

Consensus, Disorder, and Ideology on the Supreme Court

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Abstract: Ideological models are widely accepted as the basis for many academic studies of the Supreme Court because of their power in predicting the justices' decision making behavior. Not all votes are easily explained or well predicted by attitudes, however. Consensus in Supreme Court voting, particularly the extreme consensus of unanimity, has often puzzled Court observers who adhere to ideological accounts of judicial decision making. Are consensus and (ultimately) unanimity driven by extreme factual scenarios or extreme lower court rulings such that even the most liberal and most conservative justice can agree on the case disposition? Or are they driven by other, non-attitudinal influences on judicial decisions? In this paper, we rely on a measure of deviations from expected ideological patterns in the justices' voting to assess whether ideological models provide an adequate explanation of consensus on the Court. We find that case factors that predict *voting disorder* also predict *consensus*. Based on that finding, we conclude that consensus on the Court cannot be explained by ideology alone; rather, it often results from ideology's being outweighed by other influences on justices' decisions.

1. Introduction

In the fifty terms of the United States Supreme Court running from October 1957 to June 2006, the justices decided 38% of fully argued cases without dissent. In an additional 11%, only a single justice dissented.¹ With such highly consensual decisions accounting for nearly half the Court's output, one might imagine that they would have attracted a good deal of attention from scholars conducting large-scale empirical studies over the same period. But they have not. Consensual decisions at the Supreme Court, and in particular the factors explaining variations in consensus across cases in the same time period, have been the subject of only a small literature.²

There may be good reason for this state of affairs. Scholars who are interested in variation in justices' voting, particularly the extent to which that variation is caused by ideological predispositions, can find more to analyze in dissents than unanimity.³ Furthermore, it may well be that consensus is simply the flip side of dissensus—that is, that the same factors drive both kinds of votes, the only difference being that these factors affect most or all justices the same way in consensual cases (those cases for which there is a lop-sided majority decision) and differently in cases with divided votes.

But can we safely assume that consensus results from nothing more than the lack of those disagreements that would normally result in dissents? We think not, and in this paper, we test that assumption. Specifically, we ask whether ideology plays the same role in cases with fewer or no

¹ These figures are generated using the “vote” variable in the Supreme Court Database, with “analu” set to zero (case citation) and including all categories of “dec_type” except 2 (non-orally argued).

² In large part, this scholarly lacuna results from researchers' interest in understanding the factors that divide the justices and maximize variation in their voting behavior. Many influential works on ideology and Supreme Court decision making limit some or all of their focus to non-unanimous decisions. See, e.g. Segal and Spaeth (2002, 295); Pritchett (1948); Tate (1981); Ho and Quinn (2010).

³ As C. Herman Pritchett observed as early as 1941, “[the justices’] divisions of opinion grow out of the conscious or unconscious preferences and prejudices of the justices, and an examination of these disagreements should afford an interesting approach to the problem of judicial motivation” (1941, 890).

dissents as in cases that sharply divide the Court. Employing a measure of the ideological orderedness of the justices' voting coalitions, we find indirect but substantial evidence that it does not, that ideology is less dominant in decisions with larger majorities. Because of what this finding indicates about both the nature of consensus and the reach of ideological models of decision making, we think it provides a strong argument for renewing scholarly attention to consensus on the Court.

2. Ideology and Consensus

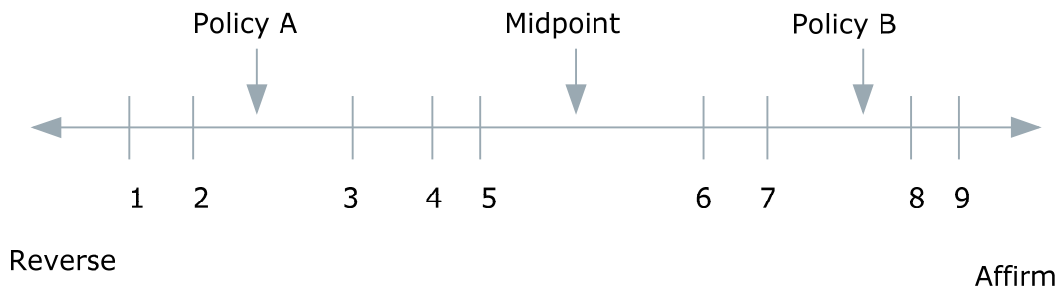
The attitudinal model of Supreme Court decision making, which holds that justices' decisions are based primarily on their "ideological attitudes and values" (Segal and Spaeth 2002, 86), has a central place in the social science literature on the Court. Whether one evaluates the justices' voting behavior through systematic methods or casual observation, it is hard to escape the conclusion that many of the justices' votes are driven by their policy preferences. Even critics of the attitudinal model's dominance often agree that ideology plays a major role in justices' decision making (e.g., Gerhardt 2008, Tamanaha 2009). Yet, as these same critics – and many others – have observed, the fact that ideology is a powerful influence on justices' decisions does not make other influences unworthy of study. Indeed, as exemplified by research into strategic behavior on the Court (e.g., Epstein and Knight 1998; Maltzman, Spriggs and Wahlbeck 2000), even scholars who believe that the justices' policy preferences dominate their voting calculus recognize that important insights may be achieved by examining empirical anomalies that arise when the justices fail to conform perfectly to the behavior predicted by the attitudinal model.

Reaching consensus on the Supreme Court—especially in its most extreme form, unanimity—is an example of a behavior that, while explainable in terms of the attitudinal model (Segal and Spaeth 1993; 2002; Brenner and Arrington 1987), seems to pose a challenge to it. We

begin by presenting an attitudinal account of consensus, then turn to reasons to think that it may be incomplete.

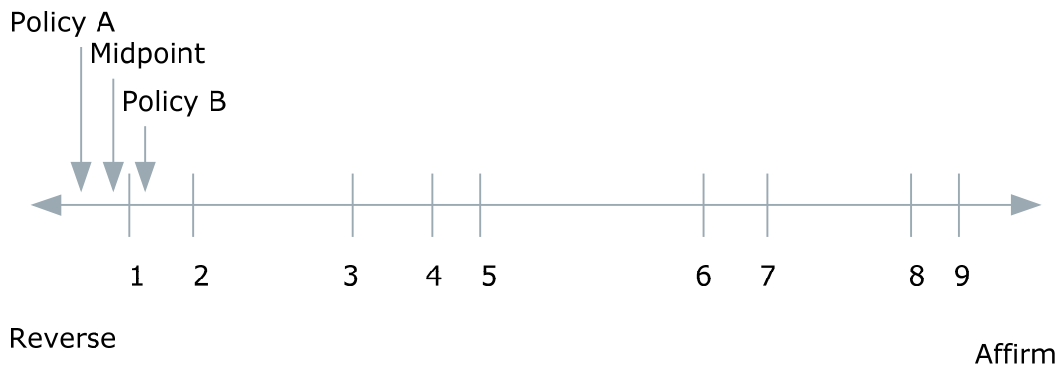
Put simply, the attitudinal account of consensus is that most or all of the justices happen to prefer the same option in a given case. We can illustrate this possibility more carefully by turning to the spatial model that has been held to underlie ideological voting at least since the work of Pritchett (1948) and Schubert (1965; 1974). The spatial model has been described in different ways, but in our view it is simplest to conceive of it as an interaction between the policy alternatives offered by a case and the ideal points of the justices: each justice chooses the policy alternative closest to the point where policy would be optimal in his or her view. In the typical case where the justices are presented with two major policy alternatives, it is convenient to focus on the midpoint between the two alternatives. All justices with ideal points to the right of that midpoint vote for the conservative position; all those with ideal points to the left vote for the liberal position. The amount of consensus is determined strictly by the location of this midpoint. If it is near the middle of the distribution of the justices' ideal points, the result will be a badly divided vote. If it falls at or near one end of the distribution, the vote will be unanimous or nearly unanimous.

