TRADING VOTES FOR REASONING: COVERING IN JUDICIAL OPINIONS

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ABSTRACT

Studies report that judges who are on panels with at least one other judge of a different political party (a "mixed panel") tend to moderate their votes, particularly when cases involve politically charged subject matter. We examine whether this moderation in voting is the product of bargaining among mixed panel judges, where authoring judges, who might otherwise face a dissenting vote (or find themselves in dissent), trade their votes for the ability to craft the reasoning in a unanimous majority opinion closer to their own policy preferences and thereby affect the opinion's precedential value. Using citation patterns within opinions as a proxy for how judges reason, we report that authoring judges on mixed panels do not moderate their reasoning when it comes to opinions relating to salient subject matter areas. Partisan reasoning in top salient areas is also higher when the authoring judges have more bargaining leverage over opposite party judges on the same panel. Finally, partisan reasoning in top salient areas is greatest among authoring judges who have the most skill at writing influential opinions. The foregoing is consistent with the theory that judges engage in covering: moderating their voting when associated with an opposite party judge on the same panel, a highly visible activity, but adjusting the reasoning in the opinion to tilt the decision back toward the authoring judge's own preferred ideological position, a less visible activity, done under the cover of the more visible, moderated vote.

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I. INTRODUCTION

Does law matter? To most lawyers, the answer is obviously yes. To many social scientists studying the courts, the answer is just as obviously no. The empirical literature on judicial behavior is dominated by studies of the voting patterns of judges, much of it by social scientists.[1] Focus tends to be on the extent to which political affiliation explains judicial voting patterns.[2] To the befuddlement of legal scholars, the social science empirical literature discounts the importance of precedent as an independent constraint on judicial voting.[3] Instead, many social scientists take a strong realist position, viewing reasoning in opinions as irrelevant and explaining judges' votes as primarily driven by factors such as policy preferences (the "social science model").[4] By contrast, legal scholars, even the realists among us, believe that law matters in determining outcomes.[5] Judges, even if they have policy preferences, are constrained by precedent; the creation of precedent within the reasoning of an opinion, in turn, is an

1. *See* Pauline T. Kim, *Lower Court Discretion*, 82 N.Y.U. L. REV. 383, 384 (2007).

2. *See, e.g.*, JEFFREY A. SEGAL & HAROLD J. SPAETH, THE SUPREME COURT AND THE ATTITUDINAL MODEL 65 (1993) (articulating the attitudinal model that posits that Supreme Court decisions reflect the ideological preferences of the justices).

3. *See* Kim, *supra* note 1, at 384. *See also* Emerson H. Tiller & Frank B. Cross, *What Is Legal Doctrine?*, 100 NW. U. L. REV. 517, 518 (2006) (urging that more attention to legal doctrine be paid by social scientists studying the courts).

4. *See* Barry Friedman, *Taking Law Seriously*, 4 PERSP. ON POL. 261, 261–62 (2006); Kim, *supra* note 1, at 384. Frank Cross notes that political scientists have ridiculed the theory that judges decide according to the law as "meaningless, . . . acerebral, irrational, or no more a science than creative writing, necromancy, or finger painting." FRANK B. CROSS, DECISION MAKING IN THE U.S. COURTS OF APPEALS 11 (2007) (internal quotes omitted).

5. *See* RICHARD A. POSNER, HOW JUDGES THINK 8–9 (2008). *Cf.* Tracey E. George, *Developing a Positive Theory of Decisionmaking on U.S. Courts of Appeals*, 58 OHIO ST. L.J. 1635, 1643–45 (1998) (contrasting the legal and political science models of studying judicial behavior).

important part of the role of judging. Whether an opinion is written broadly or narrowly, or imposes a rule or a standard, does matter. Judges will not issue an opinion if "it does not write" (the "law model").[6]

Scholarship that tests the importance of legal opinions separate from voting outcomes is growing.[7] Included are attempts to examine judicial reasoning patterns empirically, a task that requires converting reasoning patterns into a quantifiable form.[8] One method is to look to citation patterns. Citations to other opinions, both as precedent and as support without direct precedential value, are a key element of legal analysis. Therefore, it is natural that legal scholars would look to data on citations as an indicator of whether judges care about the opinion itself separate from their vote. At least three studies find indications of systematic political bias in citation patterns.[9] The question is whether the presence of political bias in citations indicates, contrary to what the strong realist model might predict, that judges care not only about votes, but also about the reasoning

6. *See* Kim, *supra* note 1. *See also* Antonin Scalia, *The Rule of Law as a Law of Rules*, 56 U. CHI. L. REV. 1175, 1177 (1989) ("[W]hen the Supreme Court . . . decides a case, not merely the *outcome* of that decision, but the *mode of analysis* that it applies will thereafter be followed by the lower courts . . . [It] can either establish general rules or leave ample discretion for the future.").
The "it will not write" quote is one that we have heard informally from many judges; it seems to capture their notion of being constrained by precedent even when their intuitions (or policy preferences) tell them to vote differently. *See* FRANK M. COFFIN, ON APPEAL: COURTS, LAWYERING, AND JUDGING 57, 161 (1994); Richard A. Posner, *Judges' Writing Styles (and Do They Matter?)*, 62 U. CHI. L. REV. 1421, 1446–48 (1995).

7. *E.g.*, DAVID E. KLEIN, MAKING LAW IN THE UNITED STATES COURTS OF APPEALS 7–8 (2002); Stefanie Lindquist & Frank Cross, *Empirically Testing Dworkin's Chain Novel Theory: Studying the Path of Precedent*, 80 N.Y.U. L. REV. 1156, 1158 (2005); Donald R. Songer & Susan Haire, *Integrating Alternative Approaches to the Study of Judicial Voting: Obscentiy Cases in the U.S. Courts of Appeals*, 36 AM. J. POL. SCI. 963, 964–65 (1992); Nancy C. Staudt, *Modeling Standing*, 79 N.Y.U. L. REV. 612, 669 (2004).

8. *E.g.*, James J. Brudney & Corey Ditslear, *Canons of Construction and the Elusive Quest for Neutral Reasoning*, 58 VAND. L. REV. 1, 15–29 (2005); James J. Brudney & Corey Ditslear, *The Decline and Fall of Legislative History? Patterns of Supreme Court Reliance in the Burger and Rehnquist Eras*, 89 JUDICATURE 220, 221–22 (2006); Gregory C. Sisk, Michael Heise & Andrew P. Moriss**,** *Charting the Influences on the Judicial Mind: An Empirical Study of Judicial Reasoning*, 73 N.Y.U. L. REV. 1377, 1438 (1998).

9. *See* Mita Bhattacharya & Russell Smyth, *The Determinants of Judicial Prestige and Influence: Some Empirical Evidence from the High Court of Australia*, 30 J. LEGAL STUD. 223, 249–50 (2001); Stephen J. Choi & G. Mitu Gulati, *Bias in Judicial Citations: A Window into the Behavior of Judges*, 37 J. LEGAL STUD. (forthcoming 2008) [hereinafter Choi & Gulati, *Citation Bias*]; Michael Abramowicz & Emerson H. Tiller, Judicial Citation to Legislative History: Contextual Theory and Empirical Analysis 20 (July 29, 2005) (unpublished manuscript, on file with authors). *But see* William M. Landes, Lawrence Lessig & Michael E. Solimine, *Judicial Influence: A Citation Analysis of Federal Courts of Appeal Judges*, 27 J. LEGAL STUD. 271, 325 (1998) (finding no significant effect of federal appeals court judges' political party affiliations on their opinions' citations in the context of a multivariate analysis of citation frequency).

in opinions.[10] If outcomes in cases were driven purely by policy preferences and precedent was irrelevant, the argument goes, we should not observe discernable patterns in citations.[11] Instead, we should expect few or random citations. The presence of bias in citation patterns suggests a middle ground between the legal and social science models. Judges may vote in opinions to advance their policy preferences (consistent with the social science model), but biases in citation patterns also suggest that judges, even while pursuing policy preferences, face constraints leading them to justify their votes given the existing legal precedent (consistent with the law model).[12]

The foregoing argument may be suggestive, but it is incomplete. The fact that there are biased patterns in citations as well as in voting does not necessarily show that legal precedent and reasoning matter. The citation studies reporting ideological bias may simply be observing the equivalent of the dog walking ahead of her walker; it does not mean that the dog is leading. Judges may decide first how to vote and then write the opinion (or assign the writing to their clerks), using the opinion as window dressing. Under one view, judges do not care about precedent or the reasoning in their opinions, but they engage in legal reasoning and take precedent into account either because there is a need to justify decisions to a public that believes judges should follow law or because there are other relevant actors (other judges, the legislature) who care about whether adequate legal justifications are provided.[13]

The question, therefore, is how to test whether judges care about reasoning independent of their decision regarding how to vote in any given

10. Choi & Gulati, *Citation Bias*, *supra* note 9, at 3.

11. A version of this argument is that opinion writing is largely delegated to law clerks, who simply cite whatever cases they find first.

12. One explanation for judges' attempts to follow precedent has to do with their audiences. For judges—especially those who care about their own precedents being followed by other judges—a key portion of their audience is made up of other judges. Judges likely care about their legacies in terms of the law they create, and that in turn likely generates a reciprocal norm among judges to generally follow precedent. For a judge to write opinions without justifying them in terms of precedent would likely bring the displeasure of members of this audience, an audience judges need to please if they wish their precedents to be respected. *See* LAWRENCE BAUM, JUDGES AND THEIR AUDIENCES: A PERSPECTIVE ON JUDICIAL BEHAVIOR 160 (2006). *Cf.* Alexander Volokh, *Choosing Interpretive Methods: A Positive Theory of Judges and Everyone Else*, 83 N.Y.U. L. REV. (forthcoming 2008) (explaining why judges might feel constrained to justify their decisions as being consistent with existing law, even while attempting to push their private policy preferences).

13. *E.g.*, Ethan Bueno de Mesquita & Matthew Stephenson, *Informative Precedent and Intrajudicial Communication*, 96 AM. POL. SCI. REV. 755, 755 (2002) (explaining that judicial adherences to precedent is explained by judges' concern regarding external effects; that is, judges care about precedent so as to be able to influence policy).

case. If we find that judges are willing to trade their votes for modifications in the reasoning employed in the opinion (or better, for the right to craft the reasoning), it would follow that at least some judges believe that precedent matters, and that it sometimes matters more than the outcome in the case at issue.

Judges in a variety of settings have been found to display ideological biases in their voting.[14] That is, judges tend to vote in a manner consistent with the platform of the party that appointed them. Judges also, in attempting to further their policy preferences, vote strategically in terms of reacting to or anticipating the decisions of other judges on the same court, judges on other courts, the legislative branch, and the executive branch.[15] Most relevant for our purposes, recent research has found that judges on multimember panels vote differently when they are on panels of uniform political persuasion than when they are on panels of mixed political persuasion.[16]

The multimember panel studies indicate that the votes of judges are influenced by the ideologies of other judges on the same panel. Either to maintain collegiality, to avoid a judge's breaking away to author a dissenting opinion, or simply because of group dynamics, judges appear to moderate their voting in settings where there is potential diversity in political views. Legal scholars Frank Cross and Emerson Tiller report that

14. *See* C.K. ROWLAND & ROBERT A. CARP, POLITICS AND JUDGMENT IN FEDERAL DISTRICT COURTS 56 (1996); James J. Brudney, Sara Schiavoni & Deborah J. Merritt, *Judicial Hostility Toward Labor Unions? Applying the Social Background Model to a Celebrated Concern*, 60 OHIO STATE L.J. 1675, 1717–20 (1999); Frank B. Cross & Emerson H. Tiller, *Judicial Partisanship and Obedience to Legal Doctrine: Whistleblowing on the Federal Courts of Appeals*, 107 YALE L.J. 2155, 2175 (1998); Melinda Gann Hall & Paul Brace, *Toward an Integrated Model of Judicial Voting Behavior*, 20 AM. POL. Q. 147, 158–63 (1992); Donald R. Songer & Sue Davis, *The Impact of Party and Region on Voting Decisions in the United States Courts of Appeals, 1955–1986*, 43 W. POL. Q. 317, 330 (1990); Songer & Haire, *supra* note 7, at 964.

