THE MOST DANGEROUS JUSTICE RIDES INTO THE SUNSET

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I. INTRODUCTION

Spatial models of voting behavior suggest that the prefer-
ences of the median voter, under majority rule and with a single
issue dimension, will determine policy outcomes.[1] This theoreti-
cal insight has been applied to numerous policymaking institu-
tions, and the Supreme Court of the United States is no excep-
tion.[2] Identifying and analyzing the median voter on the Court
has generated something of a cottage industry, both in scholarly
research and in the popular press.[3] Yet identification of the
"power center" on the Court may depend on the methodology
employed and on the assumptions that underlie evaluators'
methodological choices.

One key assumption often made is that the Justices' voting
patterns in most cases can be arrayed along a single ideological
dimension. Although the Justices' voting behavior in non-
unanimous cases will often fall along predictable ideological
lines, a substantial minority of cases exhibit coalitions that are

    1.   Duncan Black, *On the Rationale of Group Decision-making*, 56 J. POL. ECON.
23 (1948).
    2.   *See generally* Andrew D. Martin, Kevin M. Quinn & Lee Epstein, *The Median
Justice on the United States Supreme Court*, 83 N. C. L. REV. 1275 (2005).
    3.   *See, e.g.*, Mark Sherman "Justice Kennedy the Key in Close Cases," *USA Today*
(April 7, 2007) (describing the pivotal role now played by Kennedy rather than
O'Connor in close cases); Jeffrey Toobin, "Swing Shift: How Anthony Kennedy's Pas-
sion for Foreign Law Could Change the Supreme Court," *The New Yorker Magazine*
(Sept. 12, 2005) (same); Warren Richey, "Supreme Court's New Man in the Middle,"
Christian Science Monitor (July 3, 2006) (same).

not so predictable. Consider, for example, the 2007 decision in
Philip Morris v. Williams[4] — in which the Court invalidated a pu-
nitive damage award to the widow of a deceased smoker because
the jury had improperly calculated that award based on harm to
smokers other than the widow's husband. Voting in the majority
were Justices Roberts, Alito, Breyer, Kennedy, and Souter. In
dissent were Justices Ginsberg, Stevens, Thomas, and Scalia.
These odd coalitions clearly fail to conform to expectations con-
cerning the Justices' shared policy preferences. In short, such an
outcome is inconsistent with the notion that the Justices' votes
are best described in all cases as the product of a single ideologi-
cal dimension.

The presence of unpredictable voting coalitions suggests
that Supreme Court Justices' decisions may in some cases be
structured along divergent or cross-cutting issue dimensions.
These alternative issue dimensions can complicate the identifica-
tion of the Court's pivotal justice. To account for and accommo-
date these alternative dimensions, our earlier research[5] con-
structed a method for identifying the most powerful Justice
without relying on the assumption of unidimensional policy
preferences. Instead, earlier efforts focused on the unique policy
coalitions formed by the Justices in non-unanimous cases. We
ranked the Justices in terms of their individual ability to alter or
shape Court outcomes. Rather than focusing solely on the identi-
fication of the Court's median Justice, we calculated a power in-
dex that allowed us to rank all of the Justices in terms of voting
power. In this paper, we identify the most powerful Justice for
each term of the Rehnquist Natural Court (1994 to 2004), com-
pleting our analysis of the longest natural 9-member Court in
history.

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4. 127 S. Ct. 1057 (2007)
5. Paul H. Edelman & Jim Chen, *The Most Dangerous Justice: The Supreme Court
at the Bar of Mathematics,* 70 S. CAL. L. REV. 63 (1996) [hereinafter *"Dangerous Jus-
tice"*]; Paul H. Edelman & Jim Chen, *"Duel" Diligence: Second Thoughts about the
Supremes as the Sultans of Swing,* 70 S. CAL. L. REV. 219 (1996) [hereinafter *"Duel Dili-
gence"*]; Paul H. Edelman & Jim Chen, *The Most Dangerous Justice Rides Again: Revisit-
ing the Power Pageant of the Justices,* 86 MINN. L. REV. 131 (2001) [hereinafter *"Rides
Again"*].

II. METHODOLOGY

A. THE MADNESS OF OUR METHOD

Our previous articles have explained our methods at length. For the sake of brevity we will give just the barest outline of our techniques and refer readers to our earlier work for further discussion and justification.

We begin by assembling the collection of unique *coalitions* that formed during the relevant Terms of the Court. By a coalition we mean a subset of the Justices who agreed on a legal proposition and whose complementary set of Justices did not agree. These legal propositions could be a complete opinion, or an agreement in part of an opinion. In particular, if a Justice concurs in a judgment but does not join the opinion, then he or she is not part of the coalition associated with that opinion.

It is particularly important to note that we do not keep track of the number of times a particular coalition forms. While this decision is certainly subject to criticism, we believe that it is justifiable. Since the Justices have substantial control over their docket, a single coalition can agree to hear multiple cases. For the purposes of assessing the Justices' ability to form multiple coalitions, counting the coalitions by the number of times they appear overstates the power of the individual Justices involved.

