The Distribution of Justices' Votes and Countering National Disunity

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The estimation of the distribution that matches the voting of the justices of the Supreme Court shows that voting is correlated and reveals three phenomena: an outlier distribution produced by one composition of the Court, the surprising frequency of unanimous decisions, and the intensity with which the Court avoids 4–4 decisions. The intensity with which the Court avoids 4–4 splits and the strength of the drive to produce unanimous decisions seem sensitive to national disunity. At times of greater disunity, 1965 to 1975 and 2001 to 2020, the Court avoids 4–4 splits more intensely and has a greater fraction of its decisions be unanimous.

I.   INTRODUCTION

Is the distribution of votes by justices of the United States Supreme Court even or lopsided? Did the early post-WWII years, when the Court was staffed exclusively by Democratic appointees, produce a different distribution than when the Court had a supermajority of Republican appointees? Despite that the Supreme Court Database has been combed by researchers for years, these fairly basic questions are answered here for the first time. Rather than appearing as an arena for political strife, the Court looks like a judicious curator of a legal system that applies to diverse people, to the divisiveness of whom the Court is sensitive.

This Article studies the distribution of votes in the United States Supreme Court from the 1946 term to the 2010 term.[1] Each decision has a number of liberal votes and a number of conservative votes; their distribution is the frequency with which decisions with each number of votes appears. The overall distribution reveals several phenomena. The distribution allows the distinction of the frequency of decisions that are bound to be unanimous from the frequency of those that are unanimous after at least one justice wavers. The distribution allows the observation of the intensity with which the justices avoid dividing equally. The distribution also reveals that one of the compositions of the Court was significantly unlike others.

The empirical analysis rests on the Supreme Court Database ("Database").[2] It captures the data of each decision from the 1946 term and each vote of each justice in that period. The Database also codes the outcome of each case as conservative or liberal. As a result, each case's liberal votes are readily countable; if the outcome is liberal, it is the number of justices who voted with the majority. If it is conservative, it is the number of dissenters. The aggregation is the distribution of votes, from the frequency of decisions with no liberal votes, i.e., unanimously conservative decisions, to the frequency of decisions with all liberal votes, the unanimously liberal decisions. The assignment of slant to disputes may sound suspect, arbitrary, and subjective. Nevertheless, prior audits of the Database have revealed that despite that jurists will disagree about the slant of some decisions, the overall counts are unbiased and, therefore, will tend to agree in aggregate despite some disagreement on individual decisions.[3]

II.   DERIVING THE DISTRIBUTION OF VOTES

The first phenomenon that the distribution of votes presents is that it cannot match a distribution of votes where the justices cast votes perfectly independently. Rather, if one justice votes in a certain direction, then other justices' votes have a slightly greater probability of being cast the same way. This is not unreasonable. The justices' common legal background and their shared social, economic, and political understandings make some correlation reasonable.

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1   This corresponds to the section of the data on Supreme Court decisions that the Supreme Court Database maintains that it calls Modern. *See* Wash. Univ. Sch. L., SUPREME COURT DATABASE, supremecourtdatabase.org (last visited Mar. 9, 2022).

2   *Id.*

3   *See* Nicholas L. Georgakopoulos, *The Conservative Paradox and the Formation of 5–4 Coalitions*, 48 DAYTON L. REV. (forthcoming) (manuscript at 42 app. A), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4053624#.

From a mathematical perspective, this makes the distribution that describes independent coin tosses, the binomial distribution, not apt. Rather, the appropriate distribution must be one where the outcome of the first uncertain event, one justice's vote in our setting, influences the probability of subsequent ones. Mathematicians have devised a distribution that does this, named the beta binomial distribution. Compare the definitions of the two distributions as drawing balls of two different colors from an urn. For both distributions, the details of the distribution are defined by the initial number of the two colors of balls.[4] The binomial distribution describes the blind selection of a ball, with the selected ball being placed back in the urn. Thus, the probability does not change after each draw. In the beta binomial distribution, each ball that is drawn gets replaced by two balls of that color. Drawing a second ball of the same color becomes more likely, producing some level of correlation. The correlation is stronger if the urn starts with one ball of each color than if it starts with a large number of each. This mathematical abstraction corresponds to the phenomenon that, say in a labor dispute, one justice's vote is based on circumstances and reasoning that are likely to lead other justices to also cast votes in the same direction.

Tentatively accepting the beta binomial distribution as potentially appropriate, the next issue is estimating its parameters, the degree of correlation, which translates into the initial number of balls. The distribution of votes has a feature that complicates this task, the unusually high frequency of unanimous decisions. If each vote were truly random, then unanimous decisions should likely be the most rare. In fact, they are the most frequent. Three tentative explanations among several may be (1) that some outcomes are dictated by legal reasoning; (2) that some decisions may not deal with issues likely to split the Court but serve to correct a clearly unacceptable lower court decision;[5] and (3) that justices may disagree with an outcome but refrain from dissenting, as has been shown to be the case in appellate

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4   In the case of the binomial distribution, the number of balls is irrelevant, but their proportion is determinative. Its mathematical expression uses the probability of drawing the target color. The beta binomial does depend on the initial number of balls rather than only their proportions. Those two numbers of balls are the parameters that the distribution takes as inputs α and β in its mathematical form, $Bb(\alpha, \beta, N)$, where N is the number of draws. When α and β are large, the correlation is small, since the additional ball does not change the probabilities much, and *vice versa*. When those are not integers, then the visualization of the distribution as the selection of balls from an urn fails, and the appropriate visualization becomes a spinning disk with two colors along its circumference that have the parameters' lengths. After each spin, the wheel changes circumference by the same principle, extending by one unit the color that was the last spin's outcome.

5   *See* Ryan C. Black & Ryan J. Owens, *Consider the Source (and the Message): Supreme Court Justices and Strategic Audits of Lower Court Decisions*, 65 POL. RSCH. Q. 385, 389 (2012) and *infra* note 21 and accompanying text.

decisions.[6] As far as the distribution of votes is concerned, unanimous decisions come from additional processes than do decisions with vote splits; justices may suppress their disagreement and join the majority for various reasons.