Consider, for example, two cases involving the search and seizure of drugs from an automobile glove compartment, both upheld against a Fourth Amendment challenge in the lower court. In the first case, affirming the lower court would require a fairly conservative interpretation of the amendment, while reversing would require a fairly liberal interpretation. This case scenario may be represented by a simple graphic:



Here, the attitudinal model would predict a 5-4 reversal, as all the justices with ideal points to the left of the midpoint between policy alternatives (Justices 1 through 5) will choose the more liberal alternative and vote for the defendant, while Justices 6 through 9 will prefer the more conservative ruling and vote to affirm.

By contrast, in our second hypothetical case, shown in the next graphic, reversing the lower court would necessitate an extremely broad reading of the amendment’s protections, seriously hampering police investigations, while affirming would do very little to endanger individual privacy. Because the resulting midpoint is to the left of all of the justices, in this case we would expect attitudinal voting to produce a unanimous decision to affirm.



The attitudinal model, then, is capable of accounting for variation in dissensus in a simple, straightforward way: cases with more extreme policy stimuli produce more lopsided decisions. Nevertheless, accepting this account requires one to confront difficult questions about the behavior of the justices and other judges, especially in unanimous cases. For affirmances by a large majority,

why would an otherwise ideologically divided Court ever bother to populate its docket with cases in which the lower court so obviously got it right?⁴ For equally lopsided reversals, how often will a lower court panel contain two judges who are both more liberal or both more conservative than even the most liberal or conservative members of the Supreme Court and willing to court reversal with a decision unappealing to anyone on the Court?

Furthermore, the attitudinal model has difficulty accounting for trends in consensus on the Court, particularly the soaring rates of dissent since the early 1940's. To attribute the change to ideological disagreement, we would have to believe that justices in the past were far more ideologically homogeneous than they are now or that the policy options presented in cases were much more extreme and one-sided. Neither alternative seems very plausible.

If ideology alone is not sufficient to explain variation in consensus, what else could help explain it? The two most prominent alternatives come from studies of the decline in consensus. One explanation traces consensus to legal clarity: the law may be clear enough in a given case that even justices with disparate ideologies must agree that a particular result is required (Hensley and Johnson 1998, 399). The idea that clarity in the applicable legal rules explains consensus was proposed by Herman Pritchett, who observed that "in such cases, presumably the facts and the law are so clear that no opportunity is allowed for the autobiographies of the justices to lead them to opposing conclusions" (1941, 890). Because justices in the 19th and early 20th Centuries had limited control over their dockets, and so probably heard a larger proportion of legally easy cases than justices since, this could account for greater levels of consensus pre-1940.

The other explanation is that a norm of suppressing dissent in order to preserve consensus existed prior to 1940 but began eroding rapidly around that time (Epstein, Segal, and Spaeth 2001),⁵

⁴ For a thorough discussion of this point, see Kritzer, Pickerill and Richards (1998).

⁵ In Epstein et al.'s study of the Waite Court, conference votes provided the source of evidence to assess whether the Court's consensual published decisions masked dissensus among the justices.

probably because of changing values of the Court's leaders (Caldeira and Zorn 1998; Walker, Epstein and Dixon 1988) or changing political conditions (Goff 2005).

Based on evidence of widespread disagreement in the Waite Court's conferences, Epstein, Segal, and Spaeth (2001) reject the legal-clarity account of declining consensus. But even if they are right to do so, legal clarity could be a more important influence on consensus now that the norm of suppressing dissents has weakened or vanished. Similarly, while the disappearance of any general norm of consensus calls into question its capacity to explain consensual decisions in recent history, it does not necessarily mean that justices since 1940 have placed no value on consensus. It may just be that their desire for consensus is more easily over-ridden now. If so, then a desire for consensus—to preserve collegiality, protect a court's legitimacy, or for other reasons—could still help explain variation in dissents across cases in more recent periods.

There are other possible explanations of consensus as well.⁶ But our aim in this study is not to test all possible explanations against each other or to offer a complete account of unanimity in voting. Rather, we aim to determine how well ideology alone can explain variations in the size of the majority vote. If ideology is not sufficient to explain consensus, then there is a strong case for more intensive study of the causes of consensual decision making.⁷

A final note before turning to our data. Scholars interested in votes with few dissents have tended to frame the issue in terms of unanimous versus non-unanimous voting. Perhaps this is because unanimous votes are especially striking; perhaps it is because unanimous votes are useless

Studies of other federal and state appellate courts found that a similar norm of consensus often operates to mask dissensus within collegial courts (e.g. Dubois 1988; Songer 1982).

⁶ For instance, in strategic accounts, justices sometimes agree to an ideologically less preferred position to avoid a result that is even less attractive in the long run. This can result in justices joining the majority even though they prefer the opposing position.

⁷ It is important to note that our focus in this paper is on the causes of variation in consensus across cases, not across individual judges. Certain judges may have a predilection for dissenting, either in general, or in a particular type of case. Such judge/case interactions strike us as very interesting, but they are beyond the scope of this investigation.

for purposes of estimating justices' relative ideological positions. Whatever the reason, we think it theoretically dubious to focus on unanimity rather than the broader concept of consensus. Clearly, forces that are capable of producing unanimous votes must also be capable of pushing the justices *toward* unanimity. In our view the best question is not why the Court was or was not unanimous in its decision but why a certain number of justices agreed or disagreed.

3. Research Strategy

Our aim in this study is to determine whether more consensual Supreme Court decisions tend to differ from less consensual ones in the role played by ideology. This would be easy to do if the justices were considerate enough to tell us when ideology dominates their decisions. But they are not so cooperative, and the resulting methodological challenge is a daunting one. Our solution is to exploit a measure of voting "disorder" that we previously developed (Edelman, Klein, and Lindquist 2008, hereafter EKL1). This measure quantifies the degree to which voting coalitions in individual cases depart from what would be expected under the attitudinal model.