From this collection of data we compute three different indexes: the Sophisticated Index, the Naïve Index, and the Modified Median Index. The Sophisticated Index is a variant of the Banzhaf index, and is computed only over cumulative data. The Naïve Index accounts solely for the 5–4 decisions of the Court, and we compute it both Term-by-Term and cumulatively. The Modified Median Index is our variant of an index proposed by Lynn Baker,[6] which we also compute Term-by-Term and cumulatively.[7]

The Naïve Index is computed simply by counting the number of times that a Justice appears in a 5-Justice coalition and then normalizing so that the numbers add to 100 percent. It succinctly captures the notion that power is related to the number of times that a Justice's vote is decisive with respect to the out-

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6.   Lynn Baker, *Interdisciplinary Due Diligence: The Case for Common Sense in the Search for the Swing Justice*, 70 S. CAL. L. REV. 187 (1996).

7.   We have actually worked with a number of other indices, but these three seem to be the ones that best capture the idea of voting power. See Edelman & Chen, *Rides Again*, *supra* note 5.

come. It is easy to compute and meaningful both on a Term-by-Term basis as well as cumulatively.

If all the Justices are equally powerful, each Justice will be assigned a power of 11.1%. To facilitate our analysis we compute the Judicial Quotient for each judge by rescaling the numbers by a factor of 9, so a 11.1% index results in a quotient of 100. We follow this convention for all of our indices.

The Sophisticated Index expresses the intuition that not every Justice in a 5-Justice coalition has a credible threat of defecting. Those Justices without such a threat should not be deemed powerful in the coalition. To identify those Justices that do have a credible threat, we examine whether the other four Justices have ever themselves formed a coalition. If they have, then there is evidence that the Justice in question has indeed defected and so we assign him power in that coalition. On the other hand, if the other four Justices have never formed a coalition then we assume that the Justice in question does not have a credible threat to defect. We therefore assign that Justice no power in that coalition. For each Justice, we total the number of 5-Justice coalitions in which he or she has power, and then normalize those scores so they add to 100. The result is the Sophisticated Index for each Justice. Because of the very stringent requirement of assigning power only for a credible threat of defection, the Sophisticated Index works poorly on Term-by-Term data. The number of cases heard by the Court does not allow enough coalition formation to manifest itself in a single term. We thus only compute the Sophisticated Index for cumulative data.

Finally, we compute the Modified Median Index. This index is our variant of a computation suggested by Lynn Baker.[8] It attempts to capture the intuition that the power of a Justice is measured by how close that Justice is to the median. To compute this index, we tally the number of winning combinations (i.e. coalitions of size 5 or greater) that contain a particular Justice, and then normalize so the scores add to 100%. Though we believe that this statistic does capture certain aspects of power, we remain skeptical of the notion that the median Justice is the Court's most powerful member.

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8.   Baker, *supra* note 6.

B. THE MEDIAN IS NOT THE MESSAGE REDUX[9]

In response to the first of our articles, Lynn Baker proposed that a better approach to assessing voting power was to seek to identify the median Justice.[10] The intuition was that the closer a Justice was to the median, the more power that Justice would have. In a purely one-dimensional spatial voting model, of course, the median Justice has all of the power. We further challenged Professor Baker's assertion by questioning whether the Median Voter Theorem really applies to the Court.[11] In particular we argued that the cases before the Court were not predominately one dimensional[12] and that the quest for a median Justice would therefore be fruitless.

Since that exchange there have been a number of methodological advances in the search for a median Justice.[13] One paper in particular challenged our assertion specifically: "We too can identify particular cases that violate the condition of a single-dimension issue space but, as it turns out, the great majority of disputes before the Supreme Court do not. E.g., of the 8,889 case in which the Court heard oral arguments and decided between the 1953 and 2002 terms, only 3.79 percent (n=337) contained more than one issue . . . See Harold J. Spaeth, United States Supreme Court Database, . . ."[14] We remain unpersuaded.

This appeal to Harold Spaeth's database leaves unanswered the question of whether the one-dimensional spatial voting model realistically and usefully tracks the behavior of the Supreme Court. While the unidimensional model may indeed be adequate for many situations, we doubt whether it is adequate for capturing the very fine-grained nature of locating the median Justice. To illustrate this concern, we will show that even a very sophisticated method of finding the median Justice leads to

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9. Cf. Edelman & Chen, *Duel Diligence, supra* note 5 Section III A (The Median is Not the Message), at 230.
10. Baker, *supra* note 6.
11. Edelman & Chen, *Duel Diligence, supra* note 5, at 231.
12. "It verges on the unsporting to name a multidimensional Supreme Court controversy." *Id.*
13. *See, e.g.,* Bernard Grofman & Timothy Brazill, *Identifying the Median Justice on the Supreme Court through Multidimensional Scaling: Analysis of "Natural Court" 1953-1991,* 112 PUB. CHOICE 55 (2002) and Martin et al., *supra* note 2. This latter paper is based on the very sophisticated methodology developed in 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. ANAL. 134 (2002).
14. Martin et al. *supra* note 2, at n.35 (parenthetical omitted.)

problematic results that cast doubt on the consistency of the results with the observed coalitional structure of the Court.

There are two reasons why we reject the above-cited numerical rejoinder and appeal to the Spaeth database. The first is that the 3.79% figure expresses very little about the number of cases with a multi-dimensional issue space. The second is that the coding used to construct the Spaeth database is not a reliable indicator of the dimension of the issue space in the case. We will deal with each objection in turn.

Where did the 3.79% figure come from? The authors inform us that it is percentage of the Supreme Court cases decided between 1953 and 2002 in which there was a "split vote."[15] A split vote case is one in which "one or more of the justices voted with the majority on one issue or aspect of the case and dissented on another."[16] Unfortunately the authors never explain the connection between cases with a split vote and the dimension of the issue space in question. We think there is a good reason for that omission: there is no connection.