Accordingly, the distribution of votes must be derived from only the decisions in which the vote is split. The task becomes to find the specifications of the correlated distribution that make it come closest to the frequency of decisions with one up to eight liberal votes, excluding the unanimous ones (which would have zero or nine liberal votes) despite that the distribution also produces values for unanimous outcomes.

A further restriction comes from the fact the distribution of votes is not biased, with minor caveats.[7] In other words, decisions with a specific number of liberal votes are about as frequent as decisions with that many conservative votes. Moreover, no theory exists that any bias should exist. Therefore, the search for parameters is constrained to produce a symmetrical distribution, one in which liberal decisions are as likely as conservative ones.

The pursuit is for coefficients that will yield a distribution which produces probabilities from one up to eight liberal votes out of nine votes. Those probabilities, each as a fraction of the total probability of producing a decision with one to eight liberal votes, are as close as possible to the fraction of non-unanimous decisions that have that many liberal votes.[8]

Figure 1 offers the frequencies of each possible count of liberal votes in the Database, from zero to nine, i.e., the histogram of the number of liberal votes in decisions with nine votes from the 1946 term to the 2020 one. The height of each bar corresponds to the number of decisions with that many liberal votes. The solid line is the (appropriately scaled and constrained to be symmetrical) correlated distribution derived in the above fashion.[9]

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6   *See* RICHARD A. POSNER, HOW JUDGES THINK 32–34 (2008); Joshua B. Fischman, *Estimating Preferences of Circuit Judges: A Model of Consensus Voting*, 54 J.L. & ECON. 781, 782 (2011) (showing that accounting for an aversion to dissenting improves estimation significantly). *See also* i*nfra* note 21 and accompanying text.

7   For the caveats *see infra* notes 12–13 and accompanying text.

8   The minimization of the difference between the actual and the derived distribution occurs by minimizing squared differences. The result is a beta-binomial distribution that produces a correlation of 18 percent and has coefficients of $\alpha = \beta = 2.27$. Because the search here is for a symmetrical distribution, those two coefficients are constrained to be equal. In analogy to the visualizations that correspond to the beta binomial distribution, the coefficients correspond to the number of balls of each color in the urn or the length of each arc in the spinning circle before the first draw or spin.

9   The distribution or, strictly speaking, its probability mass function, gives the percentage of each outcome that should be expected, such as that five percent of the decisions would have one vote. The frequencies of the graphs give the actual number of decisions, say with one liberal vote, such as twenty. Twenty would be the height of the column corresponding to one liberal vote in the figures. To place the distribution on the same scale so that the frequencies can be compared with the distribution, the graphs must show the distribution in a scaled way. The way that the distribution is scaled is to take the total of the probabilities of the outcomes with split votes only, ignoring the probability of unanimous outcomes
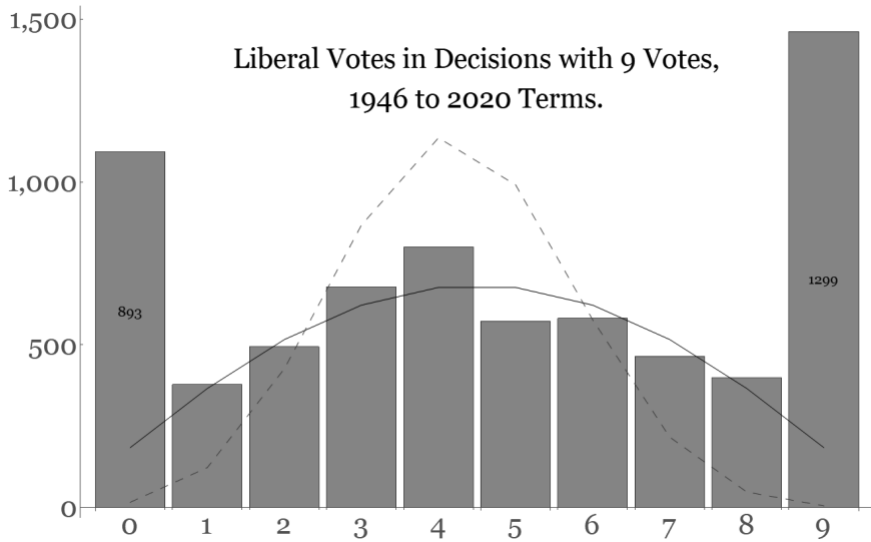
Figure 1. The histogram of votes and the best fitting correlated and uncorrelated distributions.

The dashed line is the best fitting uncorrelated (binomial) distribution, which does not fit the data at all; it is also not constrained to be symmetrical. If votes were not correlated, then the middle distributions—with four dissenters—should be much more frequent and the extremes much rarer. Whereas the correlated beta binomial distribution explains over seventy percent of the variation in the counts, the uncorrelated binomial distribution explains none. Just taking the average of the counts of each vote split would form a better guess than the one the uncorrelated binomial distribution produces.[10]

since those follow different processes. To continue the example, the five percent of the outcomes expected to have one liberal vote is totaled with the percentage of getting two liberal votes and so on. That percentage, say ninety percent, must come to match the number of non-unanimous decisions, say 418. Seeing 418 that correspond to ninety percent, how many would we see to correspond to one hundred percent? The answer is the number of non-unanimous decisions divided by the percentage of the expected non unanimous decisions, in the example 418/.9 or 464.44. This would be the scaling factor that would bring the distribution to the scale of actual decisions. The example's five percent of expected decisions with one liberal vote would be multiplied by the scaling factor to produce 23.22. That would be the height that the black line in the figures would have at the point corresponding to one liberal vote.

   10   This seeks to express the concept of how much of the variation in the outcomes the predictions of the two distributions explain, the metric statistics calls r-squared. The baseline is the average number of decisions with one to eight liberal votes. That uninformed guess is closer to accurate than the guess informed by the uncorrelated binomial distribution. The beta binomial distribution produces much better guesses. Summing the squared differences of the guesses produced by the beta binomial distribution from the actual number of decisions with each number of votes, dividing it with the sum of the squared differences of their average from each vote count, and subtracting that ratio from one produces the r-squared metric of goodness of fit. It is over 75%. This means that the differences of the actual counts from the beta binomial are much smaller than their differences from their average whereas the differences from the binomial are greater than those from their average.

