoting proportionality, especially in sentencing and determining damages. Authority formalists are willing to tolerate some disproportionality in order to preserve clearly delineated spheres of discretion for authorized institutional actors.

¹¹⁹ See *supra* note 117 and accompanying text.

IV

CASES THAT DEFINE THE AUTHORITY DIVIDE

This Part provides a detailed discussion of the cases in which the Justices divide most clearly along the second dimension. Although this diverse group of cases implicates different legal sources and policy considerations, they have a common theme: they all implicate debates about how to interpret legal texts defining the boundaries of institutional authority. Of course, it is impossible to know whether these issues were pivotal in each of these cases. My claim is that the authority theory provides a coherent yet parsimonious explanation for these recurring voting alignments.

Before proceeding to the cases, a few caveats are worth emphasizing. The analysis is based primarily on the Justices' written opinions in these cases. While these opinions provide insight into the Justices' motivations, the Justices do not reveal all of their motivations in written opinions. Nor can one justification always be distilled from a single opinion; Justices often supply a variety of reasons in support of their holdings.

Although the authority theory fits many of these cases, it is certainly possible that some of the alignments were the result of idiosyncratic motivations. There are also divides that cannot readily be explained by reference to boundaries of authority; no single theory can explain every voting alignment. Even the first dimension, which is widely recognized as a "political" or "ideological" dimension, appears in many cases that are not readily explained in terms of their political implications.¹²⁰

Finally, the following analysis examines the cases that implicate the authority divide but cannot answer why other cases do not divide along the same lines. At times, the Justices may perceive political values as outweighing concerns about the boundaries of authority. Without objective measures of salience for each dimension, it is difficult to explain why particular cases divide one way versus the other.

The following subparts discuss the cases, organized by doctrinal category. In order to provide background and coherence to the discussion of the doctrinal categories, I include some relevant cases that fall below the 0.61 threshold used to identify the top fifty cases with the highest second-dimension scores. A more careful reading of these related cases also reveals additional instances of ambiguous votes that are not coded as such in the Supreme Court database. For example, in

¹²⁰ See *supra* notes 88–95 and accompanying text.

Arizona v. Gant,¹²¹ Justice Scalia issued a concurring opinion in which he explicitly disagreed with the majority's reasoning, but stated that he was joining the majority in order to produce a majority opinion.¹²² In several cases, Justices issue opinions that could be described as "grudging concurrences," where they reiterate opposition to a precedent but agree to follow it.¹²³ In the following discussions of voting alignments, I code such votes as ambiguous.

A. The Right to a Jury Trial

The most prominent line of cases to implicate the authority divide are those involving the Sixth Amendment right to a jury trial. For the authority formalists, the Sixth Amendment preserved the role of the jury in finding all facts that were necessary to establish a criminal offense. Traditionally, judges could find facts that were only relevant for determining an offender's sentence. In theory, this could lead to an evisceration of the jury trial right if a defendant's sentence could be radically increased based on a sentencing factor determined by a judge. To avoid this, the authority formalists concluded that any fact that increases a defendant's maximum sentence must be established by a jury. The authority functionalists, by contrast, took flexible positions on the jury trial right whenever it could interfere with the fair administration of criminal justice.

Although not a sentencing case, *Neder v. United States*¹²⁴ exemplifies the conflict between these two coalitions. The defendant was convicted of tax fraud after making false statements to the Internal Revenue Service.¹²⁵ It was undisputed that the materiality of the defendant's false statements was an element of the offense and that the district judge had erred in failing to submit this element to the jury. However, the district judge ruled that the omission was harmless error and a majority of the Supreme Court agreed.

¹²¹ 556 U.S. 332 (2009).

¹²² See *id.* at 354 (Scalia, J., concurring).

¹²³ See, e.g., *Alleyne v. United States*, 133 S. Ct. 2151, 2166–67 (2013) (Breyer, J., concurring in part and concurring in the judgment) (stating his continued disagreement with *Apprendi* but arguing that it should be applied to minimum as well as maximum sentences); *Exxon Shipping Co. v. Baker*, 554 U.S. 471, 515 (2008) (Scalia, J., concurring) (accepting arguments based on prior holdings that he believed were erroneous).

¹²⁴ 527 U.S. 1 (1999).

¹²⁵ See *id.* at 4.

TABLE 2: JURY TRIAL CASES IMPLICATING THE AUTHORITY DIVIDE

Term	Case Name	Scalia	Thomas	Stevens	Souter	Ginsburg	Kennedy	Rehnquist	Breyer	O'Connor	2nd Dim. Score
1997	Almendarez-Torres v. U.S.										0.71
1997	Monge v. California										0.71
1998	Jones v. U.S.										0.93
1998	Neder v. U.S.			*							0.51/0.71
1999	Apprendi v. New Jersey										0.93
2001	Harris v. U.S.										0.69
2001	Ring v. Arizona								*		0.61/0.88
2003	Blakely v. Washington										0.93
2004	U.S. v. Booker (merits)										0.93
2004	U.S. v. Booker (remedy)										0.81
2004	Shepard v. U.S.							⊗			0.94

Term	Case Name	Scalia	Thomas	Stevens	Souter	Ginsburg	Roberts	Kennedy	Alito	Breyer	2nd Dim. Score
2006	Cunningham v. California										0.86
2008	Oregon v. Ice										0.48

Term	Case Name	Scalia	Thomas	Kagan	Sotomayor	Ginsburg	Roberts	Kennedy	Alito	Breyer	2nd Dim. Score
2011	Southern Union v. U.S.										0.86
2012	Alleyne v. U.S.									*	0.30/0.67
2015	Hurst v. Florida									*	0.52/0.83

Note: Gray cells represent votes in the authority formalist coalition. White cells represent votes in the authority functionalist coalition. Crossed-out cells represent Justices who did not participate. Asterisks represent votes on alternative grounds; alternative second-dimension scores are given for cases with ambiguous votes.

Writing for a majority of authority functionalists, Chief Justice Rehnquist conceived of the jury trial right as instrumental, interpreting it in light of its purpose of promoting accurate verdicts. He found that the government’s evidence clearly established the materiality of the defendant’s false statements and that the defendant had not argued otherwise.¹²⁶ He con-

¹²⁶ See *id.* at 16.

cluded that no reasonable jury could conclude that the statements were not material.¹²⁷

Justice Scalia's dissent, joined by Justices Ginsburg and Souter,¹²⁸ viewed the jury trial right as structural rather than instrumental. He argued that a judge cannot determine that an element of an offense has been satisfied—even when it is obvious—just as a judge does not have the authority to direct a guilty verdict for a clearly culpable defendant.¹²⁹ Scalia objected to the notion that harmless error analysis could apply, observing sarcastically, “[t]he Court’s decision today is the only instance I know of . . . in which the remedy for a constitutional violation by a trial judge (making the determination of criminal guilt reserved to the jury) is a repetition of the same constitutional violation by the appellate court.”¹³⁰ For the dissent, the question was not about determining the defendant’s guilt; it was about protecting the jury’s authority to make this determination.

Both sides used similar reasoning in a series of cases addressing whether statutory provisions authorizing criminal punishment were offense elements or sentencing enhancements. Each was decided by a 5–4 vote, with Justice Thomas serving as the swing Justice. The authority functionalists prevailed in *Almendarez-Torres v. United States*,¹³¹ upholding a provision that permitted a judge to increase a defendant’s sentence if the defendant had a prior conviction for an “aggravated felony.”¹³² The same coalition prevailed in *Monge v. California*,¹³³ holding that the determination that a defendant committed a prior “serious felony” was a sentencing enhancement for double jeopardy purposes.¹³⁴ In both cases, the authority formalists would have found the provisions to be offense elements that must be proven to a jury beyond a reasonable doubt. In both cases, they would have applied constitutional avoidance, arguing that judicially determined facts that raise a defendant’s maximum sentence would raise constitutional dif-

¹²⁷ See *id.*

¹²⁸ Justice Stevens concurred in the judgment. He agreed with most of the reasoning of the dissent but would have held that the jury’s verdict did in fact include a finding of materiality. See *id.* at 26 (Stevens, J., concurring in part and concurring in the judgment).

¹²⁹ See *id.* at 33 (Scalia, J., concurring in part and dissenting in part).

¹³⁰ *Id.* at 32.

¹³¹ 523 U.S. 224 (1998)

¹³² See *id.* at 226.

¹³³ 524 U.S. 721 (1998).

¹³⁴ See *id.* at 724.

facilities. Justice Thomas switched sides¹³⁵ to give the authority formalists a majority in *Jones v. United States*.¹³⁶ They held that a provision of a federal carjacking statute that increased penalties for causing “serious bodily injury” was an offense element that must be submitted to a jury.¹³⁷ Again, the authority formalists applied constitutional avoidance without directly addressing the scope of the jury trial right.

*Apprendi v. New Jersey*¹³⁸ involved a statute that increased the defendant’s sentencing range because the judge determined that he had committed a hate crime. The same majority coalition as in *Jones* explicitly held what it had only previously suggested: any fact that increases a defendant’s sentence above the statutory maximum must be found by a jury beyond a reasonable doubt.¹³⁹

The holding in *Apprendi* raised concerns about the constitutionality of the U.S. sentencing guidelines and many state guidelines. Most guidelines systems permitted judicial fact-finding in order to tailor sentences more closely to the particular circumstances of the offense. As Justice Breyer argued in an influential article¹⁴⁰ and again in his *Apprendi* dissent,¹⁴¹ permitting judges to find sentencing facts promotes proportionality and efficiency in sentencing. As Justice Breyer observed, it would be awkward for a defendant to argue that he did not sell drugs, but if he did, it was only 100 grams.¹⁴² In response, Justice Scalia acknowledged that Justice Breyer “sketches an admirably fair and efficient scheme of criminal justice” but contended that the jury trial guarantee was intended to provide

¹³⁵ Justice Thomas later repudiated his vote in *Almendarez-Torres*, see *Apprendi v. New Jersey*, 530 U.S. 466, 520 (2000) (Thomas, J., concurring), and repeatedly called for it to be overruled. See *Shepard v. United States*, 544 U.S. 13, 28 (2005) (Thomas, J., concurring) (suggesting that the court should reconsider *Almendarez-Torres*); *Rangel-Reyes v. United States*, 547 U.S. 1200, 1202 (2006) (Thomas, J., dissenting from denial of certiorari) (urging the Court to overrule *Almendarez-Torres*); *Descamps v. United States*, 570 U.S. 254, 279 (2013) (Thomas, J., concurring in the judgment) (attributing the Court’s difficulties in interpreting the Armed Career Criminal Act to its failure to reconsider *Almendarez-Torres*).

¹³⁶ 526 U.S. 227, 229 (1999).

¹³⁷ See *id.* at 251–52.

¹³⁸ 530 U.S. 466, 468–69 (2000).

¹³⁹ See *id.* at 490. This holding did not include facts relating to prior convictions. See *id.* at 496.

¹⁴⁰ See Stephen Breyer, *The Federal Sentencing Guidelines and the Key Compromises upon Which They Rest*, 17 HOFSTRA L. REV. 1, 13–14, 31 (1988).

¹⁴¹ See *Apprendi*, 530 U.S. at 557 (Breyer, J., dissenting).

¹⁴² See Breyer, *supra* note 140, at 10.

a check on the state in the administration of criminal justice.¹⁴³

In *Blakely v. Washington*,¹⁴⁴ the same majority invalidated the Washington State sentencing guidelines. Justice Scalia's majority opinion argued that the jury trial right is not a "mere procedural formality, but a fundamental reservation of power in our constitutional structure" that "is meant to ensure [the people's] control in the judiciary."¹⁴⁵ By contrast, Justice O'Connor's dissent emphasized the role that guidelines systems serve in promoting uniformity and proportionality and reducing racial disparity in sentencing.¹⁴⁶

In *Booker*,¹⁴⁷ the same majority found the same constitutional violation in the U.S. Sentencing Guidelines. Given the similarity between the U.S. Guidelines and the Washington guidelines at issue in *Blakely*, the holding was expected. The remedial portion of *Booker*, however, included a surprising twist: Justice Ginsburg switched sides to join the authority functionalists in holding that two provisions of the Guidelines could be severed, thus preserving the Guidelines in advisory form. Although Justice Ginsburg did not give any reasons for her switch, it is not as puzzling as it first appears, given that she is a relative centrist in the authority dimension.

B. The Confrontation Clause

The Confrontation Clause of the Sixth Amendment, like the jury trial right, often implicates the authority divide. Indeed, many commentators have observed the similarity of the alignments in these two lines of cases.¹⁴⁸ This similarity is not coincidental; it derives from a debate about whether procedural rights for criminal defendants should be conceived as allocations of power or as means of promoting accuracy and fairness.