EKL1 found an association between voting disorder and case characteristics that would be expected to make ideology less salient⁸, indicating that ideological considerations tend to play a smaller role in cases ending in more disordered votes than those with less disordered votes. In this paper we extend this approach one step further, asking whether cases that have fewer dissents look more like cases that generate ideologically well-ordered votes (where the influence of ideology is larger) or those that produce ideologically disordered votes (where its influence is smaller). More precisely, we test for a negative relationship between the disorder score that would be predicted for a

⁸ These characteristics, described more fully in the next section of this article, are: a lower court decision ideologically consistent with the expected decision of the Supreme Court; a case coming to the Court through its mandatory jurisdiction rather than discretionary jurisdiction; no overruling of precedent by the Supreme Court; no dissent in the lower court or reversal by one lower court of another's decision; the presence of the federal government as respondent in the case; a non-constitutional case; and a case involving an issue other than civil liberties.

case by the model and the actual number of dissents in that case. We will describe these analyses after a brief explanation of the measure of disorder. Interested readers can find a full account of the measure in EKL1.

Begin by picturing a world where the conventional one-dimensional spatial model of judicial voting holds perfectly, as in our earlier examples. The justices are presented with policy—or doctrinal—alternatives lying on the dimension, and each justice votes for the alternative that lies closest to his or her ideal point. In this world, all votes are perfectly ordered along the ideological continuum, in that all the justices with ideal points on the same side of the midpoint of the alternatives vote the same way.

In the real world, voting coalitions are not always so perfectly ordered.⁹ That is, it is not always possible to separate those justices voting in one direction from the others by a single line. Suppose in our earlier example justices 1,2,5 and 7 voted to reverse, with the remainder voting to affirm. Such an outcome would not be consistent with a spatial voting model, given the particular location of the justices' ideal points. It is also true that some violations of the spatial voting model are intuitively less extreme than others. As an example, the case where justices 1,2,3 and 5 vote to reverse with 4,6,7,8 and 9 affirming seems less problematic than a case in which justices 1,3,5, 7, and 9 vote in one direction with justices 2,4,6, and 8 voting in the other.

In EKL1 we introduced a measure that assigns to each voting pattern a “disorder” score that measures how far the vote is from being consistent with the spatial voting model. Our measure quantifies disorder by taking into account not only the orderings of the justices in the different coalitions but the distances between their ideal points. It begins by recognizing that if each justice in a case attempts to choose the policy option closest to his or her ideal point, disorder can still arise in one of two ways: either the ordering of the justices' ideal points with respect to a central policy

⁹ Just over half of the cases EKL1 examined were disordered (2008, 831).

differs from the usual ordering (i.e., the case presents an unusual ideological dimension), or the justices differ in their perceptions of where the alternatives lie on the policy dimension. In the spirit of caution in claiming deviations from spatial voting, the disorder score is determined by the minimum correction in either the ordering of ideal points or placement of policy points sufficient to achieve a perfectly ordered vote.¹⁰

For purposes of illustration, consider three cases decided by 6-3 votes in the Court's 2004 Term. The positions of the justices, estimated from multidimensional scaling of their votes across the period in which all nine served together, were: Stevens (-2.35); Ginsburg (-1.67); Souter (-1.48); Breyer (-1.47); O'Connor (.55); Kennedy (.78); Rehnquist (1.49); Scalia (2.05); Thomas (2.11). In the case of *Miller-El v. Dretke*,¹¹ where the Court ruled in favor of a criminal defendant claiming that race played an improper role in the selection of the jury that convicted him, the three dissenters were Rehnquist, Scalia, and Thomas. This is one of two possible combinations of three dissenters that would be perfectly consistent with the spatial model, so there is no observed disorder, and the disorder score is zero. In *Gonzalez v. Raich*,¹² upholding Congress's regulation of marijuana under the Commerce Clause, the dissenters were O'Connor, Rehnquist, and Thomas. Here we see a moderate deviation from perfect order. For the most part, the justices line up as we would expect, but there is one significant exception in Scalia's vote: under the spatial model he should vote with Rehnquist and

¹⁰ As should be evident, the disorder measure depends on the location of the ideal points of the justices. In EKL1 we used the ideal point estimates generated by Martin and Quinn (2002). It has recently been observed, however, that using the cardinal values of the ideal points is "misguided." Ho and Quinn (2010, Section III(D)). They note that the values are unstable with respect to assumptions about the prior distributions involved. It has also been noted that these estimates suffer from "sag" Poole (2005, 154). In this paper we employ ideal point estimates computed by applying multi-dimensional scaling (MDS) to the matrix of disagreement scores, the percentage of the time that justices disagreed with each other. This method, being a purely data analysis method, is not subject to the problems of specifying priors. MDS has lost favor as a method because it is not amenable to statistical inference techniques. However its superior robustness seems attractive in this context. All the results we report in this paper have been duplicated using the Martin-Quinn scores with no significant differences.

¹¹ 162 L. Ed. 2d 196 (2005).

¹² 162 L. Ed. 2d 1 (2005).

Thomas here. (Either O'Connor or Kennedy also would have to move to the other side to create perfectly ordered coalitions.) The disorder score for this case is .35. Finally, we see a highly disordered vote in *National Cable & Telecommunications Assn. v. Brand X Internet Services*¹³, where the Court deferred to an FCC decision to exempt broadband cable modem companies from certain regulation. The ideologically strange coalitions of Stevens, Breyer, O'Connor, Kennedy, Rehnquist, and Thomas against Ginsburg, Souter, and Scalia yield a disorder score of 1.1.¹⁴

How can a measure of voting disorder help tease out the importance of ideology relative to other influences? The disorder score should not be treated as a direct measure of ideology's (lack of) influence, for as just explained, the fact that a vote earns a high disorder score need not imply a serious breakdown in ideology-based voting. The vote might be disordered only because justices disagree about the locations of the policy alternatives. Or an atypical attitudinal dimension might be at work. For instance, we cannot absolutely rule out the possibility that in some area of communications policy, Ginsburg's, Souter's, and Scalia's ideal points were together at one end of the Court's distribution of preferences instead of in their usual positions relative to the other justices. A vote that is in fact perfectly ordered on such a dimension will appear disordered even though it is consistent with voting based purely on justices' policy attitudes.

Nevertheless, the higher the disorder score, the less plausible such accounts are. In the FCC case, to accept the ideological account, we must believe that two or more justices understood the central issue in the case in startlingly different ways or that two or more justices had policy preferences very far from those of their usual ideological allies. It seems far more likely that considerations other than pure policy preferences dominated at least some justices' thinking in this case. More importantly, in EKL1, we found strong evidence that ideological orderedness is

¹³ 162 L. Ed. 2d 820 (2005).

¹⁴ The highest disorder score in our dataset is 1.4, found in two cases where Justices Brennan, Marshall, Blackmun, White, and Burger voted in the majority against Justices Rehnquist, Powell, Stewart, and Douglas.

influenced by a number of factors seemingly related to ideological salience. That is, votes tend to be most ordered, and so have the lowest disorder scores, in the types of cases where ideological considerations would be expected to carry the most weight. (The variables we analyzed and reasoning behind them are described in the next section of this paper.) And so, while it would be unwise to assume that ideology played a reduced role in the decision of a particular case just because that case has a substantially disordered vote, given a large set of cases with relatively high disorder scores and another with relatively low disorder scores, one can safely conclude that ideology plays on average less of a role in the former than in the latter.