The primary point of the figure is the strikingly good fit of the beta binomial distribution to the data. Two deviations from symmetry appear, the disproportionately many unanimous decisions that are liberal and the lack of symmetry between decisions with four liberal votes and those with five. Both issues I addressed previously. The discrepancy in the unanimous decisions is partly due to some extraordinary dissenting activity: the extraordinary willingness of Justice Douglas to dissent alone and the extraordinary ability of Justices Brennan and Marshall to form coalitions of three or four dissenters.[11] The discrepancy between liberal and conservative 5–4 decisions is mostly due to the rarity of the median justice being ideologically closer to the next liberal justice.[12]

The distribution of votes reveals several additional phenomena. When applied to the distribution of decisions with eight votes, it reveals the intensity with which the Court avoids even splits, i.e., 4–4 decisions. Compared with the frequency of unanimous decisions, it reveals the strength of the aversion to dissenting.[13] Finally, when compared to the distributions of specific compositions, it reveals one composition as an outlier, that defined by the appointment of Justice Goldberg. Part III addresses these issues in reverse order.

III. REVEALED PHENOMENA

Subpart A identifies the distribution produced by the outlier nature of the composition defined by the appointment of Justice Goldberg; it is very different from the rest. Subpart B explores the tensions between unanimity and split-vote decisions. Subpart C explores the intensity of the aversion to equal splits.

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11   *See* Nicholas L. Georgakopoulos, *Super-Dissenters*, 49 HOFSTRA L. REV. 687 *passim* (2021).

12   *See* Georgakopoulos, *supra* note 3, *passim*.

13   Several explanations exist for the aversion to dissenting; the term does not seek to disaggregate or discriminate between them. For example, dissenting may be costly in terms of effort and collegiality, or it may undermine the courts' legitimacy, it surrenders the opportunity to negotiate with the majority a more limited holding, or it may come from group dynamics. Note that group influence short of the polarization that would produce unanimity, would produce correlation between votes, which is evident in the data but fluctuating in intensity. *See* Lee Epstein, William M. Landes, & Richard A. Posner, *Why (and When) Judges Dissent: A Theoretical and Empirical Analysis*, 3 J. LEGAL ANALYSIS 101, 120, 126–27, 134 (2011) (cost of effort and collegiality); Ruth Bader Ginsburg, *Remarks on Writing Separately*, 65 WASH. L. REV. 133, 142–43, 145 (1990) (dissents undermine legitimacy); Fischman, *supra* note 6, at 787 (lost opportunity to negotiate narrower holding); CASS R. SUNSTEIN, DAVID SCHKADE, LISA M. ELLMAN, & ANDRES SAWICKI, ARE JUDGES POLITICAL?: AN EMPIRICAL ANALYSIS OF THE FEDERAL JUDICIARY 12, 14–15, 71–72 (2006) (group dynamics or polarization).

A. An Outlier

To study the distribution of the votes of different compositions of the Court, a threshold is necessary to have enough decisions with nine votes for their distribution to be meaningful. Setting that threshold at 300 separates nine compositions as having a sufficient number of decisions. Those are the compositions defined by the appointments of Vinson, Stewart, Goldberg, Powell and Rehnquist (who were appointed on the same day), Stevens, O'Connor, Kennedy, Breyer, and Kagan.

All compositions except that of Goldberg produce roughly symmetrical distributions of votes. While they do not match perfectly the overall correlated distribution of votes, their differences are plausible expressions of the differences in the justices that the overall distribution averages out. If the correlated distribution were to be fit to each composition, then their resulting correlations between votes would range from six percent for the Kagan composition to nineteen percent for the Stevens composition. The Kagan composition is closest to the votes not being correlated.[14]

Figures 2 and 3 show the distributions by composition for the nine compositions that produce enough decisions. The vertical axis is adjusted to be the same in all graphs so that the columns that correspond to the counts of each number of votes are comparable. The composition defined by the appointment of Justice Breyer is excluded from this scaling because it has unusually many decisions due to its extraordinary duration of eleven terms.

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14   The Kagan composition and any that may follow it that include both Justice Kagan and Chief Justice Roberts may well appear to have distributions that produce very few 8–1 decisions. Both justices are somewhat unusual in very rarely dissenting alone. The result should be somewhat fewer (perhaps about one ninth fewer) than expected decisions with one or eight liberal votes, because one leans liberal, Kagan, and one leans conservative, Roberts. This effect, however, is not nearly as pronounced as if they were, respectively, the Court's most liberal and the most conservative members. As of this writing, Kagan has never dissented alone and Chief Justice Roberts, after managing to avoid dissenting alone for fifteen years, has dissented alone once in *Uzuegbunam v. Preczewski*, 141 S. Ct. 792, 802 (2021) (Roberts, J., dissenting). For the sake of comparison, at the opposite extreme may be Sotomayor, on the liberal side, and Alito, on the conservative, with fourteen and eleven solo dissents, respectively.
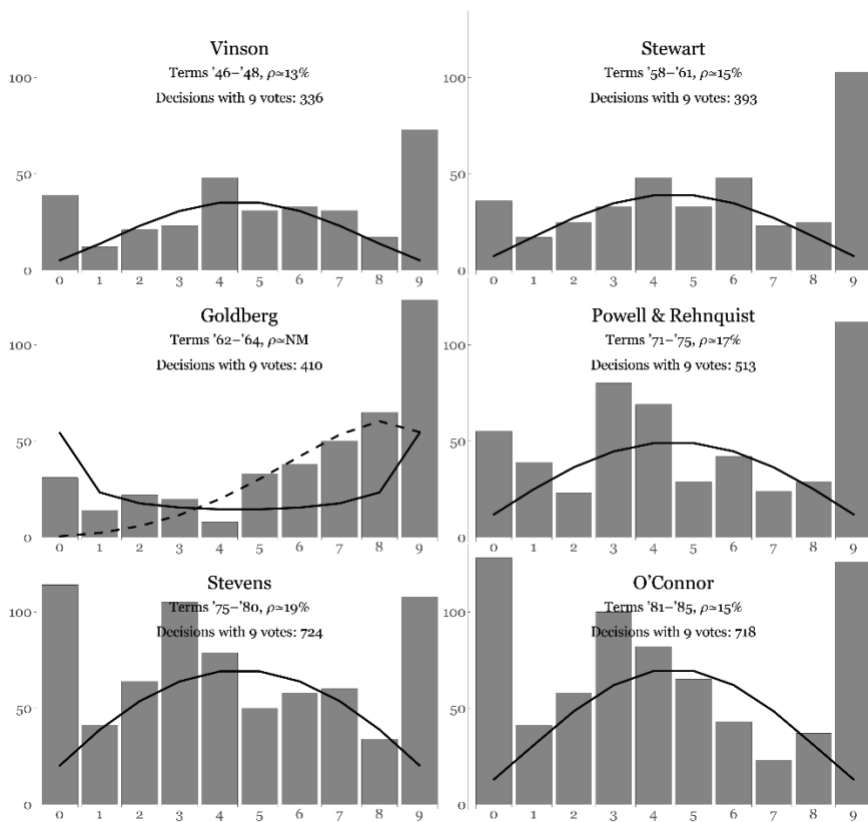
Figure 2. Distributions by composition, first panel.