There may be a number of reasons why there are split votes. There could be a threshold issue that the Court has to decide, such as standing, before the Court can reach the merits.[17] Or there may be multiple issues in dispute that are independent.[18] In

15. This follows from the specification in the footnote that computation was done by specifying in the database "analu=4; dec_type1, 6, or 7." The "dec_type" specification specifies cases for which there is a formally decided signed opinion, per curiam cases, or a judgment of the Court. The "analu=4" specification indicates cases in which there is a split vote. For complete specifications see Documentation, The Original United States Supreme Court Judicial Database, 1953-2005 (Harold J. Spaeth, principal investigator), http://www.as.uky.edu/polisci/ulmerproject/allcourt_codebook.pdf, [hereinafter "Codebook"] We are somewhat confused about exactly what Martin et al., computed, since in trying to duplicate their work we found this number to be .63%. If, on the other hand, they meant to report the number of multiple issue cases (analu=2) then we get a number very close to theirs, 3.77%. Since our split-vote numbers are even more exaggerated than theirs, we will operate on the assumption that it was indeed the split vote cases that they meant to report. We will deal with the question of whether we really should be concerned with the multiple-issue cases later in this section.

16. Codebook, *supra* note 15, at 3.

17. *See, e.g.,* United States v. Vuitch, 402 U.S. 62 (1971), in which Justices Harlan and Blackmun dissented from the majority in their assertion of jurisdiction, but then went on to vote to reverse the lower court and uphold the statute on the merits. *See* Suzanna Sherry, *Justice O'Connor's Dilemma: The Baseline Question,* 39 WM. & MARY L. REV. 865, 884 (1998).

18. *See, e.g.,* Williams v. Taylor, 529 U.S. 392 (2000). Justice Stevens delivered the first part of the majority opinion (joined by Souter, Ginsberg, Breyer, O'Connor and Kennedy) finding that the defendant's right to effective assistance of counsel was violated. Justice O'Connor delivered the second part of the majority opinion (joined at least in part by Kennedy, Rehnquist, Scalia and Thomas), finding that new federal statute limited the defendant's habeas rights.

either of these cases, however, the issue dimension could be one or higher. There is little reason to believe one or the other.

On the other hand, it is easy to have a multidimensional issue space and no split vote at all. Indeed, split votes are about the *number of issues*, not about the *dimension of the issue space.* There is no reason to connect one to the other. We thus conclude that the 3.79% figure is meaningless.

The authors might have investigated the percentage of cases that are coded as having multiple legal provisions. In the language of the Spaeth database, "analu=3". The percentage of such cases is 16.9%, a considerable increase. This collection of cases does not perfectly capture the dimensionality of the issue space, since many of the legal provisions may be related to the same issue. On the other hand, it is possible that the same legal provision (for example, equal protection) may be relevant to multiple dimensions. Our intuition is that these cases are both under- and overinclusive of cases with multidimensional issue space.

Well, if these are imperfect measures, is there a better one that can be located in the Spaeth database? There is a coding for "issue," which "identifies the context in which the legal basis for decision . . . appears." [19] The code book states: "Although the criteria for the identification of issues are hard to articulate, the focus here is on the subject matter of the controversy rather than its legal basis. . . . The objective is to categorize the case from a public policy standpoint, a perspective that the legal basis for decision commonly disregards." [20] But to "characterize the case" is to almost surely identify a single issue at stake in the case. Not surprisingly, that is what happens; there are very few cases for which the database identifies multiple issues. [21] Does that settle the question? We think not.

First, just because a single issue is identified hardly means that the issue *space* is unidimensional. For example, there is a code for the issue "abortion: including contraceptives." [22] Is this issue truly one-dimensional? Often it arises in the context of

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19.   Codebook, *supra* note 15, at 42.
20.   *Id.*
21.   For cases decided from the OT 1953 through OT 2002 there were roughly 3.77% classified as multiple issue cases. The search was made using "analu=2; dec_type1,6, or 7."
22.   This is coded as 533 and is considered as a subset of due process. Codebook *supra* note 15, at 48.

O'Connor's undue burden test,[23] which is inherently a balancing test. Would not a better description of the issue space, then, be at least two-dimensional, with one dimension indicating the strength of the right to an abortion, and the other indicating the burdensome magnitude of the restriction? It is not hard to believe that some restrictions would be so *de minimis* that even a prochoice Justice would have no objection[24] or that a generally pro-life Justice might strike down an anti-abortion bill if it were to become too burdensome.[25] Giving an issue a single code does not make it a single dimension.

A further problem with relying on the Spaeth coding as dispositive on the dimension of the issue space is Spaeth's reliance on the opinion of the Court. His coding of the primary issue is based on what the Court *says* is the most important issue. A particular telling illustration of this fact comes from the Supreme Court Forecasting Project. This project developed a computer algorithm to predict the votes of the Justices during October Term 2002. The input for the program was a coding of each case based upon the petitioners' merits brief.[26] Spaeth himself originally coded about half of the cases and the other half (about 34) were tentatively coded by the authors of organizers of the project. Subsequently Spaeth recoded about half of those tentatively coded cases, and the coding changed in 16 of the recoded cases, just slightly less than half.[27]

The Spaeth database claims a very high level of inter-coder agreement.[28] What could account for such a massive disagreement? The Spaeth database is coded on the basis of the Court opinions after the decision, while the Forecasting Project required a coding before the decisions were rendered. It is always easier to code a case when the winners have announced what the issues were. Relying on the merits briefs, in which every possible issue will be joined, broadens the view of the case and makes coding much more erratic.