The Confrontation Clause states that "[i]n all criminal prosecutions, the accused shall enjoy the right . . . to be confronted with the witnesses against him."¹⁴⁹ On its face, the Confrontation Clause does not directly implicate issues of institutional authority. Although it mandates certain procedures for testi-

143 See *Apprendi*, 530 U.S. at 498 (Scalia, J., concurring).

144 542 U.S. 296 (2004).

145 *Id.* at 306.

146 See *id.* at 316-17 (O'Connor, J., dissenting).

147 540 U.S. 220 (2005).

148 See Barkow, *supra* note 7; Bibas, *supra* note 7; Fisher, *supra* note 7.

149 U.S. CONST. amend. VI.

mony and cross-examination, it does not govern whether juries or judges should make factual findings.

Questions of institutional authority arise, however, in defining the contours of the confrontation right. The authority functionalists generally interpret the confrontation right in light of its goal of promoting the reliability of testimony in criminal cases. The authority formalists, however, conceive the confrontation right as procedural. Although they do not dispute the underlying purpose served by the clause, they reject interpretations of the confrontation right that hinge on *judicial* determinations of reliability. If judges could dispense with the confrontation right whenever they deemed testimony to be sufficiently reliable, they would infringe upon the power of juries to evaluate the credibility of testimony.

TABLE 3: CONFRONTATION CLAUSE CASES IMPLICATING THE AUTHORITY DIVIDE

Term	Case Name	Scalia	Thomas	Stevens	Souter	Ginsburg	Kennedy	Rehnquist	Breyer	O'Connor	2nd Dim. Score
2004	Crawford v. Wash.							*		*	0.00/0.61

Term	Case Name	Scalia	Thomas	Stevens	Souter	Ginsburg	Roberts	Kennedy	Alito	Breyer	2nd Dim. Score
2007	Giles v. California		*						*		0.28/0.37
2008	Melendez-Diaz v. Mass.										0.92

Term	Case Name	Scalia	Thomas	Kagan	Sotomayor	Ginsburg	Roberts	Kennedy	Alito	Breyer	2nd Dim. Score
2010	Michigan v. Bryant		*								0.52/0.76
2010	Bullcoming v. N.M.										0.92
2011	Williams v. Illinois		*								0.69/0.92
2014	Ohio v. Clark	*	*			*					0.00/0.64

Note: Gray cells represent votes in the authority formalist coalition. White cells represent votes in the authority functionalist coalition. Asterisks represent votes on alternative grounds; alternative second-dimension scores are given for cases with ambiguous votes.

Prior to 2004, the Court followed a functionalist approach to the Confrontation Clause established in *Ohio v. Roberts*,¹⁵⁰ which carved out an exception to the confrontation right if a judge determined that the statement bore “adequate ‘indicia of reliability.’”¹⁵¹ In *Crawford v. Washington*,¹⁵² the Court overruled *Roberts*.¹⁵³ Justice Scalia’s opinion acknowledged that the “Clause’s ultimate goal is to ensure reliability of evidence,” but he emphasized that “it is a *procedural* rather than a *substantive* guarantee.”¹⁵⁴ He argued that the framers did not believe that judges “could . . . be trusted to safeguard the rights of the people” and that they were “loath to leave too much discretion in judicial hands.”¹⁵⁵ From this perspective, the clause does not merely promote accuracy, but rather determines which institutional actors have the authority to assess accuracy. Echoing his earlier dissent in *Neder*,¹⁵⁶ Justice Scalia connected his reasoning on the confrontation right and the jury trial right: “Dispensing with confrontation because testimony is obviously reliable is akin to dispensing with jury trial because a defendant is obviously guilty.”¹⁵⁷ Chief Justice Rehnquist, joined by Justice O’Connor, vigorously disagreed with the Court’s decision to overrule *Roberts*.¹⁵⁸ He argued that the Confrontation Clause should be viewed as a “functional right” whose purpose is to “flesh out the truth,” and not merely an “empty procedure.”¹⁵⁹

Justice Scalia’s opinion, however, left many questions unresolved about the scope of the Clause. It held that the Clause does not apply to all out-of-court statements, but only to those that constitute “testimony,” meaning a “solemn declaration or affirmation made for the purpose of establishing or proving some fact.”¹⁶⁰ Because the statements at issue in *Crawford* were clearly testimonial, the Court left “for another day any effort to spell out a comprehensive definition of ‘testimo-

150 448 U.S. 56 (1980).

151 *Id.* at 66.

152 541 U.S. 36 (2004).

153 *See id.* at 68.

154 *Id.* at 61 (emphasis added).

155 *Id.* at 67.

156 *See supra* notes 128–26 and accompanying text.

157 *Crawford*, 541 U.S. at 62.

158 *See id.* at 69 (Rehnquist, C.J., concurring in the judgment).

159 *Id.* at 74.

160 *Id.* at 51 (quoting 2 NOAH WEBSTER, AN AMERICAN DICTIONARY OF THE ENGLISH LANGUAGE (1828)).

nial.”¹⁶¹ The inquiry was distinct, however, from whether the statement was reliable.¹⁶²

Chief Justice Rehnquist died and Justice O’Connor retired shortly after *Crawford*, so one might have expected the remaining Justices to have maintained their cohesion regarding the Confrontation Clause. Instead, the *Crawford* coalition quickly unraveled in a series of cases that required the Court to flesh out the limits of the confrontation right. Two prominent cases involved the admissibility of statements made by murder victims, while another three addressed whether the confrontation right applied to statements made by technicians in forensic laboratories. These cases tested the commitment of the Justices when the scope of the confrontation right diverged too far from its rationale.

In *Giles v. California*,¹⁶³ the defendant fatally shot his ex-girlfriend but claimed that he had acted in self-defense.¹⁶⁴ During his trial, the prosecution introduced statements made by the victim to police following a domestic violence incident three weeks before the shooting.¹⁶⁵ The defendant challenged his murder conviction on the grounds that the admission of these unconfrosted statements violated the Confrontation Clause.¹⁶⁶ The California Supreme Court rejected his claim on the ground that he had forfeited his confrontation right as a result of his own wrongdoing.¹⁶⁷

The Supreme Court rejected the forfeiture-by-wrongdoing exception to the Confrontation Clause.¹⁶⁸ Justice Scalia’s majority opinion held that this exception only applies when the defendant has engaged in conduct whose purpose is to prevent testimony by the witness.¹⁶⁹ He argued that a narrow interpretation of the exception was necessary to “avoid a principle repugnant to our constitutional system of trial by jury: that those murder defendants whom the *judge* considers guilty . . . should be deprived of fair-trial rights, lest they benefit from their *judge-determined* wrong.”¹⁷⁰ He explicitly rejected any judicial in-

161 *Id.* at 68.

162 *See id.* at 61.

163 554 U.S. 353 (2008).

164 *See id.* at 356.

165 *See id.* at 356–57.

166 *See id.* at 357.

167 *See id.*

168 *See id.* at 377.

169 *See id.* at 359–68.

170 *Id.* at 374 (plurality opinion) (emphasis added). Justices Ginsburg and Souter did not join this part of Justice Scalia’s opinion, but articulated similar views in a separate concurrence:

quiry into the purposes of the Confrontation Clause: “It is not the role of courts to extrapolate from the words of the Sixth Amendment to the values behind it, and then to enforce its guarantees only to the extent they serve (in the courts’ views) those underlying values.”¹⁷¹

Justice Breyer’s dissent, joined by Justices Kennedy and Stevens, argued that it was unwise “to reach firm conclusions about the precise metes and bounds of a contemporary forfeiture exception by trying to guess the state of mind of 18th-century lawyers.”¹⁷² He emphasized the moral implications of the forfeiture exception over the institutional implications, arguing that “an examination of the forfeiture rule’s basic purposes and objectives indicates that the rule applies here,”¹⁷³ and that the majority’s interpretation “cannot be squared with the exception’s basically ethical objective.”¹⁷⁴ He also claimed that the majority’s holding would violate proportionality by granting procedural benefits to more culpable defendants that would be unavailable to less culpable defendants.¹⁷⁵

The authority functionalists prevailed in *Michigan v. Bryant*,¹⁷⁶ in which a shooting victim gave a detailed statement to police before succumbing to his wounds.¹⁷⁷ The defendant objected to the admission of the victim’s statement as uncontroverted testimony.¹⁷⁸ Justice Sotomayor’s majority opinion held that the statement was admissible, observing that the victim was in a dire medical state and the gunman was still at large, so the statement would “enable police assistance to meet an ongoing emergency.”¹⁷⁹ In several passages, her opinion also sought to reestablish a role for reliability in determining admissibility.¹⁸⁰ Justice Scalia issued a notably sharp dis-

If the victim’s prior statement were admissible solely because the defendant kept the witness out of court by committing homicide, admissibility of the victim’s statement to prove guilt would turn on finding the defendant guilty of the homicidal act causing the absence Equity demands something more than this near circularity before the right to confrontation is forfeited

Id. at 379 (Souter, J., concurring).

¹⁷¹ *Id.* at 375 (plurality opinion).

¹⁷² *Id.* at 402 (Breyer, J., dissenting).

¹⁷³ *Id.* at 384.

¹⁷⁴ *Id.* at 387.

¹⁷⁵ *See id.* at 388–89.

¹⁷⁶ 562 U.S. 344 (2011).

¹⁷⁷ *See id.* at 349.

¹⁷⁸ *See id.* at 350.

¹⁷⁹ *Id.* at 356 (quoting *Davis v. Washington*, 547 U.S. 813, 822 (2006)).

¹⁸⁰ *See id.* at 358–59.

sent,¹⁸¹ objecting to reliability as a factor in determining admissibility and accusing the majority of trying to “resurrect Roberts” without saying so.¹⁸²

Three cases addressed whether the confrontation right applies to scientists who conduct forensic analyses. In *Melendez-Diaz v. Massachusetts*,¹⁸³ the defendant objected to the admission of documents from a state laboratory certifying that a powdered substance found in defendant’s possession was in fact cocaine, where the technician did not testify and was not available for cross-examination.¹⁸⁴ Writing for a five-Justice majority of authority formalists, Justice Scalia described the case as a “straightforward application of our holding in *Crawford*.”¹⁸⁵ Because the documents were testimonial in nature and prepared for the purpose of establishing defendant’s guilt at trial, they were barred by the Confrontation Clause.¹⁸⁶ In his dissent, Justice Kennedy offered many criticisms of the majority opinion, most of which were variants of the claim that it imposed substantial burdens on the criminal justice system for very little gain in reliability.¹⁸⁷ The Court splintered along similar lines in two subsequent cases involving the admissibility of unopposed testimony by laboratory analysts.¹⁸⁸

*Ohio v. Clark*¹⁸⁹ involved the admissibility of statements made by a three-year-old child-abuse victim to his preschool teacher.¹⁹⁰ Although the Justices agreed that the testimony should be admitted, they disagreed sharply about the meaning of the Confrontation Clause. Writing for a six-Justice majority of mostly authority functionalists, Justice Alito’s opinion endorsed considerations of reliability¹⁹¹ and the relevance of hearsay rules¹⁹² in determining admissibility. Justice Scalia, joined by Justice Ginsburg, agreed with Justice Alito’s holding

181 See *id.* at 379 (Scalia, J., dissenting). Justice Ginsburg dissented separately but agreed with most of Scalia’s reasoning. See *id.* at 395 (Ginsburg, J., dissenting).

182 *Id.* at 393 (Scalia, J., dissenting).

183 557 U.S. 305 (2009).

184 See *id.* at 308–09.

185 *Id.* at 312.

186 See *id.* at 310–11.

187 See *id.* at 339 (Kennedy, J., dissenting).

188 See *Bullcoming v. New Mexico*, 564 U.S. 647 (2011); *Williams v. Illinois*, 567 U.S. 50 (2012).

189 135 S. Ct. 2173 (2015).

190 See *id.* at 2177–78.

191 See *id.* at 2180–81.

192 See *id.* at 2180.

but objected strenuously to the passages in the majority opinion that he described as efforts to weaken *Crawford*.¹⁹³

C. The Fourth Amendment

The authority divide also appeared in several prominent Fourth Amendment cases, most of which involved exceptions to the warrant requirement. Several of these cases generated alignments that were identical to alignments in the confrontation and jury trial cases.¹⁹⁴ Erin Murphy has noted similar alignments in cases involving the warrant requirement, suggesting that they represent the divide between rules and standards.¹⁹⁵ In fact, the pattern is more complex. The authority formalists are categorical about the warrant requirement but apply the exceptions to the warrant requirement as standards. The authority functionalists take the reverse position, treating the requirement itself as a standard but the exceptions as categorical.