Each figure also shows the best fitting correlated distribution as a black line and the corresponding correlation in each title; for example, the correlated distribution that fits best the distribution of the Vinson Composition has a correlation of about 13 percent and the title of that graph is the name of Vinson and has under it the range of its terms, followed by the Greek letter *rho*, which conventionally stands for correlation, followed by the sign signifying approximate equality, and the corresponding percentage of the correlation that the correlated distribution implies, rounded to drop decimal points. A third line shows the number of decisions with nine votes. Notice how, despite their differences, all graphs are roughly symmetrical and their deviations from the correlated distribution are not particularly large, except Goldberg's.[15]

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15   In terms of measuring the variation that the correlated distribution explains in each case, the variation ranges from 78% in the Kagan composition to 21% in the Rehnquist and Powell one, if we ignore the 12% of Goldberg's. The average explanatory power is 46% or 50% if we ignore Goldberg with a standard deviation, respectively, of 20% or 17%.

The distribution of the Goldberg composition is at the second row, left column of the first panel. It is visibly an outlier because it is far from symmetrical. Also, the best fitting symmetrical correlated distribution, the black line, fails to approximate the distribution well. Estimating a correlated distribution without constraining it to be symmetrical produces the dashing line. It approximates the distribution quite well, but its lack of symmetry makes it unconvincing. Therefore, the graph marks its correlation as not meaningful.[16]
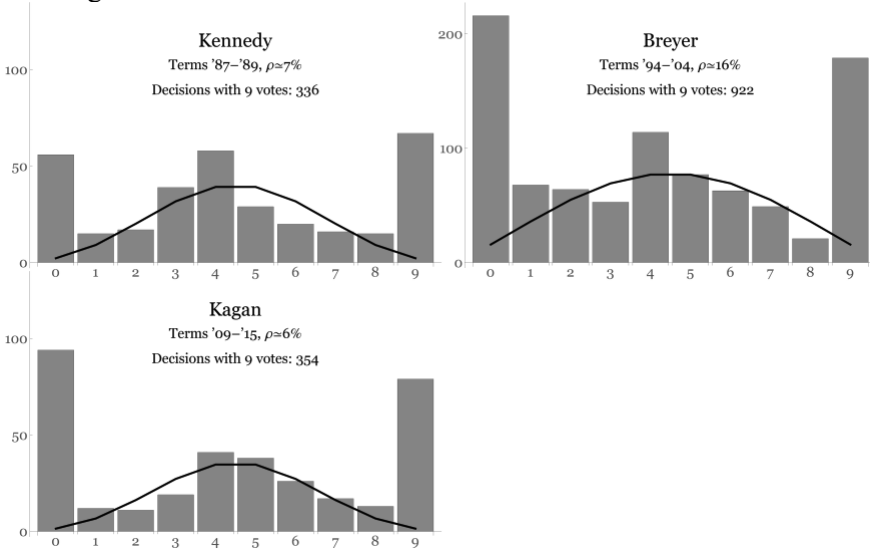

Figure 3. Distributions by composition, second panel.

Arthur Goldberg was a Chicago labor lawyer. In his capacity as chief counsel for the association of unions CIO, he assisted the merger with the AFL, which had split away from the CIO some decades earlier.[17] President Kennedy appointed him Secretary of Labor. After Justice Frankfurter retired in the summer of 1962, Goldberg became Kennedy's second, after Justice White, appointment to the Supreme Court and joined the Court on October 1, 1962. On the Court, Goldberg joined Black, Douglas, Brennan, and Warren to form a majority of five justices who cast liberal votes with some consistency. The other four justices were Clark, Harlan, Stewart, and White. The Martin & Quinn estimates of the justices' ideologies place Douglas at the far left of this composition, but Black, Warren, Brennan, and Goldberg densely in the middle of that composition's spectrum, with Goldberg as the

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16   The correlations according to those two estimations are 55% according to the symmetrical correlated distribution and 14% according to the unconstrained one. Their explanatory power is, respectively, 12% and 74%.

17   *See* Carl W. Soderstrom, Robert W. Soderstrom, Chris M. Stevens & Andrew W. Burt, Forty Gavels: The Life of Reuben G. Soderstrom and the Illinois AFL-CIO 95–96 (2018).

median. Harlan is the most conservative but with a difference smaller than that of Douglas. Stewart and Clark are ideologically very close, and White is the conservative next to the median.[18] Notable decisions of the Goldberg composition include *Escobedo*[19] and *Gideon v. Wainwright*.[20] The Goldberg composition ends with Goldberg's resignation on July 26, 1965, pursuant to President Johnson's plea for Goldberg to become ambassador to the United Nations. Goldberg accepted mostly because of the importance Goldberg placed on trying to end the Vietnam War; Johnson's plea included the argument that Goldberg had a unique negotiating ability to do so.[21] The Supreme Court issued 475 decisions with this composition. Of those, 410 have nine votes.