15. *See* Lee Epstein & Jack Knight, *Toward a Strategic Revolution in Judicial Politics: A Look Back, A Look Ahead*, 53 POL. RES. Q. 625, 638–39 (2000); Richard L. Revesz, *Environmental Regulation, Ideology, and the D.C. Circuit*, 83 VA. L. REV. 1717, 1767 (1997).

16. *See* CROSS, *supra* note 4, at 148–77; POSNER, *supra* note 5, at 25 (describing the panel studies); CASS R. SUNSTEIN ET AL., ARE JUDGES POLITICAL? AN EMPIRICAL ANALYSIS OF THE FEDERAL JUDICIARY 17–45 (2006); Thomas J. Miles & Cass R. Sunstein, *Do Judges Make Regulatory Policy? An Empirical Investigation of* Chevron, 73 U. CHI. L. REV. 823, 851–52 (2006); Revesz, *supra* note 15, at 1765–66. Panel effects have also been examined with respect to other factors, such as gender, for example, and scholars have asked whether the presence of a female judge on a panel alters the probability of the panel finding in favor of the plaintiff in a discrimination lawsuit. *See* Jennifer L. Peresie, *Female Judges Matter: Gender and Collegial Decisionmaking in the Federal Appellate Courts*, 114 YALE L.J. 1759, 1779–83 (2005); Christina L. Boyd, Lee Epstein & Andrew D. Martin, Untangling the Causal Effects of Sex on Judging 23 (Apr. 24, 2007) (unpublished manuscript, *available at* http://adm.wustl.edu/media/working/genderjudging.pdf).

the presence of a "whistleblower" judge whose policy preferences differ from the majority of a panel of judges (and who may expose the majority's ideological-driven manipulation of doctrine) plays a moderating role in how judges on the D.C. Circuit Court of Appeals vote to decide cases.[17] In a study of the same court, Richard Revesz found that the ideology of the other judges on a panel is *more* determinative of how an individual judge will vote than the judge's own political affiliation.[18] Cass Sunstein and his coauthors examined the importance of panel composition for federal appellate court decisions in a number of specific subject areas.[19] They concluded that judges in several areas involving controversial subject matter, such as affirmative action, sex discrimination, and sexual harassment, act strategically in their voting and engage in the most partisan voting when the panel consists of judges with similar political preferences.[20] They also found, however, that the presence of even one opposite party judge has a moderating influence on this ideological voting tendency.[21]

While finding that judges on a mixed panel tend to moderate their votes, none of the studies tackle the possibility that some of this moderation may be the result of bargaining among the judges.[22] Instead, the moderation is explained as either the result of a desire to avoid the red flag that a dissent provides to higher courts, or the result of a check on group-polarization that is provided by the presence of a nonmember of the group.[23] The assumption offered is that the observed moderation in voting

17. *See* Cross & Tiller, *supra* note 14, at 2172. Cross and Tiller's sample is drawn from cases decided from 1991 to 1995 that cite *Chevron U.S.A., Inc. v. Natural Resources Defense Council, Inc.*, 467 U.S. 837 (1984). *Id.* at 2168.

18. Revesz examines the influence of panel composition on how judges voted to decide cases involving challenges to decisions by the Environmental Protection Agency from 1970 to 1994. Revesz, *supra* note 15, at 1719 ("[I]n fact, the party affiliation of the other judges on the panel has a greater bearing on a judge's vote than his or her own affiliation.").

19. *See* Cass R. Sunstein, David Schkade & Lisa Michelle Ellman, *Ideological Voting on Federal Courts of Appeals: A Preliminary Investigation*, 90 VA. L. REV. 301, 305 (2004) [hereinafter Sunstein et al., *Ideological Voting*].

20. *See id.* at 316–29 (reporting that "Democratic appointees, sitting with two Democratic appointees, are about *twice* as likely to vote in the stereotypically liberal fashion as are Republican appointees, sitting with two Republican appointees").

21. *See id.* at 304–05, 318–27.

22. While Revesz does not address the bargaining hypothesis with respect to judges on a panel, he mentions at least two related hypotheses. First, he hypothesizes that judges might moderate their votes out of fear of being overruled by a higher panel (which can be conceptualized as a bargain among the judges at different levels) and second, he hypothesizes that judges might moderate their votes so as to avoid the cost of writing a time-consuming dissent. *See* Revesz, *supra* note 15, at 1733–37.

23. *See* Cross & Tiller, *supra* note 14, at 2172; Sunstein et al., *Ideological Voting*, *supra* note 19. Sunstein's work on panel effects builds on his prior work on the importance of dissenting voices in

on mixed panels likely corresponds to a moderation in reasoning on those same types of panels.[24]

We question the explanation for moderation in voting. Moderation could also result from bargains struck among judges with different preferences and consequently may lead to more, not less, partisanship in the reasoning of the opinions. A strong incentive to avoid a dissent may lead to such a bargain (in a way different from the simple desire to avoid signaling a "red flag" to a higher court). Judges may view a dissent as undermining the precedential authority of the majority opinion. Those who author the dissent will expend scarce resources writing it and will not receive any precedential authority from their opinion. A desire to obtain control over the authorship of the opinion may also lead a judge to bargain. Authorship is important, giving the authoring judge the ability to craft reasoning in a low visibility way tilted toward the authoring judge's own preferred policy position that will have stronger precedential weight (due to the unanimous vote outcome). To avoid a dissent and to obtain the right to author the now unanimous opinion, judges may moderate their votes. Two Republican judges on a panel with one Democrat, for example, may moderate their vote in a case toward the Democrat's preferred outcome. In return for the trade of their votes (by moderating their voting position to avoid the dissent), the two Republican judges receive the right to author a unanimous majority opinion. One can also imagine a potential lone dissenter who chooses to vote along with the majority in return for the right to author the opinion, thereby gaining the ability to adjust the reasoning more toward the dissenter's preferred position.

moderating group behavior. *See* CASS R. SUNSTEIN**,** WHY SOCIETIES NEED DISSENT 166–89 (2003). Sunstein and his coauthors suggest that group polarization results when group members who think alike reinforce each others' ideas and give each other additional confidence. *See* Sunstein et al., *Ideological Voting*, *supra* note 19, at 341–43.

24. A recent article surveying the panel effects research explains:

> Although extremely difficult to measure, the suspicion is that the content of written judicial opinions may be affected by ideological amplification as well. Along those lines, Emerson Tiller and Frank Cross have suggested that the presence of a non-uniform viewpoint can significantly affect the terms of an opinion, even if that viewpoint is not expressed in the form of a formal dissent. Part of the explanation for that may be that the writing judge responds to the threat of a dissent and consciously moderates the opinion from a more extreme form in order to achieve unanimity. Yet even more plausible is that no conscious moderation occurs; instead, the opinion is less extreme because the presence of ideological diversity naturally moderates the decisionmaking of the drafter. In either case, the end result is that ideological amplification may impact the performance of a panel's dispute resolution function (by affecting the direction in which a dispute is decided) as well as its case law production function (by affecting the terms of the opinion expressing that decision).

Samuel P. Jordan, *Early Panel Announcement, Settlement and Adjudication*, 2007 BYU L. REV. 55, 93 (2007) (citing Cross & Tiller, *supra* note 14, at 2156–57 and Sunstein et al., *Ideological Voting*, *supra* note 19, at 307) (suggesting that the reasoning patterns would be moderated on mixed panels, just as voting patterns).

Some judges also care more about the voting outcome of a particular case (termed "outcome" judges) while other judges care more about the legal precedent established through the reasoning contained in the majority opinion accompanying the outcome (termed "precedent" judges). When faced with a panel of judges of mixed ideological persuasion, precedent judges trade off their votes, resulting in moderation, for the right to write the opinion (or have another judge of similar ideological persuasion on the same panel write the opinion). We are suggesting a form of logrolling—behavior considered common in legislatures. But the view with respect to courts appears to be that judges would not engage in such unseemly behavior.[25]

Our theory predicts that the reasoning within opinions matters, hence the desire on the part of some judges to moderate their votes to gain control over the wording of the opinion itself. Judges who obtain control over the opinion after a trade with judges of a different political persuasion may use the opinion to moderate the voting outcome of the case, thereby bringing the subsequent precedent more in line with the authoring judge's own political views (a practice we refer to as "covering"[26]). Put another way, judges use the more visible and more moderate vote as covering for the less visible and more partisan legal opinion. The theory also predicts that those judges who care most about precedent and are skilled at crafting the type of precedent that has broad impact will systematically trade their votes for the ability to write or otherwise affect the shape of the legal opinion.

We use outside circuit citations at the level of individual opinions as a measure of the ideological tilt in the judicial reasoning. Citations to authority are key to the construction of legal arguments. Since those arguments and rationales form the essence of precedent, examining citation patterns furnishes an objective method of unpacking precedent for the

25. *See* CROSS, *supra* note 4, at 156–57 (discussing the question of whether judges on multimember panels trade votes). Note, though, that while no one suggests that explicit vote trading occurs, there is recognition in the literature that implicit bargaining occurs. *See* LEE EPSTEIN & JACK KNIGHT, THE CHOICES JUSTICES MAKE 106 (1988); Pamela C. Corley, *Bargaining and Accomodation of the United States Supreme Court: Insight From Justice Blackmun*, 90 JUDICATURE 157, 157 (2007).

26. *See* Stephen J. Choi & G. Mitu Gulati, *Ranking Judges According to Citation Bias (As a Means to Reduce Bias)*, 82 NOTRE DAME L. REV. 1279, 1282 (2007). The term "covering" is taken from the work of sociologist Erving Goffman, who used it to describe everyday behavior where individuals often "cover" their sincere identities so as to achieve goals. ERVING GOFFMAN, STIGMA: NOTES ON THE MANAGEMENT OF SPOILED IDENTITY 102–04 (1968). The term has received attention in legal scholarship in recent years because of its use by scholars writing in the area of identity politics and performance, who are building on Goffman's work. *E.g.*, KENJI YOSHINO, COVERING: THE HIDDEN ASSAULT ON OUR CIVIL RIGHTS 18 (2006).

presence of biases.[27] A judge could write an opinion relying solely on inside circuit citations and precedent. Cases that reach the federal appeals courts, and particularly those that result in published opinions, however, often contain novel issues for which inside circuit precedent provides no answer. Authority from outside circuit judges bolsters an argument that might be weak if based only on inside circuit authority.[28] An argument backed with outside citations indicates that the position is accepted by other jurists. Outside circuit authority also provides evidence that the position is more broadly accepted than in just one circuit, thus reducing the likelihood of reversal by a higher court. Our study provides an opinion-level examination of the outside citation practices of federal appellate court judges from January 1, 1998, to December 31, 1999, allowing us to assess bias in reasoning at the level of individual opinions.[29]

The evidence suggests that judges do engage in covering. Authoring judges may moderate their vote, prior research tells us, when faced with other judges on the same panel with different political preferences.[30] In subject matter areas that are less salient to the public and thus have lower stakes, we find that the authoring judges write opinions with reasoning that tilts toward the position of the other judges with different political preferences. In more salient, higher stakes subject matter areas, however, we report that authoring judges write opinions that tilt against the position of the other judges with different political preferences. While such judges may moderate their voting, they compensate with more partisan opinions. The covering effect is most significant for judges who face only one judge

27. Recent articles, some using network analysis, have used citation data to study patterns in the growth of precedent. *E.g.*, James H. Fowler et al., *Network Analysis and the Law: Measuring the Legal Importance of Precedents at the U.S. Supreme Court*, 15 POL. ANALYSIS 324, 325–26 (2007); Frank B. Cross, Thomas A. Smith & Antonio Tomarchio, *Determinants of Cohesion in the Supreme Court's Network of Precedents* 2 (San Diego Legal Studies, Working Paper No. 07-67, 2006), *available at* http://papers.ssrn.com/sol3/papers.cfm?abstract_id=924110.