¹⁹³ See *id.* at 2184 (Scalia, J., concurring in the judgment) (“I write separately . . . to protest the Court’s shoveling of fresh dirt upon the Sixth Amendment right of confrontation so recently rescued from the grave in *Crawford*.” (citation omitted)).

¹⁹⁴ For example, the voting alignments in two Fourth Amendment cases, *Maryland v. King*, 569 U.S. 435 (2013), and *Navarette v. California*, 572 U.S. 393 (2014), were identical to the alignment in *Williams v. Illinois*, 567 U.S. 50 (2012), a Confrontation Clause case. The vote in another Fourth Amendment case, *Arizona v. Gant*, 556 U.S. 332 (2009), was identical to the vote in another Confrontation Clause case, *Melendez-Diaz v. Massachusetts*, 557 U.S. 305 (2009). The *Gant* majority was the same majority as in *Apprendi* and *Blakely*, the prominent jury trial cases. See *Gant*, 556 U.S. at 333.

¹⁹⁵ See *supra* note 101 and accompanying text.

TABLE 4: FOURTH AMENDMENT CASES IMPLICATING THE AUTHORITY DIVIDE

Term	Case Name	Scalia	Thomas	Stevens	Souter	Ginsburg	Kennedy	Rehnquist	Breyer	O'Connor	2nd Dim. Score
2003	Thornton v. U.S.	*				*					0.41/0.69

Term	Case Name	Scalia	Thomas	Stevens	Souter	Ginsburg	Roberts	Kennedy	Alito	Breyer	2nd Dim. Score
2008	Arizona v. Gant										0.92

Term	Case Name	Scalia	Thomas	Kagan	Sotomayor	Ginsburg	Roberts	Kennedy	Alito	Breyer	2nd Dim. Score
2012	Florida v. Jardines										0.92
2012	Missouri v. McNeely							*			0.56/0.69
2012	Maryland v. King										0.69
2013	Navarette v. Calif.										0.69
2015	Utah v. Strieff	⊗									0.63

Note: Gray cells represent votes in the authority formalist coalition. White cells represent votes in the authority functionalist coalition. Crossed-out cells represent Justices who did not participate. Asterisks represent votes on alternative grounds; alternative second-dimension scores are given for cases with ambiguous votes.

For the authority functionalists, the central consideration is the reasonableness of the search, determined by balancing the government’s law enforcement interests against the privacy interests of the individual.¹⁹⁶ The presence of a warrant and individualized suspicion are merely factors to consider within this general reasonableness inquiry. Thus, the authority functionalists support broader exceptions to the warrant requirement when it conflicts with practical policing concerns. They are similarly less concerned about the requirement of individualized suspicion, considering it as merely one factor to be con-

¹⁹⁶ This interpretation corresponds to a view, often repeated in the academic literature, that the clauses are disjunctive. See TELFORD TAYLOR, TWO STUDIES IN CONSTITUTIONAL INTERPRETATION 41–43 (1969); see also Akhil Reed Amar, *Fourth Amendment First Principles*, 107 HARV. L. REV. 757, 759 (1994) (observing that the words of the Fourth Amendment “do not require warrants, probable cause, or exclusion of evidence, but they do require that all searches and seizures be reasonable”).

sidered in weighing reasonableness and not as a categorical prerequisite.

The authority formalists, by contrast, treat the warrant and individualized suspicion requirements as separate conditions that must be satisfied before a judge can proceed to an open-ended determination of reasonableness.¹⁹⁷ They also interpret the established exceptions to the warrant requirement narrowly. From their perspective, the warrant requirement has important institutional implications, because it ensures that the search be reviewed *ex ante* by a neutral magistrate and “narrowly limited in its objectives and scope.”¹⁹⁸ This review is especially important given that redress for illegal searches is often inadequate. On the other hand, delays in obtaining a warrant may hinder legitimate law enforcement activity, even when searches would otherwise be reasonable.

These cases fit the pattern of the authority divide because they implicate the power of police to conduct searches and magistrates to issue warrants, and also because the standards for the legality of searches—reasonableness, individualized suspicion, and probable cause—are amorphous. Although these are legal judgments, unlike the factual findings in the jury trial and Confrontation Clause cases, they are not amenable to a precise definition¹⁹⁹ and are “not readily, or even usefully, reduced to a neat set of legal rules.”²⁰⁰ They are legal judgments that can be reviewed on appeal, but their particularized nature means that they are not as closely bound by precedent as other legal judgments.²⁰¹ Because these determinations are so open-ended, the authority formalists may be more concerned about preserving the role of the independent magistrate in setting limits on searches.

¹⁹⁷ This interpretation corresponds to the view that the Reasonableness and Warrant Clauses are conjunctive. See Anthony G. Amsterdam, *Perspectives on the Fourth Amendment*, 58 MINN. L. REV. 349, 358 (1974) (observing that the Court has held that Fourth Amendment reasonableness encompasses the commands of the Warrant Clause and that the Court has often condemned warrantless searches).

¹⁹⁸ *Skinner v. Ry. Labor Execs.' Ass'n*, 489 U.S. 602, 622 (1989).

¹⁹⁹ See *Ornelas v. United States*, 517 U.S. 690, 695 (1996) (stating that the meaning of “reasonable suspicion” and “probable cause” cannot be precisely articulated).

²⁰⁰ *Illinois v. Gates*, 462 U.S. 213, 232 (1983).

²⁰¹ See *Ornelas*, 517 U.S., at 698 (observing that holdings on individualized suspicion and probable cause will rarely serve as useful precedent for other cases “because the mosaic which is analyzed . . . is multi-faceted”).

One of the most prominent exceptions to the warrant requirement applies to searches of suspects incident to arrest.²⁰² In 1981, the Court extended this exception to searches of suspects' vehicles.²⁰³ In *Arizona v. Gant*, the Court limited this exception, holding that the warrant exception is not categorical and applies only when the justifications for the warrant exception apply.²⁰⁴

Justice Stevens, writing for a coalition of authority formalists, emphasized the narrowness of the exceptions to the warrant requirement.²⁰⁵ He acknowledged the exception for a search "incident to a lawful arrest[.]" which "derives from interests in officer safety and evidence preservation."²⁰⁶ He rejected the application of this exception when it was divorced from its rationale.²⁰⁷ In *Gant*, the defendant was arrested for driving with a suspended license and handcuffed in the back of a police car before officers searched his vehicle.²⁰⁸ Clearly, neither justification for the warrant exception applied: there was no threat to the officer's safety and the vehicle search could not provide any evidence for the charged offense.²⁰⁹

In his dissent, Justice Alito criticized the majority for rejecting a clear rule that would have provided better guidance to law enforcement.²¹⁰ Interestingly, the authority functionalists favored a clear *substantive* rule governing searches incident to arrest, while the authority formalists endorsed a standard based on reasonableness.²¹¹ For the authority formalists, the

²⁰² See *Chimel v. California*, 395 U.S. 752, 767–68 (1969) (holding that the Fourth Amendment permits police to search arrestees and areas within reaching distance in order to remove weapons and prevent the destruction of evidence).

²⁰³ See *New York v. Belton*, 453 U.S. 454, 462–63 (1981) (holding that it was constitutional to search a suspect's car incident to arrest).

²⁰⁴ See *Arizona v. Gant*, 556 U.S. 332, 351 (2009).

²⁰⁵ See *id.* at 338 (quoting *Katz v. United States*, 389 U.S. 347, 357 (1967)) (holding that warrantless searches are "subject only to a few specifically established and well-delineated exceptions").

²⁰⁶ *Id.* at 338.

²⁰⁷ See *id.* at 339 (holding that the exception for searches incident to arrest does not apply when "both justifications for [it] are absent").

²⁰⁸ See *id.*

²⁰⁹ See *id.* at 343 (arguing that to "read *Belton* as authorizing a vehicle search incident to every recent occupant's arrest would . . . untether the rule from [its] justifications").

²¹⁰ See *id.* at 355–56 (contending that the majority's holding "may endanger arresting officers" and "confuse law enforcement officers and judges").

²¹¹ See *id.* at 351 (concluding that warrantless searches are permissible "only if the arrestee is within reaching distance of the passenger compartment at the time of the search or it is reasonable to believe the vehicle contains evidence of the offense of arrest"); see also *id.* (Scalia, J., concurring) (arguing that if founding-era practices "provide inadequate guidance" about the meaning of the Fourth Amendment, then the Court should "apply traditional standards of reasonableness").

primary concern appeared to be preserving independent review by a magistrate or judge for probable cause.²¹² The authority functionalists, by contrast, were willing to weaken the warrant requirement in order to provide clearer guidance to police.²¹³

*Missouri v. McNeely*²¹⁴ presented a similar conflict about the scope of the warrant requirement, this time involving the exigency exception for imminent destruction of evidence.²¹⁵ At issue was whether the metabolization of blood alcohol constitutes a “*per se* exigency that justifies an exception to the . . . warrant requirement.”²¹⁶ Emphasizing the narrowness of the warrant exception,²¹⁷ the intrusiveness of a blood test,²¹⁸ and the importance of requiring approval by an independent magistrate,²¹⁹ Justice Sotomayor’s majority opinion rejected a *per se* exception. She acknowledged that blood alcohol continually dissipates but held that the exigency exception must nevertheless be based on the totality of the circumstances, weighing the exigency against the delay in applying for a warrant.²²⁰

As in *Gant*, the authority functionalist dissenters favored a clear substantive rule, claiming that the majority’s rule would fail to provide adequate guidance for police.²²¹ Once again, the authority formalists endorsed a balancing test that preserved a larger role for independent review.²²²

In *Maryland v. King*,²²³ police took a DNA test of the defendant as part of the standard booking procedure after he was arrested for assault.²²⁴ This test linked him to a prior rape, for

²¹² See *id.* at 338 (majority opinion).

²¹³ See *id.* at 360 (Alito, J., dissenting).

²¹⁴ 569 U.S. 141 (2013).

²¹⁵ See *id.* at 145.

²¹⁶ *Id.*

²¹⁷ See *id.* at 148 (“Our cases have held that a warrantless search of the person is reasonable only if it falls within a recognized exception.”).

²¹⁸ See *id.* (observing that “an invasion of bodily integrity implicates an individual’s ‘most personal and deep-rooted expectations of privacy’”) (quoting *Winston v. Lee*, 470 U.S. 753, 760 (1985)).

²¹⁹ See *id.* (emphasizing the “importance of requiring authorization by a ‘neutral and detached magistrate’”) (quoting *Johnson v. United States*, 333 U.S. 10, 13–14 (1948)).

²²⁰ See *id.* at 156 (rejecting *per se* exception and holding that exigency “must be determined case by case based on the totality of the circumstances”).

²²¹ See *id.* at 166 (Roberts, C.J., dissenting) (“A police officer reading this Court’s opinion would have no idea—no idea—what the Fourth Amendment requires of him . . .”).

²²² See *id.* at 157 (majority opinion).

²²³ 569 U.S. 435 (2013).

²²⁴ See *id.* at 440.

which he was convicted.²²⁵ The defendant challenged the rape conviction on the ground that the warrantless DNA swab violated the Fourth Amendment.²²⁶

The Court split 5–4, with Justice Thomas switching sides to form a majority of authority functionalists. Justice Kennedy’s majority opinion minimized the importance of a warrant and individualized suspicion,²²⁷ emphasizing that “the ultimate measure of the constitutionality of a governmental search is ‘reasonableness.’”²²⁸ He then proceeded to a totality-of-the-circumstances evaluation of reasonableness.²²⁹ For the defendant’s interests, he noted the minimal intrusiveness of a cheek swab²³⁰ and the diminished expectations of privacy for arrestees.²³¹ On the government’s side, he focused on the interest in identifying arrestees, analogizing DNA testing to fingerprinting.²³² He found that the government interest easily outweighed the defendant’s.²³³

In dissent, Justice Scalia contended that the requirement of individualized suspicion “lies at the very heart of the Fourth Amendment” and is “categorical and without exception.”²³⁴ He rejected the majority’s balancing approach, arguing that “suspicionless searches are *never* allowed if their principal end is ordinary crime-solving.”²³⁵ He also ridiculed the government’s interest in identifying arrestees,²³⁶ noting that the defendant’s DNA sample was matched to the prior crime four months after

²²⁵ *See id.*

²²⁶ *See id.*

²²⁷ *See id.* at 447 (quoting *United States v. Martinez-Fuerte*, 428 U.S. 543, 560–61 (1976)) (stating that “the Court has *preferred* ‘some quantum of individualized suspicion . . . [as] a prerequisite to a constitutional search or seizure’” but that such suspicion is not an “irreducible requirement”).