The cause of the uniquely asymmetrical distribution of the votes of the Goldberg composition is unclear. All the other compositions produce distributions that are roughly symmetrical despite that the variation in the individual justices, their legal philosophies, and their socioeconomic outlook has likely been arguably both greater and smaller at other times than they were in the Goldberg composition. The search for an explanation would need to explain plausible causes, such as why this composition uniquely granted *certiorari* to disputes that would disproportionately tend to produce liberal outcomes or why the conservative justices were so systematically unable to attract one or more from the Court's liberal wing to form majorities in only that composition. Further confounding is the fact that several of the justices were already on the Court during the Stewart composition and would be on the Court during the composition defined by the appointment of Rehnquist and Powell. Perhaps Goldberg's unusual negotiating ability is the key.

The next phenomenon that the distribution of votes reveals is the aversion to dissenting.

B. Unanimity

Unanimous decisions are the most frequent that the Supreme Court issues. Yet, the distribution of the non-unanimous decisions indicates that unanimous decisions should be the rarest. Figure 1 reports on the columns

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18   The numerical values that the Martin & Quinn algorithm assigns to the justices do not correspond to any meaningful scale, but the values may indicate the spacing. Douglas receives scores of about -6.5, Black, Warren, Brennan, and Goldberg are in the range from -1.7 to -0.7. White is at about -0.25. Clark and Stewart range from 0 to 0.36, and Harlan is at about 2.5.

19   Escobedo v. Illinois, 378 U.S. 478, 490–92 (1964) (5–4 decision authored by Goldberg granting criminal suspects a right to counsel under the Sixth Amendment).

20   Gideon v. Wainwright, 372 U.S. 335, 344–45 (1963) (unanimously recognizing the right to an attorney).

21   *See* David L. Stebenne, Arthur J. Goldberg: New Deal Liberal 347–48 (1996).

that correspond to unanimous decisions the difference between (a) the expected number of unanimous decisions according to the correlated distribution of the split votes and (b) the actual number of unanimous decisions. The unanimous conservative decisions are about 893 more than the distribution would produce. The unanimous liberal decisions are about 1,299 more.

Clearly, unanimous decisions are different and very plausibly so. From the perspective of law, applying the law to facts appears deterministic. A conduct either fits a rule or not. From that perspective, all outcomes ought to be unanimous. Granted, the Supreme Court reviews the interpretation of the law where this answer is subject to disagreement, i.e., the Court reviews what shape the rule should take and how it should be interpreted. But again, it is possible that logic supports one interpretation, producing unanimity. Theory and evidence offer additional reasons for unanimous decisions. First, some scholars have suggested that review by the Supreme Court does not only serve the function of resolving important issues but also of disciplining or correcting lower courts that have produced outcomes far from where the justices are from an interpretive perspective.[22] Perhaps then, some decisions perform this disciplining function and would tend to be unanimous. Second, the evidence from panels of appellate courts indicates that dissents appear much less frequently than the differences between members of the court would indicate, in other words that an aversion to dissenting exists.[23] Then, many unanimous decisions would have had a split vote *but for* the aversion to dissenting.

If disciplining were a major role of the Court, then we may expect two types of grants of *certiorari*. When the lower court was far from the Supreme Court as an interpretive matter, then *certiorari* would be granted as a matter of discipline to correct the wayward lower court. When the lower court was not far interpretively from the Supreme Court, and the outcome seems plausible from the perspective of the interpretive attitudes of the Supreme Court justices, then *certiorari* only serves the purpose of resolving an important interpretive question or a conflict between lower courts.

To be clear, the prior evidence of the Court's disciplining function comes from individual justices' votes about granting *certiorari*, not from decisions, and does not explore the degree to which disciplining decisions are unanimous. Perfectly consistent with that evidence is having some justices vote for *certiorari* for reasons of discipline while others may vote for *certiorari* on importance. Such grants of *certiorari* would not necessarily mean that the Court's decision would tend to be unanimous. Consider the

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22   Black & Owens, *supra* note 5, at 389–90.

23   *See* POSNER, *supra* note 6; Fischman, *supra* notes 6 & 13, at 782, 803.

example of the justices who opposed the death penalty in the late 1970s. When they would vote to grant *certiorari* to a decision imposing the death penalty, then that vote was, for those justices, a grant of *certiorari* for the purpose of discipline: to correct a lower court that was interpretively far from the justice. Justices who did not oppose the death penalty, however, may also vote to grant *certiorari* to a death penalty case. They, however, would be doing so on the basis of the importance of the issue. The Supreme Court's decision on the matter would not be destined to be unanimous: the latter group of justices may well decide to affirm the imposition of the death penalty.[24]

The issue that the disciplining function that the Court raises is whether it results in two distinct types of cases. If the disputes that received disciplining *certiorari* were materially different than those of importance *certiorari*, then one can imagine that the decisions which split the Court are mostly those that arise after a grant of *certiorari* based on importance: those that are at the fulcrum of the Court's interpretive attitudes. The disputes giving rise to discipline *certiorari* could lie far from the Court's interpretive center and could tend to produce unanimous decisions. If we were to visualize this phenomenon in a single dimension of judging, such as trust of juries or ideology, it could be thought as producing a distribution of cases with three peaks, one at the court's center, corresponding to the importance grants of *certiorari*, and one of each side of the Court, outside its range of ideology, corresponding to discipline grants of *certiorari*.[25]

If the unanimous decisions were disproportionately disciplining decisions, then they should differ from the split-vote decisions in corresponding ways. For example, one might think that more disagreement would exist among lower-court judges in disputes with important issues than in disputes in which the lower courts produce decisions that will lead to disciplining review by the Supreme Court. Then, split-vote decisions should tend to have more traces of disagreement among the judges below. The Database happens to track whether the decision below had a dissent and whether a conflict existed between courts below, either federal or state. Using

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24   Justices, of course, are sensitive to their colleagues' views and if they can predict that the outcome would be inimical to their views may well vote against *certiorari* to avoid review despite that they disagree with the outcome of the lower court. *See, e.g.*, Richard L. Revesz & Pamela S. Karlan, *Nonmajority Rules and the Supreme Court*, 136 U. PA. L. REV. 1067, 1103 n.146 (1988) (discussing "defensive denials" of *certiorari*, with a citation to an anonymous justice's quote).