We have large sets of cases, but that does not mean we can simply compare disorder scores across these sets. Unanimous decisions, which make up more than 37% of our dataset, provide no information from which to calculate a disorder score. To illustrate with the current Supreme Court, a unanimous liberal decision might reflect perfect spatial voting, with the midpoint between the policy alternatives falling to the right of all nine justices. But it just as well could be masking major departures from the spatial model, with the midpoint falling to the left of Justices Alito, Roberts, Scalia, and Thomas but all of them joining the majority for some reason. We cannot tell anything about ideological orderedness – i.e., consistency with the ideological-spatial model – simply by looking at the vote.

Therefore, we have to proceed somewhat indirectly. Using the coefficients from our model of disorder in non-unanimous cases, we generate, for every case including unanimous ones, the disorder score that would be predicted for a case with those characteristics. We then compare these predicted disorder scores with actual dissents. If we are right about the role of ideology in both orderedness and dissent, then we should observe a negative relationship between predicted disorder and actual dissent.

Before turning to our main analyses, let us consider the more direct evidence that is available to us. We can perform a test of the relationship between actual disorder and consensus among non-unanimous decisions by comparing the actual distributions of disorder scores at different levels of dissents with the distributions that would be expected by chance – that is, if disorder and consensus were unrelated. Let us begin with a simple comparison. While there are only nine possible ways to have a single dissenter among nine justices, there are thirty-six possible combinations of two dissenters, eighty-four possible combinations of three, and 126 possible combinations of four. Yet, regardless of the total possible combinations, there are always only two combinations that are perfectly ordered (e.g., in the case of a single dissenter, either Justice 1 or Justice 9 dissents; in the case of four dissenters, either Justices 1, 2, 3, and 4 dissent or Justices 6, 7, 8, and 9 dissent). If coalitions occurred randomly, we would expect to find perfectly ordered coalitions 22.2% (2/9) of the time with one dissent, 5.6% (2/36) of the time with two dissents, 2.4% (2/84) of the time with three dissents, and 1.6% (2/126) of the time with four dissents. That is, perfectly ordered votes should show up ten times as frequently in cases with one dissent as in cases with four. The reality is very different. We find perfectly ordered votes in 58% of cases with one dissent, 46% of cases with two, 36% of cases with three, and 50% of cases with four. Putting this in terms of the ratio of observed proportions to the proportions that would be expected by chance, perfectly ordered votes occur 2.6 times as often as would be expected by chance in cases with one dissent, 8.2 times as often in cases with two, 15.0 times as often in cases with three, and a whopping 31.3 times as often as would be expected by chance in cases with four dissents.

For a fuller picture, we begin by calculating a disorder score for each possible combination of votes resulting in a given number of dissents. Because disorder scores are based on the ideological positions of the justices, they must be calculated separately for each period in which the Court's membership remains constant, i.e. natural court. (For example, for a case in which the most

conservative justice and most liberal justice dissent together, the disorder score is 1.26 in the Burger 4 Court – the fourth natural court during Warren Burger’s tenure as chief justice – and 1.06 in the Rehnquist 7 Court.) Taking the mean of the disorder scores from all possible coalitions with a given number of dissents yields the mean score we would expect to see if the coalitions that actually occurred were drawn randomly from the set of possible coalitions. To generate an expected score across all natural courts combined, we add together the expected disorder scores from each natural court, weighting each by the proportion of cases contributed by that natural court to the total set of cases with a given number of dissents.

Figure 1 about here.

The expected score thus generated for cases involving a single dissent is .225. The mean score of the actual cases with one dissent ($n = 468$) is .126, .099 less, indicating that cases with a single dissent were less disordered on average than would be expected by chance. For cases with two dissents, the expected disorder score is .61 and the actual disorder score ($n = 590$) is .248, for a difference of .362. For three dissents, the expected score, actual score, and difference are .809, .282 ($n=805$), and .527. For four dissents, .909, .245 ($n = 735$), and .664. The gap between expected and actual grows dramatically as we move from a single dissent to four. Now, it may be that this raw difference between expected and observed disorder scores exaggerates the disparities between cases with different numbers of dissents: because the expected score is lower for cases with fewer dissents, there is less room for observed scores in those cases to fall below the expected. For a very conservative test, we can consider, not the raw difference, but the difference as a percentage of the expected score. For cases with one dissent, $.099/.225 = .44$, meaning that the observed score is 44% lower than the expected score. This percentage for the other cases is: two dissents – 59%; three dissents – 65%; four dissents – 73%.

These results, while not as striking as the raw differences, point clearly in the same direction. Together, they provide notable evidence that the same case characteristics that encourage ideologically ordered voting (and, hence, lower disorder scores) also encourage disagreements among the justices. We turn now to more thorough tests that include unanimous cases.

4. Modeling Voting Disorder

The data for our tests will be the same as in EKL1: all decisions after oral argument that were made from the beginning of the 1958 Term to the end of the 2004 Term and occurred in natural courts lasting at least three terms. (Because the distribution of possible disorder scores is a function of the locations of justices and so varies from one natural court to another, we are not confident that data from short-lived natural courts could be meaningfully interpreted.) To explain our research strategy here, we must briefly revisit the earlier article.

The central question in EKL1 was whether variables that would be expected to predict weaker ideological influences on justices' voting also predicted higher disorder scores. We tested nine such variables in a model of non-unanimous cases (recall that we cannot define disorder scores for unanimous cases) that also included controls for case complexity and dummy variables for the natural courts. Two of the key variables did not have significant effects on disorder; the other seven had significant effects in the predicted directions.

Table 1 about here.

Summary statistics for these seven variables and the disorder score are shown in the Appendix. Table 1 displays the results of a tobit¹⁵ model including these seven variables and the two

¹⁵ The rationale for employing a tobit model rather than OLS is that disorder is best understood as censored at zero. Consider three scenarios from a hypothetical Supreme Court where justices' ideal points are 10, 20, 30, ..., 90. In each case, the policy alternatives are at 60 (A) and 78 (B) with a

natural-court dummy variables found to be significant in EKL1.¹⁶ This model is the starting point for the main analyses in this article. From its coefficients, we generate predicted disorder scores for all cases, including unanimous ones.

The first of these seven variables is whether the ideological direction of the lower court decision, as coded in the Spaeth database, is inconsistent (1) or consistent (0) with the expected decision of the Supreme Court, where the expected decision is liberal while Earl Warren is chief justice and conservative under Chief Justices Burger and Rehnquist. As evidenced by the Court's propensity for reversal, disagreement with lower court decisions plays an important role in justices' decisions to review cases. In cases that are reviewed despite consistency between the lower court decision and the justices' preferences, those preferences may be less central to the justices' motivations and other considerations may be more prominent. As this would suggest, disorder scores, as we found in EKL1, are lower (i.e., the justices vote in a manner more consistent with the spatial model) in cases where the lower court decision is ideologically inconsistent with the dominant ideology at the Supreme Court.