28. *See* David J. Walsh, *On the Meaning and Pattern of Legal Citations: Evidence from State Wrongful Discharge Precedent Cases*, 31 LAW & SOC'Y REV. 337, 344 (1997). *See also* Shannon Ishiyama Smithey, *A Tool, Not a Master: The Use of Foreign Case Law in Canada and South Africa*, 34 COMP. POL. STUD. 1188 (2001) (examining outside citations—to foreign law materials—that judges rely on to cut information costs, decrease uncertainty, and provide justification).

29. Most studies of judicial citations examine the *aggregate* numbers of citations a judge receives and do not focus on the citation patterns within individual opinions. Scholars measuring judicial influence, for example, have used the aggregate outside circuit citations received as a measure of the influence of federal circuit court judges. *See* Landes et al., *supra* note 9, at 325. Others have counted the invocations of a specific judge's name in judicial opinions as a measure of that judge's prestige. *See* David Klein & Darby Morrisroe, *The Prestige and Influence of Individual Judges on the U.S. Courts of Appeals*, 28 J. LEGAL STUD. 371, 376 (1999).

30. *See, e.g.*, SUNSTEIN ET AL., *supra* note 16; Cross & Tiller, *supra* note 14; Revesz, *supra* note 15.

of the opposite party in a three-judge panel. Judges who outnumber an opposite party judge have more bargaining leverage and thus may have a greater ability to shift the reasoning of the opinion even more toward their preferred policy position (while moderating their vote to avoid a dissent on the part of the opposite party judge). Also, judges with higher outside citation counts, a measure of opinion-writing skill, correlate with greater covering activity in high salience subject matter areas. Higher skill judges are more likely to trade off their votes in a mixed panel in return for influence on the shape of the opinion.

Part II provides a framework to assess how judges make decisions with regard to voting and opinion writing in judicial cases, and it posits hypotheses relating to our covering hypothesis. Part III describes our dataset and sets forth the empirical tests and findings. Part IV discusses implications.

II. THE CONSTRAINED ATTITUDINALIST MODEL

In deciding a case, the judges on a federal circuit court perform two structurally separate tasks: they vote, and they produce a written opinion explaining their reasoning consistent with the vote. Political scientists tend to view judges as individual decisionmakers with policy preferences. Under this model, referred to as attitudinalist, judges vote their policy preferences.[31] The model stands in contrast to the legal model of judging, which posits that judges decide cases based on law (for example, the dictates of statutes and precedent).[32] The importance of the attitudinal model rests not only in theory, but also on empirical work supporting the claim that judges seek primarily to advance their policy preferences.[33] Nevertheless, even supporters of the attitudinalist model will likely concede that it is an oversimplification and that judges are subject to a variety of constraints, including precedent.[34]

We model judges as caring about policy preferences, consistent with the attitudinal model.[35] We also accept, however, that judges are

31. *See* George, *supra* note 5, at 1639–40, 1649–55.

32. *Id.*

33. *See* LEE EPSTEIN & JACK KNIGHT, THE CHOICES JUSTICES MAKE 9–10 (1998).

34. *E.g.*, Tracey E. George & Lee Epstein, *On the Nature of Supreme Court Decision Making*, 86 AM. POL. SCI. REV. 323, 325 (1992).

35. *See generally* JEFFREY A. SEGAL & HAROLD J. SPAETH, THE SUPREME COURT AND THE ATTITUDINAL MODEL REVISTED 74–124 (2002) (discussing foundations of the attitudinal model). *See also* Choi & Gulati, *Citation Bias*, *supra* note 9, at 6 (describing a constrained attitutidinalist model); Kim, *supra* note 1, at 391–408 (describing a number of models that have judges constrained by institutional, structural, and resource related factors); Richard A. Posner, *Foreword: A Political Court*,

constrained by both legal precedent and available resources.[36] Legal precedent matters because judges face the possibility of review, both by the circuit en banc and from the U.S. Supreme Court. Following precedent (as well as influential, nonprecedential opinions) raises the likelihood that an opinion will survive judicial review. The ability to generate new precedent, in turn, enables a judge to affect future judicial decisions. Even when an opinion is not directly precedential, if it is well-reasoned, it may help sway the decisions of judges outside the circuit. Judges are also resource constrained. Writing an effective opinion that establishes a precedent for future decisions is time-consuming and difficult. Some judges, due to skill and experience, may bear less of a resource cost from writing any one opinion than other judges.

Given an attitudinal model of judging constrained by precedent and resources, how do judges trade off votes and legal reasoning in the opinion? After a case gets assigned to a panel and oral argument is heard (or not), the judges go into conference where they have a brief discussion followed by a vote.[37] Voting is a low effort and high visibility activity that the judges do together. Each judge can see what the others are doing on this task. Once the vote is over, assuming there are no moves to dissent by any of the three, the case gets assigned to one of the judges to be written. In contrast to voting, writing the opinion is a high effort and low visibility activity.[38] The writing judge and the judge's clerks perform the task in isolation from the other chambers. And while the other judges can and often do make final approval conditional on revisions to the reasoning, making anything more than minor changes is difficult and unlikely. It requires effort by the nonwriting judges to scrutinize the reasoning used by the writing judge and to envision all of the possible ills from the opinion. And given that the nonwriting judges have their own assigned cases to write, they are unlikely to do more than minimal monitoring unless they see

119 HARV. L. REV. 31, 52 (2005) (describing justices as feeling constrained by the law in the majority of cases before them).

36. A number of studies report that judges appear to see themselves as constrained by precedent. *See, e.g.*, George & Epstein, *supra* note 34, at 323; Lori Hausegger & Lawrence Baum, *Inviting Congressional Action: A Study of Supreme Court Motivations in Statutory Interpretation*, 43 AM. J. POL. SCI. 162 (1999); Stefanie A. Lindquist & David E. Klein, *The Influence of Jurisprudential Considerations on Supreme Court Decisionmaking: A Study of Conflict Cases*, 40 LAW & SOC'Y REV. 135 (2006).

37. COFFIN, *supra* note 6, at 133–34 (describing how the judges take a tentative vote in conference, after oral arguments); Richard Posner, *Diary*, SLATE, Jan. 15, 2002, http://www.slate.com/id/2060621/entry/2060742.

38. COFFIN, *supra* note 6, at 171–229 (describing the structure of and effort involved in opinion writing).

red flags. The writing judge enjoys a type of monopoly position with respect to the crafting of the opinion.[39]

Judges will vary in how much they care about voting versus precedent. Those judges who are focused more on doing justice in the immediate case will value votes more than the opportunity to create precedent. Other judges, perhaps those who care more about their place in posterity or advancing a particular ideological agenda, may care more about producing precedent whose influence goes beyond the immediate case. The foregoing distinction between the "outcome" judges (who care more about the immediate effects on the litigants) and "precedent" judges (who care more about the long-term effects of the case) sets up a situation where trades may occur.[40] Judges who care more about long-term consequences (precedent creation) and less about the outcome in a particular case (voting) should be willing to trade their votes for the monopoly power over writing the opinion. Given that precedent creation—especially long-lasting precedent—takes significant effort and comes easier to some than others, perhaps we will see that the harder-working judges and the ones with greater reasoning and writing skills will choose to trade votes for the ability to write opinions in particular subject matter areas.

The plausibility of the trading scenario is strengthened when one considers the costs of dissenting. Dissents occur where, in effect, the trade has broken down—where judges are unwilling to compromise on a combination of votes and writing. Here, both sides lose. The dissenter writes an opinion with zero precedential value; apart from the personal satisfaction of having expressed one's self, the effort is largely wasted (although exceptions exist).[41] As for the judges in the majority, they end up having to work harder to justify their votes, and the precedent is likely

39. *See* Jeffrey R. Lax & Charles M. Cameron, *Bargaining and Opinion Assignment on the U.S. Supreme Court*, 23 J.L. ECON. & ORG. 276, 277 (2007).

40. On the "professional" versus "politician" dichotomy, see generally Stephen J. Choi, G Mitu. Gulati & Eric A. Posner, Professionals or Politicians: The Uncertain Empirical Case for an Elected Rather Than Appointed Judiciary (Aug. 22, 2007) (unpublished manuscript, *available at* http://ssrn.com/abstract_id=1008989).

41. *See* CROSS, *supra* note 4, at 160–61. On the rare occasion, however, when hindsight shows a judge's dissent to have possessed an unusual strength of principle (or, cynically, foresight about societal developments), the dissent, largely because it is a dissent, can far outstrip the majority opinion in terms of influence and authority. Included in this small subset of canonical dissents are Justice Harlan's dissent in *Plessy v. Ferguson*, 163 U.S. 537, 552–64 (1896) and Justice Holmes's dissent in *Lochner v. New York*, 198 U.S. 45, 74–76 (1905). *See* Anita S. Krishnakumar, *On the Evolution of the Canonical Dissent*, 52 RUTGERS L. REV. 781, 788–90, 800–01 (2000). At the circuit court level, however, the likelihood of a dissent achieving such canonical status is probably smaller.

weakened because of the uncertainty created by the dissent.[42] There is also the heightened possibility of en banc review or the grant of certiorari due to the red flag of a dissent. The point is that both sides have an incentive to compromise to avoid a dissent.[43] Given those incentives, it should not be surprising to see relatively few dissenting opinions.

Four predictions result:

(1) We should see a subset of cases where judges of different political persuasions vote together, but where the compromise on votes is balanced by greater bias in reasoning. In other words, the judge who compromises a vote has bargained for the right to reason in a fashion that the judge individually prefers. The judge's more visible vote acts as a cover for the judge's less visible and more partisan legal reasoning.

(2) Trades—which result in more moderate votes and more partisan reasoning—are more likely to occur in cases involving politically salient issues where judges often hold divergent values, thereby creating more room for the trading of votes for reasoning. Conversely, in areas not involving salient issues, we are unlikely to see trades; likely, the judges will agree.

(3) Trades are more likely in cases involving judges of different skill levels. When judges skilled at producing lasting precedent are sitting with judges lacking those skills, we should see the former trade their votes for the control of the reasoning. Court norms may prohibit a judge from writing too many opinions relative to other judges. Nonetheless, we should still see a shift in the mix of cases for judges—with precedent judges taking on more cases in top salient subject matter areas where they may employ partisan reasoning.

(4) Mixed panels where the authoring judge is writing against two others of a different party should have lower bias than mixed

42. *See* KLEIN, *supra* note 7, at 83 (stating that opinions with dissents generally have weaker precedential value).