²²⁸ *Id.* (quoting *Vernonia School Dist. 47J v. Acton*, 515 U.S. 646, 652 (1995)).

²²⁹ *See id.* at 448 (quoting *Wyoming v. Houghton*, 526 U.S. 295, 300 (1999)) (“This application of ‘traditional standards of reasonableness’ requires a court to weigh ‘the promotion of legitimate governmental interests’ against ‘the degree to which [the search] intrudes upon an individual’s privacy.’”).

²³⁰ *See id.* at 461.

²³¹ *See id.*

²³² *See id.* at 456–61. Justice Kennedy made only glancing reference to what was the obvious government interest: identifying the perpetrators of past unsolved crimes. However, he mentioned this interest only in the context of providing the possible benefit of “freeing a person wrongfully imprisoned for the same offense.” *Id.* at 455.

²³³ *See id.* at 465–66.

²³⁴ *Id.* at 466 (Scalia, J., dissenting).

²³⁵ *Id.* at 469.

²³⁶ *Id.* at 466 (“The Court’s assertion that DNA is being taken, not to solve crimes, but to *identify* those in the State’s custody, taxes the credulity of the credulous.”)

his arrest, long after his bail hearing.²³⁷ Whereas the majority subsumed the requirement of individualized suspicion within the broader reasonableness inquiry, the dissent treated it as separate constraint on the power of police to search suspects.

D. Interpreting the Scope of Criminal Statutes

The authority divide appeared in several cases interpreting the scope of broad criminal prohibitions. Many of these cases implicated the principle of legality, which forbids the retroactive creation of crimes,²³⁸ and two related doctrines, the rule of lenity and the void-for-vagueness doctrine. These doctrines are widely understood to serve multiple purposes. First, they provide fair notice to potential offenders about the consequences of their conduct.²³⁹ Second, they ensure that legislatures, and not judges, determine which acts are criminal.²⁴⁰ Third, they establish limits on the authority of police and prosecutors.²⁴¹

The second and third rationales relate directly to questions of institutional authority. The second rationale promotes the separation of powers by requiring that the power to define crimes be vested in the legislature and not the judiciary.²⁴² The third rationale is especially relevant, given the open-ended discretion exercised by prosecutors and police.²⁴³ Insofar as “[t]he power to define a vague law is effectively left to those who enforce it,”²⁴⁴ these doctrines provide a curb against arbitrary or discriminatory enforcement.²⁴⁵ If “the definition of [a] crime

²³⁷ See *id.* at 472.

²³⁸ See HERBERT L. PACKER, *THE LIMITS OF THE CRIMINAL SANCTION* 79–80 (1968) (defining the principle of legality to require that “conduct may not be treated as criminal unless it has been so defined by an authority having the institutional competence to do so before it has taken place”).

²³⁹ See *id.* at 84–85 (stating that the “first argument that is always advanced in support of the principle of legality” is “that people are entitled to fair notice of what the law requires so that they may plan their lives accordingly”).

²⁴⁰ See *United States v. Bass*, 404 U.S. 336, 348 (1971) (“[B]ecause of the seriousness of criminal penalties, and because criminal punishment usually represents the moral condemnation of the community, legislatures and not courts should define criminal activity.”); John Calvin Jeffries, Jr., *Legality, Vagueness, and the Construction of Penal Statutes*, 71 VA. L. REV. 189, 202–05 (1985) (discussing separation-of-powers rationales for the principle of legality).

²⁴¹ See PACKER, *supra* note 238, at 88 (arguing that “the real importance of the principle of legality” is “to control the discretion of the police and of prosecutors”); Jeffries, *supra* note 240, at 215 (describing how the principle of legality can constrain police and prosecutorial discretion).

²⁴² See Jeffries, *supra* note 240, at 202.

²⁴³ See *id.* at 197.

²⁴⁴ *Id.* at 215.

²⁴⁵ See PACKER, *supra* note 238, at 89–90 (arguing that “the most important single device” for ensuring that prosecutors and police conduct themselves in a manner that is “fair, evenhanded, and rational” is the requirement that they

is sufficiently vague and elastic[,]”²⁴⁶ there may be little meaningful constraint on the power of police to stop, search and arrest suspects or on the power of prosecutors to issue indictments.²⁴⁷

As a general matter, the authority formalists are more inclined to apply the rule of lenity or the vagueness doctrine in cases involving ambiguous criminal statutes. They also tend to read criminal prohibitions in a morally detached manner, looking primarily to text and precedent to determine whether it provides adequate specificity. This may be due to the fact that they are more concerned with the second and third rationales for the legality doctrines; they view statutory text as providing formal limits on prosecutors and police.

“confine their attention to the catalogue of what has already been defined as criminal”).

²⁴⁶ *Id.* at 98.

²⁴⁷ See Peter W. Low & Joel S. Johnson, *Changing the Vocabulary of the Vagueness Doctrine*, 101 VA. L. REV. 2051, 2075 (2015) (noting that the requirement of probable cause for arrest “would break down if police had the authority to observe behavior, make up a crime to cover it, and then make an arrest because they had probable cause that the invented crime occurred in their presence”).

TABLE 5: STATUTORY CRIMINAL CASES IMPLICATING THE AUTHORITY DIVIDE

Term	Case Name	Scalia	Thomas	Stevens	Souter	Ginsburg	Kennedy	Rehnquist	Breyer	O'Connor	2nd Dim. Score
1997	Caron v. U.S.										0.63
2004	Rogers v. Tenn.								*		0.37/0.72

Term	Case Name	Scalia	Thomas	Stevens	Souter	Ginsburg	Roberts	Kennedy	Alito	Breyer	2nd Dim. Score
2006	James v. U.S.										0.8
2008	U.S. v. Santos			*							0.92/0.70

Term	Case Name	Scalia	Thomas	Kagan	Sotomayor	Ginsburg	Roberts	Kennedy	Alito	Breyer	2nd Dim. Score
2010	Sykes v. U.S.										0.57
2011	Reynolds v. U.S.										0.45
2012	Descamps v. U.S.										0.53
2014	Johnson v. U.S.		*					*			0.52/0.23
2014	Yates v. U.S.								*		0.53/0.21

Note: Gray cells represent votes in the authority formalist coalition. White cells represent votes in the authority functionalist coalition. Asterisks represent votes on alternative grounds; alternative second-dimension scores are given for cases with ambiguous votes.

Although all Justices will consider statutory text, context, and prior precedent, the authority functionalists are more willing to look to moral considerations, public policy, or legislative intent. The contrasting approaches may stem partly from emphasis on different rationales for the legality, lenity, and vagueness doctrines. If the primary concern is fair notice, then there is a case for applying moral judgment; an important consideration for fair notice is whether the conduct is generally recognized as wrongful.²⁴⁸ The authority formalists, however, are

²⁴⁸ See *Arthur Andersen LLP v. United States*, 544 U.S. 696, 703 (2005) (stating that strict construction of a criminal statute “is particularly appropriate” when “the act underlying the conviction . . . is by itself innocuous”); see also *ESKRIDGE, JR. ET AL.*, *supra* note 11, at 694 (“Under a fair warning rationalization, the rule of lenity is most appropriately applied to criminal statutes that create offenses that are *malum prohibitum* (bad only because they are prohibited) rather than *malum*

less willing to rely on moral considerations in determining the scope of criminal offenses, viewing statutory text instead as the most legitimate form of notice.²⁴⁹

If the primary concern is enforcing limits on police and prosecutors, Justices might be justifiably hesitant to exercise moral judgment in interpreting those limits. To say that lenity should apply because the defendant is insufficiently culpable, or because the prosecutor is seeking penalties disproportionate to the offense, would arguably infringe upon prosecutorial discretion. This may explain why the authority formalists rigorously enforce textual limits on the scope of criminal offenses but tend to avoid moral considerations in their analysis.

One example of this divide occurred in *United States v. Santos*,²⁵⁰ which addressed whether the operation of an illegal gambling ring also constituted money laundering.²⁵¹ This depended on whether the term “proceeds” in the statutory text meant “receipts” or “profits.”²⁵² The former, more expansive interpretation, would cover defendants’ conduct; the latter interpretation would not.

The same majority as in *Apprendi* applied the narrow interpretation, although Justice Stevens concurred separately. Justice Scalia’s plurality opinion engaged in a rather cursory examination of the statutory text and context and found both interpretations to be plausible.²⁵³ He rejected any consideration of Congressional purpose²⁵⁴ and proceeded quickly to the rule of lenity, holding that “the tie goes to the defendant.”²⁵⁵

in se (bad by their very nature).”); Jeffries, *supra* note 240, at 231 (arguing that the “fair notice” rationale is weakest with regard to “obviously wrongful conduct” and that the “real source of notice” is “the customs of society and the sensibilities of the people”).

²⁴⁹ See, e.g., *United States v. R.L.C.*, 503 U.S. 291, 309 (1992) (Scalia, J., concurring in part and dissenting in part) (acknowledging that it is a legal fiction that “the words of the United States Code or the Statutes at Large give adequate notice to the citizen” but contending that this “fiction descends to needless farce when the public is charged even with knowledge of Committee Reports”); *Yates v. United States*, 135 S. Ct. 1074, 1099 n.6 (2015) (Kagan, J., dissenting) (“[W]hen an ordinary citizen seeks notice of a statute’s scope, he is more likely to focus on the plain text than . . . on the section number, the superfluity principle, and the *noscitur* and *ejusdem* canons.”).

²⁵⁰ 553 U.S. 507 (2008).

²⁵¹ See *id.* at 510.

²⁵² See *id.*

²⁵³ See *id.* at 513–14.

²⁵⁴ See *id.* at 515.

²⁵⁵ *Id.* at 514.

Justice Scalia briefly mentioned the notice and separation-of-powers rationales for the rule of lenity,²⁵⁶ but elaborated in more detail on the third rationale. He noted that the broader definition of “proceeds” sought by the government would dramatically expand the scope of the offense, causing many forms of unlawful activity to merge with money laundering.²⁵⁷ This would greatly expand prosecutorial authority²⁵⁸ and give prosecutors additional leverage in plea bargaining,²⁵⁹ where their discretion is largely unchecked.²⁶⁰ Writing in dissent for a coalition of authority functionalists, Justice Alito contended that interpreting the statute to apply to “receipts” rather than “profits” better served the main purposes of the statute: limiting the ability of criminals to benefit from their illegally obtained funds and inhibiting the growth of criminal enterprises.²⁶¹

Several authority divides arose in a series of cases involving the Armed Career Criminal Act (ACCA),²⁶² which provides for sentence enhancements for “career offenders” who commit felonies while using a firearm. Many of these cases²⁶³ concerned ACCA’s “residual clause,” which deemed any offense to be a “violent felony” if it “is burglary, arson, or extortion, involves use of explosives, or otherwise involves conduct that presents a serious potential risk of physical injury to another.”²⁶⁴

Both the Supreme Court and the lower federal courts have struggled to interpret this language, in part because of the Court’s prior holding that an offense could only be considered a “violent felony” as a categorical matter, without regard to the particular facts of the crime.²⁶⁵ In the early ACCA cases, the authority functionalists relied on social science and common sense to determine whether offenses were sufficiently harmful

²⁵⁶ See *id.* (explaining that the rule of lenity “vindicates the fundamental principle that no citizen should be held accountable for a violation of a statute whose commands are uncertain” and “keeps courts from making criminal law in Congress’s stead”).

²⁵⁷ See *id.* at 516.

²⁵⁸ See *id.*

²⁵⁹ See *id.*

²⁶⁰ See *id.*; see also *id.* at 524–28 (Stevens, J., concurring) (striking a middle ground by considering legislative history before applying the rule of lenity).

²⁶¹ See *id.* at 535–36 (Alito, J., dissenting).

²⁶² 18 U.S.C. § 924(e)(1).

²⁶³ A few cases, such as *Shepard v. United States*, 544 U.S. 13, 15–16 (2005), concerned the procedures by which courts could establish that a prior offense constituted a violent felony.

²⁶⁴ 18 U.S.C. § 924(e)(2)(B)(ii).