The next variable is whether a case came to the Court through its mandatory jurisdiction (appeal or original jurisdiction; coded 1) or through its discretionary jurisdiction (certiorari or, very rarely, certification; coded 0). The logic here is that the justices' personal views could be expected to play a larger role in a set of cases they heard voluntarily than in a set of cases that they were required

midpoint of 69 and all justices other than Justice 9 vote as expected. In the first, Justice 9 (whose ideal point is typically 90) for some reason prefers policy A to B and votes for A, yielding a moderate disorder score. In the second scenario, Justice 9 strongly prefers and votes for B, as expected. In the third, Justice 9 prefers B by a very slight margin and votes for it. The disorder score in each of the last two scenarios is zero because we do not observe any disorder, but in the third the score masks an important deviation from the expected: Justice 9's preference is not what it should be. If we could somehow see behind the actual votes to these hidden preferences, we would assign a lower disorder score to the second scenario than the third.

¹⁶ To ensure the appropriateness of using this reduced model, we conducted likelihood ratio tests of it versus models with more variables. Note that in EKL1, despite testing several indicators of case complexity, we were unable to find one with a significant effect on disorder.

to hear, some of which they might have preferred not to bother with.¹⁷ Disorder scores tend to be higher among cases the Court was required to hear.

The third variable is whether the Court overruled a precedent in the case before it. Because overruling precedent is a dramatic doctrinal step, one would expect it to occur more often in cases where justices feel especially strongly about the policy issues involved. Indeed, cases where precedents are overruled (1) tend to have lower disorder scores than those without over-rulings (0).

The fourth variable from EKL1 is coded 1 if one or more judges in the lower court dissented or the lower court's decision reversed another court's decision, 0 otherwise. Such lower court dissension is more likely to occur either when it is especially hard for judges to avoid letting personal views enter their decisions or when the law is especially unclear. Either way, ideology would be expected to play a larger role in the justices' decisions in such cases. Cases with dissension in the lower courts tend to have lower disorder scores.

Fifth, the presence of the federal government as a party may dampen the influence of ideology, whether because of an inclination to defer to the government, the skill of lawyers in the Solicitor General's office, or the justices' respect for them. To avoid conflating these effects with those stemming from the SG's strategy in choosing when to petition the Court for certiorari, we distinguish only those cases where the federal government was respondent, (coded as 1, with all others as 0). Disorder tends to be greater in those cases.

The final two variables distinguish between areas of law. The first is whether the case hinged on a constitutional issue (1) or not (0), as described by the "law" variable in the Spaeth database. Because constitutional cases are especially likely to involve high stakes but not as likely as

¹⁷ In 1988, most of the Court's mandatory appellate jurisdiction was finally eliminated, with the exception of appeals from three-judge district courts. Prior to that date, the Court did exercise discretion over mandatory appeals by using procedural devices to avoid decisions in those cases, including dismissals for want of federal jurisdiction. Nevertheless, the Court continued to decide some mandatory appeals on the merits, even when those appeals might not have involved matters for which the writ of certiorari would not have been issued. See Stern, Gressman and Shapiro, 1988.

statutory or administrative cases to be highly technical, ideology might be expected to have a stronger influence in them. Consistent with this expectation, constitutional cases are in fact less disordered. For similar reasons, we would expect ideology to play a larger role on average in cases involving civil liberties issues (1) than with other types of issues (0). Consequently, civil liberties cases should yield more ideologically ordered votes (i.e., lower disorder scores). This expectation was confirmed by the data.

Note that we do not claim that each substantive variable's effect on disorder is attributable entirely to the weight of ideological considerations. For instance, it seems likely that civil liberties cases are better ordered than others partly because they fit the dominant ideological dimension best; there are probably some non-civil liberties cases where the justices' ideologies matter just as much but the justices are simply lined up differently. However, taking them all together, we see the results as strong evidence that the level of order in justices' voting is substantially influenced by, and importantly reflects, the degree to which ideology influences their votes.

Given this finding, we can test whether consensus on the Court often arises from other considerations' overcoming the pull of justices' ideologies by asking whether the types of cases that are likely to generate higher disorder scores also generate greater agreement among the justices. Since non-ideological factors play a large role in generating disordered voting, if disorder in vote alignments is related to consensus, then it is also likely that non-ideological factors play a large role in generating consensus. Such a conclusion would suggest that consensus is not the "flip side" of ideological disagreement (i.e. reflecting only the presence of ideological agreement). We explore this hypothesis by assessing the relationship between predicted disorder scores from this model and consensus. In the following section, we investigate the simplest version of consensus and dissensus, where dissensus is measured by the number of formal dissents. We then explore a fuller and slightly more complex conception of dissensus.

5. The Relationship Between Disordered Voting and Consensus

The predicted disorder scores generated from the model range from $-.537$ to $.463$, with a median of $.047$, mean of $.061$, and standard deviation of $.171$ ($N = 4173$). If our hypothesis is correct, higher predicted disorder scores should be associated with fewer dissents (i.e., greater consensus). We begin with a simple comparison of mean predicted disorder against the number of dissents. Results are shown in Table 2. There is a monotonic increase in predicted disorder as we move from four dissents to none. The difference in means between four dissents and no dissents is highly significant, $p < .0001$.

Table 2 about here.

The number of dissents in a case can be affected by the number of justices participating in it. In addition, there may be certain unobserved characteristics of cases that come before a particular court or of the court itself that incline it to greater or lesser consensus. If these factors also relate to predicted disorder, then we must control for them in order to determine the relationship between predicted disorder and consensus more accurately. We do this by regressing the number of dissents on predicted disorder scores. We control for the number of justices participating in a case, because more participation means more chances for dissents, and for natural courts, because norms, opinion diversity, and interpersonal dynamics may vary across courts in ways that affect dissenting behavior. Because the number of dissents cannot be greater than four, making count models inappropriate, we employ ordered probit. The results are presented in Table 3.

Table 3 about here.

The results are too strong to allow any real doubt about the relationship between ideological orderedness and consensus: the more ideologically ordered a vote is expected to be, the less consensus (more dissents) we observe. To get a sense of the substantive importance of the

relationship, we use the CLARIFY program (Tomz, Wittenberg and King 2003) in STATA to estimate the probability of zero dissents and the probability of four dissents at different levels of predicted disorder. Table 4 displays three illustrative points from each of the two natural courts with the most cases, with nine justices participating. The table shows, for instance, that in Burger 6, as we move from the tenth percentile predicted disorder score to the ninetieth percentile predicted disorder score, the probability of a unanimous vote increases by about sixteen percentage points, while the probability of having four dissents drops by about thirteen percentage points. Another way to view the findings is that the probability of a unanimous vote is about equal to the probability of four dissents in Burger 6 cases with low predicted disorder, while a unanimous vote is about three times as probable as four dissents in Burger 6 cases with high predicted disorder. In short, in cases where we would expect to find more ideologically disordered voting, we are also likely to find fewer dissents.