43. Cross acknowledges this possibility, explaining that "[t]he majority might be willing to make some compromises, at least in opinion language, to avoid provoking the minority into one of the rare dissents." CROSS, *supra* note 4, at 160. *See also* Christopher A. Bracey, *Louis Brandeis and the Race Question*, 52 ALA. L. REV. 859, 867 (2001) ("In addition to writing powerful dissenting opinions, [Justice] Brandeis frequently used the threat of dissent to temper an otherwise unacceptable majority opinion."); Corley, *supra* note 25, at 157 (suggesting that the threat of a concurrence can also be significant sanction).

> panels where the writing judge is writing against one judge of the same party and one of the other party. If there are trades, the writing judge presumably has lower bargaining power if the judge is writing against two judges from the other party than if the judge has one colleague from the same party.

In sum, the hypothesis is that judges sometimes engage in a form of covering; they pretend to go in one direction (via voting), but in actuality push in a different direction (via reasoning). This Article tests whether covering takes place in opinions involving mixed panels.

Our predictions follow a strand of scholarship, albeit focused on the Supreme Court, which also points to the possibility of trading votes for control over reasoning.[44] This literature looks at the relationship between ideology and the assignment of opinions to specific authoring Justices (and the key role that the Chief Justice plays in this assignment).[45] The Justice who is assigned the task of writing the opinion is seen as gaining a measure of agenda control. Typically, the assumption is that, if the case involves important issues, the Chief Justice (or other senior Justice, if the Chief Justice is in the minority) will use the power of assignment to give the opinion to the Justice whose ideology is closest to that favored by the Chief

44. *E.g.*, THOMAS H. HAMMOND, CHRIS W. BONNEAU & REGINALD S. SHEEHAN, STRATEGIC BEHAVIOR AND POLICY CHOICE ON THE U.S. SUPREME COURT 139–214 (2005); FORREST MALTZMAN, JAMES F. SPRIGGS, II & PAUL J. WAHLBECK, CRAFTING LAW ON THE SUPREME COURT: THE COLLEGIAL GAME 29–93 (2000). On the importance of chief judge control of opinion assignment in the state high courts, see generally Laura Langer et al., *Recruitment of Chief Justices on State Supreme Courts: A Choice Between Institutional and Personal Goals*, 65 J. POL. 656 (2003). The observation that opinion assignment can be a key strategic element goes back at least to Walter Murphy's classic work. *See* WALTER F. MURPHY, ELEMENTS OF JUDICIAL STRATEGY (1964). The foregoing is in addition to the literature on strategic voting itself, where judges trade votes or modify their votes in anticipation of the behavior of other actors. *See, e.g.*, Evan H. Caminker, *Sincere and Strategic Voting Norms on Multimember Courts*, 97 MICH. L. REV. 2297, 2298–99 (1999).

45. *E.g.*, BOB WOODWARD & SCOTT ARMSTRONG, THE BRETHREN: INSIDE THE SUPREME COURT 65 (1979) (reporting that Chief Justice Burger would often not assign the opinions in key cases involving civil rights, criminal law, and free speech to his ideological enemies (Marshall, Brennan, and Douglas) and assigned them instead the lame opinions in areas such as tax). *See also* MALTZMAN ET AL., *supra* note 44, at 29–56 (describing the strategic element in opinion assignment). For earlier studies looking at the Warren Court, see David W. Rohde, *Policy Goals, Strategic Choice and Majority Opinion Assignments in the U.S. Supreme Court*, 16 MIDWEST J. POL. SCI. 652, 677–78 (1972) (looking at assignment patterns in civil rights cases). *But see* Gregory James Rathjen, *Policy Goals, Strategic Choice, and Majority Opinion Assignments in the U.S. Supreme Court: A Replication*, 18 AM. J. POL. SCI. 713, 719 (1974) (calling into question Rohde's primary hypothesis based on examination of economic cases decided by the Warren Court). Recent research has moved beyond the strategic moves of the Chief Justice to additionally examining other Justices such as the Senior Justice in the minority group. *See* Tobias T. Gibson & Matthew M. Schneider, Repositioning for Power: The Third Position of Influence on the U.S. Supreme Court (Dec. 19, 2005) (unpublished manuscript, on file with authors).

Justice.[46] The Chief Justice, however, may switch strategies if the coalition is fragile—that is, if there is a risk that a marginal Justice might change his vote. The Chief Justice might instead give control of the opinion to the Justice who looks to be closest to the margin, so that the swing Justice can craft the opinion in a fashion that keeps the Justice from changing her vote.[47] In effect, it is in this second situation where a trade typically occurs. The swing Justice is given control of the opinion in exchange for his vote.[48] Chief Justice Burger's tendency to cast occasional "phony" votes in favor of outcomes that he did not desire, so as to gain control of opinion assignment, is another example of trading.[49]

At the circuit court level, the equivalent power of assignment is typically in the hands of the senior judge on the panel. But, unlike the Supreme Court, which has control over its docket, the assignment power itself is not as important to the circuit courts because the courts sit in panels, and there is generally a large docket that needs to be shared. Thus, judges are forced to cooperate, and the importance of hierarchy is diminished. The key factor that leads to trading is that writing opinions is effort-intensive.[50] Judges are resource-constrained and have different

46. *See, e.g.*, WOODWARD & ARMSTRONG, *supra* note 45, at 64–65.

47. *See* Saul Brenner & Harold J. Spaeth, *Majority Opinion Assignment and the Maintenance of the Original Coalition on the Warren Court*, 32 AM. J. POL. SCI. 72, 73–80 (1988); David J. Danelski, *The Influence of the Chief Justice in the Decisional Process of the Supreme Court*, *in* THE FEDERAL JUDICIAL SYSTEM: READINGS IN PROCESS AND BEHAVIOR 506 (Sheldon Goldman & Austin Sarat eds., 1978); Forrest Maltzman & Paul J. Wahlbeck, *Opinion Assignment on the Rehnquist Court*, 89 JUDICATURE 121, 126 (2005); Paul J. Wahlbeck, *Strategy and Constraints on Supreme Court Opinion Assignment*, 154 U. PA. L. REV. 1729, 1754–55 (2006) (stating that in order to preserve a fragile coalition, opinions might be assigned to Justices in the ideological center rather than at the extreme). Even here, as Toobin explains, using Justice Stevens's choice of Justice Breyer to write the opinion in *Stenberg v. Carhart*, 530 U.S. 914 (2000), rather than Justice O'Connor, there are complex strategic choices to be made. Justice O'Connor might have been the shakiest Justice in the coalition, but Justice Stevens assigned the opinion to Justice Breyer because, as Toobin explains it, Justice Breyer had the political skills to keep his senior colleagues on board, whereas with Justice O'Connor, there was the danger that she would find that the opinion "wouldn't write." JEFFREY TOOBIN, THE NINE: INSIDE THE SECRET WORLD OF THE SUPREME COURT 132–34 (2007).

48. *See* Brenner & Spaeth, *supra* note 47, at 74 ("[T]he opinion assignment can be perceived as a tacit bargain in which the assigner awards the opinion to the assignee on the understanding that the assignee will remain in the original coalition."); David W. Rohde, *Policy Goals, Strategic Choice, and Majority Opinion Assignments in the U.S. Supreme Court*, 16 AM. J. POL. SCI. 652, 654 (1972) (referring to the majority opinion as a "side payment" to a Justice "to induce him to . . . remain in a majority opinion").

49. *See* Timothy Johnson et al., *Passing and Strategic Voting on the U.S. Supreme Court*, 39 LAW & SOC'Y REV. 349, 351 (2005). *See also* MURPHY, *supra* note 44, at 84–85 (discussing the possibility of phony votes even prior to the Burger Court); Dahlia Lithwick, *Talk About Your Overrated Job: Why Would Anyone Want to Be Chief Justice?*, SLATE, Nov. 16, 2004, http://slate.com/id/210 9807 (describing the foregoing).

50. These assumptions about costs form the basis of the bargaining model in the recent article by

preferences and abilities. These differences create room for bargains. If the foregoing is correct, then we should see trading votes for agenda control occurring at the circuit court level as well.

III. EMPIRICAL TESTS

The dataset consists of judicial opinions authored by federal circuit court judges from January 1, 1998, to December 31, 1999, as obtained from a study from 2004 by the authors ("2004 Choi and Gulati study").[51] In assessing citations we constrained our sample to federal circuit court judges still active (and not senior status) as of May 2003, when we started to compile the data.[52] Judges near retirement may engage in different citation practices. Judges near retirement may not care as much about their reputations as newer judges do or about the effect of reversals on their possibility of promotion (to the Supreme Court). Judges near retirement may also not benefit as much as younger judges from fostering long-term relationships with judges of similar ideology or other judges that cite back to them frequently.

Our constraint leaves us with opinions from a total of ninety-eight judges. Starting from the 2004 Choi and Gulati study, we examined each opinion and coded citations from the set of ninety-eight active judges back to one of the ninety-eight judges in our sample. We impose these constraints for two reasons. First, judges likely pay attention to citations from other active judges who provide the prospect of future reciprocal citations. Only citations to active judges pose this possibility. Further, it is likely that more recent cases provide the fullest description of the current law. Cases from several decades earlier likely receive citations only when there is no more recent treatment of the issue or where the case itself has become canonical (a rare occurrence for cases).[53]

Second, limiting our sample to the ninety-eight active judges (and their citations back to opinions authored by one of the ninety-eight judges) allows us to control the pool of opinions available for citation (that is, whether the pool of opinions is more Republican or Democrat judge authored). A judge may cite more frequently to Republican-authored

Jeffrey R. Lax & Charles Cameron. *See* Lax & Cameron, *supra* note 39, at 279.

51. For a description of the dataset, see Stephen J. Choi & G. Mitu Gulati, *Choosing the Next Supreme Court Justice: An Empirical Ranking of Judge Performance*, 78 S. CAL. L. REV. 23 (2004).

52. To ensure a full two years of opinion data for each judge, we also excluded judges appointed after January 1, 1998.

53. Canonical cases present the additional complication that the analytical propositions that they stand for may become so well accepted that the authoring judge is not cited any more for it.

opinions simply because the pool of past opinions is relatively more Republican-authored. We assume that because the opinions written by the active judges are relatively recent, they have an equal chance of citation-absent bias. In contrast, if we were to look at citations to any opinion generally, we would lack a control pool against which to assess the citation pattern. Prior research tells us that the probability that a particular opinion will get cited depreciates over time.[54] Including data for judges from more than a few decades prior would require us to make depreciation adjustments for judges of different vintages. By using only active judges, we avoid these adjustments in developing a control for the pool of available opinions. Although opinions among active judges are not all equal, the differences are less than if we were to include past judges or senior judges.

From the 2004 dataset, we started with published opinions authored in 1998 and 1999, excluding the year 2000 due to resource constraints.[55] For the 6,348 opinions from the dataset that were authored in 1998 and 1999, we hand coded citations contained in each opinion, recording all citations to an opinion authored by one of the ninety-eight federal circuit court judges in our sample. We coded whether a judge cited to judges of the same or the opposite political party as the citing judge, using the party of the president who nominated a judge as a proxy for the judge's political affiliation. For purposes of our empirical tests, we defined *Mixed Panel* as equal to one (1) if at least one judge is of the opposite party as the authoring judge and zero (0) otherwise; *Unified Panel* is equal to one (1) if all judges on the panel are of the same political party and zero (0) otherwise.

We limit our analysis to outside circuit citations in majority opinions, leaving us with 2,514 opinions with at least one outside citation to a sample judge. Citations to judges within the same circuit, we assume, are more likely to be driven by the dictates of precedent than outside circuit citations. Focusing on outside citations puts the spotlight on opinions where judges have the greatest discretion in their citation practice. The fact that the choice to make an outside citation is discretionary suggests two things. First, for the most part, these citations will likely show up more when the issues are important or of first impression.[56] In other words, they will

54. Bhattacharya & Smyth, *supra* note 9, at 236–40; William M. Landes & Richard A. Posner, *Legal Precedent: A Theoretical and Empirical Analysis*, 19 J.L. & ECON. 249, 255, 262–70 (1976); Thomas A. Smith, *The Web of Law* 12–27 (San Diego Legal Studies, Working Paper No. 06-11, 2005), *available at* http://papers.ssrn.com/sol3/papers.cfm?abstract_id=642863.