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23.   *See* Planned Parenthood v. Casey, 505 U.S. 833, 877 (1992).
24.   For example, a law requiring that a patient state their legal name before receiving an abortion could hardly be considered a burden.
25.   For example one that does not allow for an exception for the life of the mother.
26.   Theodore W. Ruger, *et al., The Supreme Court Forecasting Project: Legal and Political Science Approaches to Predicting Supreme Court Decisionmaking,* 104 COLUM. L. REV. 1150 n.45 (2004).
27.   Suzanna Sherry, *What's Law Got to Do with It?,* 2 PERSP. ON POL. 769, 773 (2004).
28.   Codebook *supra* note 15, at 75ff (offering specific information about any errors identified during reliability check, of which there were few).

For this reason, one should not credit the claim that the Spaeth database finds multiple issues in only a small percentage of Supreme Court cases. The Spaeth database codes the outcome on the basis of the opinion, and that opinion has little reason to credit any alternative interpretation of the case. As a specific example, consider the *Rosenberger* case,[29] which we cited when we first addressed the question of multi-dimensionality.[30] The Spaeth database codes this case as having a single issue: establishment of religion. The coding does acknowledge that there are two legal provisions implicated, the free speech clause and the establishment clause, but somehow decides that the sole policy issue was about establishment. Thus the coding is inherently biased toward the assumption that the issue space of every case is one dimensional. Moreover, the choice to code *Rosenberger* as an establishment controversy almost certainly led to the coding of this decision as conservative. Had the choice been made to characterize the case as a free speech case, then the result would probably have been coded as liberal. It is also a little odd that the database chose to characterize the issue as the establishment clause when the majority viewed it as viewpoint discrimination.

There is yet one other database that one might use to support the claim that cases before the Court are overwhelmingly one-dimensional. There is a Justice-centered database whose unit of analysis is each individual Justice.[31] The authors of the database include a set of deviation variables which "specif[y] the deviations of the individual justices from their colleagues with respect to the legal provision at bar in the case, the issue on which the case turns, and the basis on which the justice rests his or her vote."[32] One might think that the number of deviations in the "issue" variable in a case might be a measure of the multidimensionality of the issue space. The percentage of cases that have one or more deviations among the Justices is less than 1%.[33] Does this number support the assertion that there are very few cases in which the issue space is multi-dimensional? No.

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29. Rosenberger v. Rectors & Visitors of the University of Virginia, 515 U.S. 819 (1995).

30. Edelman & Chen, *Duel Diligence*, supra note 5, at 231

31. Available at http://www.as.uky.edu/polisci/ulmerproject/sctdata.htm.

32. Documentation, The Supreme Court Justice-Centered Judicial Databases: The Warren, Burger, and Rehnquist Courts (1953-2000 Terms) (Sara C. Benesh & Harold J. Spaeth, principal investigators), 4 (2003) [hereinafter "Documentation"]

33. This was established by tabulating the number of issue deviations among the cases sorted by "analu=0, and dec_type=1, 6 or 7."

The reason that the number of issue deviations is not meaningful is that the standard for finding a deviation is very high. "These are coded as one if the justice addresses a different law, issue, or authority than the majority or addresses one less law, issue, or authority than the majority or adds one more law, issue, or authority for decision for consideration."[34] That is, as long as the minority speaks to every issue that the majority raises (even if dismissively) and that the majority has addressed all the issues mentioned by the minority (again, even if only to say that they are irrelevant) there will be no indication of a deviation in the database. So, once again, the database will provide very little insight as to the dimensionality of the issue space.

To summarize, the available databases of Supreme Court decisions are inadequate to justify the claim that the cases before the Court are predominantly one-dimensional. None of the coded variables address the issue squarely, and the nature of the coding process itself has an inherent bias toward thinking of cases as one-dimensional. Perhaps stronger arguments can be marshaled in support of the proposition, but until then we stand by our earlier assertions.

But what if we assume that the seekers of the median Justice really are on firm ground? As a modeling decision, the assumption of a one-dimensional issue space may well be adequate to explain a significant percentage of the Justices votes. But we are not concerned with overall accuracy in predicting voting. We are concerned with the more fine-grained issue of who is the median Justice. Is the model adequate for this inquiry? Are they consistent with the coalitions that actually form? If Black's theorem applies, then the median Justice will be in every winning coalition. How close does the data conform to this prediction?

According to Martin and his colleagues, Justice O'Connor was almost certainly the median justice for the OT terms 2000 through 2002.[35] According to the *Harvard Law Review*'s annual survey of the Court, Justice O'Connor was either in the majority or concurring in the judgment, in nonunanimous cases, 83.6, 80.4 and 87.2% of the time in those three terms.[36] This leaves, on average, about 16% of the cases unaccounted for.[37]

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34.   Documentation. *supra* note 32. at 4.

35.   Martin. et al., estimate the probability of O'Connor being the median justice as 0.992, 1.000 (!!!), and 0.998 for each of those years, respectively. Martin. et al., *supra* note 2. at Table 4.