25   Let me hasten to add that this is a mere illustration; I have previously shown that justices only appear to vote by ideology in some cases whereas they most plausibly actually vote according to their interpretive attitudes. The political branches, who appointed the justices, selected them due to the agreement of some of those interpretive attitudes with the issues that the appointing political actors considered salient, which produces the illusion of ideological voting in those dimensions. *See* Georgakopoulos, *supra* note 3, at 3.

these as proxies for disagreement produces this phenomenon, but it is weak and unclear. Disagreement below is indeed more rare in unanimous decisions than in split-vote decisions. However, the difference is small. Disagreement below appears in about thirty-nine percent of unanimous decisions whereas in about forty-three percent of split-vote decisions. Despite the small difference, it is extraordinarily unlikely to be due to chance.[26]

The existence of disagreement below lacks clarity because it does not behave as expected when compared to the Court's avoidance of 4–4 decisions, which will be discussed in the next subpart. The Court's avoidance of 4–4 decisions correlates with more disagreement below, rather than less.[27]

The small size of the difference and the unclear nature of the function of disagreement below may be interpreted as an indication that disciplining unanimity may be quite rare. Rather, disciplining may mostly appear as an attribute of individual justices' votes. Disciplining may be more in line with the notion that some justices may view the decision being reviewed as clearly wrong but some others as raising an important issue, and a mix of justices may exist in decisions with all vote splits from this perspective. Only some unanimous decisions may have a greater (and varying) proportion of justices that view the lower decision as clearly wrong. In other words, disciplining may not be strongly related to unanimity.

By contrast, many unanimous decisions would continue to arise from the same circumstances that produce decisions with split votes. This would suggest that a significant fraction of the additional unanimous decisions are not different from those with split votes, and the aversion to dissenting that scholars have seen in appellate courts also appears in the Supreme Court.

C. Aversion to Equal Splits

A comparison of the frequencies of votes in decisions with eight votes reveals a dip in middle splits. Having the best fitting correlated distribution from nine-vote decisions allows us to estimate the intensity with which the Court seeks to avoid 4–4 decisions.

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26   The *chi*-squared statistical test gives the probability that this difference can be due to chance as 0.0003. Among unanimous decisions, 1,365 have disagreement below and 2,105 do not. Split vote decisions with disagreement below are 2,427 and those without are 3,198.

27   If disagreement below was correlated with the issue being likely to divide the Court, especially 4–4, then when the Court operates with eight votes and avoids divisive issues, one should expect to see less disagreement below in decisions with eight votes that are not unanimous. However, in 8-vote decisions, disagreement below exists about 42% of the time in both unanimous and non-unanimous decisions. Granted, the avoidance of divisive issues may involve entirely different forces. However, this suggests that disagreement below does not function as expected and casts suspicions on its use. Something different happens with disagreement below in unanimous decisions, but it is quite unclear.

Figure 4 shows the frequencies of each number of liberal votes in decisions with eight votes. Two scalings of the correlated distribution estimated above appear as dark lines. The solid line places the distribution so that it fits the frequencies of splits with one or two dissenting votes. The dashed line places the distribution so that it fits the number of expected unanimous decisions that fit the distribution, given the fraction of unanimous decisions that fall beyond the expected number of unanimous decisions according to the correlated distribution. Scaling the distribution to fit decisions with one, two, or three dissenters would produce estimates between the above two and is, therefore, omitted.

Visible in the figure is that 4–4 splits are not nearly as frequent as the vote distribution suggests they should be. The actual number of 4–4 decisions is 116. Their high estimate, pursuant to placing the correlated distribution according to decisions with one or two dissenters, is much higher. The low estimate, from placing the correlated distribution according to maintaining the same ratio of unanimous decisions that the correlated distribution does not explain as in decisions with nine votes, is still quite significantly higher. Thus, one could consider that the Court avoided producing 4–4 splits in dozens of decisions. However, over the three quarters of a century that the Database covers, this impact can fairly be summarized as being in the neighborhood of one missing 4–4 split per term.
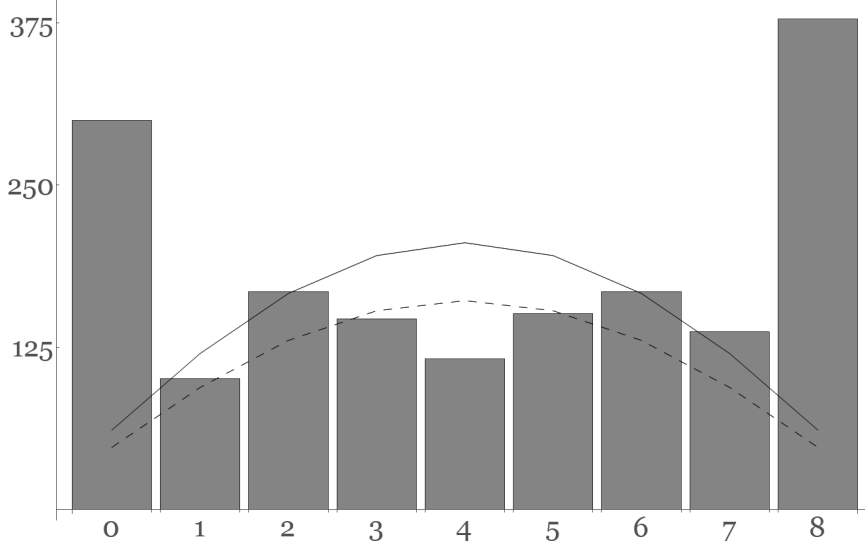

Figure 4. The frequencies of the number of liberal votes in decisions with 8 votes, 1946-2020 terms.