55. Together with several research assistants, we spent over two years collecting the data for this Article.

56. Rorie Spill Solberg, Jolly A. Emrey & Susan B. Haire, *Inter-Court Dynamics and the*

appear where there is no internal circuit precedent that controls the outcome. Second, because judges tend to cite opinions from outside courts only in select circumstances, such citations are unlikely to be routine or pro forma citations (such as the boilerplate string cites that judges might cut and paste for matters such as the standard of review[57]).

We do not use our data to analyze voting patterns. Instead, we take as given the findings of the Cross and Tiller, Revesz, and Sunstein and his coauthors, studies that judges moderate their voting when sitting on mixed panels and demonstrate high bias on unified panels.[58] We do this because it enables us to keep our analysis objective—analyzing whether a particular vote was pro-Republican or pro-Democrat would have required us either to engage in subjective guessing as to what constituted a pro-Republican or pro-Democrat viewpoint or to use a rough approximation, such as saying that all pro-government agency decisions were pro-Democrat, for instance. The downside is that we are open to the criticism that juxtaposing our results on judicial reasoning against the results from the prior studies on voting might be inaccurate. For example, maybe if voting patterns were analyzed for the cases in our dataset, we might not find the vote moderating panel effects that others have found. The robustness of their findings, which hold across multiple studies by multiple researchers, however, caused us to focus our energies on analyzing reasoning patterns and taking vote moderation as a given as opposed to second-guessing the prior findings on voting patterns.

Table 1 reports summary statistics on our sample.

Development of Legal Policy: Citation Patterns in the Decisions of the U.S. Courts of Appeals, 34 POL'Y STUD. J. 277, 289 (2006).

57. *See generally* KLEIN, *supra* note 7. Another technique to separate out the "strong" citations from "string" or otherwise weak citations is to count only those citations accompanied by an explicit discussion of the case or a quote from it. Solberg et al., *supra* note 56, at 283; Walsh, *supra* note 28, at 342. Each of these techniques, though, is likely to be both under and overinclusive in terms of sorting strong from weak citations.

58. *See generally* SUNSTEIN ET AL., *supra* note 16; Cross & Tiller, *supra* note 14; Revesz, *supra* note 15.

TABLE 1. Summary statistics.

	1998		1999	
CIRCUIT COURT	NUMBER OF OPINIONS	PERCENT OF TOTAL	NUMBER OF OPINIONS	PERCENT OF TOTAL
1	95	7.61	108	8.54
2	77	6.16	52	4.11
3	70	5.60	77	6.09
4	87	6.97	94	7.43
5	151	12.09	153	12.09
6	76	6.08	99	7.83
7	224	17.93	225	17.79
8	88	7.05	82	6.48
9	89	7.13	85	6.72
10	118	9.45	130	10.28
11	105	8.41	109	8.62
DC	69	5.52	51	4.03
TOTAL	1249	100.0	1265	100.1

Pearson chi2(10) = 12.878 Pr = 0.301

For each opinion we calculated the number of outside circuit citations by the authoring judge to a judge of the opposite party divided by the total number of outside circuit citations to one of the ninety-eight judges in our sample (defined as *Opposite_Party*).[59] Neither the number of judges nor

59. The following is an example of our coding: Circuit Judge Boudin wrote the majority opinion for *Flynn v. City of Boston*, 140 F.3d 42 (1st Cir. 1998). We looked through the opinion, coding for citations to any of our set of ninety-eight active federal circuit court judges. In the opinion, Judge Boudin cited one judge outside of the First Circuit from our set of ninety-eight judges: Judge Luttig of the Fourth Circuit. *See id*. at 47 (citing Dimeglio v. Haines, 45 F.3d 790, 805–06 (4th Cir. 1995)). Both Judge Boudin and Judge Luttig were appointed by a Republican president. We therefore treated Judge Boudin's citation of Judge Luttig as a same-party-outside-circuit citation.

We also limited our analysis to published opinions. As Ashenfelter, Eisenberg, and Schwab discuss, omitting unpublished opinions excludes a substantial universe of judge-authored opinions. *See* Orley Ashenfelter, Theodore Eisenberg & Stewart J. Schwab, *Politics and the Judiciary: The Influence of*

the number of opinions written by the judges is equally divided between Republicans and Democrats. A judge may cite more frequently to Republican judge-written opinions because a greater fraction of the pool of past opinions came from Republican judges.

As a control, we calculated the "pool" of available outside circuit opinions. First, we started with a particular judge (for example, Judge Lynch of the First Circuit). Second, we identified the judges in our set of ninety-eight who are outside circuit judges (for example, all judges in our sample who are outside the First Circuit). Third, for each outside circuit judge, we tabulated the total number of opinions written prior to 1998, the start of our dataset. Last, we calculated the number of opinions written by judges of the opposite political party divided by the total pool of opinions written by all outside circuit judges in our sample prior to 1998 (defined as *Opposite_Pool*). If judges were to cite randomly to outside circuit court judges, the *Opposite_Pool* fraction would represent the baseline fraction of outside circuit opinions to judges of the opposite political party available to be cited.

Table 2 reports a means comparison between *Opposite_Party* and *Opposite_Pool* for all opinions in our sample.

TABLE 2. Fraction of outside circuit citations to opposite party judges relative to the pool of opinions.

	N	*Opposite_Party*	*Opposite_Pool*	*p-value*
ALL OPINIONS	2514	0.423	0.438	0.0262

p-value is for a t-test of the difference in means between *Opposite_Party* and *Opposite_Pool*.

Table 2 suggests that authoring judges cite less to opposite party judges than to same party judges. The mean fraction of outside circuit citations to opposite party judges is lower than the pool of available outside circuit opinions (difference significant at the 5% confidence level).

The next question is whether the tendency of judges to cite to judges of the opposite political party varies depending on the subject matter of the

Judicial Background on Case Outcomes, 24 J. LEGAL STUD. 257, 263–64 (1995). On the other hand, if judges do act with an ideological bias, we expect this bias to appear where ideology matters the most: published opinions that affect the development of precedent. Unpublished opinions, in contrast, provide judges with little ability to affect the development of the law. *See id.*

opinion.[60] For more salient, higher stakes cases, judges may have an increased propensity to decide along party lines. An opinion dealing with a civil rights issue may result in an increased level of partisanship compared to an opinion dealing with a private contract law issue. To examine whether subject matter determines citation practices, we categorize our opinions into eighteen categories plus an "Other" category for opinions we do not specifically categorize (a total of nineteen categories). Descriptions of each subject matter category appear in Appendix B.

Sunstein and his coauthors found that ideological effects in judicial voting patterns were stronger for certain categories of cases, including politically heated subject matter areas like civil rights.[61] Our goal was to test for the presence of subject area effects in citation data. Sunstein and his coauthors used fourteen categories of cases including abortion, capital punishment, piercing the corporate veil, campaign finance, affirmative action, and federalism.

For two reasons, we modified the Sunstein categorization. First, our dataset was constructed to capture the full range of cases decided by active federal appellate court judges over the 1998 to 1999 period. That produced a larger number of subject areas than what Sunstein and his coauthors explored, particularly in the area of private law. We therefore included subject matter categories for a variety of private law areas, including Private Law (contracts, creditor versus debtor, and so on), Intellectual Property, Tax, Federal Business Law (securities regulation, bankruptcy, and so on), and Torts. Second, because we looked specifically at a two-year period, there were certain areas, such as abortion, where we did not have enough cases to conduct a meaningful analysis. We therefore had to broaden the size of our subject matter categories beyond those of Sunstein and his coauthors. For example, we combined all the cases involving civil rights, including abortion cases, into a single Rights category, whereas Sunstein and his coauthors had six separate categories of civil rights cases (affirmative action, sex discrimination, sexual harassment, Title VII, disability, and abortion). A breakdown of our subject matter categories is also provided in Appendix B.[62]

60. *See* Choi & Gulati, *Citation Bias*, *supra* note 9, at 11–13 (hypothesizing that such a tendency exists).

61. Sunstein et al., *Ideological Voting*, *supra* note 19, at 305–06.

62. One complication in comparison to the Sunstein dataset has to do with the inadequate number of cases in the abortion and capital punishment areas in our database. Sunstein and his coauthors found that the patterns of moderated voting in a number of salient areas do not show up in a couple of the most salient areas (abortion and capital punishment), where the suggestion is that private policy preferences are so strong that there is no moderated voting. *Id.* at 327–28. Maybe what we would

The next step was to find an exogenous method of determining which subject areas were high-stakes areas with political salience for circuit court judges. For that, we followed a study by Lee Epstein and Jeffrey Segal in focusing on news stories relating to the U.S. Supreme Court on the front page of the *New York Times*.[63] We assumed that issues receiving the most attention in the context of the Supreme Court were likely politically salient from a circuit court judge's point of view. We examined the *New York Times* front page articles from the period between January 1, 1993, and December 31, 1997.[64] By examining this time period, the four years preceding the commencement of our dataset, we were able to canvass those issues most salient to judges at the time. This time period included two nominations and confirmations to the Court (Justices Ginsburg and Breyer), raising the likelihood that articles within the time period discussed issues most salient to the selection of Justices to the Court. We skimmed each article and counted references to our subject matter categories (that is, if both abortion and capital punishment were mentioned in a particular article, we counted that as one mention in the Rights category and one mention in the Capital Punishment category). Results are reported in Table 3.

find is that trading in these areas is also reduced; however, data constraints do not permit that inquiry here.

63. *See* Lee Epstein & Jeffrey A. Segal, *Measuring Issue Salience*, 44 AM. J. POL. SCI. 66 (2000).

64. We searched for "supreme court" in the Westlaw NYT database and focused only on those articles that dealt with the U.S. Supreme Court.

TABLE 3. High-stakes issue ranking.

(Organized by number of mentions of subject areas in the *New York Times* front page articles from January 1, 1993, to December 31, 1997.)

SUBJECT OF LAW	NUMBER OF MENTIONS	NUMBER OF MENTIONS DIVIDED BY TOTAL NUMBER OF OPINIONS
CHURCH AND STATE	25	1.39
CAMPAIGN FINANCE	27	1.17
FEDERALISM	15	0.94
FIRST AMENDMENT	47	0.62
RIGHTS	194	0.43
GOVERNMENT ACTIONS	14	0.35
CAPITAL PUNISHMENT	21	0.28
ADMINISTRATIVE	26	0.26
TAKINGS AND PROPERTY	4	0.19
TAX	12	0.18
FEDERAL BUSINESS	28	0.13
ENVIRONMENT	5	0.10
INTELLECTUAL PROPERTY	5	0.10
TORTS	9	0.09
IMMIGRATION	2	0.04
CRIMINAL	35	0.03
LABOR	10	0.03
PRIVATE	0	0.00
OTHER	13	0.12

The category with the greatest salience was the Rights category, with almost 200 mentions (over four times the number of mentions as the second highest category, First Amendment). Some of our subject matter categories span a greater body of law than others. We may have observed more articles relating to criminal law compared with campaign finance, for instance, because of the breadth of our definition of criminal law. To scale each category, we divided the number of mentions by the total number of authored opinions in our dataset for that subject matter category. Many of the subject matter categories have only a small number of cases—for example, there are only sixteen Federalism cases. We therefore aggregated the subject matter categories in the top half ranked based on salience (terming such categories together as *Top Salient*) and aggregated the categories in the bottom half (*Bottom Salient*).[65]

Table 4 reports the t-test between the mean levels of *Opposite_Party* and *Opposite_Pool* for *Mixed Panel* decisions involving (a) *Bottom Salient* and (b) *Top Salient* subject matter areas.