36.   These statistics are taken from the The Statistics section of the annual Supreme Court review issues of the *Harvard Law Review*: 115 Harv. L. Rev. 539, 543 (2001)

In fact, in two of these years, OT 2000 and 2001, Justice Kennedy appears in the majority more often than O'Connor. In 2000 and 2001, Kennedy joins the majority or concurs with the judgment 87.5% (compared to O'Connor's 83.6%) and 81.5% (compared to O'Connor's 80.4%), respectively. In 2002 his numbers drop to 81.4% (compared to O'Connor's 87.2%). Nevertheless, if O'Connor is truly the median Justice, how could it be that there is a Justice who is in the majority more often?

The numbers become even more troubling when we limit our inquiry to 5-4 decisions, the acid test of the median Justice. Again, a true median Justice will be in the majority in all 5-4 decisions. In OT 2002, O'Connor comes quite close to this ideal, appearing in the majority in 92.9% of the 5–4 decisions.[38] In the previous two years, however, she votes with the majority in only 77.8% and 81.0% of the 5–4 decisions.[39] That leaves close to 20% of the 5–4 decisions unaccounted for in terms of identifying the median Justice.

It seems that O'Connor does not appear in the majority of 5–4 decisions as often as a true median Justice would in a one-dimensional world should. But that is not the largest of the mysteries. In OT 2001 and 2002, O'Connor actually appears in a higher percentage of 5–4 decisions than in nonunanimous decisions as a whole. In 2001 she was in 81.0% of the 5–4 majorities and only 80.4% of the nonunanimous decisions joining or concurring in the judgment. In 2002 the numbers were 92.9% of 5–4's and 87.2% of the nonunanimous majorities. How could this happen? It is inconsistent with the median voter theorem and, if anything, suggests strategic rather than spatial voting behavior.

We do not mean to be dismissive of the search for the median Justice. As Martin et. al, make clear, there are many situations in which knowledge of the median Justice is useful as an input to other positive political models of the Court. However,

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["Harvard 2000"], 116 Harv. L. Rev. 453, 457 (2002) ["Harvard 2001"], and 117 Harv. L. Rev. 480, 484 (2003) ["Harvard 2002"].

37. The numbers are worse if one restricts attention to those cases in which O'Connor joined the majority. If she were the median justice then one might expect the numbers to be similar. O'Connor joined the majority in non-unanimous cases 81.8, 74.5 and 83.0%, respectively. This leaves, on average, another 4% of cases to be explained. Why the median justice is not always signing the majority the opinion might require explanation as well.

38. Harvard 2002, *supra* note 36, at 484.

39. Harvard 2000, Harvard 2001. *supra* note 36. Kennedy does as well as O'Connor in 2000 but noticeably lower in 2001 and 2002. appearing in 71.4% and 50% of the 5–4 decisions in those years.

for the purposes of understanding the coalitional nature of the Court, and the power that structure imparts to the various Justices, we think that the data indicate that the one dimensional spatial voting model does not adequately capture the data. We prefer to work directly with the coalitions that actually manifested themselves rather than with theoretical ones that didn't.

III. DATA

Having defined and justified our methods, we are ready to present the final statistics for the longest running natural Court in history. Tables 1 through 5 present the results from computations of (1) the Naïve Index, computed term-by-term as well as cumulatively over time (Tables 1 and 2), (2) the Sophisticated Index, computed cumulatively (Table 3), and (3) the Modified Median Index, computed term-by-term and cumulatively (Tables 4 and 5). Recall that the Naïve Index measures how often a Justice appears in a five-Justice coalition, normalized so that the numbers add to 100%. In Tables 1 and 2, the number at the top of each cell represents the Justice's voting power expressed as a percentage of the Court's overall power; the second line reports a judicial quotient, or JQ, which is the power index multiplied by nine. The benchmark power index is 11.1% — what the average Justice should expect — which corresponds to a JQ of 100. The Sophisticated Index reflects the power of individual Justices to defect from five-Justice coalitions. The top figure in each cell in Table 3 constitutes the normalized value for the total number of coalitions in which the Justice had power; again, the average Justice should achieve a value of 11.1. The bottom figure in each cell reflects the JQ for the Sophisticated Index. Finally, the Modified Median Index is presented Term by Term as well as cumulatively. As noted earlier, this index is computed by tallying the number of coalitions of size 5 or greater that contain a particular Justice, normalized so the scores add to 100. In Tables 4 and 5, the top value in each cell is the normalized index, the bottom value is JQ. In each table, the maximum score is set in bold face.

TABLE 1: NAIVE INDEX (TERM BY TERM)

Term	CJ	JPS	SOC	AS	AMK	DHS	CT	RBG	SGB
1994	13.8	10.8	10.8	6.2	**15.4**	12.3	4.6	15.4	10.8
	125	97	97	55	**138**	111	42	138	97
1995	7.5	10.0	**15.0**	10.0	12.5	**15.0**	7.5	12.5	10.0
	68	90	**135**	90	113	**135**	68	113	90
1996	10.0	**16.0**	8.0	6.0	**16.0**	14.0	8.0	10.0	12.0
	90	**144**	72	54	**144**	126	72	90	108
1997	10.9	**14.5**	10.9	5.5	12.7	10.9	9.1	10.9	*14.5*
	98	**131**	98	49	115	98	82	98	*131*
1998	9.1	**12.7**	10.9	10.9	**12.7**	10.9	10.9	**12.7**	9.1
	82	**115**	98	98	**115**	98	98	**115**	82
1999	10.9	9.1	12.7	7.3	10.9	**14.5**	12.7	9.1	12.7
	98	82	115	65	98	**131**	115	82	115
2000	10.0	10.0	7.5	12.5	**15.0**	12.5	10.0	12.5	10.0
	90	90	68	112	**135**	112	90	90	90
2001	**13.8**	12.3	9.2	9.2	**13.8**	9.2	9.2	9.2	**13.8**
	125	111	84	84	**125**	84	84	84	**125**
2002	11.4	**14.3**	11.4	11.4	8.6	11.4	8.6	11.4	11.4
	103	**129**	103	103	75	103	75	103	103
2003	10.0	**14.0**	**14.0**	6.0	**14.0**	10.0	8.0	12.0	12.0
	90	**126**	**126**	54	**126**	90	72	108	108
2004	8.6	8.6	**12.9**	11.4	11.4	**12.9**	11.4	10.0	**12.9**
	75	75	**117**	103	103	**117**	103	90	**117**