²⁶⁵ See *Taylor v. United States*, 495 U.S. 575, 602 (1990).

to constitute violent felonies, whereas the authority formalists focused primarily on the statutory text.²⁶⁶

*James v. United States*²⁶⁷ addressed whether attempted burglary constituted a violent felony.²⁶⁸ Writing for an authority functionalist majority, Justice Alito answered in the affirmative, relying primarily on common sense to conclude that attempted burglary posed roughly the same risk of injury as actual burglary.²⁶⁹ Justice Scalia, joined by Justices Ginsburg and Souter,²⁷⁰ argued that the rule of lenity required the residual clause to be construed narrowly.²⁷¹ He further suggested that the majority's approach, which entailed "leaving it to the courts to apply the vague language in a manner that is . . . highly unpredictable," could violate "the constitutional prohibition against vague criminal laws."²⁷²

*Sykes v. United States*²⁷³ considered whether intentional vehicular flight from a law enforcement officer constituted a violent felony under ACCA. Once again, the authority functionalists prevailed, in an opinion by Justice Kennedy. Relying both on common sense and detailed crime statistics, the majority argued that vehicular flight posed greater risk of injury than burglary and was roughly as dangerous as arson.²⁷⁴

In a solo dissent, Justice Scalia criticized the majority's reliance on crime statistics as "untested judicial factfinding."²⁷⁵ He argued further that the majority's reliance on criminology research exacerbated the vagueness of the statute because it made the definition of "violent felony" depend on a court's interpretation of the literature.²⁷⁶ He would have declared the residual clause of ACCA void for vagueness, contending that it fails to "give a person of ordinary intelligence fair notice of its reach" and "permits, indeed invites, arbitrary enforcement."²⁷⁷

²⁶⁶ See *infra* notes 267–94 and accompanying text.

²⁶⁷ 550 U.S. 192 (2007).

²⁶⁸ See *id.* at 195.

²⁶⁹ See *id.* at 203.

²⁷⁰ Justice Thomas dissented separately, contending that the statute relied on judicial fact-finding in violation of the Sixth Amendment jury trial right. See *id.* at 231–32 (Thomas, J., dissenting).

²⁷¹ See *id.* at 219 (Scalia, J., dissenting).

²⁷² *Id.* at 230.

²⁷³ 564 U.S. 1 (2011).

²⁷⁴ See *id.* at 8–10; see also *id.* at 19–21 (Thomas, J., concurring in the judgment) (providing further citations to criminology studies and news reports demonstrating the hazards of vehicular flight).

²⁷⁵ *Id.* at 32 (Scalia, J., dissenting).

²⁷⁶ See *id.* at 31–33.

²⁷⁷ *Id.* at 34.

Justice Kagan, joined by Justice Ginsburg, dissented separately. Focusing primarily on the elements of the statute and the broader statutory scheme, she concluded that the state provision that the defendant violated should not be considered violent as a categorical matter in light of more serious vehicular flight offenses in the state criminal code.²⁷⁸

Four terms later, Justice Scalia's solo dissent was transformed into a six-Justice majority, with Justice Breyer and Chief Justice Roberts joining the authority formalists. Although the Court granted certiorari in *Johnson v. United States*²⁷⁹ to determine whether unlawful possession of a short-barreled shotgun constituted a violent felony under ACCA,²⁸⁰ Justice Scalia's majority opinion declared the residual clause void for vagueness.²⁸¹ In so holding, he wrote that the "indeterminacy of the wide-ranging inquiry . . . both denies fair notice to defendants and invites arbitrary enforcement by judges."²⁸² Justices Kennedy and Thomas concurred only in the judgment, arguing that the case could have been resolved under the Court's existing ACCA case law.²⁸³ Justice Alito dissented, contending that any vagueness could be cured by interpreting the residual clause to apply to "real-world conduct" rather than to categorical offenses.²⁸⁴

Another lenity case, *Yates v. United States*²⁸⁵ produced a similar division within the Court, but the factions were reversed from the prior cases: a coalition of mostly authority functionalists applied lenity, while a coalition of mostly authority formalists would have upheld the conviction. The defendant in *Yates* was a commercial fisherman who had instructed a crew member to throw undersized fish overboard in order to destroy evidence of fishing violations. He was convicted under Section 1519 of the Sarbanes-Oxley Act of 2002, which made it a crime to "knowingly . . . destroy[] . . . any record, document, or tangible object with the intent to impede, obstruct, or influence" a federal investigation.²⁸⁶

²⁷⁸ See *id.* at 38–48 (Kagan, J., dissenting).

²⁷⁹ 135 S. Ct. 2551 (2015).

²⁸⁰ See *id.* at 2556.

²⁸¹ See *id.* at 2557.

²⁸² *Id.*

²⁸³ See *id.* at 2564–65.

²⁸⁴ See *id.* at 2578–80 (Alito, J., dissenting).

²⁸⁵ 135 S. Ct. 1074 (2015).

²⁸⁶ 18 U.S.C. § 1519 (2002).

By a 5–4 vote, the Court overturned the conviction. Writing for a plurality dominated by authority functionalists,²⁸⁷ Justice Ginsburg acknowledged that a fish is literally a tangible object²⁸⁸ but limited the statutory definition to tangible objects that can be “used to record or preserve information.”²⁸⁹ Notably, her opinion repeatedly alluded to the perceived excessiveness of the twenty-year maximum penalty.²⁹⁰ She also held that the rule of lenity required the narrower definition.²⁹¹

Justice Kagan’s dissent, joined by Justices Kennedy, Scalia, and Thomas, focused on the statutory text. She argued that the term “tangible object” was “broad, but clear,”²⁹² so the rule of lenity did not apply.²⁹³ She suggested that the plurality opinion had been motivated by the “disproportionate penalties” sought by the prosecution and more generally, “overcriminalization and excessive punishment” in federal law.²⁹⁴ She agreed that section 1519 was a “bad law,” but that the Court lacked authority to rewrite it.²⁹⁵

Of the seven Justices who participated in both *Santos* and *Yates*, only Justice Ginsburg applied lenity in both, and only Justice Kennedy opposed lenity in both. The reason for the ostensible reversal may have been that the defendant in *Yates* had a plausible moral claim that his prosecution was disproportionate but a weaker textual claim, while the defendant in *Santos* had a stronger textual claim but a weaker moral claim.

E. Punitive Damages

Many cases involving punitive damages also generated authority divides. As a general matter, the authority formalists reject constitutional limits on excessive punitive damages, while the authority functionalists endorse a role for federal

²⁸⁷ Justice Ginsburg has mostly sided with the authority formalists in these cases, as shown in Table 2. See *infra* Table 2. Her opinion was joined by Chief Justice Roberts and Justices Breyer and Sotomayor. See *Yates*, 135 S. Ct. at 1076.

²⁸⁸ See *Yates*, 135 S. Ct. at 1079.

²⁸⁹ *Id.*

²⁹⁰ See *id.* at 1085 n.6 (noting that a broader interpretation of § 1519 covered all of the conduct already proscribed by § 2232(a), which only has a five-year maximum); *id.* at 1087–88 (distinguishing a similar text in a provision of the 1962 Model Penal Code that applies to all physical evidence on the grounds that this provision describes a misdemeanor); *id.* at 1087 (noting that the fish caught by defendant were no longer even illegal at the time of his prosecution).

²⁹¹ See *id.* at 1088.

²⁹² *Id.* at 1091 (Kagan, J., dissenting).

²⁹³ See *id.* at 1098–99.

²⁹⁴ *Id.* at 1100.

²⁹⁵ *Id.* at 1101.

courts to review such verdicts for reasonableness. The voting alignments, however, do not fit as closely as some of the other areas of case law discussed in previous sections. Justice Souter, who reliably sided with authority formalists in cases involving the jury trial and confrontation right, consistently sided with authority functionalists on punitive damages. Justice Stevens did as well in several earlier cases before returning to the authority formalist side. In two cases, Justices Scalia and Thomas join an authority functionalist majority on grounds of *stare decisis*, although they maintained disagreement with the prior holdings. Nevertheless, the Court as a whole followed a similar pattern in these cases.

TABLE 6: PUNITIVE DAMAGES CASES IMPLICATING THE AUTHORITY DIVIDE

Term	Case Name	Scalia	Thomas	Stevens	Souter	Ginsburg	Kennedy	Rehnquist	Breyer	O'Connor	2nd Dim. Score
1996	BMW v. Gore										0.43
2001	Cooper v. Leatherman	*	*								0.19/0.62
2003	State Farm v. Campbell										0.62

Term	Case Name	Scalia	Thomas	Stevens	Souter	Ginsburg	Roberts	Kennedy	Alito	Breyer	2nd Dim. Score
2006	Philip Morris v. Williams										0.8
2007	Exxon Shipping v. Baker	*	*						⊗	*	0.20/0.78

Note: Gray cells represent votes in the authority formalist coalition. White cells represent votes in the authority functionalist coalition. Crossed-out cells represent Justices who did not participate. Asterisks represent votes on alternative grounds; alternative second-dimension scores are given for cases with ambiguous votes.

Under the common law, juries possessed wide discretion to assess punitive damages,²⁹⁶ which were reviewable for reasonableness by state trial and appellate courts.²⁹⁷ Starting with *BMW of North America, Inc. v. Gore*,²⁹⁸ the Court recognized constitutional limits on punitive damages, holding that a \$4

²⁹⁶ *Pacific Mut. Life Ins. Co. v. Haslip*, 499 U.S. 1, 16–17 (1991) (discussing wide discretion historically exercised by juries in determining punitive damages).

²⁹⁷ *See id.* at 15.

²⁹⁸ 517 U.S. 559 (1996).

million verdict was excessive for failing to disclose that a new car had been repainted prior to sale.

In *Gore*, Justice Stevens joined the authority functionalists and Justice Rehnquist joined the authority formalists, although both switched sides in subsequent cases. Echoing the authority functionalist view on lenity,²⁹⁹ Justice Stevens's majority opinion stated that "[e]lementary notions of fairness" require that "a person receive fair notice . . . of the severity of the penalty that a State may impose."³⁰⁰ The defendant lacked fair notice because the system could generate awards that were grossly disproportionate to the harm.³⁰¹

Justice Stevens discussed three considerations for determining whether a punitive damages award violated due process, all of which required the exercise of moral judgment: the "degree of reprehensibility" of the defendant's conduct, the ratio of the punitive damages award to the actual harm, and the penalties imposed for comparable misconduct.³⁰² In dissent, Justice Scalia argued that the Constitution did not authorize federal judges to engage in reasonableness review of punitive damages awards.³⁰³ He emphasized the institutional role of the jury as "the voice of the community"³⁰⁴ and criticized the majority for giving its own moral judgment "priority over the judgment of state courts and juries."³⁰⁵ In a separate dissent, Justice Ginsburg criticized the majority for "ventur[ing] into territory traditionally within the States' domain."³⁰⁶

In *Philip Morris USA v. Williams*,³⁰⁷ the Court held that juries cannot award punitive damages for injury to "other persons not before the court."³⁰⁸ Writing for a majority of authority functionalists, Justice Breyer emphasized the need to "cabin the jury's discretionary authority" to prevent "arbitrary punishments" and provide the defendant with "fair notice."³⁰⁹ Allowing punishment for nonparty victims would compromise

299 See *supra* note 248 and accompanying text.

300 *Id.* at 574.

301 See *id.* at 574–75.

302 *Id.* at 575.

303 See *id.* at 599 (Scalia, J., dissenting) ("What the Fourteenth Amendment's procedural guarantee assures is an opportunity to contest the reasonableness of a damages judgment in state court; but there is no federal guarantee a damages award actually *be* reasonable.").

304 *Id.* at 600.

305 *Id.*

306 *Id.* at 607 (Ginsburg, J. dissenting).

307 549 U.S. 346 (2008).

308 *Id.* at 350.

309 *Id.* at 352.

these objectives by “add[ing] a near standardless dimension to the punitive damages equation.”³¹⁰

*Exxon Shipping Co. v. Baker*³¹¹ involved a challenge to a \$2.5 billion punitive damages award against Exxon for its role in the Exxon Valdez oil spill. The Justices divided along both the political and authority dimensions on different issues, providing a striking illustration of the Court’s two-dimensional structure. Unlike the prior cases, *Exxon Shipping* arose under federal maritime law rather than constitutional due process, so the Court reviewed the punitive damages award as a common law court.³¹² Because there was no controversy about the Court’s authority to modify the award,³¹³ the questions about institutional authority presented in the prior cases were less salient in *Exxon Shipping*.³¹⁴

Whether the damages were excessive was essentially a value judgment, so it is perhaps unsurprising that the Justices divided primarily along the political dimension on this question. Justice Souter joined four of the conservatives in the majority while the remaining liberals dissented.³¹⁵ Justice Souter’s majority opinion analogized punitive damages to indeterminate criminal sentences, noting the potential for disproportionate outcomes in the absence of limits.³¹⁶ He cited the success of sentencing guidelines to justify a hard limit on punitive damages in maritime cases,³¹⁷ fixing the maximum ratio for punitive to compensatory damages at 1:1.³¹⁸

Justice Souter’s opinion hinted that the same reasoning could also apply in cases involving constitutional due process.³¹⁹ In fact, some lower courts have applied the common

³¹⁰ *Id.* at 354.