TABLE 4.

	N	*Opposite_Party*	*Opposite_Pool*	*p-value*
Bottom Salient Opinions	1837	0.432	0.438	0.463
Top Salient Opinions	677	0.398	0.439	0.002

TOP SALIENT OPINIONS ONLY

	N	*Opposite_Party*	*Opposite_Pool*	*p-value*
Unified Panel	190	0.353	0.370	0.484
Mixed Panel	474	0.417	0.468	0.001

p-value is for a t-test of the difference in means between *Opposite_Party* and *Opposite_Pool*.

65. More formally, *Top Salient* is equal to one (1) if the opinion relates to one of the top half subject matter categories in Table 3 (that is, all categories listed above "Tax") and zero (0) otherwise. *Bottom Salient* is equal to one (1) if the opinion relates to one of the bottom half subject matter categories in Table 3 (that is, all categories listed below "Takings and Property") and zero (0) otherwise.

Note from Table 4 that no significant tendency to avoid citation to opposite party judges exists for decisions involving *Bottom Salient* subject matter areas. On the other hand, for *Top Salient* subject matter area opinions, there is a strong finding that authoring judges avoid citing opposite party judges (difference significant at the <1% confidence level). We tested whether the tendency to avoid citing opposite party judges is greater for panels where all the judges are of the same party (*Unified Panel*) or where judges are of different political parties (*Mixed Panel*). Table 4 reports that the tendency to avoid citing opposite party judges is significant only for a *Mixed Panel* involving *Top Salient* issues (at the <1% level). While other scholars have found that judges on a mixed panel tend to moderate their *vote*, at a summary statistic level, it looks like these judges do *not* moderate their *reasoning*. In return for their more visible moderation of the vote (to avoid a dissent or to obtain control over the authorship of the opinion), authoring judges may be using their control to craft a partisan opinion, thereby affecting the outcome of future cases.

Do Democrats act differently from Republicans? If Democratic presidents appointed "outcome" judges and Republican presidents appointed "precedent" judges to the courts, then there should be differentials in the citation bias data for the judges from both parties. (President Reagan, for example, is reputed to have focused his appointments on judges who would have a long-lasting impact on the creation of precedent.[66]) The precedent judges will be more willing to trade votes for control of the reasoning, and the outcome judges on the other side will often be willing to accept the trade. This should result in different citation patterns for precedent judges, as compared to the outcome judges, suggesting more covering. We tested whether the covering effect we observed for judges in mixed panels applies equally to Democrat- and Republican-appointee judges. Table 5 reports a summary statistic comparison of *Opposite_Party* and *Opposite_Pool* separately for Democrat and Republican authoring judges on a *Mixed Panel*.

66. Included among President Reagan's appointments were Judges Posner, Easterbrook, Scalia, Bork, and Winter, all of whom have had a tremendous impact on the evolution of precedent in a wide variety of areas. *See* Tracey E. George, *Court Fixing*, 43 ARIZ. L. REV. 9, 49–50 (2001).

TABLE 5.

DEMOCRAT

	N	*Opposite_Party*	*Opposite_Pool*	*p-value*
Bottom Salient Opinions	562	0.741	0.762	0.154
Top Salient Opinions	201	0.695	0.763	0.007

REPUBLICAN

	N	*Opposite_Party*	*Opposite_Pool*	*p-value*
Bottom Salient Opinions	707	0.274	0.252	0.105
Top Salient Opinions	273	0.212	0.250	0.047

p-value is for a t-test of the difference in means between *Opposite_Party* and *Opposite_Pool*.

From Table 5, no significant tendency appears, suggesting that authoring judges of both parties do not avoid citing opposite party judges for *Bottom Salient* opinions. A significant difference does exist for *Top Salient* opinions. Both Democrat- and Republican-appointee judges are less likely to cite to opposite party judges compared with the pool of available opinions (difference significant at the <1% level for Democrat judges and at the 5% level for Republican judges).

A. MIXED PANELS

We utilized an ordinary least squares model to assess the covering hypothesis while controlling for other factors that may affect a judge's decision to cite to particular opinions. The unit of analysis is an opinion authored by a judge in our sample. The dependant variable is *Opposite_Party*, the number of citations contained in an opinion that are to judges (in the sample of ninety-eight judges) of the opposite political party as a fraction of the number of the citations in the opinion to any of the sample judges. The model is (with definitions in Appendix A):

$$Opposite\_Party_i = \alpha + \beta_{1i}\, Mixed\ Panel + \beta_{2i}\, Top\ Salient + \beta_{3i}\, Mixed\ Panel \times Top\ Salient + \beta_{4i}\, Opposition\_Same\ Party$$

$$+ \beta_{5i}\, Opposition\_Opposite\ Party + \beta_{6i}\, GHP$$
$$+ \Sigma\, \beta_{ki}\, Control_{ki}$$
$$+ Year\ Effects + Circuit\ Effects + \varepsilon_i$$

We included *Mixed Panel* to test for the effect of a mixed panel of judges on the authoring judge's decision to cite to opposite party judges, using *Unified Panels* as the base category. We included *Top Salient* to assess the importance of political salience in determining the tendency of a judge to avoid citations to opposite outside circuit party judges. The model uses an interaction term for *Mixed Panel x Top Salient* to test whether authoring judges in a mixed panel cite differently in subject areas where the stakes are higher.

The incentive to moderate voting in a mixed panel exists primarily for opinions where a dissent does not occur. A dissent indicates an explicit break between panel members, and we expect to see a more polarized pattern of citations in such situations. To assess the incentive to cite to opinions written by judges of the same party when faced with an opposing opinion, we included indicator variables for *Opposition_Same Party* and *Opposition_Opposite Party*. *Opposition_Same Party* is equal to one (1) if a dissent exists and involves a judge of the same political party and zero (0) otherwise. *Opposition_Opposite Party* is equal to one (1) if the opposition opinion involves a judge of the opposite political party and zero (0) otherwise.

We also included a continuous measure of a judge's ideology obtained from research conducted by Micheal Giles, Virginia Hettinger, and Todd Peppers (the *GHP Score*).[67] *GHP Score* is based on the ideological preferences of the appointing president and home-state senators and ranges from -1 (most liberal) to +1 (most conservative). The *GHP Score* is correlated with whether a judge is Republican (*correlation coefficient = 0.8534*) and provides a continuous analog to our binary classification of judges as either Democrat or Republican.

Our model included a number of control variables specific to a judge that may affect the incidence of citations to other party judges. We included *Opposite_Pool* to control for the pool of past opinions to which a judge may cite. We included the log of the years of experience of the specific

67. *See* Micheal W. Giles, Virginia A. Hettinger & Todd Peppers, *Picking Federal Judges: A Note on Policy and Partisan Selection Agendas*, 54 POL. RES. Q. 623, 630–32 (2001) (measuring judicial preference based on ideological scores of the president and senators involved in the appointment process). Thanks to Stefanie Lindquist for giving us these scores.

judge (*Ln(Year_Exp)*). Judges with more experience on the bench may develop a stronger sense of their favored judges and cases to which to cite. We also used an indicator variable for whether the author is the chief judge of a particular circuit (*Chief Judge*). The position of chief judge may lead judges to take a more neutral posture in their citation practices.

A control for the independence of the judge is also included (*Independence*). We expected judges who are generally skewed toward their own political end of the spectrum to exhibit this bias in their citation practices. The measure of independence is from the 2004 dataset by Choi and Gulati. In that study, we obtained the percentage of opposing opinions (that is, a dissent against a majority and a majority against a dissent opinion) where a particular judge wrote an opposing opinion against the opinion of a judge of the same political party (*Actual Same Party Opposing Fraction*). For each judge, we determined the political party (as proxied by the party of the appointing president) of the *other* active judges on each circuit from 1998 to 2000 (including those who eventually took senior status or retired), obtaining the baseline percentage of same-party judges on the circuit (*Predicted Same Party Opposing Fraction*). If a judge opposes other judges on the same circuit at random, we posit that the *Actual Same Party Opposing Fraction* should equal the *Predicted Same Party Opposing Fraction*. *Independence* is defined as equal to *Actual Same Party Opposing Fraction* minus the *Predicted Same Party Opposing Fraction*. A negative number under the 2004 Choi and Gulati dataset for the *Independence* measure indicates a judge who avoids taking opposite positions from judges of the same political party.

We also control for differences related to the year of the opinion and the circuit in which the authoring judge sits (*Year-Fixed Effects* and *Circuit-Fixed Effects*). Model 1 of Table 6 reports the results from our model.

TABLE 6. Judge citation model.

VARIABLES	MODEL 1	MODEL 2
Mixed Panel	0.039** (2.060)	0.034** (1.750)
Mixed Panel x Top Salient	-0.056* (-1.640)	-0.058* (-1.680)
Opposition_Same Party	-0.018 (-0.480)	-0.031 (-0.800)
Opposition_Opposite Party	-0.078*** (-2.880)	-0.074*** (-2.690)
Top Salient	0.005 (0.180)	0.007 (0.250)
GHP	0.007 (0.180)	
Opposite_Pool	0.902 (14.190)	
Ln(Year_Exp)	-0.011 (-0.750)	
Chief Judge	-0.014 (-0.550)	
Independence	-0.020 (-0.450)	
Constant	0.051 (0.970)	0.428*** (24.370)
Judge-Fixed Effects	No	Yes
Circuit-Fixed Effects	Yes	No
Year-Fixed Effects	Yes	Yes
N	2462	2462
Adj R2	0.3068	0.3068

Dependent variable is *Opposite_Party*. The t-statistics (in parentheses) are calculated using Huber-White robust standard errors. Variable definitions appear in Appendix A.
* 10% confidence level; ** 5% level; *** 1% level.

The t-statistics (in parentheses) are calculated using Huber-White robust standard errors. Note from Model 1 that the coefficient on *Mixed Panel* is positive and significant at the 5% level. Authoring judges who face at least one judge of the opposite party on the panel tend to moderate their tendency toward biased citations compared with the base category of *Unified Panels*. Our covering hypothesis therefore does not hold for mixed panels in *Bottom Salient* opinions. The coefficient on *Mixed Panel x Top Salient*, in contrast, is negative and significant at the 10% level. The sum of *Top Salient* + *Mixed Panel x Top Salient* is negative and significant at the <1% level. Authoring judges on a *Mixed Panel* tend to avoid citing opposite party judges for *Top Salient* opinions relative to their citation patterns for opposite party judges in *Bottom Salient* opinions—in other words, they engage in covering.[68] What explains why judges on a *Mixed Panel* tend to act more partisan for *Top Salient* opinions but *less* partisan for *Bottom Salient* opinions? Perhaps another dimension of trading occurs across opinions. Judges with leverage may be willing to moderate their reasoning for nonsalient opinions (where the judges care less) in return for the ability to write more partisan opinions in *Top Salient* opinions.[69] Note that the coefficient on *Top Salient* alone is not significantly different from zero. We do not observe the same differential in citation practices between *Top Salient* and *Bottom Salient* opinions for *Unified Panels*.