TABLE 2: NAÏVE INDEX (CUMULATIVE)

Term	CJ	JPS	SOC	AS	AMK	DHS	CT	RBG	SGB
1994	13.8	10.8	10.8	6.2	**15.4**	12.3	4.6	**15.4**	10.8
	125	97	97	55	**138**	111	42	**138**	97
94-95	12.9	9.4	12.9	7.1	**14.1**	12.9	5.9	**14.1**	10.6
	116	85	116	64	**127**	116	53	**127**	95
94-96	13.6	10.9	10.0	7.3	**14.5**	13.6	7.3	12.7	10.0
	123	98	90	65	**131**	123	65	115	90
94-97	12.5	11.9	10.4	6.7	**14.1**	12.6	8.1	11.9	11.9
	113	107	93	60	**127**	113	73	107	107
94-98	12.7	12.0	10.0	7.3	**14.0**	12.0	9.3	12.0	10.7
	114	108	90	66	**126**	108	84	108	96
94-99	12.6	11.4	10.3	7.4	**14.3**	12.6	9.7	10.9	10.9
	113	103	93	67	**129**	113	87	98	98
94-00	11.9	11.4	9.7	8.1	**14.1**	12.4	9.7	11.4	11.4
	107	103	88	73	**126**	112	88	103	103
94-01	11.8	10.8	9.7	8.7	**14.4**	12.3	10.3	10.8	11.3
	107	97	88	79	**130**	111	93	97	102
94-02	12.0	11.0	10.0	9.0	**14.0**	12.0	10.0	10.5	11.5
	108	99	90	81	**126**	108	90	95	104
94-03	12.4	11.0	10.5	9.0	**13.8**	11.9	9.5	10.5	11.4
	112	99	95	81	**125**	107	86	95	103
94-04	12.1	10.4	11.3	9.2	**13.8**	11.7	10.0	10.0	11.7
	109	94	102	83	**125**	106	90	90	106

TABLE 3: SOPHISTICATED INDEX (CUMULATIVE)

Term	CJ	JPS	SOC	AS	AMK	DHS	CT	RBG	SGB
1994	13.3	0.0	**20.0**	**20.0**	13.3	6.7	0.0	13.3	13.3
	120	0	**180**	**180**	120	60	0	120	120
94-95	14.3	0.0	**19.0**	14.3	14.3	9.5	0.0	19.0	9.5
	129	0	**171**	129	129	86	0	171	86
94-96	**19.4**	0.0	16.7	8.3	13.9	13.9	2.8	13.9	11.1
	175	0	150	75	125	125	25	125	100
94-97	**15.4**	7.7	11.5	9.6	**15.4**	13.5	5.8	9.6	11.5
	138	69	104	87	**138**	121	52	87	104
94-98	12.9	9.7	11.3	9.7	**14.5**	12.9	8.1	11.3	9.7
	116	87	102	87	**131**	116	73	102	87
94-99	11.4	7.6	10.1	10.1	15.2	**16.5**	10.1	8.9	10.1
	103	76	91	91	137	**148**	91	80	91
94-00	10.6	7.1	9.4	10.6	14.1	**18.8**	10.6	8.2	10.6
	95	64	85	95	127	**169**	95	74	95
94-01	9.8	6.5	8.7	9.8	15.2	**19.6**	10.9	7.6	12.0
	89	59	79	88	137	**177**	98	69	108
94-02	10.1	7.1	9.1	10.1	15.2	**18.2**	11.1	8.1	11.1
	91	64	82	91	137	**164**	100	73	100
94-03	10.4	7.5	10.4	10.4	14.2	**17.9**	10.4	8.5	10.4
	94	68	94	94	128	**161**	94	77	94
94-04	9.5	8.7	10.3	9.5	14.3	**17.5**	10.3	8.7	11
	86	79	93	86	129	**158**	93	79	99

TABLE 4: MODIFIED MEDIAN (TERM BY TERM)