Table 4 about here.

6. Further Exploration of Consensus and Dissensus

So far, to measure dissensus we have relied on the Spaeth database's coding of justices as having voted in the majority or minority. However, we do not view this approach as entirely satisfactory and suspect that some readers will have reservations about it; for it ignores the fact that a unanimous vote on the disposition of a case often masks serious disagreement about law and policy, as expressed in the justices' opinions.

Consider the antitrust issue addressed in *Jefferson Parish Hospital District No. 2 v. Hyde* (466 U.S. 2, 1984). All of the justices voted to reverse a lower court ruling that a hospital's exclusive contract with a firm of anesthesiologists was an illegal tying arrangement. The justices divided on the question of how to address such arrangements, however, with four refusing to join the opinion of the court and instead writing a separate opinion calling for the Court to abandon use of the strict per

se test and instead subject such arrangements only to “rule of reason” analysis. The justices in the majority reaffirmed the per se test, with Justice Brennan writing separately to emphasize and defend the Court’s use of the test. Because the question of whether to analyze tying arrangements under a per se rule or rule of reason was more important for the law than the specific question of whether the hospital’s exclusive contract was legal, very few people who care about antitrust law would think of *Hyde* as unanimously decided. As in *Hyde*, a justice who agrees with the majority on the disposition of a case but strongly disagrees with the majority’s formulation of doctrine will often write a special concurrence. This is not to say that every special concurrence reflects a policy disagreement that would be viewed as important by people outside the Court. But evaluating each case individually would be prohibitively time consuming. To analyze dissensus in its less obvious manifestations, we choose to treat special concurrences in otherwise unanimous decisions as minority votes.¹⁸

Once this choice is made, a trickier question arises: what to do with special concurrences in cases that also have dissents. For consistency’s sake, we could code all of them as minority votes as well. But this would be problematic. The fact that someone has dissented in a case suggests that there is an even more important reason for disagreement than the one occasioning the special concurrence and, therefore, that the distinction between dispositional majority and minority will often be more important than between those who joined the opinion of the court and those who did not. On the other hand, automatically treating special concurrences as majority votes would be unsatisfying for the reasons already offered and would be inconsistent with our coding of otherwise unanimous cases.

Our solution is to allow the evidence to speak for itself. Because we are challenging the spatial model in this paper, it is important to avoid stacking the deck in our favor; hence, we have

¹⁸ This approach comports with Spaeth’s recognition that the absence of special concurrences is an indicator of consensus (1989, 277).

tried to be cautious as possible in claiming that votes deviate from the spatial model¹⁹. In keeping with this approach, the choice whether to code special concurrences as majority or minority votes in a case is determined by which coding yields a lower disorder score.²⁰ Under this expanded definition of minority voting, the number of unanimous cases declines from 1575 to 1309. There are also 131 cases originally coded as non-unanimous where one or more special concurrences is counted as a minority vote in addition to the dissents.

We will refer to the new variable thus created as “minority votes,” to distinguish it from the pure dissents analyzed earlier. Extensions of the earlier analyses to minority votes are shown in Tables 5 through 8. (Note that the disorder scores from which our predicted scores are generated also change because some of the coalitions change.) The results do not differ in any important way from those in the analyses of dissents.

Tables 5 through 8 about here.

7. Discussion

We have evaluated the relationship between consensus and voting disorder using two alternative approaches—with the latter explicitly addressing the problem of special concurrences—and both yield essentially the same results. We see these results as powerful evidence of a tendency for ideology to be more influential in cases of the sort that generate considerable dissensus than in those that generate less. That is not to claim, of course, that ideology plays little or no role in all cases with little or no dissensus. It is beyond question that ideology may play a dominant role even in some unanimous decisions. Nevertheless, the data clearly show that the same characteristics

¹⁹ Recall, for instance, that the disorder score itself is the **minimum** deviation from the spatial model necessary to account for the observed vote.

²⁰ In fifty cases (of 4173), this recoding resulted in more “minority” votes than “majority” votes. In otherwise non-unanimous cases with five “minority” votes or fewer, we simply flipped the majority and minority vote counts. We read the remaining eleven cases ourselves and recoded by hand.

found in cases resulting in ideologically disordered votes are more likely to be found in cases that achieve a high level of consensus than in those that don't.

We acknowledge that our tests are indirect: we examined the relationship between dissensus and ideologically disordered voting, not between dissensus and ideology itself. But the indirect quality of the tests provides more, not less, reason for confidence in our interpretation. Consider the most important factors unrelated to ideological salience that would be expected to lead to more disorder: unusual or multiple dimensions, complexity or obscurity leading to disagreements about midpoints, and so on. Most such factors should either contribute to dissensus or have no effect; they should not contribute to consensus. For example, a free speech claim made by management in the context of a labor dispute has the capacity to split traditional ideological allies. By the same token, because it offers more grounds for disagreement, it is likely to elicit more minority votes. To the extent such cases exerting upward pressure on disorder and downward pressure on consensus occur, it becomes more difficult to uncover a positive relationship between disorder and consensus. Almost surely then, the analyses presented here are conservative tests of the relationship between consensus and ideology.

The principal conclusion of our investigation is that consensus is not merely the absence of ideological dissensus but rather, in many cases, the result of other influences. At this point we remain agnostic as to what exactly those other influences are: as noted earlier, legal reasoning and a preference for consensus are highly plausible candidates, and others certainly may be. What we do believe we have shown is that consensus is not simply driven by ideology, and that consensual cases are therefore worthy of much more scholarly attention, both because of what they can teach us about the limits of the attitudinal model as an explanation of Supreme Court decision making and because consensus is an important phenomenon in its own right.

We also believe that there is a useful methodological point to be taken from this study: unanimous cases should not be viewed as outliers and treated separately, but rather as the end of a continuum of possibilities that should be treated in a uniform way with cases that contain dissents. In retrospect it is hard to see why anyone would view a unanimous case as fundamentally different from one with a single dissent. We speculate that the tradition of dealing with unanimous cases as distinct is derived from the methodological fact that unanimous cases provide no grist for the attitudinalist mill, and so they came to be viewed as a distinct phenomenon. But since ideology is not the driving force in consensus there is no reason to view unanimous cases as distinct, and, indeed, it is much more productive to consider them as the end of a spectrum of consensus-driven cases.²¹

8. Conclusion

We have shown, we think, that consensus on the U. S. Supreme Court cannot be adequately explained by ideology alone. That is, consensus is not simply the absence of ideological conflict, but a phenomenon that must be explained by a range of factors beyond ideology. What those factors are is still up for debate, but we hope we can establish a consensus among students of judging that it is a question worth exploring more deeply.

²¹ If any class of case deserves separate scrutiny, it would seem to be 5-4 decisions rather than unanimous cases. From a theoretical perspective they are the minimum winning coalitions in this voting game and so the only cases in which a single justice has the ability to alter the outcome by switching her vote. It strikes us as no coincidence that they are also the cases that are the most ideologically driven.