We also see that a strong indicator of bias in citations exists where there is a dissent from a member of the opposing party. The presence of a dissent indicates disagreement, and when that disagreement is from someone across the party line, it likely indicates a conflict along policy lines; this in turn should be reflected in reasoning along policy lines. Consistent with our summary statistic finding on the lack of difference between Republican and Democrat judges (as seen in Table 5), Table 6 reports that the coefficient on the *GHP Score* variable is not significantly different from zero.[70]

68. On the other hand, the sum of *Mixed Panel* + *Top Salient* + *Mixed Panel x Top Salient* is not significantly different from zero. The level of partisanship for a *Mixed Panel* in a *Top Salient* opinion is not appreciably different from the level of partisanship in a *Unified Panel*.

69. Such a trade need not be explicit. Rather, a particular judge may not wish to antagonize different party judges more than necessary and view moderation in reasoning for some opinions (the *Bottom Salient* opinions) as giving them more leeway to use more partisanship in other opinions (the *Top Salient* opinions) while maintaining collegiality with the different party judges.

70. As a robustness check, we added interaction terms for *Mixed Panels x GHP* and *Mixed Panels x Top Salient x GHP* to see if more conservative judges would display different citation patterns for mixed panels generally, and mixed panels dealing with cases in *Top Salient* subject matter areas.

As a robustness check, we omitted authoring judge-specific variables (*GHP Score*, *Top Salient x GHP*, *Opposite_Pool*, *Ln(Year_Exp)*, *Chief Judge*, and *Independence*). We also omitted *Circuit-Fixed Effects* and instead included *Judge-Fixed Effects* in the model, reported as Model 2 in Table 6. We obtained the same qualitative results as in Model 1.

Our initial multivariate tests provided (limited) evidence that covering may take place for *Top Salient* decisions. We recall from prior studies that judges on mixed panels moderate their vote.[71] Our finding supports the view that while votes are moderated to build a coalition with opposite party judges, the authoring judges trade off their votes for the ability to adjust the opinion in their own partisan favor.

B. PANEL COMPOSITION AND BARGAINING LEVERAGE

If our covering hypothesis is correct, we should observe that the types of trades that occur differ depending on the bargaining leverage of the authoring judge. On panels where judges are of mixed political parties, the authoring judge may need to trade her vote to secure the right to author a unanimous majority opinion. The authoring judge will have greater bargaining leverage when the other two judges consist of one judge of the same party and one of the opposite party (an *All Mixed* panel). Where the other two judges are of the opposite party (an *All Opposition* panel), the authoring judge will have less leverage.

All things being equal, judges with greater leverage should have the ability to strike relatively better deals. Even though the preferences of opposite party judges must be taken into account in deciding the voting outcome of the case, where the authoring judge has bargaining leverage, we posit that the judge will shift the reasoning of the opinion toward the authoring judge's own political disposition.

To test the importance of *All Mixed* and *All Opposition* types of mixed panels, we employed the same model as in Table 6 with the use of separate *All Mixed* and *All Opposition* indicator variables and *All Mixed x Top Salient* and *All Opposition x Top Salient* interaction terms, using *Unified Panels* as the base category. Table 7 reports our results.

Not reported, we found that the coefficients on both of these interaction terms were not significantly different from zero.

71. *See supra* notes 17–24 and accompanying text (reviewing evidence of vote moderation on the part of judges from judge panels of mixed political persuasion).

TABLE 7. Judge citation model by judge type and panel type.

VARIABLES	MODEL 1	MODEL 2
All Mixed	0.042** (2.120)	0.037* (1.780)
All Mixed x Top Salient	-0.069* (-1.910)	-0.069* (-1.870)
All Opposition	0.033 (1.380)	0.029 (1.180)
All Opposition x Top Salient	-0.029 (-0.670)	-0.037 (-0.810)
Opposition_Same Party	-0.017 (-0.450)	-0.030 (-0.770)
Opposition_Opposite Party	-0.078*** (-2.880)	-0.074*** (-2.700)
Top Salient	0.005 (0.180)	0.007 (0.250)
Constant	0.051 (0.960)	0.428*** (24.370)
Year-Fixed Effects	Yes	Yes
Circuit-Fixed Effects	Yes	No
Judge-Fixed Effects	No	Yes
Judge Controls	Yes	No
N	2462	2462
Adj R2	0.3065	0.3064

Dependent variable is *Opposite_Party*. The t-statistics (in parentheses) are calculated using Huber-White robust standard errors. Unreported, Judge Controls include *GHP*, *Opposite_Pool*, *Ln(Year_Exp)*, *Chief Judge*, and *Independence*. Variable definitions appear in Appendix A.

* 10% confidence level; ** 5% level; *** 1% level.

Table 7 supports the view that judges with greater bargaining leverage in mixed panels of judges use this leverage to adjust the opinion's reasoning toward their own partisan position, engaging in covering. In particular, note that the coefficient on *All Mixed x Top Salient* is negative

and significant at the 10% level. The sum of *Top Salient* and *All Mixed x Top Salient*, moreover, is negative and significant at the <1% level. Judges on an *All Mixed* panel, indicating greater bargaining power, are more likely to skew the reasoning of an opinion in a politically partisan manner for *Top Salient* relative to *Bottom Salient* areas.[72] By contrast, we do not observe such a differential for a *Unified Panel* (whether *All Opposition* or the base category of *Unified Panels*).[73]

As an additional robustness check, we omitted authoring judge-specific variables (*GHP Score*, *Top Salient x GHP*, *Opposite_Pool*, *Ln(Year_Exp)*, *Chief Judge*, and *Independence*). We also omitted *Circuit-Fixed Effects* and instead included *Judge-Fixed Effects* in the model, reported as Model 2 in Table 7. We obtained similar qualitative results as in Model 1. The coefficient on *All Mixed x Top Salient* is negative and significant at the 10% level. An F-test of the sum of *Top Salient* and *All Mixed x Top Salient* rejects the null hypothesis that the sum is equal to zero at the <1% level.

C. HIGH-CITATION JUDGES

To assess whether certain types of judges prefer to act as precedent judges as opposed to outcome judges, we constructed a proxy for the "quality" of circuit court judges in our sample. We use the number of outside circuit citations each judge in our sample received for opinions authored by the judge from 1998 to 2000 as a measure of that judge's quality. We deem judges who receive a higher number of outside circuit citations as higher quality than those judges who receive a lower number. We divided our judges based on whether the judge's number of outside citations is greater (*High-Citation* judge) or less than or equal to the median (*Low-Citation* judge).

Our use of outside citations as a measure of judicial influence comports with the methodology of several other studies.[74] On the other hand, limitations exist in relying on outside citations to measure quality.[75]

72. On the other hand, the sum of *All Mixed* + *Top Salient* + *All Mixed x Top Salient* is not significantly different from zero. The level of partisanship for an *All Mixed* panel in a *Top Salient* opinion is not appreciably different from the level of partisanship in a *Unified Panel*.

73. The sum of *Top Salient* and *All Opposition x Top Salient* is not significantly different from zero—indicating no difference between *Top Salient* and *Bottom Salient* opinions for *All Opposition* panels. The coefficient on *Top Salient* alone is not significantly different from zero, indicating no difference between *Top Salient* and *Bottom Salient* opinions for *Unified Panels* (the base category).

74. *See, e.g*, Gregory A. Caldeira*, On the Reputation of State Supreme Courts*, 5 POL. BEHAV. 83 (1983); Rodney L. Mott, *Judicial Influence*, 30 AM. POL. SCI. REV. 295 (1936).

75. *See* Landes et al., *supra* note 9, at 272–73.

In particular, as discussed earlier, some citations occur not because the cited opinion is the "best" decision in some abstract sense, but rather because the citing judge is biased toward the ideological position of the cited opinion.[76] Our measure, nonetheless, simply divides judges into two groups based on outside citation count and is therefore less susceptible to these limitations. For example, even if a portion of Judge Posner's many outside citations are suspect due to political bias in citations, his large number of citations makes it likely he will still remain classified as a *High-Citation* judge.[77]

We posit that *High-Citation* judges are more likely to act as precedent judges. *High-Citation* judges typically have a greater aptitude in crafting well-reasoned opinions. Such judges may also have a stronger preference to use opinions to influence future precedent and may therefore be more willing to trade their votes with other judges in return for the ability to write a unanimous majority opinion (and affect the opinion's reasoning). The high rate of citation to these judges' opinions is evidence of their aptitude and preference to create opinions that others will cite.

As a multivariate test of the difference in tendency to trade votes for the ability to write the opinion (and affect the opinion's reasoning) between *High-Citation* and *Low-Citation* judges, we employ the same model as in Table 7. This model utilizes separate *All Mixed* and *All Opposition* indicator variables for the subset of *High-Citation* judges and *Low-Citation* opinion authoring judges (*All Mixed-High-Citation Judge*, *All Opposite-High-Citation Judge*, *All Mixed-Low-Citation Judge*, *All Opposition-Low-Citation Judge*)—using *Unified Panels* with all judges from the same party as the base case.[78] Table 8 reports our results.

76. *See* Choi & Gulati, *Citation Bias*, *supra* note 9, at Part IV.1.

77. Of course, judges at the margin may shift between the *High-Citation* and *Low-Citation* classification of judges under more nuanced, neutral measures of citation counts. Nonetheless, for the majority of nonmarginal judges (such as Judge Posner), the classifications of *High-Citation* and *Low-Citation* are unlikely to change even when taking into account flaws in citation counts.

78. As a robustness test, we also included a separate indicator variable for *High-Citation Judge* to allow us to distinguish between *Unified Panels* with a *High-Citation* or *Low-Citation* judge. The coefficient on the *High-Citation Judge* indicator variable was not significantly zero and the results remained qualitatively the same as in Table 8.

TABLE 8. Judge citation model by judge type and panel type.

VARIABLES	MODEL
All Mixed-High-Citation Judge	0.049** (2.250)
All Mixed-High-Citation Judge x Top Salient	-0.079** (-1.970)
All Mixed-Low-Citation Judge	0.028 (0.980)
All Mixed-Low-Citation Judge x Top Salient	-0.051 (-1.080)
All Opposition-High-Citation Judge	0.280 (1.020)
All Opposition-High-Citation Judge x Top Salient	-0.006 (-0.120)
All Opposition-Low-Citation Judge	0.040 (1.190)
All Opposition-Low-Citation Judge x Top Salient	-0.073 (-1.100)
Opposition_Same Party	-0.017 (-0.450)
Opposition Opposite Party	-0.078*** (-2.890)
Top Salient	0.005 (0.180)
Constant	0.052 (0.960)
Year-Fixed Effects	Yes
Circuit-Fixed Effects	Yes
Judge-Fixed Effects	No
Judge Controls	Yes
N	2462
Adj R2	0.3058

Dependent variable is *Opposite_Party*. The t-statistics (in parentheses) are calculated using Huber-White robust standard errors. Unreported, Judge Controls include *GHP*, *Opposite_Pool*, *Ln(Year_Exp)*, *Chief Judge*, and *Independence*. Variable definitions appear in Appendix A.
* 10% confidence level; ** 5% level; *** 1% level.