Term	CJ	JPS	SOC	AS	AMK	DHS	CT	RBG	SGB
1994	12.6	9.9	10.3	9.4	**13.5**	12.1	7.6	13.5	11.2
	113	89	93	85	**121**	109	69	121	101
1995	10.5	8.9	12.6	10.0	**13.2**	**13.2**	8.9	12.1	10.5
	95	81	114	90	**118**	**118**	81	109	95
1996	10.9	9.9	10.3	9.4	**14.4**	12.4	10.4	11.9	10.4
	98	89	94	85	**129**	112	94	107	94
1997	12.4	10.9	11.9	7.4	**13.4**	12.4	9.4	9.9	12.4
	112	98	107	67	**120**	112	85	89	112
1998	10.8	10.8	11.3	**12.3**	10.8	11.3	9.9	11.3	11.3
	97	97	102	**110**	97	102	89	102	102
1999	11.7	8.3	**13.3**	8.9	11.1	12.8	11.1	11.1	11.7
	105	75	**120**	80	100	115	100	100	105
2000	11.3	9.1	10.2	10.8	**13.6**	13.1	10.2	11.4	10.2
	102	82	92	97	**123**	118	92	102	92
2001	13.2	10.6	8.5	8.9	**14.0**	11.9	9.8	11.1	11.9
	118	95	77	80	**126**	107	89	100	107
2002	**13.4**	10.6	9.9	10.6	12.7	12.7	8.5	12.0	9.9
	120	95	89	95	114	114	77	108	89
2003	11.9	11.3	12.9	7.7	11.9	10.8	9.3	**12.4**	11.9
	107	102	117	69	107	97	84	**112**	107
2004	9.5	9.5	12.2	10.5	**12.3**	11.4	10.9	10.5	**12.3**
	86	86	110	94	**111**	103	98	94	**111**

TABLE 5: MODIFIED MEDIAN (CUMULATIVE)

Term	CJ	JPS	SOC	AS	AMK	DHS	CT	RBG	SGB
1994	12.6	9.9	10.3	9.4	**13.5**	12.1	7.6	**13.5**	11.2
	113	89	93	85	**121**	109	69	**121**	101
94-95	12.1	9.2	11.4	10.2	**13.0**	12.1	8.9	12.7	10.5
	109	83	103	91	**117**	109	80	114	94
94-96	11.8	9.4	10.5	10.2	**13.4**	12.3	9.7	12.6	10.2
	106	85	94	92	**120**	111	87	113	92
94-97	11.6	10.1	10.5	9.7	**13.4**	12.1	9.9	11.6	11.0
	105	91	95	87	**120**	109	89	105	99
94-98	11.7	10.6	10.4	10.2	**12.5**	11.7	10.2	11.7	11.0
	106	95	93	92	**113**	106	92	106	99
94-99	11.8	10.5	10.5	9.9	**12.5**	12.0	10.3	11.4	11.0
	106	94	94	90	**113**	108	93	103	99
94-00	11.5	10.5	10.3	10.1	**12.4**	12.1	10.5	11.4	11.2
	104	94	93	91	**112**	109	94	102	101
94-01	11.6	10.2	9.8	10.2	**12.7**	12.1	10.8	11.1	11.5
	105	92	89	92	**114**	109	97	100	104
94-02	11.7	10.3	9.8	10.3	**12.7**	12.0	10.6	11.1	11.6
	106	93	89	93	**114**	108	95	100	105
94-03	12.0	10.3	10.2	10.3	**12.4**	11.5	10.6	11.1	11.7
	108	93	92	93	**112**	104	95	100	106
94-04	11.8	10.3	10.6	10.3	**12.4**	11.3	10.8	10.7	11.8
	106	93	95	93	**112**	102	97	96	106

IV. ANALYSIS

A number of observations are readily apparent. For several key Justices, we highlight certain patterns that emerge from our data calculations.

A. JUSTICE KENNEDY

There is little doubt that Justice Kennedy was the central force during this natural court. His power index tops the charts in both the Modified Median and Naïve Index when these scores are calculated cumulatively. He also makes a good showing for some years in which these indexes are calculated for the individual Term. On the Naïve Index, Kennedy dominates or is tied with another Justice in 1994, 1996, 1998, 2000, 2001, and 2003. The Term-by-Term variant of the Modified Median shows Kennedy as the most powerful or among the most powerful in 1994, 1995, 1996, 1997, 2000, 2001, and 2004. The sole instance in which Kennedy is routinely outperformed is in the Sophisticated Index, where, for cumulative values after 1999, Justice Souter reigns supreme. But even under that measure, Kennedy ranks second, and is the only other Justice to have power consistently in excess of the baseline (11.1%). In contrast, O'Connor makes a less impressive showing, particularly when compared to Kennedy. On the term by term Modified Median, O'Connor exceeds the baseline value in six terms, compared to Kennedy's nine. On the cumulative Modified Median, O'Connor *never* exceeds 11.1%. The Naïve Index reveals a similar dynamic. Thus, while others trumpet Justice O'Connor, we remain convinced that Kennedy held the real power in the Rehnquist Court.

B. JUSTICE SOUTER

Other surprises emerge from our data. Among them is the apparent power wielded by Justice Souter during the Rehnquist Natural Court. According to the Martin-Quinn scores, Souter is among the most liberal Justices on the Court, exceeded in some years only by Stevens.[40] As a consequence, it would appear unlikely—at least according to the median voter theorem—that he would wield any power on the Court. Yet the cumulative Sophisticated Index reveals that Justice Souter's vote is quite powerful, particularly when that measure is cumulated after 1998. What to make of Justice Souter and the cumulative Sophisticated Index?

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40.   For example, in 2004, the Martin-Quinn Score (Posterior Mean) for Souter was -1.709, for Ginsberg, -1.606, for Stevens, -2.211, and for Breyer, -1.108. Since larger negative values reflect more liberal voting behavior. Souter was scored as a more liberal justice than both Breyer and Ginsberg. For the Martin-Quinn scores, see http://mqscores.wustl.edu/measures.php.