The low intensity of the phenomenon takes a different color if its intensity is traced across time. Examining figures analogous to Figure 4 but produced from subsets of terms reveals that the phenomenon appears mostly in the subsets of terms from 1966 to 1975 and from 2001 to 2020, illustrated

in Figure 5. Each of the two panels in Figure 5 follows the patterns of Figure 4, showing the number of eight-vote decisions with each possible count of liberal votes, from zero to eight. In each panel, the nine-vote decisions of the same period determined the shape of the correlated distribution of the votes. That forms the basis for the distributions displayed on the graph: the solid line scaled to decisions with one or two dissenting votes and the dashed line scaled to the fraction of unanimous decisions that the distribution should be expected to explain. In both panels, the scaling according to decisions with one to three dissenters would fall between the displayed lines, and is omitted.

Estimating the correlated vote distribution from each period's nine-vote decisions produces a distribution with unusually strong correlation from 1966 to 1975, and one with unusually weak correlation from 2001 to 2020. The correlation of the former is about twenty-six percent and the latter about nine, while the overall distribution indicated a correlation of about eighteen percent. As a result, the 1966 to 1975 decisions with nine votes indicate a fairly flat correlated distribution. Those from 2001 to 2020 indicate an unusually peaked one. The difference between the distributions that correspond to the two periods is greater than appears from the graph because each graph uses different scaling.[28]
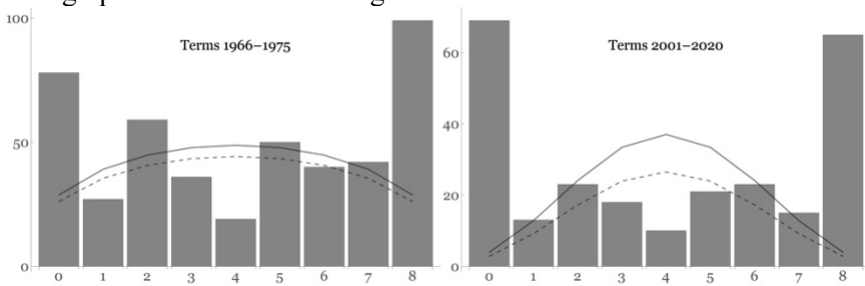

Figure 5. Subsets of terms containing the paucity of middle splits in eight-vote decisions.

Translated to expectations about the middle splits in eight-vote decisions, the former period does demonstrate a significant number of missing 4–4 splits but one cannot say with confidence that splits with three dissenters are unusually few. An excess of decisions with five liberal votes appears instead. The second period also displays a significant absence of 4–4 splits but probably also of splits with three dissenters, which are fewer than decisions with two dissenters and significantly fewer than their expected range according to the correlated distribution.

The approximation of the number of missing even splits compares their actual number to the range one might expect on the basis of the correlated

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28   The former has a correlation of 26%, whereas the latter 9%. A graph that compares the two distributions is available from a link below the entry corresponding to this Article at the Scholarship page of my personal website, NicholasGeorgakopoulos.org [perma.cc/3QM3-TXB7].

distribution of votes. In the 1966 to 1975 period, the actual number of 4–4 decisions is nineteen. Its range should be around forty-five. In the 2001 to 2020 period, the actual number of 4–4 decisions is ten while it would be expected to range around thirty. In terms of per term output, the former period may be considered to be missing well over two 4–4 decisions per term. The latter may be considered to be missing about two 4–4 decisions per term. Compared to the overall rate of missing about one 4–4 decision per term over the entire period of terms 1946 to 2020, the intensity is more than doubled in the subperiods of the 1966 to 1975 and 2001 to 2020 terms.

Figure 6 makes the comparison of these two periods to the remaining terms. The remaining terms do not have a visible absence of 4–4 decisions. The absence of 4–4 decisions is focused on the terms from 1966 to 1975 and 2001 to 2020.
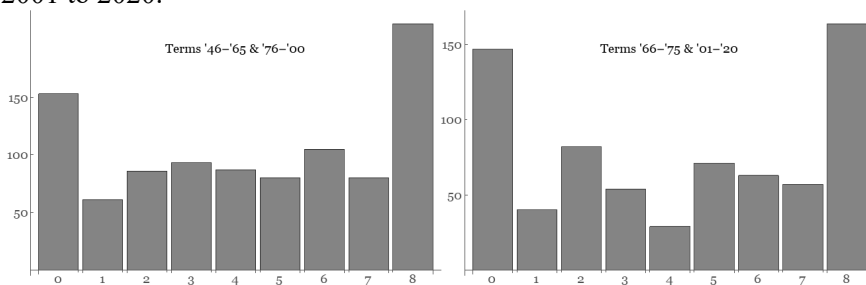

Figure 6. Comparing the distribution of eight-vote decisions.

The assessment of the paucity of even splits in the later period needs to take into account the inferred policy of the Court to avoid divisive cases during the unusually long time that the Court only had eight members after the death of Justice Scalia in February of 2016 until the appointment of Justice Gorsuch in April 2017.[29] That some of the aversion to even splits in this period corresponded to having only eight members, should arguably lead one to view the paucity of even splits as partially explained from that attitude and then consider the balance of the paucity of even splits over the period of the 2001 to 2020 terms slightly less intense than it appears. Compared to a sand pit, the depth of the sand pit is less surprising if someone also took sand from there. The paucity of splits due to other forces is less pronounced because the Court may have intentionally avoided reviewing matters that would tend to split it evenly while it only had eight members. However, this is not visible in the numbers; excluding the period after Scalia's death does

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    29   *See, e.g.*, Ariane de Vogue, *Down a Justice, John Roberts Looks to Find Compromise, Avoid 4-4 Ties*, CNN POLITICS (May 10, 2016, 3:50 PM), https://www.cnn.com/2016/05/10/politics/john-roberts-supreme-court-tie/index.html [perma.cc/2NKG-PELP].

not materially change the percentage of 4–4 decisions.[30] But it does make the missing decisions with three dissenters disappear.[31] This suggests that any effort to avoid contentious issues mostly produced a reduction of decisions with three dissenters, whereas the background level of avoiding 4–4 splits already had its full impact and any additional avoidance of contentious issues did not influence 4–4 splits.