³¹¹ 554 U.S. 471 (2008).

³¹² *See id.* at 489–90.

³¹³ *See id.* at 502 (“Our review of punitive damages today . . . considers not their intersection with the Constitution, but the desirability of regulating them as a common law remedy for which responsibility lies with this Court as a source of judge-made law in the absence of statute.”).

³¹⁴ In separate dissents, Justices Ginsburg and Stevens both agreed that the Court had the authority to craft a rule limiting punitive damages in maritime suits but argued that it should nevertheless have let Congress decide whether to set limits. *See id.* at 516 (Stevens, J., dissenting); *id.* at 523 (Ginsburg, J., dissenting).

³¹⁵ Justice Alito did not participate.

³¹⁶ *See id.* at 504–06 (majority opinion).

³¹⁷ *See id.*

³¹⁸ *See id.* at 513.

³¹⁹ *See id.* at 490 (stating that Exxon’s challenge of the award under maritime law “goes to our understanding of the place of punishment in modern civil law and reasonable standards of process in administering punitive law”); *id.* at 515 n.28 (suggesting that the constitutional limit on punitive damages may coincide with

law reasoning of *Exxon Shipping* to constitutional cases.³²⁰ Once the implications of the majority opinion ventured beyond maritime law, however, the Justices splintered around issues of jury authority. Justices Scalia and Thomas joined the majority, but expressed their continued opposition to constitutional limits on punitive damages.³²¹ In his dissent, Justice Breyer endorsed the majority's 1:1 ratio on punitive damages as a general matter, but argued that a "limited exception" was warranted due to Exxon's egregious conduct.³²² The Justices who endorsed the suggestion that a 1:1 ratio would be appropriate in constitutional cases were the same as the majority in *Philip Morris USA v. Williams* (aside from Justice Alito, who was recused). Similarly, the Justices who had dissented in *Williams* declined to endorse the application of hard limits on punitive damages in constitutional cases.

F. Additional Examples

Many of the cases that generated authority divides implicated common areas of doctrine, such as the jury trial right, the Confrontation Clause, the Fourth Amendment, the principle of legality, and punitive damages. Nevertheless, a few cases in unrelated areas also generated alignments that fit the same pattern and also involved questions about the boundaries of institutional authority. These examples are useful because they show that disputes about authority are not limited to particular doctrinal areas or substantive issues.

1. *Norfolk & Western Railway Co. v. Ayers*

*Norfolk & Western Railway Co. v. Ayers*³²³ addressed whether former railway workers experiencing asbestos-related illness could recover damages under the Federal Employers' Liability Act (FELA) for pain and suffering associated with their

the common law limit announced in the majority opinion); Thomas B. Colby, *Clearing the Smoke from Philip Morris v. Williams: The Past, Present, and Future of Punitive Damages*, 118 YALE L.J. 392, 458 n.292 (2008) (interpreting the Court's opinion in *Exxon Shipping* as offering guidance to state courts in constitutional cases involving punitive damages); Catherine M. Sharkey, *The Exxon Valdez Litigation Marathon: A Window on Punitive Damages*, 7 U. ST. THOMAS L.J. 25, 33 (2009) (observing that *Exxon Shipping* presented "a platform for the Court to provide a template for state appellate courts (and lower federal courts)—an analytic framework for punitive damages excessiveness review that could be emulated by other courts typically sitting as common law courts").

³²⁰ See Sharkey, *supra* note 319, at 33–34 & 32 n.33 (discussing examples).

³²¹ See *Exxon Shipping*, 554 U.S. at 515 (Scalia, J., concurring).

³²² *Id.* at 525 (Breyer, J., dissenting).

³²³ 538 U.S. 135 (2003).

fear of developing cancer.³²⁴ *Ayers* resembles some of the prior cases in that the determination of damages for pain and suffering involves an “unguided exercise of discretion,” both for the jury and the reviewing court.³²⁵ In this sense, *Ayers* implicates concerns that were present in the punitive damages cases.³²⁶

In two prior FELA cases, the Court had addressed the need for limits on emotional distress claims due to the “very real possibility of nearly infinite and unpredictable liability for defendants.”³²⁷ The Court recognized emotional injury claims under FELA when the plaintiff had “sustain[ed] a physical impact” or had been “placed in immediate risk of physical harm” by the defendant’s negligent conduct,³²⁸ but denied recovery for mere exposure to a carcinogen.³²⁹

At the time the Court heard *Ayers*, asbestos litigation and the prospect of massive liability had forced many manufacturers into bankruptcy.³³⁰ As a result, there was a concern that physically unimpaired plaintiffs seeking damages for emotional distress could deplete the funds available for plaintiffs who later develop cancer or other asbestos-related diseases.³³¹

Justice Ginsburg, writing for the same majority of authority formalists as in *Apprendi*, rejected any distinct treatment for asbestos cases under FELA, arguing that “[c]ourts . . . must resist pleas . . . to reconfigure established liability rules because they do not serve to abate today’s asbestos litigation crisis.”³³² She held that the categorical distinction established in the prior FELA cases was sufficient to cabin the jury’s discretion.³³³

³²⁴ See *id.* at 140.

³²⁵ *Jutzi-Johnson v. United States*, 263 F.3d 753, 759 (7th Cir. 2001).

³²⁶ See Neil Vidmar, *The Performance of the American Civil Jury: An Empirical Perspective*, 40 ARIZ. L. REV. 849, 881 (1998) (describing both punitive damages and pain-and-suffering awards as “highly variable and frequently capricious”).

³²⁷ *Consol. Rail Corp. v. Gottshall*, 512 U.S. 532, 546 (1994).

³²⁸ *Id.* at 547–48.

³²⁹ See *Metro-North Commuter R.R. Co. v. Buckley*, 521 U.S. 424, 427 (1997).

³³⁰ See *Norfolk & W. Ry. v. Ayers*, 538 U.S. 135, 169 (2003) (Kennedy, J., dissenting) (observing that “[a]sbestos litigation ha[d] driven 57 companies . . . into bankruptcy” at the time the Court heard *Ayers*).

³³¹ See Christopher F. Edley, Jr. & Paul C. Weiler, *Asbestos: A Multi-Billion-Dollar Crisis*, 30 HARV. J. ON LEGIS. 383, 393 (1993) (estimating that roughly one-half of asbestos claims had been filed by unimpaired plaintiffs and observing that these claims “inevitably divert[] legal attention and economic resources away from” the most deserving plaintiffs).

³³² *Ayers*, 538 U.S. at 166 (majority opinion).

³³³ See *id.* at 157 (observing that the categorical approach established in the prior cases “serves to reduce the universe of potential claimants to numbers neither unlimited nor unpredictable.” (internal quotation marks omitted)).

In the principal dissent, Justice Kennedy contended that the majority's holding thwarted the primary purpose of FELA—to provide compensation for injured employees.³³⁴ Citing the numerous bankruptcies due to asbestos litigation,³³⁵ Justice Kennedy argued that the majority's holding would generate disproportionate awards for plaintiffs with mild injuries that could deplete the funds available for those who incur serious harms.³³⁶ He also questioned the competence of juries to estimate damages relating to harms for fear of future disease, arguing that such awards would be based on uninformed speculation.³³⁷

2. *Adoptive Couple v. Baby Girl*

*Adoptive Couple v. Baby Girl*³³⁸ addressed the application of the Indian Child Welfare Act (ICWA) to a custody dispute between a couple seeking to adopt a baby girl and her Cherokee biological father. Like other cases dividing along the authority dimension, *Adoptive Couple* involves a quintessentially open-ended determination: the best interests of the child.³³⁹ Because this test is discretionary and susceptible to bias,³⁴⁰ it historically led to unwarranted removal of Indian children from their families.³⁴¹ ICWA, which was enacted to combat this

³³⁴ *Id.* at 167 (Kennedy, J., dissenting) (“It is common ground that the purpose of FELA is to provide compensation for employees protected under the Act. The Court’s decision is a serious threat to that objective.” (citation omitted)).

³³⁵ *See id.* at 168.

³³⁶ *See id.* at 170 (“As a consequence of the majority’s decision, it is more likely that those with the worst injuries from exposure to asbestos will find they are without remedy because those with lesser, and even problematic, injuries will have exhausted the resources for payment.”); *see also id.* at 185–86 (Breyer, J., dissenting) (“[I]t would be perverse to apply tort law’s basic compensatory objectives in a way that compensated less serious injuries at the expense of more serious harms.”).

³³⁷ *See id.* at 179 (Kennedy, J., dissenting) (“It is beyond the ability of juries to derive from statistics like these a fair estimate of the danger caused by negligent exposure to asbestos. . . . If instructing a jury to calculate an increased risk of cancer invites speculation, then asking the jury to infer from its estimate a rough sense of the fear based on the risk invites speculation compounded.”).

³³⁸ 570 U.S. 637 (2013).

³³⁹ *See* Jon Elster, *Solomonic Judgments: Against the Best Interest of the Child*, 54 U. CHI. L. REV. 1, 11 (1987) (describing the best interests test as indeterminate); Robert H. Mnookin, *Child-Custody Adjudication: Judicial Functions in the Face of Indeterminacy*, 39 L. & CONTEMP. PROBS. 226, 229 (1975) (characterizing the best interests test as “usually indeterminate and speculative”).

³⁴⁰ *See* Barbara Ann Atwood, *Flashpoints Under the Indian Child Welfare Act: Toward a New Understanding of State Court Resistance*, 51 EMORY L.J. 587, 643–44 (2002) (describing best interests analysis in state courts as “highly discretionary and potentially biased” against Native Americans).

³⁴¹ *See* COHEN’S HANDBOOK OF FEDERAL INDIAN LAW § 11.01 (Nell Jessup Newton ed., 2017), LexisNexis (describing studies showing that 25–35% of Indian children

bias,³⁴² governs which institutional actors—state courts or tribal courts—will determine a child’s best interests. ICWA also imposes strict preconditions before state courts can apply the best-interests test to remove a child from an Indian family.

In custody cases involving Native American children, ICWA vests jurisdiction in tribal courts for children domiciled on reservations³⁴³ and otherwise allows Native American parents and tribes to petition for transfer to tribal courts.³⁴⁴ ICWA also provides Native American families and tribes with procedural and substantive rights in cases that are adjudicated in state courts. In particular, ICWA prevents state courts from removing Native American children from their families unless “continued custody” would result in “serious emotional or physical damage to the child” and requires the state to provide remedial efforts prior to removal.³⁴⁵ However, state courts have sometimes resisted enforcing these requirements, especially when technical distinctions involving domicile or tribal eligibility would otherwise override the court’s view of the child’s best interests.³⁴⁶

In *Adoptive Couple*, the birth mother arranged for the girl to be adopted by a couple in South Carolina after the Cherokee biological father relinquished his parental rights.³⁴⁷ The biological father subsequently contested the adoption, arguing that ICWA prevented termination of his parental rights absent a determination that the girl would suffer “serious emotional or physical damage” in his custody.³⁴⁸

The Supreme Court voted 5–4 in favor of the adoptive couple, dividing along the same lines as in two Fourth Amendment cases³⁴⁹ and one Confrontation Clause case.³⁵⁰ Justice Alito’s opinion for an authority functionalist majority carved out two narrow exceptions to ICWA in cases where the Indian parent had not previously had custody of the child. Relying on the phrase “continued custody” in the statute, the majority held that the father’s parental rights could be terminated be-

had been removed from their families in the years preceding the enactment of ICWA).

³⁴² See 25 U.S.C. §§ 1901(4)–(5) (2012).

³⁴³ 25 U.S.C. § 1911(a) (2012).

³⁴⁴ 25 U.S.C. § 1911(b) (2012).

³⁴⁵ See 25 U.S.C. § 1912(d)–(f) (2012).

³⁴⁶ See *Atwood*, *supra* note 340, at 590 & 687 n.14.

³⁴⁷ See *Adoptive Couple v. Baby Girl*, 570 U.S. 637, 643–44 (2013).

³⁴⁸ See *id.* at 645.

³⁴⁹ See *Maryland v. King*, 569 U.S. 435 (2013); *Navarette v. California*, 572 U.S. 393 (2014).

³⁵⁰ See *Williams v. Illinois*, 567 U.S. 50 (2012).

cause he had not previously had custody.³⁵¹ Similarly, there was no need to provide remedial services because there was no family to break up.³⁵²

Much of the language in Justice Alito's opinion manifested antipathy toward the categorical limits ICWA imposes on the consideration of a child's best interests. He repeatedly emphasized that the baby girl was only 3/256 Cherokee,³⁵³ even though he acknowledged that her membership in the Cherokee nation was "undisputed."³⁵⁴ He repeatedly cited facts that impugned the biological father's fitness as a parent³⁵⁵—facts that would have been relevant to a determination of the child's best interests—but never explained how these were relevant to the application of ICWA. Although many of these statements were dicta, they reflected opposition to separating the substantive issues in this case from the questions about decision-making authority.