The results from Model 1 in Table 8 are consistent with the view that *High-Citation* judges will trade for the right to affect the legal reasoning of opinions. The coefficient for *All Mixed-High-Citation* is positive and significant at the 5% level. In the case of relatively low salience subject matter areas, *High-Citation* judges tend to moderate the background bias against citing opposite party judges in their opinions. However, the coefficient on *All Mixed-High Citation x Top Salient* is negative with a 5% significance level. The sum of *Top Salient* and *All Mixed-High-Citation x Top Salient* is also negative and significant at the <1% level.[79] This is consistent with the view that *High-Citation* judges on an *All Mixed* panel are less likely to cite opposite party judges for *Top Salient* areas compared with *Bottom Salient* issues. The distinction between *Top Salient* and *Bottom Salient* areas may indicate that *High-Citation* authoring judges are willing to trade not only votes but also the level of partisanship in their reasoning across subject matter areas of different salience when on *All Mixed* panels (with one judge of the same party and one judge of the opposite party).[80] We do not observe the same differential effect between *Top Salient* and *Bottom Salient* opinions for any of the other panels of judges (*All Mixed-Low-Citation Judge*, *All Opposition-High-Citation Judge*, *All Opposition-Low Citation Judge*, and the base category of *Unified Panels*).[81]

IV. IMPLICATIONS AND CONCLUSIONS

Prior research says that judges on mixed panels tend to moderate their proclivities toward biased voting, particularly in areas involving salient issues such as civil rights. The implication drawn from the foregoing by some scholars is that dampening effects are at play. The views of judges are emboldened when the judge is surrounded by like-minded individuals but moderated when the judge is confronted with potential disagreement. Boiled down, the model is psychological.

Building on the findings from the panel studies, but incorporating

79. We do not perform a robustness test using judge-fixed effects as the panel composition variables of interest in Table 7 are divided based on whether a judge is a *High-Citation* or *Low-Citation* judge, a judge-specific characteristic.

80. On the other hand, the sum of *All Mixed-High-Citation Judge* + *Top Salient* + *All Mixed-High-Citation Judge x Top Salient* is not significantly different from zero. The level of partisanship for *High-Citation* judges authoring an opinion for an *All Mixed* panel dealing with a *Top Salient* subject is not appreciably different from the level of partisanship in a *Unified Panel*.

81. The sum of *Top Salient* and *All Mixed-Low-Citation x Top Salient* is not significantly different from zero. The sum of *Top Salient* and *All Opposition-High-Citation x Top Salient* is not significantly different from zero. The sum of *Top Salient* and *All Opposition-Low-Citation x Top Salient* is not significantly different from zero. Lastly, *Top Salient* alone is not significantly different from zero.

results from the analysis of reasoning patterns, our research suggests a different dynamic at work. We find that mixed panels produce a small (statistically insignificant) reduction in bias in reasoning for cases involving less salient issues. So, in the less important cases, judges are moderating not only their votes, but also their reasoning. But for mixed panels with salient issues, the pattern is reversed. Contrary to the predictions in the panel effects literature, we see significant bias in citation practices. The judges on these mixed panels may be moderating their votes even in cases involving the more salient issues, as Sunstein and others have found, but their reasoning patterns become more biased.

Additionally, bargaining leverage is important. In situations where an authoring judge is on a mixed panel in a *Top Salient* area, we find that authoring judges with more bargaining leverage (due to the presence of another same party judge on the panel) are better able to skew the opinion's reasoning toward their ideologically preferred point. We also find that the level of citation bias and thus covering in judicial reasoning is greatest in mixed panels where the authoring judge is a *High-Citation* judge. *High-Citation* judges care more about the opinion's reasoning and thus may be willing to trade their vote for the right to author the opinion, particularly for *Top Salient* subject matter areas. The results are consistent with a trading model—that, in cases involving salient issues, judges may moderate their votes to induce opposite party judges to join their voting position, but will do so only in exchange for the ability to modify the opinion's reasoning to suit their policy preferences.

Returning to the "Does law matter?" question posed earlier, the fact that trades might be occurring suggests an answer in the affirmative. If judges did not care about the creation of precedent and cared only about votes, then they would not be willing to trade their votes for control of the reasoning. But the results suggest that they are willing to trade; they care about control of the precedent enough that they are willing to trade their votes for it.

One of our results is perplexing. We found no bias in reasoning for unified panels where all three judges are of the same political party. Our hypothesis had been that there would not be a significant amount of dampening in reasoning bias even where there was dampening in vote bias. But we had still assumed that there would be a significant amount of bias when judges were on a unified panel, where they did not face any barrier to reasoning and were voting in an ideologically biased fashion. But what we found is that judges on unified panels do not appear to reason in a biased fashion, even though, based on the findings from prior studies, we assume

that they are voting in a biased fashion. Perhaps this shows that while judges care about creating precedent, they care more about voting. And when they have the votes to decide the case in a biased fashion, they are not as concerned with precedent creation. Alternatively, judges on unified panels might not feel compelled to explain the biased precedent that they are creating with reference to prior decisions. After all, on a mixed panel, the failure to explain might result in a dissent by the judge from the opposing party, who identifies the failure to adequately justify the arguments with precedents. That, in turn, may result in embarrassment and potentially even reversal.

To summarize, we can say with confidence that there is a need to study not just panel effects in *voting*, but also in *reasoning*. Beyond that, we have initial evidence suggesting that judges bargain over opinion writing.

There is reason, however, to be cautious about our findings. Our study takes the results of the panel effects literature as a starting point and then looks only at citation patterns. A more detailed study could improve on our methodology in two ways. First, it could examine both vote bias and citation bias on the same dataset and match the trades versus vote transactions in individual cases. Second, and more difficult, it could move beyond using citations as a proxy for measuring bias in reasoning. Instead, the reasoning in opinions could be coded using a textual analysis. Both improvements bring costs, though, to the extent they inject additional subjectivity into the analysis.

V. APPENDIX A: VARIABLE DEFINITIONS

VARIABLE	DEFINITION
Mixed Panel	Indicator variable defined equal to one (1) if at least one judge on a three-judge federal circuit court panel is of the opposite party as the authoring judge and zero (0) otherwise.
Unified Panel	Indicator variable defined equal to one (1) if all judges on a three-judge federal circuit court panel are of the same political party and zero (0) otherwise.
All Mixed	Indicator variable defined equal to one (1) if only one of the two other judges on a three-judge federal circuit court panel is of the opposite party as the authoring judge and zero (0) otherwise. *All Mixed* is a subset of *Mixed Panels*.
All Opposition	Indicator variable defined equal to one (1) if the two other judges on a three-judge federal circuit court panel are of the opposite party as the authoring judge and zero (0) otherwise. *All Opposition* is a subset of *Mixed Panels*.
Opposite_Party	In any specific opinion, the total number of outside circuit citations to judges of the opposite political party (from the perspective of the judge in question) divided by the total number of outside circuit citations in the opinion to any of the ninety-eight judges in the sample.

Opposite_Pool	Total number of opinions written by the outside circuit judges of the opposite political party (from the perspective of the judge in question) before 1998 divided by the total number of outside circuit opinions written by the ninety-eight judges in the sample before 1998.
Year_Exp	Number of years that a judge has sat as a federal circuit court judge (measured as of 1998).
Chief Judge	Indicator variable defined equal to one (1) if the judge is the chief judge of the circuit at the time of the opinion and zero (0) otherwise.
Independence	For each particular judge, we calculated the number of opposing opinions where a particular judge opposed judges of the same political party divided by the number of all opposing opinions (*Actual Same Party Opposing Fraction*). For each judge, we then determined the political party (as proxied by the party of the appointing president) of the *other* active judges on each circuit from 1998 to 2000 (including those who eventually took senior status or retired), obtaining the baseline fraction of same party judges on the circuit (*Predicted Same Party Opposing Fraction*). Independence is then defined to equal *Actual Same Party Opposing Fraction* minus *Predicted Same Party Opposing Fraction*.

GHP	Measure of political preference for each judge based on the ideological preferences of the appointing president and relevant senators developed in Giles, Hettinger & Peppers (2001). The GHP score ranges from -1 (most liberal) to +1 (most conservative).
Opposition_Same Party	Indicator variable defined equal to one (1) if the opinion is in opposition to a dissenting opinion of another judge of the same political party in the same case and zero (0) otherwise.
Opposition_Opposite Party	Indicator variable defined equal to one (1) if the opinion is in opposition to a dissenting opinion of another judge of the opposite political party in the same case and zero (0) otherwise.
Top Salient	Indicator variable defined equal to one (1) if an opinion's subject matter falls into one of the top nine high-stakes subject matter categories (Church and State, Campaign Finance, Federalism, First Amendment, Rights, Government Actions, Capital Punishment, Administrative Law, and Takings and Property). See Appendix B for definitions of the subject matter categories and the classification of the high-stake categories.

Bottom Salient	Indicator variable defined equal to one (1) if an opinion's subject matter does not fall into one of the top nine high-stakes subject matter categories (Tax, Federal Business Law, Environment, Intellectual Property, Torts, Immigration, Criminal, Labor, Private Law, and Other). See Appendix B for definitions of the subject matter categories and the classification of the high-stake categories.
High Citation Judge	Indicator variable defined equal to one (1) if an opinion is authored by a judge from our sample of ninety-eight active circuit court judges from 1998 to 2000 who received an above median level of outside-circuit citations to the judge's published opinions written from 1998 to 2000 and zero (0) otherwise.
Low Citation Judge	Indicator variable defined equal to one (1) if an opinion is authored by a judge from our sample of ninety-eight active circuit court judges from 1998 to 2000 who received a less than or equal to median number of outside circuit citations to the judge's published opinions written from 1998 to 2000 and zero (0) otherwise.

VI. APPENDIX B: SUBJECT MATTER CATEGORIES

CATEGORY	DEFINITION
Private Law	Contracts; insurance; private arbitration; creditor v. debtor; lessor-lessee; usury laws; franchise v. franchisor; employment contractual disputes; corporate law; piercing the corporate veil.
Intellectual Property	Patents; copyright; trademarks; Lanham Act (trademark-related actions).
Tax	Internal Revenue Code and other tax-related matters.
Federal Business Law	Securities regulation; bankruptcy; antitrust; federal banking laws; unfair trade practices; Federal Debt Collections Act; Fair Debt Collection Practices Act; Truth in Lending Act; deceptive advertising under the Lanham Act; Magnuson-Moss Warranty Act; etc.
Torts	Federal Tort Claims Act; medical malpractice; products liability; wrongful death; libel; etc.
Criminal	Sentencing guidelines; prisoners rights; drugs/controlled substances; attorney-client privilege in criminal context; grand jury-related; RICO; search and seizure (Fourth Amendment); Prison Litigation Reform Act (PLRA); etc.

	excludes capital punishment cases.
Capital Punishment	Capital punishment-related actions.
Labor	Employment issues (excluding employment contractual disputes); ERISA; National Labor Relations Board (NLRB); Occupational Safety and Health Act (OSHA); Fair Labor Standards Act (FLSA); wrongful discharge; Labor Management Relations Act (LMRA); Family and Medical Leave Act (FMLA); employee benefits; worker's compensation claims; retaliatory discharge claims.
Rights	Race discrimination; sex discrimination; affirmative action; civil rights; age discrimination; privacy; abortion; other individual rights.
Government Actions	Sovereign immunity; False Claims Act; government forfeiture action.
Takings and Property	Takings claims; zoning issues; property rights.
Campaign Finance	Campaign finance and any election-related legal issue.
Immigration	Immigration-related issues.
First Amendment	First Amendment-related issues (excluding Church and State issues).

Church and State	Establishment Clause; Pledge of Allegiance; funding for private religious schools; prayer in school; Ten Commandments.
Environment	National Park Service; Clean Air Act; CERCLA; Superfund; National Forest Management Act; Endangered Species Act; EPA; etc.
Administrative Law	Review of agency decisionmaking (not in another subject matter category); APA; FCC Rates; FERC Rates; Freedom of Information Act; Social Security entitlement; Medicare; etc.
Federalism	State rights; federal preemption; Commerce Clause power.
Other	Indian law; maritime law; implicit private rights of actions; judicial process issues (judge recusal; attorney sanctions; legal malpractice; attorney ethics-related actions); etc.