Recall that the Sophisticated Index takes into account the credibility of a Justice's threat to defect from a coalition. That Justice Souter rates so high on this index is indicative of his fluidity in structuring coalitions and his willingness to gather support wherever (and with whomever) he can. William Brennan is often lauded as a brilliant strategist within the Court;[41] perhaps Souter has undertaken that role at least to the extent that he is able to form coalitions effectively and flexibly when it serves his policy objectives.

Contrast this with Justice O'Connor. While appearing to be a swing voter in any number of votes, Justice O'Connor in fact is less than willing to form coalitions outside the predictably conservative coalition of Rehnquist, Scalia, Kennedy, and Thomas, the usual suspects. Perhaps this is due to her minimalist approach that calls for very narrow case holdings.[42] Carving out the narrowest holding may serve to generate a Court majority for a particular judgment, but it may cause other Justices to concur with the judgment of the Court rather than joining her majority opinion. Indeed, recall that we counted a Justice as part of a coalition only if he or she joins the opinion; if he or she concurs in a judgment but does not join the opinion then he or she is not part of the coalition associated with that opinion. Justice O'Connor's exceedingly narrow approach thus may have won her majorities behind the judgment, but not allies with respect to her opinions. As a result, her standing on the Sophisticated Index suffered, as that index measures a Justice's ability to generate opinion coalitions in light of his or her credible threat of defection.

C. JUSTICE GINSBURG

We had such high hopes for Justice Ginsburg. She was our power pageant winner for the 1995 term.[43] But how the mighty have fallen. Her scores in the cumulative measures decrease monotonically, ending in a JQ below 100. On the Sophisticated Index she could not even break a power index of 90. Will the sole feminine voice on the Court be irrelevant?[44]

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41. BERNARD SCHWARTZ, DECISION: HOW THE SUPREME COURT DECIDES CASES 170 (1996) (describing Justice Brennan as the "strategist behind Supreme Court jurisprudence").
42. Cass Sunstein, *Problems with Minimalism*, 58 STAN. L. REV. 1899, 1901–02 (2006) (distinguishing O'Connor for her minimalist jurisprudence, asking for narrow rather than broad Court rulings).
43. Edelman & Chen, *Dangerous Justice, supra* note 5, at 95.
44. For a discussion of the feminist voice on the Supreme Court, see Suzanna

Alas, we fear so. The Sophisticated Index is particularly telling in this regard. She seems to have very few viable coalition partners, and so her threats to defect are not credible. That, coupled with the very few times she is ever in the majority, signal her impotence to influence the Court.

E. JUSTICE BREYER

While Justice Ginsburg has seen her power wane, it is perhaps time for us to make another prediction on who will be the next Justice to be reckoned with.[45] Our choice for the Justice with the bullet is Justice Breyer. In both the Modified Mean and the Naïve Index his power is increasing monotonically. While he has just crawled above the 100 power mark, certainly his momentum is positive and he looks to be making a difference. In addition, his Sophisticated Index score indicates that he is able to make credible threats of defection. All this bodes well for Breyer, although the addition of Chief Justice Roberts and Justice Alito may well alter this trend.

V. CONCLUSION

The results presented here challenge the conventional wisdom in several respects. First, although Sandra Day O'Connor was lauded as the critical swing Justice in the Rehnquist Court, by our measures she was not as powerful as some have argued. That is not to say that her retirement from the Court will not make a profound difference in particular cases. We have already seen such an impact in the recent abortion decision, *Gonzales v. Carhart* (2007),[46] in which the Court upheld the federal Partial Birth Abortion Ban Act of 2003. Other cases will also result in shifts in doctrine due to Justice O'Connor's replacement by Justice Alito. But the measures we present here reflect not only the importance of the swing vote (particularly the Modified Median measure), but also the ability of individual Justices to muster a majority coalition that unifies behind a doctrinal standard or approach as expressed in a single opinion. Because of its implica-

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Sherry, *Civic Virtue and the Feminine Voice in Constitutional Jurisprudence*, 72 VA. L. REV. 543 (1986).
45.   What's another failed prediction among friends? Or, as one of us wrote earlier in a more poetic vein, "Write today, regret tomorrow, renounce mañana." Jim Chen, *The Magnificent Seven: American Telephony's Deregulatory Shootout*, 50 HASTINGS L.J. 1503,1580 (1999).
46.   127 S. Ct. 1610 (2007).

tions for the rule of law, this standard is meaningful for reasons that extend beyond the simple analysis of the Justices' votes to affirm or reverse. Fragmented coalitions have the potential to undermine the clarity of legal standards as expressed in Supreme Court precedent. The most powerful Justices—particularly as measured by our Sophisticated Index—are those who can form coalitions that speak with a unified voice. Perhaps this standard for judicial power therefore measures the attribute that should concern us most.

Second, according to our measures, Justices Kennedy and Souter stand out most prominently. Justice Kennedy is now commonly assumed to occupy the power center on the Court, but it appears that he did so during the Rehnquist Court as well. Souter, on the other hand, exercised power in a more subtle fashion than Kennedy, given his flexibility with various coalitions on the Court. While Kennedy's star may continue to rise with the addition of Chief Justice Roberts and Justice Alito, the future is less certain for Souter, who may have more difficulty forming coalitions with these new conservative members. After several terms of the Roberts Court, we look forward to recomputing our figures to assess who, in fact, will have emerged as the contemporary Court's most dangerous Justice.