In dissent, Justice Sotomayor criticized the majority for undermining the coherence of the statute, which she viewed as striking a balance between the authority of state and tribal courts. She argued that the majority's interpretation of ICWA resulted in an "illogical" discrepancy between procedural and substantive protections under the Act.³⁵⁶ Thus, the majority "transform[ed] a statute that was intended to provide uniform federal standards . . . into an illogical piecemeal scheme."³⁵⁷

The dissent viewed ICWA as a statute that determined who decides such disputes involving Indian children and the procedures by which these disputes are litigated. Justice Sotomayor criticized the majority for its "repeated, analytically unneces-

³⁵¹ See *Adoptive Couple*, 570 U.S. at 647–50.

³⁵² See *id.* at 651–52.

³⁵³ See *id.* at 641 ("This case is about a little girl . . . who is classified as an Indian because she is 1.2% (3/256) Cherokee."); *id.* at 646 ("It is undisputed that, had Baby Girl not been 3/256 Cherokee, Biological Father would have had no right to object to her adoption under South Carolina law."); *id.* at 655 (arguing that ICWA impedes adoption of Indian children "solely because an ancestor—even a remote one—was an Indian.").

³⁵⁴ *Id.* at 642 n.1.

³⁵⁵ See *id.* at 643 (observing that the father relinquished his parental rights in a text message); *id.* at 644 (noting that "[f]or the duration of the pregnancy and the first four months after Baby Girl's birth, Biological Father provided no financial assistance to Birth Mother or Baby Girl, even though he had the ability to do so" and he "made no meaningful attempts to assume his responsibility of parenthood during this period" (internal quotation marks omitted)).

³⁵⁶ *Id.* at 674 (Sotomayor, J., dissenting) ("Having assumed a uniform federal definition of 'parent' that confers certain procedural rights, the majority then illogically concludes that ICWA's *substantive* protections are available only to a subset of 'parent[s]' . . .").

³⁵⁷ *Id.* at 670.

sary references to the fact that Baby Girl is 3/256 Cherokee” and for “second-guess[ing] the membership requirements of federally recognized Indian tribes.”³⁵⁸ These criticisms insinuated that the majority was influenced by the balance of the equities in this case and not merely the question of decision-making authority.³⁵⁹

G. Conclusion

The cases discussed above reveal a common theme: debates about how to decide “who decides.” The authority formalists focused on legal texts and the need for clear division of authority. The authority functionalists were willing to apply moral judgment and common sense to achieve results they perceived to be fair.

These cases are only a sample of all cases that divide along the Court’s second dimension; a full treatment is beyond the scope of this Article. There are certainly some cases that are not easily explained in terms of boundaries of authority, just as there are some cases dividing along the first dimension that are not overtly political.³⁶⁰ There are also cases arguably involving boundaries of authority that did not divide along the second dimension.³⁶¹ Nevertheless, these cases illustrate common themes and help to form a theory about the principles that underlie these divides.

V

IMPLICATIONS

The two-dimensional representation of the Court provides a deeper understanding of the Justices and their philosophies. The first dimension captures the prominent divide between the liberal and conservative blocs, but the second dimension explains many of the disagreements among the Justices within each bloc. For example, the differences between Justices Ginsburg and Breyer or between Justices Scalia and Alito are better explained as disagreements about institutional authority rather than degrees of ideological moderation or extremism.

³⁵⁸ *Id.* at 690.

³⁵⁹ *See id.* at 692 (criticizing the majority for “distort[ing] the statute . . . in order to rectify a perceived wrong that, while heartbreaking at the time, was a correct application of federal law”).

³⁶⁰ *See supra* notes 88–95 and accompanying text.

³⁶¹ Notably, cases involving preemption, jurisdiction, and judicial deference to administrative agencies present a complicated picture, with some dividing along the first dimension and others along the second. A full treatment of these cases is beyond the scope of this Article.

By themselves, voting alignments do not convey any meaning about the Court's holdings. In a practical sense, however, these alignments help to clarify the Justices' motivations. In areas that often generate authority divides, the findings in this Article may prove useful in understanding the evolution of precedent and in predicting future decisions.

The findings here do not undermine the importance of the political divide within the Court. However, these findings provide an important qualification. The fact that Justices are concerned with matters of legal principle distinct from ordinary political concerns matters for many debates about the scope of the Court's authority.³⁶² Critiques of judicial review, for example, are often premised on the belief that the Justices behave like unaccountable policy makers.³⁶³ Similarly, arguments in favor of judicial deference to administrative agencies often rely on the perception that judicial review of agencies is largely political.³⁶⁴ If Justices were nothing more than policymakers,³⁶⁵ it would be hard to justify empowering them to decide divisive issues of social policy.

Although this Article focused on cases that most directly divided along the authority dimension, many cases may divide along both dimensions, especially when they implicate both substantive policy and boundaries of authority. Decision making on the Supreme Court becomes much more complicated, however, when the Justices have multidimensional preferences over the issues presented in a case.

In cases implicating both dimensions, for example, there is a potential for Condorcet cycling;³⁶⁶ whenever there are more than two possible outcomes, there may be no holding that would be chosen by a majority vote over all the others.³⁶⁷ For example, if the Court has a choice between a liberal rule, a

³⁶² See Fischman, *supra* note 33, at S288–89 (discussing how criticisms of the Court and efforts to curtail its power are often rooted in claims that the justices are exercising political power).

³⁶³ See DANIEL A. FARBER & SUZANNA SHERRY, *JUDGMENT CALLS: PRINCIPLE AND POLITICS IN CONSTITUTIONAL LAW* 124 (2009) (arguing that the premise that “the Court’s constitutional decisions—like legislative enactments—are *political* acts and should therefore reflect the political wishes of the current majority” is “implicit in both the counter-majoritarian critique of judicial review and . . . calls for popular constitutionalism”).

³⁶⁴ See Thomas J. Miles & Cass R. Sunstein, *Do Judges Make Regulatory Policy? An Empirical Investigation of Chevron*, 73 U. CHI. L. REV. 823, 824 (2006).

³⁶⁵ See Fischman, *supra* note 33.

³⁶⁶ For general background on dimensionality and cycling, see DENNIS C. MUELLER, *PUBLIC CHOICE III* 84–92 (2003).

³⁶⁷ See Frank H. Easterbrook, *Ways of Criticizing the Court*, 95 HARV. L. REV. 802, 815–17 (1982).

conservative rule, and a balancing test, there may be majorities that prefer the liberal rule to the conservative rule, the conservative rule to the balancing test, and the balancing test to the liberal rule. How the Court reaches a decision among these choices will then depend on the order in which these choices are considered. If the order is determined by arbitrary factors, then the Court's ultimate choice will incorporate this arbitrariness as well.

Cycling will not occur, however, when two conditions are met. First, the Justices must have one-dimensional preferences. For example, potential decisions in a case may be represented by points on a spectrum, and each Justice has an ideal policy within that spectrum. Second, their preferences must be "single-peaked," meaning that they always prefer a choice closer to their ideal than a choice that is further away. If these two conditions are satisfied, then there will be no cycling. A famous result in social choice theory, the "Median Voter Theorem," guarantees that the outcome preferred by the median Justice will prevail against all other choices in a majority vote.³⁶⁸

Thus, the dimensionality of the voting structure has important implications for the process of collective decision making on the Court. In cases where the Justices' voting structure is one-dimensional, the median Justice will be pivotal as long as preferences are single-peaked. In such cases, advocates before the Court should target the median Justice, drafting briefs and preparing for oral argument with a singular focus on the median's concerns.³⁶⁹ If Justices consistently hold unidimensional preferences in a particular area of law, doctrine will also likely evolve in directions that are predictable and coherent.

The two-dimensional voting structure in the Court suggests that issues of cycling may arise more frequently than some scholars have acknowledged.³⁷⁰ In particular cases, scholars may overlook multidimensionality by focusing only on the public policy implications of a case while ignoring questions about authority. In the above example, the balancing test may appear to many observers to be the intermediate outcome

³⁶⁸ See generally Duncan Black, *On the Rationale of Group Decision-making*, 56 J. POL. ECON. 23 (1948).

³⁶⁹ See Bruce J. Ennis, *Effective Amicus Briefs*, 33 CATH. U. L. REV. 603, 608 (1984) (arguing that a good amicus brief should be targeted toward the swing justice).

³⁷⁰ See, e.g., Martin, Quinn & Epstein, *supra* note 25, at 1284 n.35 (contending that "the great majority of disputes before the Supreme Court" do not "violate the condition of a single-dimension issue space").

between the liberal rule and the conservative rule, so that the conditions of the Median Voter Theorem are satisfied. The results in this Article suggest, however, that balancing is not always an intermediate outcome. As the cases discussed here demonstrate, Justices may care far more about who performs the balancing than about the immediate policy consequences.

When Justices are deliberating in a two-dimensional issue space, the potential for cycling arises. The task for advocates becomes much more complex than targeting the median Justice; indeed, there may be not even be a median Justice in a two-dimensional issue space.³⁷¹ There could be one swing Justice in the political dimension and a different swing Justice in the authority dimension. If a case involves both substantive policy and questions about institutional authority, an advocate may succeed by convincing Justices to view one or the other as the primary issue. Finally, if the Court's decisions will depend on the order in which issues are decided, then an advocate must pay close attention to agenda-setting and ensuring that the questions are addressed in an order that is favorable to that advocate's side. Precedent may evolve in arbitrary and unpredictable ways, depending on how advocates and the Justices themselves set the Court's agenda.

The "doctrinal paradox" may arise where the disposition supported by a majority of votes within the Court may clash with reasoning that is endorsed by a majority of the Justices.³⁷² In one prominent illustration of this paradox, *Apodaca v. Oregon*,³⁷³ the Justices voted 5–4 that federal criminal trials required unanimous jury verdicts, but one Justice in the majority switched sides with regard to state criminal trials.³⁷⁴ Thus, the Court applied different standards for federal and state trials, even though eight Justices believed that the same standard should apply for both.³⁷⁵ This peculiar outcome occurred because of the order in which the issues were presented. The doctrinal paradox is largely avoided when cases

³⁷¹ See Paul H. Edelman & Jim Chen, "Duel" Diligence: Second Thoughts About the Supremes as the Sultans of Swing, 70 S. CAL. L. REV. 219, 230–32 (1996) (arguing that the Median Voter Theorem will not apply in many Supreme Court cases due to multidimensionality).

³⁷² See Lewis A. Kornhauser, *Modeling Collegial Courts. II. Legal Doctrine*, 8 J.L. ECON. & ORG. 441, 453 (1992); Lewis A. Kornhauser & Lawrence G. Sager, *The One and the Many: Adjudication in Collegial Courts*, 81 CALIF. L. REV. 1, 10–12 (1993).

³⁷³ 406 U.S. 404 (1972).

³⁷⁴ See *id.*

³⁷⁵ See Kornhauser & Sager, *supra* note 372, at 27–28.

fall within a one-dimensional issue space,³⁷⁶ but may arise, as in *Apodaca*, when the Justices are voting in a multidimensional space.

Plurality opinions may also be more likely to occur when the Justices are operating in a two-dimensional space, and the resulting opinions may be more difficult to interpret. When courts seek to infer the holding of a plurality judgment, they apply the “narrowest grounds” rule, which provides that “the holding of the Court may be viewed as that position taken by those Members who concurred in the judgments on the narrowest grounds.”³⁷⁷ In a multidimensional issue space, however, there may not be a narrowest opinion.³⁷⁸ Thus, the “narrowest grounds” rule may fail to generate a holding when Justices were voting in a multidimensional space.

In positive political theory, many models of coalition building and strategic voting are based on a one-dimensional issue space.³⁷⁹ Models that explore the interactions between the branches of government typically assume that all three branches occupy the *same* unidimensional spectrum.³⁸⁰ One-dimensional models are simpler, but two-dimensional models may provide a more accurate representation of the various branches. Empirical research in judicial politics similarly relies on one-dimensional ideology scores,³⁸¹ which may generate misleading results in a two-dimensional Court. At a minimum, the use of such scores should be restricted to types of cases where the issue space is plausibly one-dimensional.