References

- Baum, Lawrence. 1992. "Membership Change and Collective Voting Change in the United States Supreme Court." *Journal of Politics* 54(1):3-24.
- Brenner, Saul, and Theodore S. Arrington. 1987. "Unanimous Decision Making on the U.S. Supreme Court: Case Stimuli and Judicial Attitudes." *Political Behavior* 9(1):75-86.
- Caldeira, Gregory and Christopher J.W. Zorn. 1998. "Of time and Consensual Norms in the Supreme Court." *American Journal of Political Science* 42:874-902.
- Dubois, Philip L. 1988. "The Illusion of Judicial Consensus Revisited: Partisan Conflict on an Intermediate State Court of Appeals." *American Journal of Political Science* 32(4):946-967.
- Edelman, Paul H., David E. Klein, and Stefanie A. Lindquist. 2008. "Measuring Deviations from Expected Voting Patterns on Collegial Courts." *Journal of Empirical Legal Studies* 5(4):819-852.
- Epstein, Lee, Jeffrey A. Segal, and Harold J. Spaeth. "The Norm of Consensus on the U.S. Supreme Court." *American Journal of Political Science* 45(2):362-377.
- Epstein, Lee and Jack Knight. 1998. *The Choices Justices Make*. Washington, D.C.: Congressional Quarterly Press.
- Gerhardt, Michael J. 2008. *The Power of Precedent*. New York: Oxford University Press.
- Goff, Brian. 2005. "Supreme Court Consensus and Dissent: Estimating the Role of the Selection Screen." *Public Choice* 122:483-499.
- Hensley, Thomas R., and Scott P. Johnson. 1998. "Unanimity on the Rehnquist Court." *Akron Law Review* 31:387-408.
- Ho, Daniel E. and Kevin M. Quinn 2010. "How Not to Lie with Judicial Votes: Misconceptions, Measurement, and Models" *California Law Review*, to appear.
- Kritzer, Herbert M., J. Mitchell Pickerill, and Mark Richards. 1998. "Bringing the Law Back In: Finding a Role for Law in Models of Supreme Court Decision Making." Paper prepared for delivery at the Annual Meeting of the Midwest Political Science Association, Chicago, IL.
- Maltzman, Forrest, James F. Spriggs II, Paul J. Wahlbeck. 2000. *Crafting Law on the Supreme Court : The Collegial Game*. New York: Cambridge University Press.
- Martin, Andrew D., and Kevin M. Quinn. 2002. "Dynamic Ideal Point Estimation via Markov Chain Monte Carlo for the U.S. Supreme Court, 1953-1999." *Political Analysis* 10:134-153.
- Poole, Keith T. 2005. *Spatial Models of Parliamentary Voting*, Cambridge: Cambridge University Press.

- Pritchett, C. Herman. 1948. *The Roosevelt Court: A Study in Judicial Politics and Values, 1937-1947*. New York: Macmillan.
- Pritchett, C. Herman. 1941. "Divisions of Opinion among Justices of the U.S. Supreme Court." *American Political Science Review* 35:890-898.
- Rohde, David W., and Harold J. Spaeth. 1976. *Supreme Court Decision Making*. San Francisco: Freeman.
- Schubert, Glendon. 1965. *The Judicial Mind*. New York: Oxford University Press.
- Schubert, Glendon. 1974. *The Judicial Mind Revisited: Psychometric Analysis of Supreme Court Ideology*. New York: Oxford University Press.
- Segal, Jeffrey A., and Harold Spaeth. 1993. *The Supreme Court and the Attitudinal Model*. New York: Cambridge University Press.
- Segal, Jeffrey A., and Harold J. Spaeth. 2002. *The Supreme Court and the Attitudinal Model Revisited*. New York: Cambridge University Press.
- Songer, Donald J. 1982. "Consensual and Nonconsensual Decisions in Unanimous Opinions of the United States Courts of Appeals." *American Journal of Political Science* 26:225-239.
- Spaeth, Harold J., and David J. Peterson. 1971. "The Analysis and Interpretation of Dimensionality: The Case of Civil Liberties Decision making." *Midwest Journal of Political Science* 15(3):415-441.
- Spaeth, Harold J. 1989. "Consensus in the Unanimous Decisions of the U.S. Supreme Court." *Judicature* 72:274-285.
- Stern, Robert L., Eugene Gressman, and Stephen M. Shapiro. 1988. "Epitaph for Mandatory Jurisdiction." *ABA Journal* 74:66-70.
- Tamanaha, Brian. 2009. *Beyond the Formalist-Realist Divide: The Role of Politics in Judging*. Princeton: Princeton University Press.
- Tate, Neal. 1981. "Personal Attribute Models of the Voting Behavior of U.S. Supreme Court Justices: Liberalism in Civil Liberties and Economics Decisions, 1946-1978." *American Political Science Review*. 75: 355-367.
- Tomz, Michael, Jason Wittenberg, and Gary King. 2003. CLARIFY: Software for Interpreting and Presenting Statistical Results. Version 2.1. Available at <http://gking.harvard.edu/>.
- Walker, Thomas G., Lee Epstein, and William J. Dixon. 1988. "On the Mysterious Demise of Consensual Norms in the United States Supreme Court." *Journal of Politics* 50:361-389.

Appendix: Summary Statistics

Descriptive Statistics

<i>Variable</i>	<i>Min</i>	<i>Max</i>	<i>Mean</i>	<i>Std Dev</i>
Disorder score	0	1.394	.235	.329
Lower court directionality	0	1	.583	.493
Mandatory Jurisdiction	0	1	.194	.395
Precedent overruled	0	1	.020	.140
Lower Court Disagreement	0	1	.253	.435
Federal government respondent	0	1	.107	.309
Constitutional Case	0	1	.384	.486
Civil liberties case	0	1	.607	.488