The statistical test of whether this paucity of 4–4 decisions can appear by chance is the *chi*-squared test. The probability of observing this few 4–4 decisions during these periods is extraordinarily small; the confidence that something different was at work is greater than 99.99%.[32] By contrast, the rarity of eight-vote decisions with three dissenters can easily be due to chance.[33]

The historical periods to which the two subsets belong are, at first blush, quite different. The defining event in the 1966 to 1975 period was the Vietnam War, a major but local skirmish at the peak, perhaps, of hostilities in the greater period of the Cold War. In the Supreme Court, it was a period of major events. Justice Fortas resigned in 1969 over allegations of financial impropriety after allegations of excessive communication with President Johnson, a close professional acquaintance, led to the successful filibuster of Johnson's attempt to elevate Fortas to Chief Justice.[34] The election of Richard Nixon to the presidency in 1968 produced four appointments: Burger in 1969,

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30   The percentage of eight-vote decisions that are 4–4 outside the terms from 2001 to 2020 is about 7.4%. Their percentage in the terms from 2001 to 2020 is 3.8%. Excluding the period that Scalia's seat was vacant makes that percentage 3.9. The Court's effort to avoid equal splits while Scalia's seat was vacant did not have a material impact.

31   The percentage of eight-vote decisions with three dissenters outside the 2001 to 2020 terms is 18.35%. Inside these terms, that percentage drops to 15.41%. However, if the period that Scalia's seat was vacant is excluded, then that percentage only drops to 17.49%.

32   The *chi*-squared test compares the number of other decisions with eight votes to the number of 4–4 decisions across the two periods. During these two periods the Court issued twenty-nine decisions that were 4–4 and 691 decisions with eight votes that had other splits, making 4–4 decisions about 4% of all decisions with eight votes. During the other terms, outside those periods, the Court issued eighty-seven decisions that were 4–4 and 887 decisions with eight votes that had other splits, making 4–4 decisions about 9% of all decisions with eight votes. The probability of observing this difference by chance is 0.008% producing confidence greater than 99.99% that a different mechanism was at work during those periods.

33   In the 2001 to 2010 terms, the Court issued forty-one eight-vote decisions with three dissenters and 225 decisions with eight votes and other divisions, making decisions with three dissenters about 15%. Outside this period, eight-vote decisions with three dissenters are 262 and with other divisions 1,166, making decisions with three dissenters about 18%. Despite this difference in the percentages, these numbers can arise by chance with about 25% probability. Dropping the 4–4 decisions reduces this figure to about 16%, still far from statistical confidence.

34   *See, e.g.*, Gerard N. Magliocca, *The Legacy of Chief Justice Fortas*, 18 GREEN BAG 2D 261, 265–68 (2015) (Fortas accepted a $20,000 payment from the foundation of a financier who was under criminal prosecution, and arguably deceived the Senate during his confirmation hearings for Chief about the degree of his advising President Johnson, with further citations).

Blackmun in 1970, and Powell and Rehnquist on the same day in 1972. The appointment of Blackmun produced a Court with a majority appointed by Republican Presidents, which has continued without interruption to the time of this writing.

The period from 2001 to 2020 included the Iraq and Afghanistan Wars but those did not have a similar centrality for the nation's life as the Vietnam War. However, an intense polarization of political views seemed to exist between liberals and conservatives that may be considered to have some similarities to the culture wars of the late sixties and early seventies. Where the earlier era had demonstrations against the Vietnam War, the recent period eventually had ones about the Black Lives Matter movement juxtaposed by the devolution of a Republican political rally into an incursion into the Capitol on January 6th, 2021, in an attempt to alter the outcome of the presidential election.

While no direct causes appear for the paucity of 4–4 splits during those periods, the concurrent incidence of national disunity during the same periods is difficult to ignore. In prior research I showed that during the Cold War in un-Americanism prosecutions the intensity with which the Court allowed national defense to produce exceptions to the Bill of Rights seemed sensitive to the national feeling of a threat from Communism.[35] Just as the Court or, more accurately, some justices were sensitive to the nation's predicament in un-Americanism cases from a national defense perspective, so in the paucity of 4–4 decisions some justices likely are sensitive to feelings of national disunity. Perhaps, intentionally or unintentionally, the degree to which some justices seek to avoid the apparent polarization of 4–4 decisions depends on the degree to which national disunity exists.[36]

One may seek confirmation of the Court's effort to counter national disunity in the strength of the justices' desire to present a unanimous decision. In the same sense in which avoiding 4–4 splits avoids fanning the flames of division, producing unanimous decisions fosters unity. Indeed, outside these periods of disunity, only about thirty-seven percent of the Court's decisions are unanimous. During the periods of disunity about forty percent of the Court's decisions are unanimous. The probability of observing such a difference by chance is about one-tenth of one percent, meaning the

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35   Nicholas L. Georgakopoulos, *The Supreme Court's Un-Americanism Pendulum*, 15 FIU L. REV. 259 *passim* (2021).

36   Moreover, if one were to interpret the reduced correlation of the distribution of votes from 2001 to 2020 as stemming in part from reduced cohesion between the members of the Court, then the avoidance of 4–4 decisions may be considered somewhat stronger than it appears in the 2001 to 2020 terms.

confidence that the Court was acting differently at times of disunity is about 99.9%.[37]

IV. CONCLUSION

The distribution of the justices' votes is quite interesting. Most compositions produce symmetrical distributions, except the one with the liberal and perhaps extraordinary negotiator Goldberg. Unanimity seems surprisingly frequent but is consistent with appellate courts' aversion to dissenting. Equal splits seem to be avoided with greater intensity during times of national disunity, when unanimity also becomes more frequent.

In sum, these phenomena surrounding the distributions of the justices' votes are consistent with a Court that is sensitive to its role as the judicious curator of the national legal system rather than an arena for political strife.

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[37]   This is the result of applying the *chi*-squared test to the number of decisions in the four categories: The number of unanimous decisions during these periods of disunity is 1,292. Non-unanimous decisions during periods of disunity are 1,904. Unanimous decisions outside these periods of disunity are 2,178. Non-unanimous decisions outside disunity are 3,721. In terms of percentages, outside these periods of national disunity, unanimous decisions are about 37% of all decisions. In these periods of disunity, unanimous decisions are about 40% of all decisions. These counts include decisions with any number of votes, not only nine.