CONCLUSION

Using relatively simple scaling methods, this Article has identified a two-dimensional voting structure in the U.S. Supreme Court over the last two decades. The two-dimensional structure is statistically significant and stable over time. The first dimension represents the familiar “political” divide be-

³⁷⁶ See Christian List, *A Possibility Theorem on Aggregation over Multiple Interconnected Propositions*, 45 MATHEMATICAL SOC. SCI. 1, 3 (2003) (demonstrating that the doctrinal paradox does not occur when the judgments satisfy “unidimensional alignment”).

³⁷⁷ *Marks v. United States*, 430 U.S. 188, 193 (1977).

³⁷⁸ See MAXWELL L. STEARNS, CONSTITUTIONAL PROCESS: A SOCIAL CHOICE ANALYSIS OF SUPREME COURT DECISION MAKING 106–09 (2000) (describing how the narrowest grounds rule fails when Justices’ preferences are multidimensional and asymmetric).

³⁷⁹ See Fischman, *supra* note 33, at S287–88.

³⁸⁰ See *id.*

³⁸¹ See Martin & Quinn, *supra* note 25 (estimating ideal points for the Justices in a one-dimensional policy space).

tween liberal and conservative Justices. The second dimension explains a series of recurring alignments in cases involving the jury trial right, the Confrontation Clause, the Fourth Amendment, punitive damages, and the interpretation of criminal statutes. This dimension corresponds to an “authority” divide representing conflicting approaches to determining the boundaries of authority. Authority formalists have sought clear, textually based boundaries on delegated authority, while authority functionalists have argued for flexible boundaries that better serve social purposes.

This Article used a relatively simple scaling method in order to be simple and transparent; more sophisticated scaling methods may prove more useful in particular contexts. Further exploration of the second-dimension cases may generate a more nuanced theory regarding when it arises and the motivations underlying the split. The dimensions may evolve as the composition of the Court changes. Further research will also be necessary to determine if these same dimensions explain judicial disagreements in lower courts. Nevertheless, debates about the boundaries of authority will surely continue to occupy a central place in the decisions of the Supreme Court.

APPENDIX

1. Statistical Significance of the Second Dimension

Although MDS is most often used as a technique for summarizing data, some scholars have combined MDS with resampling methods for statistical inference.³⁸² I use bootstrapping, a common resampling technique, to compute standard errors for the scaling coordinates. The significance of the dimensions can then be tested using a joint test of the hypothesis that all coordinates in that dimension are equal to zero. If a recovered dimension is merely noise, the coordinates in that dimension would not be significantly different from zero.

Table A1 displays the results of these tests, which take the form of chi-squared tests with eight degrees of freedom. For all dimensions, the critical value for significance at the 1% level is 20.09. In all three natural courts, the test statistic exceeds 500 for the first dimension and 100 for the second dimension, showing that both are overwhelmingly significant. By contrast, all subsequent dimensions are far below conventional significance levels for all three natural courts. Although no statistical test for dimensionality is definitive, these results support the conclusion that the Court has been two-dimensional over the last two decades.

TABLE A1: STATISTICAL SIGNIFICANCE OF RECOVERED SCALING DIMENSIONS ACROSS PERIODS

χ^2 Test Statistic for Statistical Significance of Each Dimension

Dimension	1994–2004	2005–2008	2010–2015
1	986.0	391.5	312.9
2	175.3	75.9	61.5
3	2.0	1.8	2.0
4	3.1	2.9	3.2
5	1.8	2.5	5.4
6	2.6	3.3	2.9

Threshold for significance at 1% level = 20.09

2. Robustness Across Natural Courts

Table A2 displays the correlations in the Justices' two-dimensional coordinates across natural courts, measured for those Justices who were active in both time periods. The first-dimension coordinates correlate almost perfectly across all

³⁸² See William G. Jacoby & David A. Armstrong II, *Bootstrap Confidence Regions for Multidimensional Scaling Solutions*, 58 AM. J. POL. SCI. 264, 270–71 (2014).

three periods and these correlations are all significant at the 1% level. The coordinates in the second dimension do not correlate quite as strongly across all three periods, but these correlations are still significant at the 10% level or lower. The correlations for dimensions beyond the second are not displayed in Table A2, but these correlations are all weak and statistically insignificant. The significant correlation of the orderings across the three periods bolsters the conclusion that the second dimension captures stable characteristics of the Justices.³⁸³

TABLE A2: CORRELATIONS IN SCALING COORDINATES ACROSS PERIODS

First Dimension		
Terms	2005–2008	2010–2015
1994–2004	1.00***	0.99***
2005–2008		0.99***

Second Dimension		
	2005–2008	2010–2015
1994–2004	0.82**	0.83*
2005–2008		0.92***

* $p < .10$, ** $p < .05$, *** $p < .01$

3. *Quantifying the Explanatory Power of the Second Dimension*

The above analysis demonstrated that the second dimension is statistically significant. However, statistical significance does not necessarily imply substantive importance. Table A3 reports the proportion of variance explained by each dimension for the three natural courts. Overall, the first dimension explains much more of the variance than the second: 79% versus 9%. It is on this basis that some studies have argued that the Court is one-dimensional.³⁸⁴ However, many experts on MDS

³⁸³ See Heckman & Snyder, *supra* note 40, at S171 (“An informal method for measuring dimensionality is to examine the stability of estimated preferences . . . over time. Assuming that congressmen’s preferences are stable, factors that measure preference parameters should be highly correlated across congresses, while factors that simply pick up ‘noise’ should be transitory.”).

³⁸⁴ See Grofman & Brazill, *supra* note 25, at 58 (“Clearly a one-dimensional solution is a very good one, but we can, nonetheless, almost perfectly explain the data with two dimensions. The issue is very simple: which should we use? For this paper we have chosen to go with the one-dimensional solution, for ease of interpretation and because it explains so much of the variance in the data.”).

counsel against relying solely on goodness-of-fit measures in determining how many dimensions to estimate.³⁸⁵

TABLE A3: PROPORTION OF VARIANCE EXPLAINED BY FIRST TWO DIMENSIONS

	1994–2004	2005–08	2010–15
All:			
1st Dim.	.79	.82	.78
2nd Dim.	.09	.08	.10
Between Liberal and Conservative Blocs:			
1st Dim.	.92	.92	.90
2nd Dim.	.04	.04	.06
Within Liberal and Conservative Blocs:			
1st Dim.	.16	.11	.11
2nd Dim.	.37	.45	.50

Note: Liberal bloc includes Justices Breyer, Ginsburg, Kagan, Sotomayor, Souter, and Stevens. Conservative bloc includes Chief Justices Rehnquist and Roberts and Justices Alito, Roberts, Scalia, and Thomas. Moderate Justices Kennedy and O'Connor are excluded from these statistics.

The first dimension explains nearly all of the disagreement between the liberal and conservative Justices and between the moderate and extreme conservatives.³⁸⁶ However, the second dimension explains substantially more of the variation *within* each bloc. Excluding the moderate Justices, the second dimension explains 41% of the variation within the liberal and conservative blocs, while the first dimension only explains 13%.

³⁸⁵ See BORG & GROENEN, *supra* note 49, at 48; Patrick Mair et al., *Goodness-of-Fit Assessment in Multidimensional Scaling and Unfolding*, 51 MULTIVARIATE BEHAV. RES. 772, 786–87 (2016). In the chapter on goodness-of-fit, Borg and Groenen do not discuss the R-squared statistics used by Grofman and Brazill. However, they discuss a related measure, “Stress-1,” and advise against relying on benchmarks for goodness-of-fit. See BORG & GROENEN, *supra* note 49, at 247.

³⁸⁶ For the purpose of this analysis, Justices O'Connor and Kennedy are considered moderates while Chief Justices Rehnquist and Roberts and Justices Scalia, Thomas, and Alito are considered conservative.

TABLE A4: VOTING ALIGNMENTS IN CASES WITH SECOND-DIMENSION SCORES EXCEEDING 0.61, 1994–2015

Term	Case Name	Scalia	Thomas	Stevens	Souter	Ginsburg	Kennedy	Rehnquist	Breyer	O'Connor	Issue	2nd Dim. Score
1994	Okla. Tax Comm. v. Jefferson Lines										Dormant Commerce	0.8
1995	Hercules Inc. v. United States			X							Gov't Immunity	0.8
1995	Melendez v. United States										Jury Trial	0.8
1996	Boggs v. Boggs										Preemption	0.71
1996	City of Boerne v. Flores			X							Federalism, Free Exercise	0.8
1997	Almendarez-Torres v. United States										Jury Trial	0.71
1997	New Jersey v. New York										Boundary Dispute	0.72
1997	Caron v. United States										Crim. Stat. Interp.	0.63
1997	Monge v. California										Jury Trial	0.71
1998	Buckley v. Am. Const. L. Found.										First Amendment	0.88
1998	Jones v. United States										Jury Trial	0.93
1998	Jefferson County, Ala. v. Acker										Tax	0.8
1999	Geier v. Amer. Honda Motor Co.										Preemption	0.69
1999	Apprendi v. New Jersey										Jury Trial	0.93
2001	United States v. Craft										Tax	0.72
2001	Harris v. United States										Jury Trial	0.69
2001	Ring v. Arizona										Jury Trial	0.61
2002	Norfolk & Western Rwy. v. Ayers										Damages	0.93
2002	State Farm v. Campbell										Punitive Damages	0.62

TABLE A4: VOTING ALIGNMENTS IN CASES WITH SECOND-DIMENSION SCORES EXCEEDING 0.61, 1994–2015

Term	Case Name	Scalia	Thomas	Stevens	Souter	Ginsburg	Kennedy	Rehnquist	Breyer	O'Connor	Issue	2nd Dim. Score
2002	Pharm. Res. & Manuf. v. Walsh										Dormant Commerce	0.65
2002	Nat'l Park Hosp. Ass'n v. Dept. of Int.										Standing	0.8
2002	American Ins. Ass'n v. Garamendi										Preemption	0.8
2003	Blakely v. Washington										Jury Trial	0.93
2004	United States v. Booker (merits)										Jury Trial	0.93
2004	United States v. Booker (remedy)										Jury Trial	0.81
2004	Shepard v. United States										Jury Trial	0.94
2004	Mid-Con v. Mich. Pub. Serv. Comm.										Preemption	0.65

TABLE A4: VOTING ALIGNMENTS IN CASES WITH SECOND-DIMENSION SCORES EXCEEDING 0.61, 1994–2015

Term	Case Name	Breyer	Alito	Kennedy	Roberts	Ginsburg	Souter	Stevens	Thomas	Scalia	Issue	2nd Dim. Score
2005	Empire Healthchoice v. McVeigh										Federal Jurisdiction	0.69
2006	Cunningham v. California										Jury Trial	0.86
2006	Philip Morris USA v. Williams										Punitive Damages	0.8
2006	James v. United States										Crim. Stat. Interp.	0.8
2007	United States v. Santos										Crim. Stat. Interp.	0.92
2008	Arizona v. Gant										Fourth Amendment	0.92
2008	Forest Grove Sch. Dist. v. T.A.										Stat. Interp.	0.62
2008	Melendez-Diaz v. Massachusetts										Confrontation Clause	0.92

Term	Case Name	Breyer	Alito	Kennedy	Roberts	Ginsburg	Sotomayor	Stevens	Thomas	Scalia	Issue	2nd Dim. Score
2009	Bloate v. United States										Criminal Procedure	0.82
2009	Shady Grove v. Allstate										Procedure, Preemption	0.71

TABLE A4: VOTING ALIGNMENTS IN CASES WITH SECOND-DIMENSION SCORES EXCEEDING 0.61, 1994–2015

Term	Case Name	Scalia	Thomas	Kagan	Sotomayor	Ginsburg	Roberts	Kennedy	Alito	Breyer	Issue	2nd Dim. Score
2010	Bullcoming v. New Mexico										Confrontation Clause	0.92
2011	Golan v. Holder										Copyright	0.82
2011	Salazar v. Ramah Navajo Chapter										Gov't Contracting	0.68
2011	Williams v. Illinois										Confrontation Clause	0.69
2011	Southern Union v. United States										Jury Trial	0.86
2012	Florida v. Jardines										Fourth Amendment	0.92
2012	Maryland v. King										Fourth Amendment	0.69
2012	Maracich v. Spears										Stat. Interp.	0.69
2012	Adoptive Couple v. Baby Girl										Family Law	0.69
2013	Air Wisconsin Airlines v. Hooper										Stat. Interp.	0.7
2013	Navarette v. California										Fourth Amendment	0.69
2013	Petrella v. Metro-Goldwyn-Mayer										Copyright	0.63
2014	Comptroller v. Wynne										Dormant Commerce	0.77
2015	Utah v. Strieff										Fourth Amendment	0.63

Notes: Gray cells represent votes in the authority formalist coalition. White cells represent votes in the authority functionalist coalition. Crossed-out cells represent justices who did not participate.