Figure 1: Expected and Actual Disorder Scores, by Dissent Coalition Size

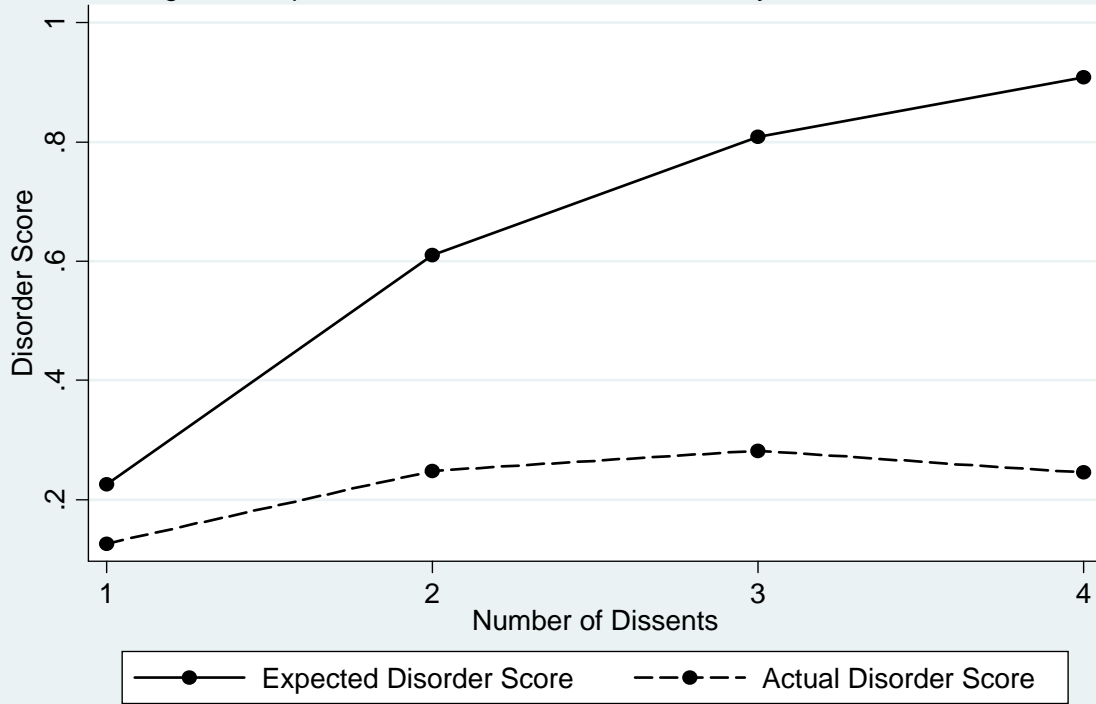


Table 1: Tobit Model of Disordered Voting on the United States Supreme Court

Variable	Coefficient	Standard Error	P-Value
Lower Court Directionality	-.080	.022	<.001
Mandatory Jurisdiction	.084	.028	.003
Precedent Overruled	-.272	.083	.001
Lower Court Disagreement	-.078	.026	.003
Federal Gov't Respondent	.118	.036	.001
Constitutional Issue	-.071	.026	.007
Civil Liberties	-.235	.026	<.001
Burger Court (Natural Court 6)	.147	.028	<.001
Burger Court (Natural Court 7)	.139	.030	<.001
Constant	.199	.024	

Note: Dependent variable is disorder score for non-unanimous cases from selected natural courts; lower bound at zero. N= 2598. 1212 left-censored observations. Likelihood-ratio chi square = 236.5, p<.0001.

Table 2: Predicted disorder scores by number of dissents.

	Mean	Std. Dev.	N
Four dissents	.013	.167	735
Three dissents	.043	.179	805
Two dissents	.049	.164	590
One dissent	.079	.166	468
No dissents	.091	.167	1575

Note: Predicted scores are generated from model in Table 1.

Table 3: Ordered probit model of number of dissents per case.

Variable	Coefficient	Standard Error	P-Value
Predicted Disorder	-1.194	.107	<.0001
Number of Participating Justices	.331	.037	<.0001
Warren Court (Natural Court 6)	.277	.066	<.001
Warren Court (Natural Court 8)	-.110	.060	.11
Burger Court (Natural Court 4)	.206	.060	.001
Burger Court (Natural Court 6)	.318	.056	<.001
Burger Court (Natural Court 7)	.235	.057	<.001
Rehnquist Court (Natural Court 3)	.166	.067	.013
Cutpoint 1	2.680	.337	
Cutpoint 2	2.975	.337	
Cutpoint 3	3.350	.337	
Cutpoint 4	3.972	.339	

Note: Predicted disorder scores are generated from model in Table 1. N= 4173. Likelihood-ratio chi square = 247.15, p<.0001.

Table 4: Estimated Probability of Zero Dissents and Four Dissents, by Predicted Disorder Score, For Selected Natural Courts (Standard Errors in Parentheses)

	Burger 6		Rehnquist 7	
	0 Dissents	4 Dissents	0 Dissents	4 Dissents
10 th Pctile Predicted Disorder	.255 (.014)	.264 (.015)	.299 (.016)	.233 (.013)
Median Predicted Disorder	.320 (.014)	.205 (.012)	.395 (.015)	.153 (.010)
90 th Pctile Predicted Disorder	.420 (.018)	.138 (.011)	.475 (.018)	.110 (.009)

Table 5: Tobit Model of Disordered Voting on the United States Supreme Court

Variable	Coefficient	Standard Error	P-Value
Lower Court Directionality	-.090	.023	<.001
Mandatory Jurisdiction	.082	.028	.004
Precedent Overruled	-.245	.081	.002
Dissent Below	-.098	.027	.003
Federal Gov't Respondent	.114	.037	.002
Constitutional Issue	-.064	.027	.016
Civil Liberties	-.224	.026	<.001
Burger Court (Natural Court 6)	.170	.028	<.001
Burger Court (Natural Court 7)	.137	.030	<.001
Constant	.177	.025	

Note: Dependent variable is disorder score for cases with at least one minority vote (dissent or special concurrence); lower bound at zero. N= 3036. 1448 left-censored observations. Likelihood-ratio chi square = 230.6, $p < .0001$.

Table 6: Predicted disorder scores by number of minority votes.

	Mean	Std. Dev.	N
Four minority votes	-.002	.170	899
Three minority votes	.024	.178	846
Two minority votes	.032	.164	677
One minority vote	.056	.163	614
No minority votes	.087	.163	1137

Note: Predicted scores are generated from model in Table 5.

Table 7: Ordered probit model of number of minority votes per case.

Variable	Coefficient	Standard Error	P-Value
Predicted Disorder	-1.469	.107	<.0001
Number of Participating Justices	.285	.065	<.0001
Warren Court (Natural Court 6)	.202	.0	<.001
Warren Court (Natural Court 8)	-.106	.067	.115
Burger Court (Natural Court 4)	.210	.059	<.001
Burger Court (Natural Court 6)	.446	.056	<.001
Burger Court (Natural Court 7)	.365	.056	<.001
Rehnquist Court (Natural Court 3)	.221	.066	.001
Cutpoint 1	2.569	.326	
Cutpoint 2	2.990	.326	
Cutpoint 3	3.420	.326	
Cutpoint 4	4.032	.328	

Note: Predicted disorder scores are generated from model in Table 5. N= 4173. Likelihood-ratio chi square = 335.3, p<.0001.

Table 8: Estimated Probability of Zero Dissents and Four Dissents, by Predicted Disorder Score, For Selected Natural Courts (Standard Errors in Parentheses)

	Burger 6		Rehnquist 7	
	0 Dissents	4 Dissents	0 Dissents	4 Dissents
10 th Pctile Predicted Disorder	.148 (.010)	.338 (.016)	.188 (.012)	.282 (.015)
Median Predicted Disorder	.217 (.012)	.248 (.013)	.289 (.014)	.183 (.011)
90 th Pctile Predicted Disorder	.317 (.016)	.162 (.012)	.389 (.018)	.119 (.010)